

In-line axial fan

XXS100 Fan

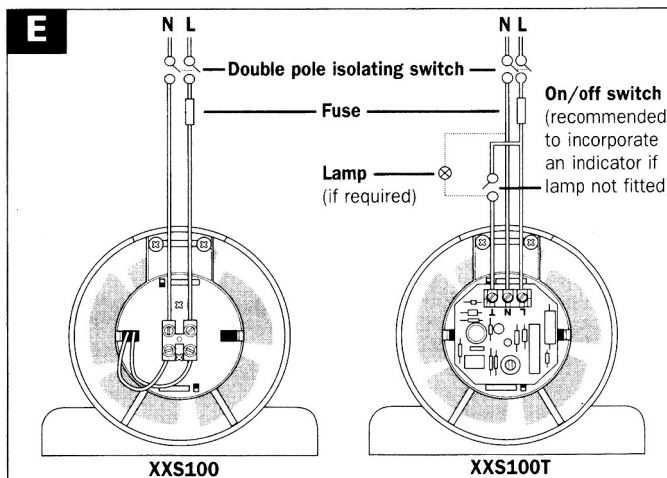
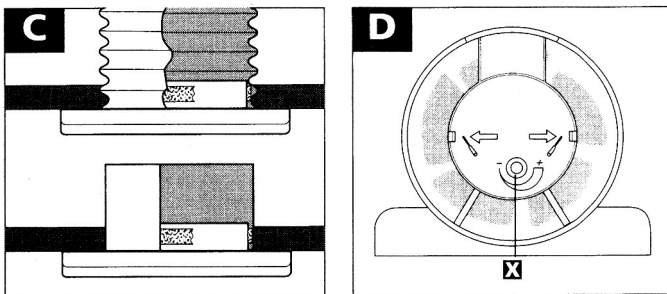
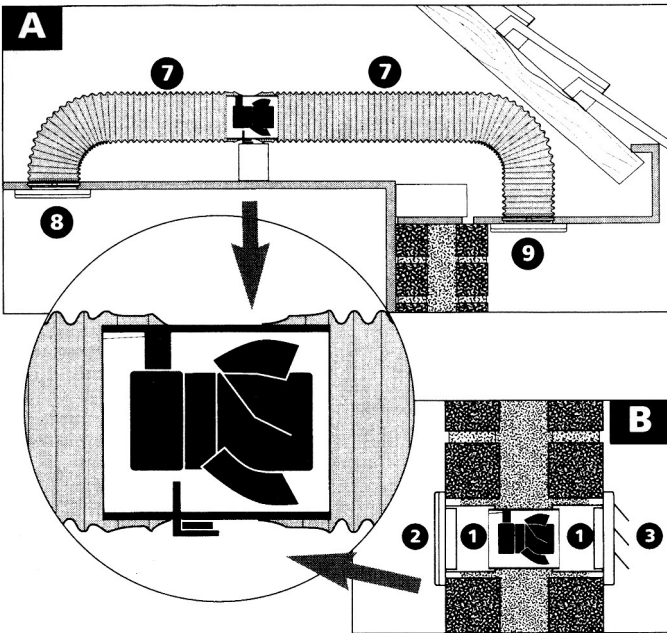
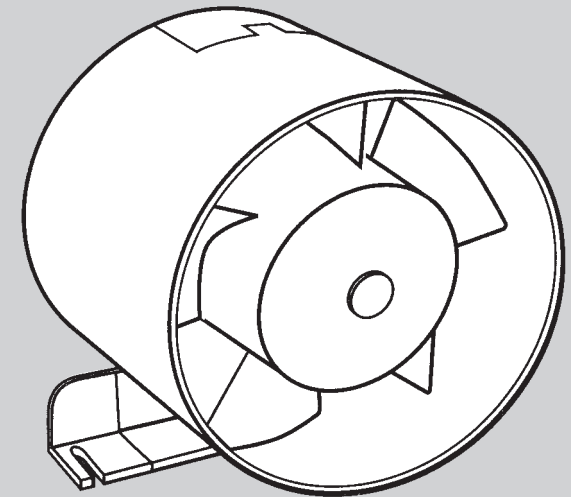
XXS100T Fan with timer

XXSCK4 Ceiling installation kit

XXS100T Wall installation kit

Installation instructions

Retain for future reference



Do's and Don'ts

- Do read all the instruction leaflet before commencing installation.
- Do install each fan with a double pole isolating switch with a contact gap of 3mm in each pole.
- Do not mount the fan immediately behind grille if it is likely to be exposed to splashing water.
- Do make sure the mains electricity supply is switched off before attempting to make electrical connections or carry out any maintenance or cleaning.

Guarantee

Customers outside UK - see international below.

