

## GUARANTEE

### Terms and Conditions for UK & ROI (outside UK & ROI contact your local distributor)

We, Applied Energy Products Limited, guarantee this product **for residential use only**, for the period of 5 years from the date of purchase subject to the following conditions – initial 3 years parts and labour, final 2 years parts only.

Within the guarantee period we will resolve, **free of charge**, any manufacturing defects in the product resulting from faulty workmanship or material on condition that:-

- a) The appliance has been correctly installed in accordance with our instructions and is being used on the supply circuit or voltage printed on the rating plate.
- b) The appliance has been used in accordance with these instructions and has not been tampered with or otherwise subject to misuse, neglect or accident.
- c) The appliance has been regularly maintained in accordance with these instructions and the airway is unobstructed.
- d) The appliance has not been taken apart, modified or repaired except by a person authorised by us.
- e) Evidence of the date of purchase in the form of an invoice or receipt will be required in order to qualify under the terms of this guarantee.
- f) For the service work to be undertaken free of charge, the work must only be undertaken by Applied Energy Products Limited, or our approved agents.
- g) Service under guarantee has no effect on the expiry date. The guarantee on any exchanged parts or product ends when the original guarantee period ends.
- h) In the event of a product being returned to Applied Energy Products Limited and not found to be faulty, the product would be available for collection from the relevant premises within one month and if not collected it would be disposed of or delivered by Applied Energy Products Limited and a delivery charge made.

### EXCLUSIONS

This guarantee **DOES NOT** cover damage or defects arising from poor or incorrect installation, improper use or lack of maintenance. It is the responsibility of the installer to check that the installation parameters meet the requirements of the product, and any relevant regulations.

If we are called out to a fault, which is subsequently identified as being an installation fault, we will make a charge. It is important that the routine checks are completed before calling us out, as many issues can be simply diagnosed and resolved.

We make no guarantees as to response times for repairs. We will endeavour to achieve the most timely response possible but while we indicate an average response time, this should not be taken as a guarantee.

The guarantee applies to a repair or replacement (at our discretion) of the product subject to the conditions above, and **DOES NOT** cover compensation for the loss of the product or consequential loss of any kind.

This guarantee does not affect your statutory rights.



