

Wall/window  
fan range

**GX6**

*Installation and  
maintenance instructions*

Retain for future reference

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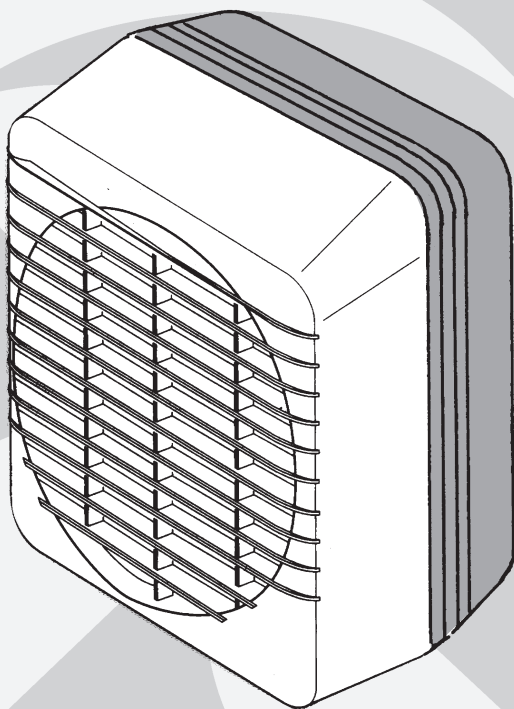
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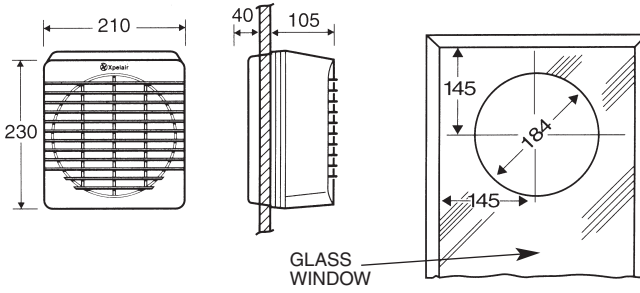
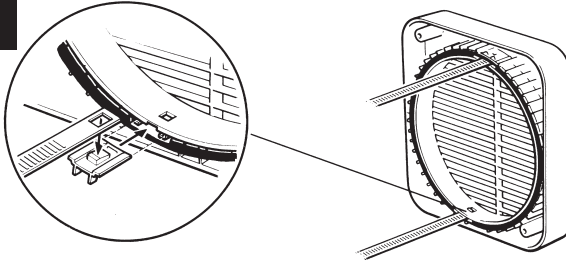
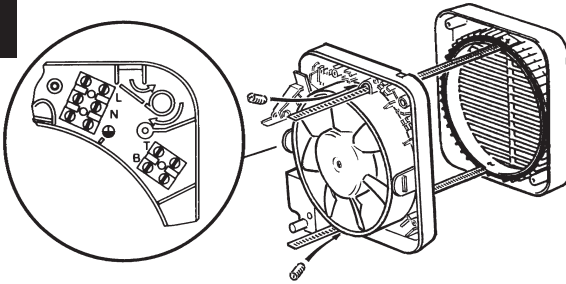
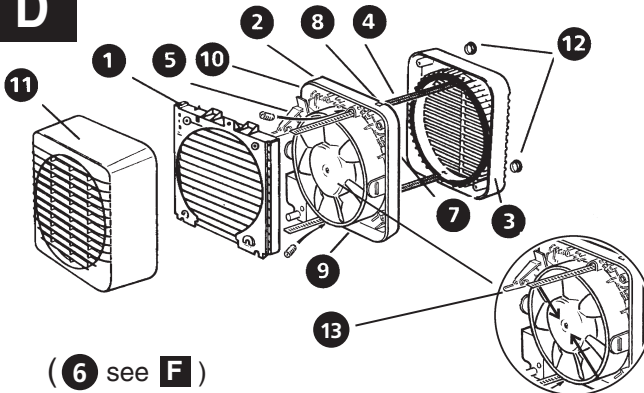