- UK: The fan is guaranteed against defects for 2 years from the date of purchase.
- Please keep your purchase receipt.
- If you have any problems, contact Xpelair's Head Office at the address shown below.

Technical Advice and Service

Customers outside UK - see international below.

- UK: Xpelair have a comprehensive range of services including:
- Free technical advice help-desk from Engineers on all aspects of ventilation.
- Free design service, quotations and site surveys.
- Service and maintenance contracts to suit all requirements.

Please ask for details:

- By telephone on Techline: +44 (0) 8709 000430
- By fax on Techfax: +44 (0) 8709 000530
- At the address below

Head Office, UK Sales Office and Spares

• Applied Energy Products Ltd, Morley Way, Peterborough, PE2 9JJ, England.
 Telephone: +44 (0)1733 456789
 Fax: +44 (0) 1733 310606
 Sales/Spares Hotline: +44 (0) 8709 000420
 Sales/Spares Faxline: +44 (0) 8709 000520
<http://www.xpelair.co.uk>

International

- Guarantee: Contact your local distributor or Xpelair direct for details.
- Technical Advice and Service: Contact your local Xpelair distributor.



FM02118 ISO 9001: 2000

applied energy



Part No. 18472AA
(Rev C)

Important

Please read these instructions carefully before attempting installation, and then retain for future reference.

- This appliance is intended for connection to fixed wiring. Check that the electrical rating shown on the fan matches the mains supply.
- This appliance is double insulated and does not require an earth connection.
- If metal switch boxes are used, earthing regulations must be followed.
- 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).
- When intended for use in possible chemical corrosive atmospheres, you must consult our Technical Services Department.

If you have any queries before installing these products or after they have been installed, call the Xpelair Technical Hotline 08709 000430. Our engineers are there to help you during normal office hours (UK only) and may be faxed at all other times 08709 000530.

Customers outside the UK should contact their local Xpelair distributor.

Description

The In-Line Axial Fan is designed to extract damp air from your room to the outside.

This instruction leaflet covers two models of fan and two installation kits as follows:

Model XX100 fan

Model XX100T fan with overrun timer (adjustable between 2 and 20 minutes)

Model XXSWK4 installation kit for through wall mounting as **B**

Model XXSCK4 installation kit for through ceiling mounting as **A**

Kit Components

Wall Kit

- 1 2 lengths of wall duct
- 2 White internal fixed louvre grille with 2 x invisible screw covers
- 3 Grey external back draught shutter
- 4 4 x wall plugs
- 5 4 x screws
- 6 2 x self-adhesive foam strips for duct connections (if required)

Ceiling Kit

- 7 3m flexible 4"/100mm ducting
- 8 White internal fixed louvre grille with 2 x invisible screw covers plus spare
- 9 Grey external fixed louvre grille with 2 x invisible screw covers plus spare
- 10 4 x rawl plugs
- 11 4 x screws
- 12 2 x self-adhesive foam strips for duct connections (if required)

What you will need

A double pole isolating switch with a minimum contact gap of 3mm (wall or ceiling mounted).

Suitably rated flexible 2-core cable for XXS100. (Fan to on/off or isolating switch).

Suitably rated flexible 3-core cable for XXS100T. (Fan to on/off or isolating switch).

Screwdrivers.

A ceiling or wall on/off switch with built-in indicator light (if not wiring to existing lighting circuit).

Masonry drill, hammer and chisel (or core drill equipment if available) for through wall installation.

A hacksaw (if fitting the fan through wall) to remove bracket.

Suitable ceiling fixings (if required) and fan mounting screws (fan to joist).

Positioning the fan

Refer to Building Regulations for specific requirements.

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.

Decide where to position the fan based on the following two installation routes:

Through the loft/ceiling space

From the ceiling through the roof space and out through the soffit, see **A** for general installation arrangement.

Choose the position of the internal grille, fan and external grille by the following criteria:

- Internal grille to be located between joists.
- Create easiest route for ducting with fewest bends and shortest length.
- Not where ambient temperatures are likely to exceed 50°C.

Through the wall

From an internal wall directly out through the wall, see **B** for general installation arrangement.

Choose the position of the internal and external grilles by locating them according to the following criteria:

- As high as possible on the wall.
- Where there are no buried pipes or cables in the wall.

Install the isolating switch and cables

- 1 Check that the electrical rating shown on the appliance 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).
- 3 Isolate the mains supply.
- 4 Lay in the cable from the isolating switch to the fan location via the on/off switch (if required).
- 5 Lay in the cable from the isolating switch to the point of connection to the mains supply.
- 6 Install the isolating switch and on/off switch (if required).
- 7 Make all connections within the isolating switch and the on/off switch (if required).