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Xpelair

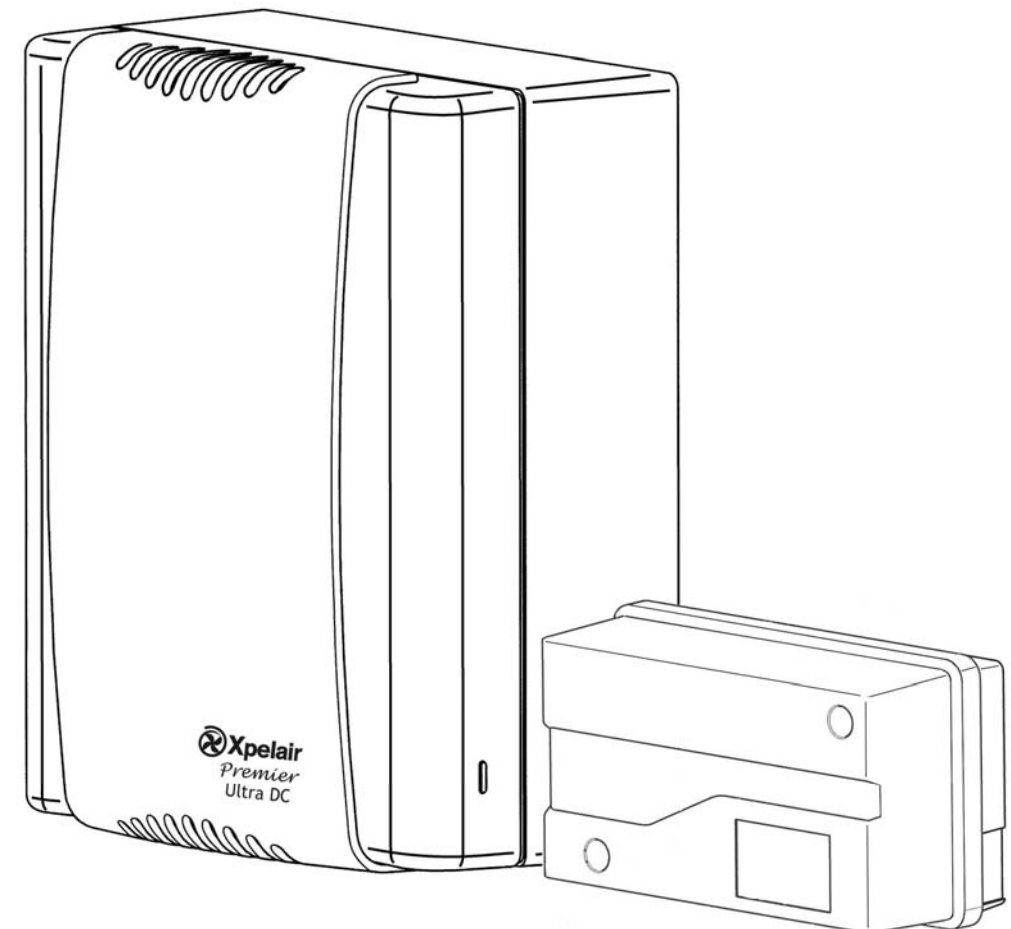
GB

## Safety Extra Low Voltage Condensation Control DC Fans with Pull Cord and Timer

- LVCF20T DC

### Installation and Maintenance Instructions

Retain for future reference



 **Xpelair**  
Premier  
Ultra DC

### IMPORTANT

1. READ ALL THESE INSTRUCTIONS & WARNINGS FULLY BEFORE COMMENCING INSTALLATION.
2. INSTALLATIONS AND WIRING MUST CONFORM TO CURRENT IEE REGULATIONS (UK), LOCAL OR APPROPRIATE REGULATIONS (OTHER COUNTRIES). IT IS THE INSTALLER'S RESPONSIBILITY TO ENSURE THAT THE APPROPRIATE BUILDING CODES OF PRACTICE ARE ADHERED TO.
3. A QUALIFIED ELECTRICIAN MUST SUPERVISE ALL INSTALLATIONS.
4. THESE APPLIANCES ARE INTENDED FOR CONNECTION TO FIXED WIRING.
5. CHECK THAT THE ELECTRICAL RATING SHOWN ON THE TRANSFORMER MATCHES THE MAINS SUPPLY.
6. SITE BOTH FAN AND TRANSFORMER AWAY FROM DIRECT SOURCES OF HEAT (I.E. GAS COOKERS OR EYE LEVEL GRILLES). THE FAN MUST NOT BE MOUNTED WHERE AMBIENT TEMPERATURES ARE LIKELY TO EXCEED 40°C. THE TRANSFORMER MUST NOT BE MOUNTED WHERE AMBIENT TEMPERATURES ARE LIKELY TO EXCEED 40°C.
7. WHEN THE FAN IS INSTALLED IN A ROOM CONTAINING A FUEL BURNING APPLIANCE, THE INSTALLER MUST ENSURE THAT AIR REPLACEMENT IS ADEQUATE FOR BOTH THE FAN AND THE FUEL BURNING APPLIANCE.
8. ENSURE THAT ALL RELEVANT SAFETY PRECAUTIONS (CORRECT EYE PROTECTION AND PROTECTIVE CLOTHING ETC) ARE TAKEN WHEN INSTALLING, OPERATING AND MAINTAINING THIS FAN.
9. GENERAL GUIDANCE FOR SITING THE FAN SEE "FIG.G". ALWAYS SITE FAN AS HIGH AS POSSIBLE.
10. IF ANY SECTION OF THE DUCTWORK IS POSITIONED HIGHER THAN THE FAN A CONDENSATION TRAP (XCT100) MUST BE FITTED AS CLOSE AS POSSIBLE TO THE FAN.
11. THIS APPLIANCE IS NOT INTENDED FOR USE BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY OR MENTAL CAPABILITIES, OR LACK OF EXPERIENCE AND KNOWLEDGE, UNLESS THEY 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 APPLIANCE.