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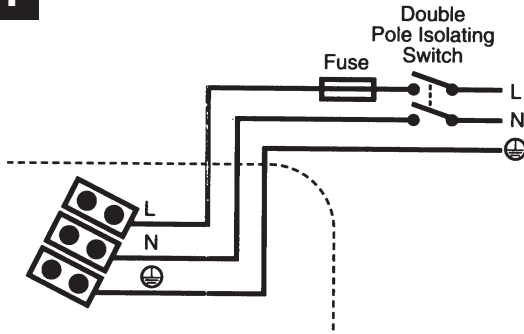
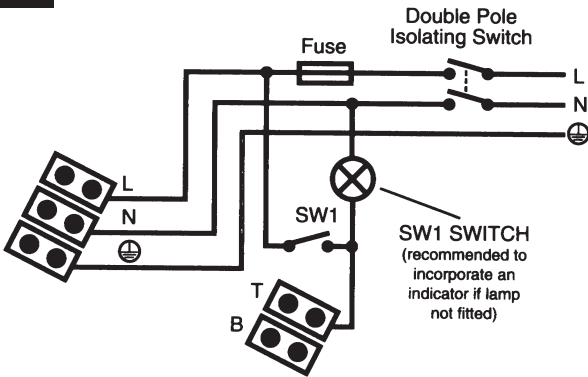
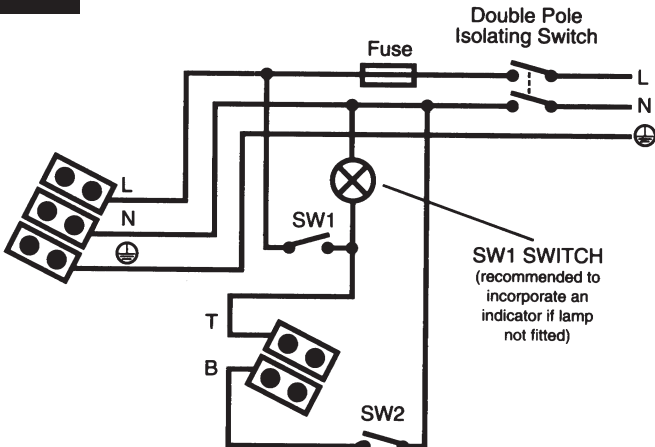
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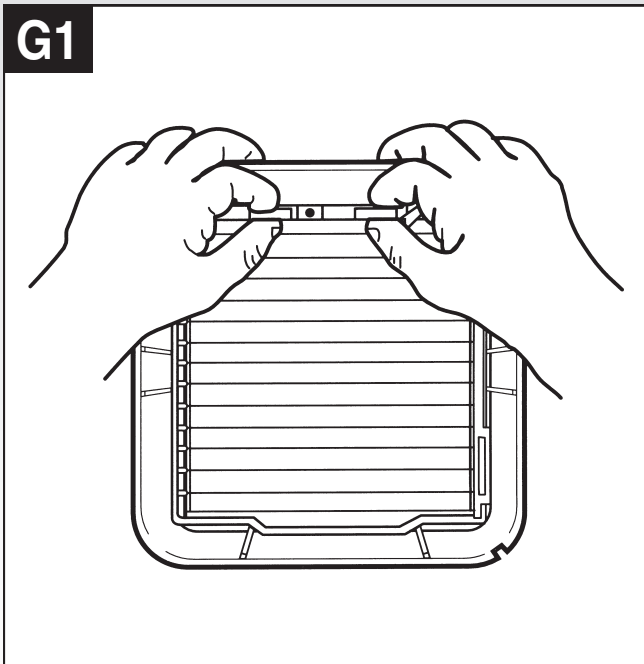
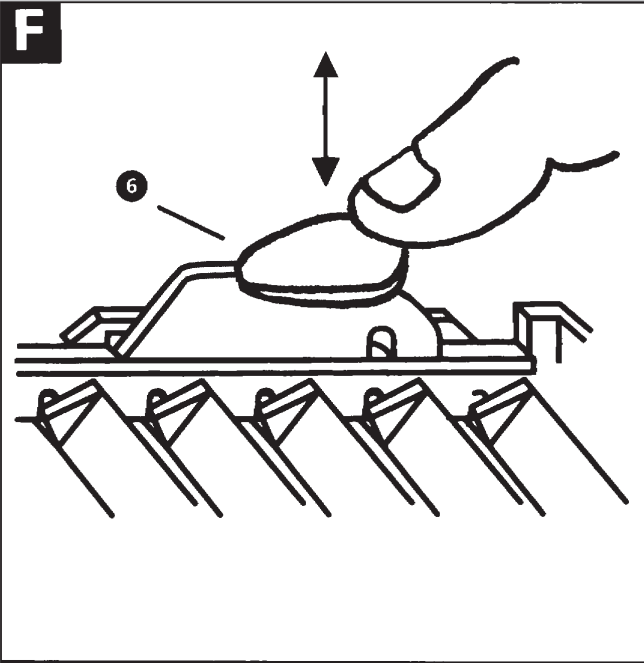
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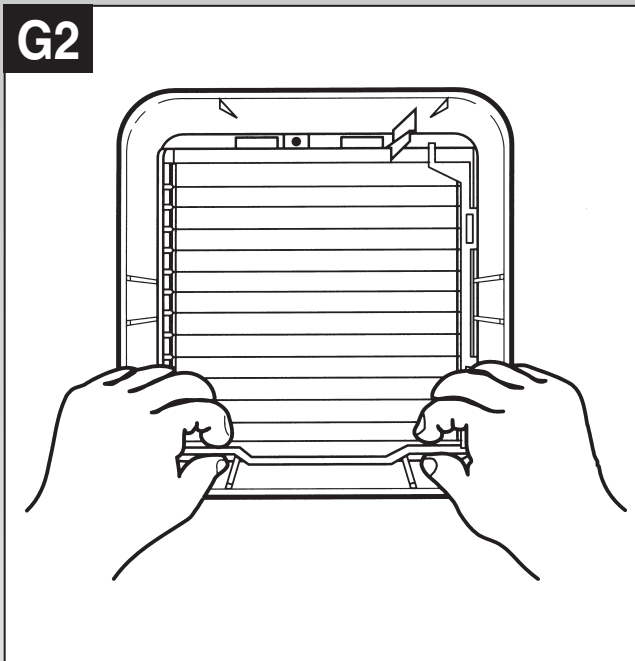
 **Xpelair**<sup>®</sup>