Note: On/off switch and isolating switch must be situated so that it cannot be touched by persons making use of the bath or shower.

WARNING: DO NOT MAKE ANY CONNECTIONS TO THE ELECTRICAL SUPPLY AT THIS STAGE.

Holes and installation

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

WARNING: EYE PROTECTION MUST BE WORN DURING ALL DRILLING AND CHISELLING OPERATIONS.

A hole cutting service is available from Xpelair. Contact Technical Services for details (UK only).

Through loft/ceiling recess to soffit board

Use Xpelair installation kit XXSCK4

- 1 Create the positions for the internal grilles by marking on the ceiling and the soffit the centre of the duct hole.
- 2 Use this centre to mark a circle to suit the wall duct (115mm diameter).
- 3 Cut a 4.5"/115mm hole in the ceiling and soffit.
- 4 Align the grille centrally and squarely over the hole and mark the positions of the two screw holes. Drill the two holes and insert suitable ceiling fixings.
- 5 Select a suitable place for the fan to be screwed to a joist, either on top (using a plank if necessary) or on the side – but not under any roof insulation. Secure it with the fan blades towards the external grille using two screws (not supplied) through the fixing bracket – the arrow on the body shows direction of air flow.
- 6 Make the electrical connections as detailed in 'Electrical Connections' section.
- 7 Attach the grey external grille to the outer end of the flexible duct **C**.
- 8 From the outside feed the ducting through the hole until the grille is flush with the soffit. Secure the grille to the wall with the screws and fit screw covers.
- 9 Pull the flexible ducting gently to the discharge end of fan and cut it to length. Tip: keep the ducting as straight as possible as this will prevent loss in performance of the fan.
- 10 Connect the remaining piece of ducting to the internal grille, pass through the hole, screw to the ceiling and connect to the other end of the fan as described previously.

Through wall

Use Xpelair installation kit XXSWK4.

- 1 Check there are no buried pipes or cables in the wall or obstructions on the outside e.g. electricity, gas, water.
- 2 Mark on the wall the centre of the duct hole.
- 3 Use this centre to mark a circle to suit the wall duct (115mm diameter).

If core drill equipment is available:

- 4a Use as directed by core drill manufacturer.

If core drill equipment is not available:

- 4b Drill a centre hole right through the wall.
- 5 Cut the hole. Do not cut right through the wall. (The recommended method is to drill a series of holes, close together, around the edge of the cutting line and remove the brick between the holes with a chisel).
- 6 From the outside, cut a hole in the outer wall, repeating the process described above.
- 7 Align the grilles centrally and squarely over their holes and mark the positions of the two holes and insert raw plugs supplied.
- 8 Remove the mounting bracket from the fan by sawing off with a small hacksaw.
- 9 If necessary, cut an appropriate slot in one side of the integral grille where the cable will exit.
- 10 The foam strips provide an improved seal around the grilles (if required). Peel the backing from them and attach to the outside lip **C**.
- 11 Assemble the internal grille, fan and duct. Place one piece of duct either side of the fan. Pass the assembly through the hole from the inside and on the outside mark the duct for cutting where it is level with the outside wall. Remove and cut with a hacksaw.
- 12 Connect wiring as detailed in 'Electrical connections' section.
- 13 Re-insert the assembly through the hole and screw the internal grille to the wall and fit the screw covers. Hold open the top and bottom vanes of the external grille and slide onto the duct then secure to the wall (as above), ensuring the vanes open and shut freely.

- Ensure that the duct slopes down away from the fan to allow drainage of any incoming rain water to the outside.

Electrical connections

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

All wiring must be fixed securely. Important: Switch off mains supply before making any electrical connections.

- 1 Remove the cover of the fan by springing out the spring clips using a 3mm electrical screwdriver.
- 2 Remove the cable clamp.
- 3 Wire the fan as shown in **E**, check fan model to diagram.
- 4 Replace the cable clamp and two screws. Ensure the cable is firmly retained by the clamp.
- 5 Adjust the timer (if fitted): The timer model XXS100T has a variable overrun timer of between 2 minutes and 20 minutes. Turn the adjustment screw **X** with an electrical screwdriver clockwise to reduce the time and anticlockwise to increase the time. Test the timing is satisfactory immediately after connecting the electrical supply as access will be limited after completion of the installation.
- 6 Replace the terminal cover.
- 7 Switch off the mains electrical supply and remove fuses.
- 8 Connect the cable from the isolating switch to the electrical supply wiring.

Using your fan

XXS100 only

Operate the fan using the double pole isolating switch.

XXS100T only

Operate the fan using the on/off switch. When the switch is turned off, the fan continues to operate for the adjusted time delay.

Cleaning

The grilles can be washed with a mild household cleaner.