For speed and ease of installation, your installation may require some of the Ancillaries indicated in "Ancillary Options".

#### Installing the fan on a wall (surface mounting)

1. Mark on the wall the centre of the duct hole **A**.
2. Use this centre to cut an opening 117mm diameter with a slight fall to the exterior.
3. Fit and mortar the wall tube (not supplied).

#### Installing fan in a wall (flush mounting)

1. Mark on the wall the centre of the duct hole **A**, and drill a pilot hole through both walls.
2. Use the duct centre to mark a rectangular hole for the inner wall using the dimensions **A**.
3. Cut the rectangular hole through the inner wall.
4. Go outside and cut a 117mm diameter hole in the outer wall using the small hole as the centre.
5. Measure the wall thickness.
6. Cut the wall tube (WD100), not supplied, so that it is 85mm less than the wall thickness.

#### Installing fan on a ceiling (surface mounting)

Requires a space above the ceiling, such as a loft or attic, to provide access for 100mm diameter ducting, or a minimum 70mm void using flat ducting.

1. Mark on the ceiling the centre of the duct hole **A**, avoiding ceiling joists and buried cables etc.
2. Cut a 117mm diameter hole.

#### Installing fan in a ceiling (flush mounting)

For 100mm diameter ducting:

Requires a space above the ceiling, such as a loft or attic, to provide access for 100mm diameter ducting.

1. Mark a rectangular hole using the dimensions **B**.
2. Cut the hole, avoiding ceiling joists and buried cables etc.

For flat ducting:

- This fan can be installed within a 140mm void with the circular spigot **7** (Fig. **E**).

#### Preparing fan for installation

1. Remove the front cover **2** (Fig. **C**).
2. Fit the foam tape **12** supplied around the circular spigot **7** (Fig. **E**).
3. Remove the electrical cover **3** (Fig. **B**).

#### Setting the trickle speed (Fig. **D**)

4. The fan can be set so that it provides constant trickle extraction. Slide the switch **X** to the required position. Please note that the fan is factory set to "Position 3".
5. Switch Position Setting  
1 Trickle extraction 8l/s  
2 Trickle extraction 6l/s  
3 Trickle extraction OFF

#### Setting the time delay start (Fig. **D**)

6. The fan can be set for a 2-minute delayed start to its operation when used with an external on/off switch. Slide the switch **Y** to "Position 1". Please note that the fan is factory set to "Position 0" OFF.

#### Mounting the Fan

The fan must not be mounted where ambient temperatures are likely to exceed 40°C.

#### Fitting fan (surface mounting)

1. Place duct into the hole and align to the required position. If wall mounting, ensure that duct slopes down and away from the fan.
2. Mark the three fixing holes **A** in fan box **6** (Fig. **E**).
3. If wall mounting, drill three holes 5.5mm dia. for wall plugs. If ceiling mounting **B**, use appropriate fasteners (not supplied).
4. Cut out the cable inlet hole, if required, in the surround **10** and slit the cable grommet. Slide the surround **10** over the fan box **6**.
5. Pass the electrical cables into the fan box **6** through the rear cable inlet hole and surround, and re-fit the cable grommet. **Ensure that the cable grommet is in place and a tight fit.**
6. Offer the fan box **6** up to the wall or ceiling. Ensure the circular spigot **7** enters the ducting.
7. Fix the fan box **6** to the wall using screws **8** or to the ceiling using appropriate fasteners.

#### Mounting fan in a wall (flush mounting)

The surround **10** is not required. Fit the ducting to the circular spigot **7**.