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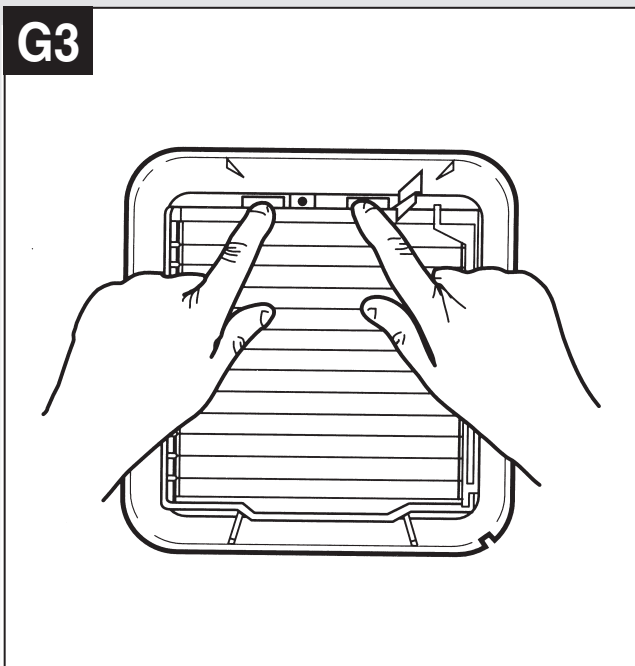
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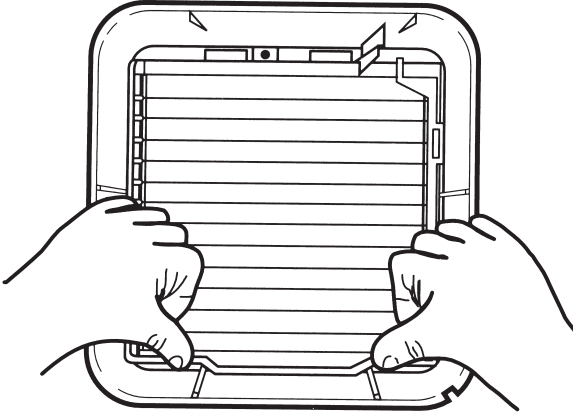
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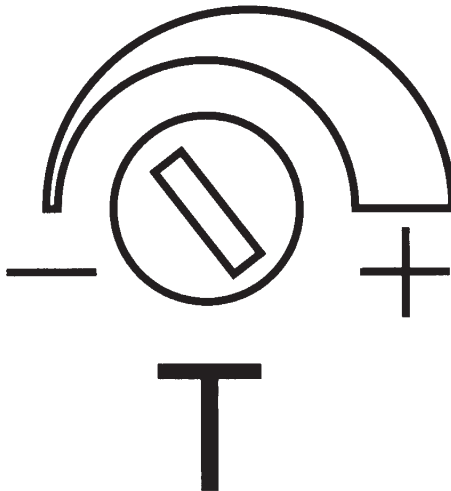
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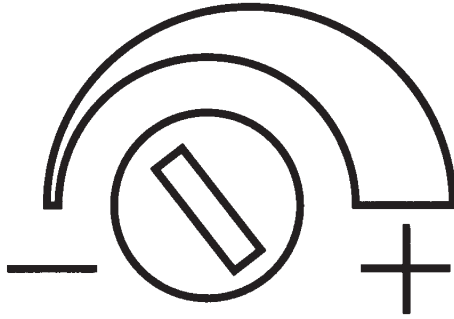
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# Xpelair GX6, GX6 (IP25), GXC6, GXC6T, GX6HT, GX6HT2 & GXS6