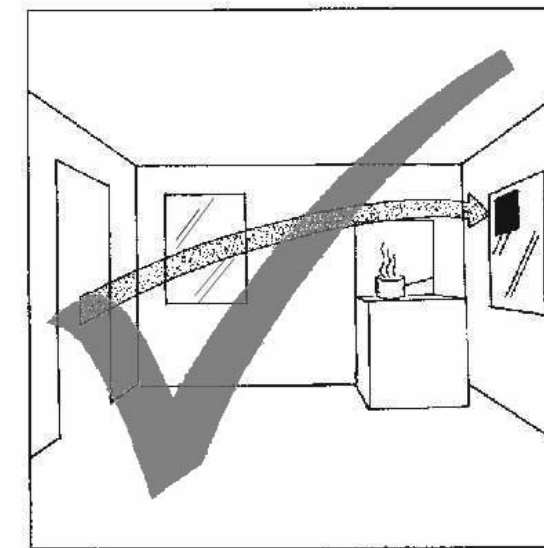
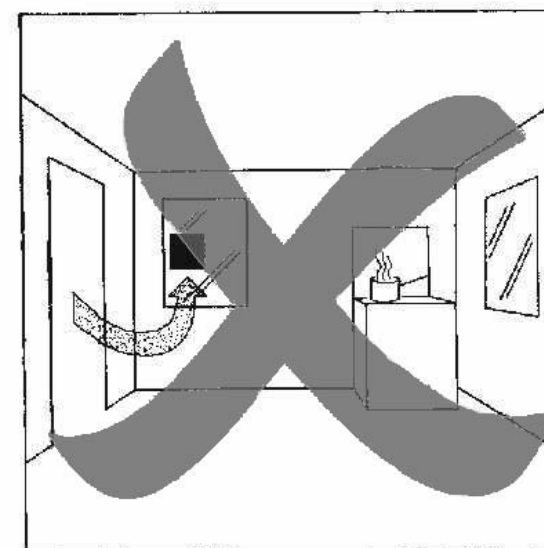
#### If the hole size is as recommended:

1. Assemble the three fan body clamps **9** to the fan box **6** using screws **8**.
2. Slit the cable grommet. Pass the electrical cables into the fan box **6** through the cable inlet hole and cable grommet.

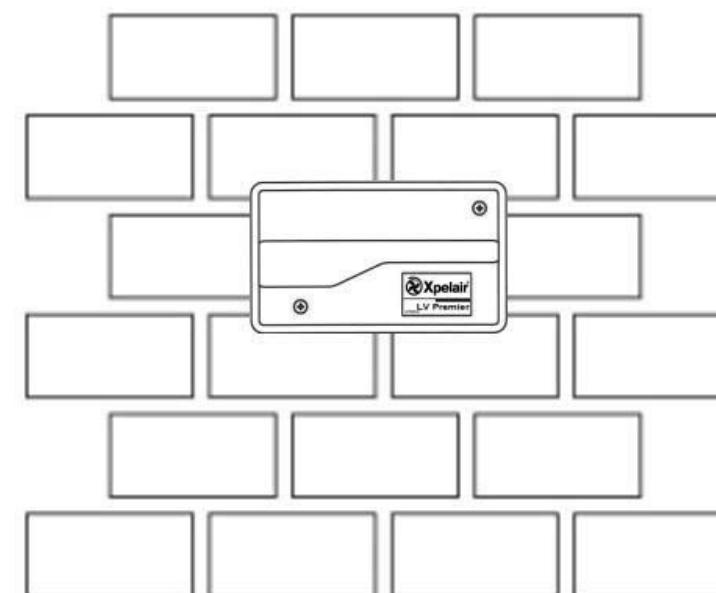
#### Ensure cable grommet is in place and a tight fit.

3. Offer the fan box **6** up to the wall. Ensure the circular spigot **7** enters the ducting.

# G



# H

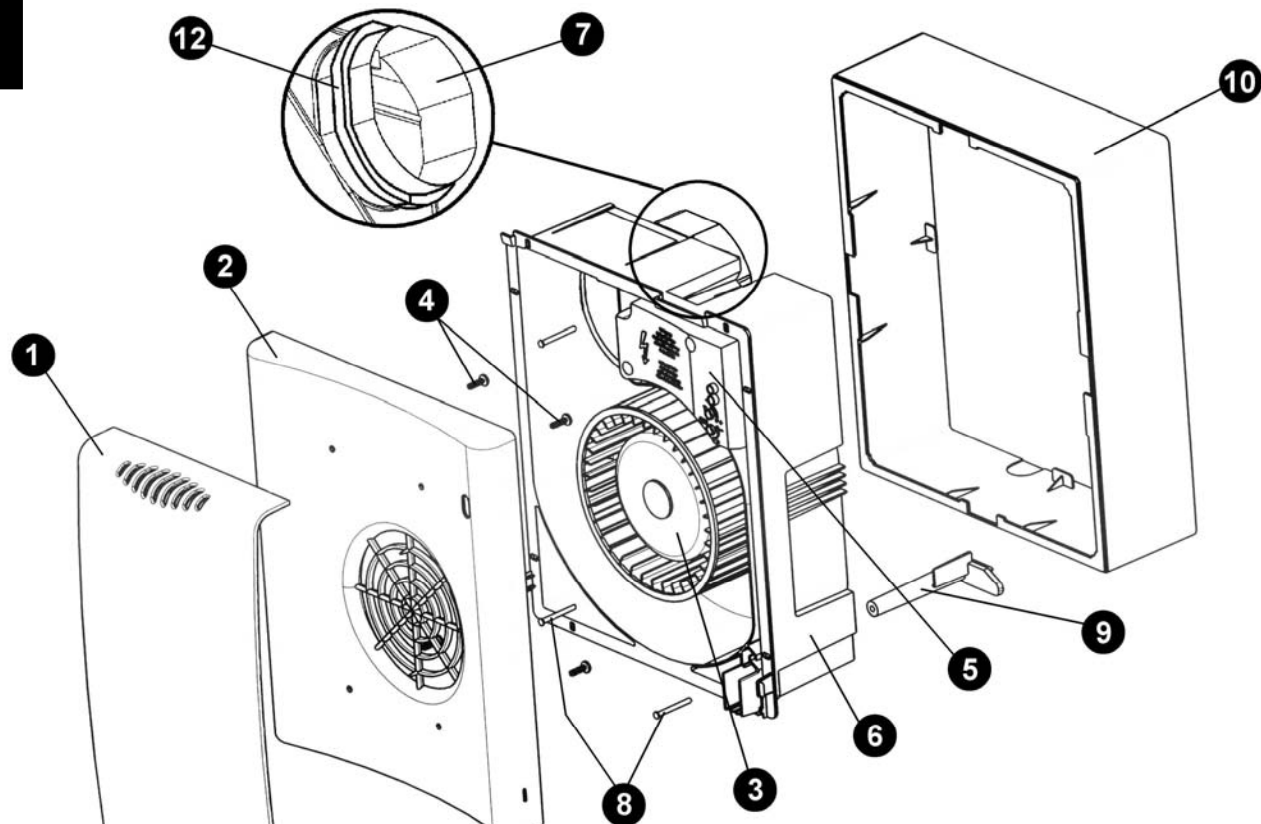


#### Ancillary Options

For speed and ease of installation, your installation may require some of the Ancillaries listed below:

<b>WD100</b>	Wall Duct	<b>VK10</b>	Wall Vent Kit
<b>XCT100</b>	Condensation Trap	<b>FD100</b>	Flexible Ducting
<b>DGW/B</b>	Air Replacement Grille	<b>WDC5</b>	Worm Drive Clips
<b>SP100</b>	Spigot Plate	<b>XCMK</b>	Ceiling Mounting Kit
<b>XAA</b>	Air Brick Adaptor	<b>XBP</b>	In-Line Back Draught Shutter
<b>VC10</b>	Vent Cowl	<b>EFT</b>	Easy Fit Termination Kit
<b>WT10</b>	Termination Ducting Kit	<b>GMK</b>	Glass Mounting Adaptor
<b>XFP</b>	Flat Ducting (Plastic 234x29)	<b>PDXGF</b>	Grease Filter