## Installation and Operating Instructions

PLEASE LEAVE THIS LEAFLET WITH THE FAN, FOR THE BENEFIT OF THE USER.

### Installing the fan

This appliance is intended for connection to fixed wiring. Check that the electrical rating shown on the appliance matches the mains supply.

**WARNING: THIS APPLIANCE MUST BE EARTHED.**

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

If you have any queries before installing these products or after they have been installed, call the Xpelair Technical Hotline +44 (0) 8709 000430. Our engineers are there to help you during normal office hours (UK only) and may be faxed at all other times +44 (0) 8709 000530. Customers outside the UK please contact your local Xpelair distributor, details of which are available from the UK office.

### Description

The GX6 models have the following features:

- Window / wall / panel / roof mounting options.

#### GX6

- For remote switch operation.
- Single speed extract operation.
- Trickle ventilation setting.

#### GXC6

- Integral pull cord operation.
- Single speed extract operation.
- Trickle ventilation setting.

#### GXC6T

- Integral pull cord operation.
- Integral timer facility.
- Single speed extract operation.
- Trickle ventilation setting.

#### GX6T

- For remote switch operation.
- Integral timer facility.
- Single speed operation.
- Trickle ventilation setting.

#### GX6HT

- For remote switch operation.
- Integral humidistat / timer facility.
- Single speed operation.
- Trickle ventilation setting.

#### GX6HT2

- For remote switch operation.
- Integral pull cord operation.
- Integral humidistat / timer facility.
- Two speed operation.
- Trickle ventilation setting.

#### GXS6

- Remote switch operation.
- Single speed extract operation.
- Solenoid operated back draught shutters, for instant opening and closing.
- Trickle ventilation setting.

#### GX6 (IP25)

- For remote switch operation.
- Single speed extract operation.
- Trickle ventilation setting.
- IP25 ingress protection.

### What the installer will need

- A double pole isolating switch with a minimum contact gap of 3mm (wall or ceiling mounted).
- If metal switch boxes are used, earthing regulations must be followed.
- The GX6, GXC6, GXC6T and GXS6 require suitably rated 3-core cable (see "Installing switches and cables" section).
- The GX6 (IP25) require suitably rated circular 3-core cable with a diameter not less than 5.5mm (see "Installing switches and cables" section).
- The GX6T, GX6HT and GX6HT2 require suitably rated 4 or 5 core cable (see "Installing switches and cables" section).
- The GX6T, GX6HT and GX6HT2 requires a wall or ceiling mounted "on/off" switch with built-in indicator light. For external boost/triggering, two switches are required.
- 6mm blade large screwdriver, 3mm blade electrician's screwdriver and No.1 & 2 Pozidriv screwdrivers.

#### If window mounting the fan, you will also need:

- A single glazed window with a minimum glass thickness of 4mm or a double glazed unit with a pre-prepared sealed hole.

#### If wall mounting the fan, you will also need:

- Masonry drill, hammer & chisel (or core drill equipment, if available).
- Mortar (to make good the hole).
- Wall kit WK6/300 (available from Xpelair) for walls up to 300mm (12") thick or WK6/450 (available from Xpelair) for walls up to 450mm (18") thick.