E



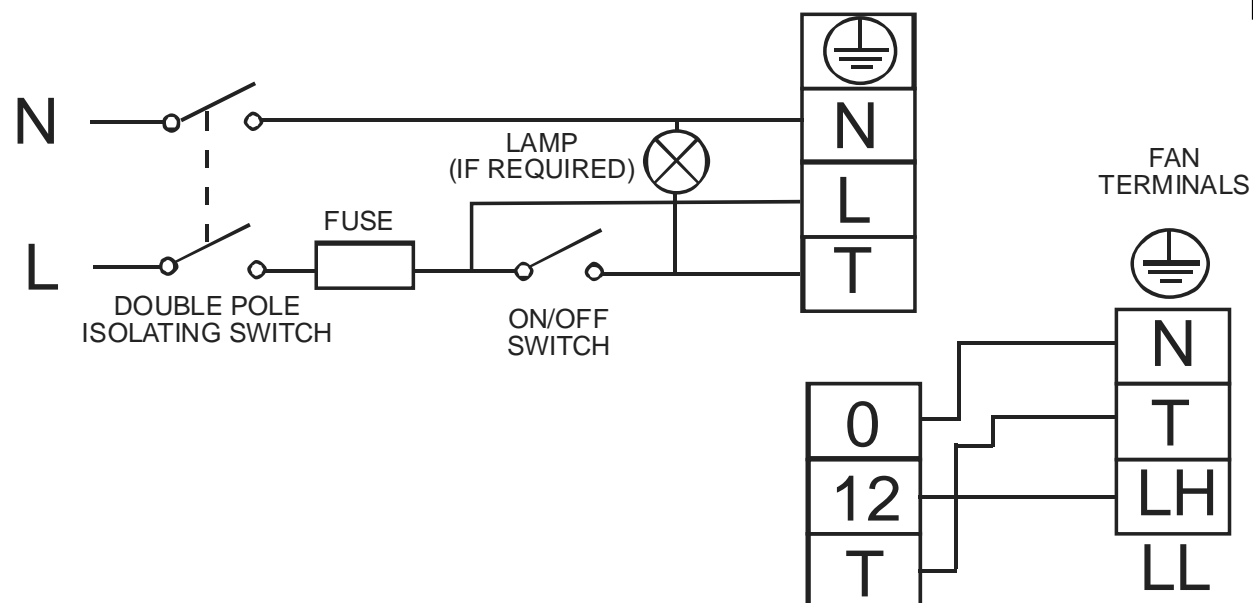
## Key

1. Baffle Plate
2. Front Cover
3. Impeller
4. Fixing Screws
5. Terminal Cover
6. Fan Box
7. Circular Spigot
8. Clamp screws and wall plugs – 3 off
9. Fan body clamps – 3 off
10. Surround
11. Ceiling screws 25mm long – 4 off (Diagram B)
12. Foam Tape

LVCF20T DC

TRANSFORMER  
TERMINALS

F



4. Tighten up the three screws ⑨ until the fan is clamped to the inner wall. The fan body clamps ⑨ will rotate to an automatic stop position. **DO NOT OVERTIGHTEN.**

**If the hole size is larger than recommended i.e. larger than the flange on the fan box ⑥:**

1. The fan body clamps ARE NOT suitable. Construct a wooden frame of INTERNAL dimensions 232 x 280mm min, depth 50mm. Fit frame into the internal wall and make good the hole.
2. Offer the fan box ⑥ up to the wall. Ensure the circular spigot ⑦ enters the ducting.
3. Screw the fan box ⑥ to the frame using the slots in the flange (screws not supplied).

## Mounting fan in a ceiling (flush mounting)

1. The surround ⑩ is not required.
2. Insert the fan box ⑥ into the hole and mark four positions using the slots in the flange ⑥.
3. Remove the fan box ⑥ and fit the four ceiling clips (supplied) over the edge of the hole. Clips align with the marks on the ceiling ⑥.
4. Drill 4 pilot holes into the ceiling through the hole of each clip, ensuring not to damage the clip, and fit the clips ensuring correct alignment.
5. Fit the ducting to the circular spigot ⑦.
6. Offer the fan box ⑥ up to the ceiling.
7. Slit the cable grommet. Pass the cable into the fan box ⑥ through the front cable inlet hole.