- 4 mounting fasteners (use fasteners suitable for wall type. Recommended screw size for standard brick - No.8 x 38mm Pan Head).

### Where to locate the fan

- Locate it as high as possible.
- At least 145mm from edge of the wall/window frame to the hole centre (see Fig. A.).
- As far as possible from and opposite to the main source of air replacement to ensure airflow across the room (eg, Opposite an internal doorway).
- Near the source of steam or odours.
- Not where ambient temperatures are likely to exceed 50 degrees 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 installers 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 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.
- When intended for use in possible chemical corrosive atmospheres, consult our technical service department. (For overseas markets contact your local Xpelair Distributor).
- This electrical product, if installed in a shower room or bathroom, must be situated so that it cannot be touched by persons making use of the bath or shower.

### Installing the switches and cables

1. Check that there are no buried pipes or cables (eg. electricity, gas, water) behind the switch location (in the wall or above the ceiling).
2. Lay in the cable from the isolating switch to the fan location via the on/off switch (see Fig.E1), SW1 (see Fig.E2.) and external boost SW1 (see Fig.E3) if required.
3. 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.**
4. Lay the isolating switch and the on/off switch (see Fig.E1), SW1 (see Fig.E2) and external boost SW2 (see Fig.E3) if required.
5. Make all connections within the isolating switch and the on/off switch if required.

**Note: When installed in a bathroom all switches must be of a pull cord type and must be situated so that they cannot be touched by persons making use of the bath or shower.**



### For Australia only

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 hole

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

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

#### If installing in a wall

1. Check there are no buried pipes or cables in the wall or obstructions on the outside (eg: electricity, gas, water).
2. Ensure that the centre of the hole is located at least 145mm from the edges of the wall.
3. Mark on the centre of the duct hole.
4. Use this centre to draw a circle to suit the wall duct (203mm diameter for a WK6/300 or WK6/450).

#### If core drill equipment is available

5a. Use as directed by the core drill manufacturer.

#### If core drill equipment is not available

- 5b. 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).
7. Go outside and cut a hole in the outer wall, repeating the process described above.
8. Fit the ducting. Ensuring that the duct slopes down away from the fan to allow drainage of any incoming rain water to the outside.
9. Make good the hole. Allow for mortar to set before continuing with the installation.

#### If installing in a window

Obtain a ready cut pane with a correctly located hole 184mm diameter. (See Fig.A).

### Preparing the Fan for installation

1. For window mounting, use the two short ladder strips supplied with the fan. For Wall mounting, use the longer strips supplied with the wall kit WK6/300 or WK6/450.
2. Secure the two ladder strips to the outer grille by positioning them over the hook moulding and snapping into position.
3. Ensure after fitting the hook moulding that the gasket is in the correct position. (See Fig.B).
4. Insert the two screw covers in the two fixing holes in the outer grille.

### Mounting the fan in the hole Fig. C

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

Remove the Back Draught Shutter/Grille Assembly, by pressing the release catches located on the sides of the unit with a 6mm screwdriver or coin, whilst pulling the grille forward.

#### If fixing with ladder strips

1. Hold up the outer grille to the outside of the wall or window so that the hole in the outer grille is aligned with the hole in the wall or window.
2. If wiring from the rear, remove the fans terminal cover and rear entry knockout. Feed the cable through the top cable entry.
  - 2b. If wiring from above, remove fans terminal cover and feed the cable through the top cable entry.
- 2c. For GX6 (IP25) only, wiring from above, remove fan's terminal cover. Pierce the cable entry grommet with a No. 1 screwdriver and feed the cable through the top cable entry via the grommet. **DO NOT REMOVE THE GROMMET.**
3. Hold the fan assembly to the inside of the wall or window and guide the ladder strips from the outer grille through the slots in the fan assembly.
4. Insert the slotted screws into the pockets around the ladder strip slots.
5. Tighten the screws carefully to make a good seal. Do not over tighten the screws.
6. Trim the ladder strips back to the required length, if necessary remove any sharp edges.