**Ensure cable grommet is in place and a tight fit.**

8. Using the screws ⑪ (Fig B), fix the fan box flange to the ceiling clips.

## Wall termination of duct

Fit an outer grille to the outer wall.

## Fitting SELV transformer

The transformer A can be fixed directly to the wall.

The transformer can be sited in a loft or in a convenient position on a wall (not ceiling). **The transformer must not be covered by loft insulation. For wall mounting the Fan must be orientated as shown in ⑥ to fulfil ingress protection requirements. The transformer must not be mounted within 0.6m of a bath or shower cubicle.**

**The transformer must not be mounted where ambient temperatures are likely to exceed 40°C.**

## Fixing the transformer directly

1. Remove the two screws securing the cover.
2. Position on the wall, and mark fixing holes.
3. Drill and plug the two holes and fix the transformer with the screws supplied.

## For loft mounting:

The transformer can be fixed to a wooden surface.

## For fixed surface wiring:

Use the rectangular knockouts on each side (X). These accept 25 x 16mm trunking

## For concealed wiring:

Use the round knockouts (Y).

## Wiring the Fan

1. **Isolate circuit electricity supply. Terminal block accepts cable up to 1.5mm<sup>2</sup>.**
2. A means for disconnection in all poles must be incorporated in the fixed wiring in accordance with the wiring rules.
3. Use suitably rated 3-core cable.
4. Remove the retaining screws of the terminal cover ⑤.
5. Wire the fan as shown in ⑥ using the cable clamp provided.
6. Replace the terminal cover ⑤ and fasten the retaining screws.
7. See section on "User adjustments" if you wish to use settings other than those that have been factory set.
8. Refit the front cover ② (Fig. ⑥).
9. Connect the cable from the isolating switch to electrical circuit. Check installation.

10. Refit fuse before turning on electricity supply.
11. For fixed wiring circuits, the protective fuse for the appliance must not exceed 5A.

## For Australia Only

Permanently connected to the supply and a remote switch operation. Wire directly to the supply through an approved 10A wall mounted surface switch with at least 3mm clearance between contacts.

## Wiring the Transformer

**Always use the cable clamps.**

1. Remove the cable clamps.
2. Wire the transformer as shown ⑥.
3. Ensure all connections are tight.
4. Replace the clamps and two screws. Ensure the cable is firmly retained by the clamps.
5. Replace the cover with the two screws.
6. **Switch Off the mains electrical supply and remove fuse.**
7. Connect the cable from the isolating switch to the electrical circuit.
8. For fixed wiring circuits the protective fuse for the appliance must not exceed 5A.

## User adjustments

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

1. Remove the front cover and replace after adjustment (Fig. ⑥).
2. The timer over-run period can be adjusted between approximately 1 and 20 minutes. Use an electrician's screwdriver and turn screw "T" (Fig. ⑥), clockwise to increase time, anti-clockwise to decrease. (Factory preset to approximately 10 minutes).
3. The humidity setting is adjustable between approximately 70% and 85% relative humidity. Use an electrician's screwdriver, and turn screw "RH" (Fig. ⑥), clockwise to increase the relative humidity setting and anti-clockwise to decrease. (Note: the fan is more sensitive at 70% RH than at 85%).

## Using the Fan

## Switched Operation

The fan can be wired with a separate on/off switch. Fan operates at condensation speed when switched on. Top light "T" is lit when the separate on/off switch is switched on. When switched off, the fan will continue to operate if the humidity level has not reached that set by adjusting screw "RH". When switched off, the fan continues to operate for the adjustable timer over-run period.

## Condensation Operation

The fan operates at condensation control speed, when the relative humidity exceeds the set level, and turns off when the humidity drops.

## Boost Operation

The integral pull cord switch switches the fan to run at high speed. Bottom light "II" is lit when the fan is operating at high speed. Note: If the separate on/off switch and integral pull cord are both on, the lights "T" and "II" will both be lit and the fan will run at high speed.