#### If using screw fixings

1. Hold the outer grille up to the outside of the wall so that the hole in the outer grille is aligned with the hole in the wall.
2. Mark the positions of the fixing holes in the top right and bottom left corners.
3. Drill the holes and insert anchor fixings to suit the wall.
4. Screw the outer grille securely in place and fit screw caps in place. **Do not over tighten screws.**
5. Insert the two screw covers in the two fixing holes in the outer grille.
  - 6a. If wiring from the rear, remove the fans terminal cover, and rear entry knockout. Feed the cable through the knockout.
  - 6b. If wiring from above, remove the fans terminal cover and feed the cable through the top cable entry.
- 6c. For GX6 (IP25) only, wiring from above, remove fan's terminal cover. Pierce the cable entry grommet with a no. 1 screwdriver and feed the cable through the top cable entry via the grommet. **DO NOT REMOVE THE GROMMET.**
7. Hold the fan assembly to the inside of the wall so that the spigot is inserted into the wall duct.
8. Mark the position of the two fixing holes in the top left and bottom right corners.

9. Remove the fan assembly, drill the holes and insert anchor fixings appropriate to the type of wall.
10. Reposition the cable and fan assembly as before, and screw securely in place. **Do not over tighten screws.**

Note: For particularly difficult installations, it is possible to secure the fan with a combination of screw and ladder strip fixings.

### Wire the electrical connection

1. Wire the switch cable into the terminal connections shown:
  - Fig.E1 for GX6 / GXC6 / GXC6T / GXS6 / GX6 (IP25).
  - Fig.E2 for GX6T / GX6HT.
  - Fig.E3 for GXHT2.
2. If the fan is wired from above, ensure the outer sheath of cable is retained in the labyrinth (see Fig.C).
3. Refit and secure terminal cover.
4. Refit the back draught shutter/grille assembly by sliding the grille back over the release catches, the catches will locate and secure the grille.
5. **Switch off the mains electricity supply and remove fuses.**
6. Connect the cable from the isolation switch to the electrical supply wiring.
7. Replace the fuses and switch on the mains electrical supply.

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

Note: If using an external boost switch for the GX6HT2 (see Fig.E3), cut off the pull cord after ensuring that it is in the "off" position. This switch must be marked with suitable markings to indicate speed control.

### Operating the Fan

- These fans are single speed, except the GX6HT2 which is two speed, and all are non reversible (extract only).
- The shutters have a time delay of up to 1 minute on opening and up to 3 minutes on closing. Activated by operation of the switch, the delay ensures quiet operation (except GXC6 and GXS6 models).

**For Australia Only: WARNING – Children should not play with the appliance. Young children and the infirm should be supervised.**

#### GX6

- The fan is operated by a remote switch.

#### GXC6

- The fan is operated by an integral pull cord.
- To switch on, pull down the cord and then release it.
- Repeat to switch off.

#### GXC6T

- The fan is operated by an integral pull cord.
- To switch on, pull down the cord and then release it.
- Repeat to switch off.
- The integral timer provides an adjustable overrun period after the fan has been switched off.

## GX6T

- The fan is operated by a remote switch.  
The fan indicator light shows when it is switched on.
- An integral timer provides an adjustable overrun period after the fan is switched off.

## GX6HT

### Condensation operation

- The fan operates automatically if the relative humidity is above the set level.
- The integral timer provides an adjustable overrun period after the relative humidity level has fallen.

### Switched operation

- A manual operation remote switch starts the fan. The fan indicator light shows when it is switched on.
- The integral timer provides an adjustable overrun period after the fan has been switched off.

## GX6HT2

### Condensation operation

- The fan operates automatically at low speed if the relative humidity rises above the set level.
- The integral timer provides an adjustable overrun period after the fan has been switched off.

### Boost operation

- The integral pull cord switches the fan on to run at high speed. The fan indicator light shows when high speed has been selected.
- A remote switch may be used as an alternative to the pull cord. If this is used, cut off the pull cord, after ensuring that the pull cord switch is in the "off" position.

## GXS6

- This fan is operated by a remote switch.

## GX6 (IP25)

- This fan is operated by a remote switch.

## GX6T / GXC6T / GX6HT and GX6HT2 only

**Before making any adjustments, isolate the fan completely from the mains electricity supply.**

### Adjusting the timer overrun

The overrun timer is factory preset at approximately 20 minutes. The time is adjustable between approximately 2 to 20 minutes.

1. Remove the back draught shutter/grille assembly (see "Mounting the fan in the hole" section).

2. Turn the adjuster marked "T" anti-clockwise to reduce the timer overrun (see Fig.H).
3. Turn the adjuster clockwise to increase the timer overrun (see Fig.H).
4. Replace the back draught shutter/grille assembly (see "Mounting the fan in the hole" section).

### Adjusting the humidistat setting

The internal humidity sensor is factory set at approximately 70%. The level is adjustable between approximately 50% and 90% relative humidity. Remove the back draught shutter/grille assembly (see "Mounting the fan in the hole" section).

Turn the adjuster marked "H" anti-clockwise to decrease the relative humidity level of the room (see Fig. 1). Turn the adjuster clockwise to increase the relative humidity level of the room (see Fig.1).

Replace the back draught shutter/grille assembly (see "Mounting the fan in the hole" section).

### Trickle ventilation

Trickle ventilation is equivalent to that provided by an airbrick or similar device.

1. Remove the back draught shutter/grille assembly (see "Mounting the fan in the hole" section).

### To allow trickle ventilation

2. HOLD THE SHUTTER VANES FULLY OPEN.
3. Push down firmly on the trickle vent catch until it clicks into position then release the shutter vanes. (See Fig.F item 6).

### To fully close the shutters and stop any back draught

4. Pull the trickle vent catch towards you until it clicks into position.
5. Refit the back draught shutter/grille assembly, see "Mounting the fan in the hole" section, ensuring that the actuator lever is in the "fully down" position.

### Maintenance

**A QUALIFIED ELECTRICIAN MUST CARRY OUT ALL CLEANING.**

**NOTE: THE FAN WILL CONTINUE TO OPERATE WITH THE INNER GRILLE REMOVED HENCE IT MUST BE ISOLATED COMPLETELY FROM THE MAINS BEFORE ANY WORK IS CARRIED OUT.**

1. **Before cleaning, isolate the fan completely from the mains electricity supply. Allow 3 minutes for the impeller to stop rotating and the powered shutter to close. (Cleaning on the GXC6 and GXS6 can begin once the impeller has stopped rotating).**

2. Remove the back draught shutter/grille assembly by pressing the release catch located on the side of the unit with a 6mm screwdriver or coin, whilst pulling the grille forward. To remove the back draught shutter, lay face down and pull shutter forwards see Fig.G1 and Fig.G2.
3. To remove the impeller. Unscrew the central screw and remove it together with the washer. Place screw and washer to one side.
4. To clean the impeller, either wipe it with a damp, lint free cloth or wash it in warm soapy water. Thoroughly dry the impeller and refit. Replace the screw and washer ensuring that they are securely fitted.

5. Clean the back draught shutter/grille assembly and impeller in warm soapy water. **Do not use strong detergents or chemical cleaners.**
6. Thoroughly dry the back draught shutter/grille assembly and refit by sliding the grille back over the realise catches, the catches will locate in and secure the grille (see Fig.G3 and Fig.G4). For GX6 MODEL: *Ensure that the actuator lever is in the "fully down" position.*
7. **Do not immerse the fan in water or other liquids to clean any other parts of the fan.**

**Never use strong solvents to clean the fan.**

Apart from cleaning, no other maintenance is required.

### Components Fig. D

1. Back draught shutter.
2. Fan assembly.
3. Outer grille
4. Ladder strips.
5. Terminal cover
6. Trickle vent catch
7. Rear cable entry.
8. Top cable entry.
9. Rating plate.
10. Lugs for screw mounting.
11. Grille.
12. Screw hole caps.
13. Actuator lever (GXS6 model only).

## *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 consult a glazier on the appropriate glass thickness for your size of window.
- Do make sure the mains electricity supply is switched off before attempting to make electrical connections or carry out any maintenance or cleaning.
- Don't install this fan in any window/panel which is less than 4mm thick.

## *Guarantee*

**Customers outside UK - see International below.**

- UK: The fan is guaranteed against defects for 3 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 Hotline: +44 (0)8709 000420**

**<http://www.xpelair.co.uk>**

- For all your spares requirements (UK only):-  
Applied Energy Products Ltd, Parts Dept, Morley Way, Peterborough, PE2 9JB, England.  
Telephone: +44(0) 08709 077077  
Fax: +44(0) 08709 076076

## *International*

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



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(Rev C)