## Trickle feature on or off

This is set by the installer to provide continuous background extraction, when the humidity level is below that set by adjusting screw "RH".

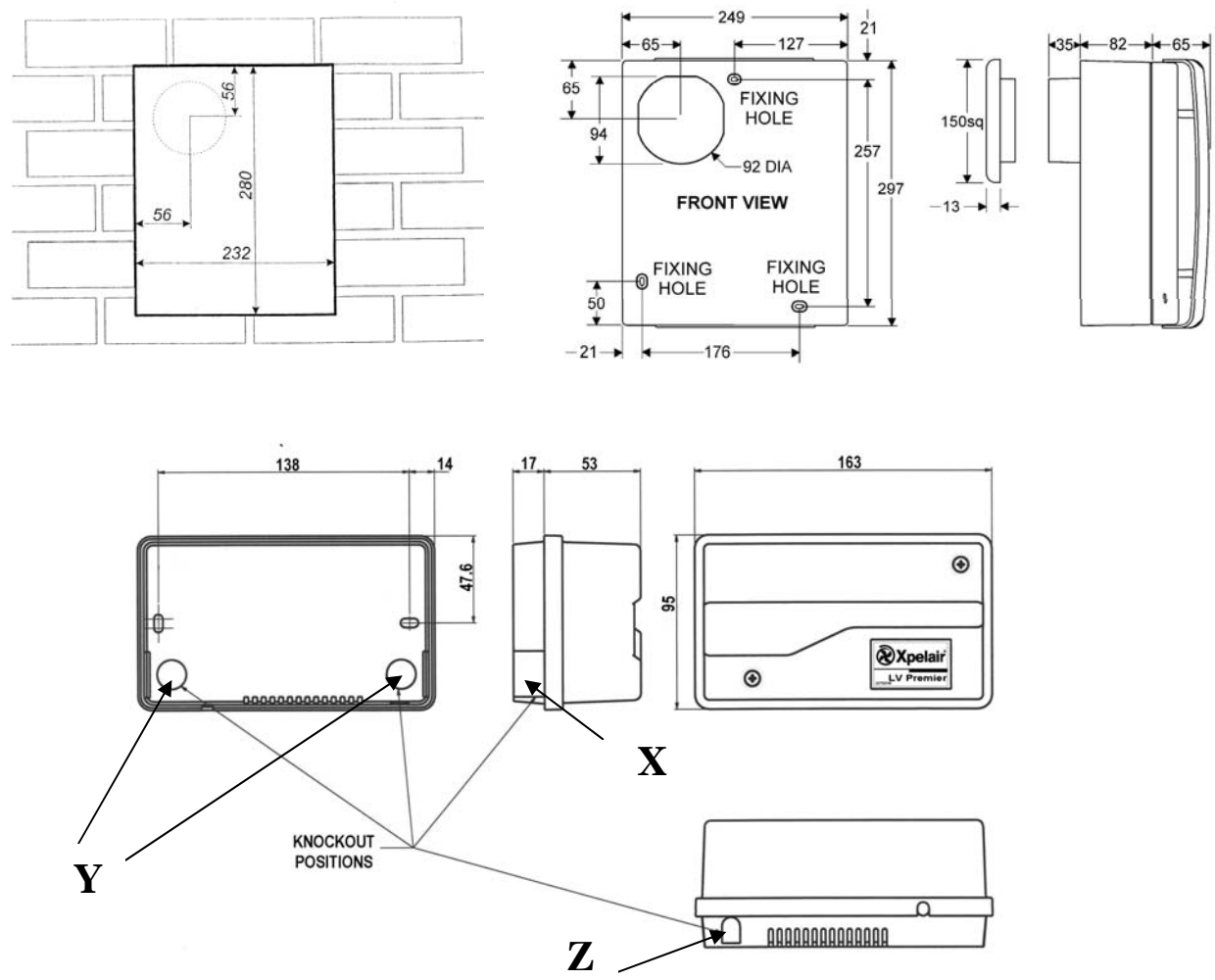
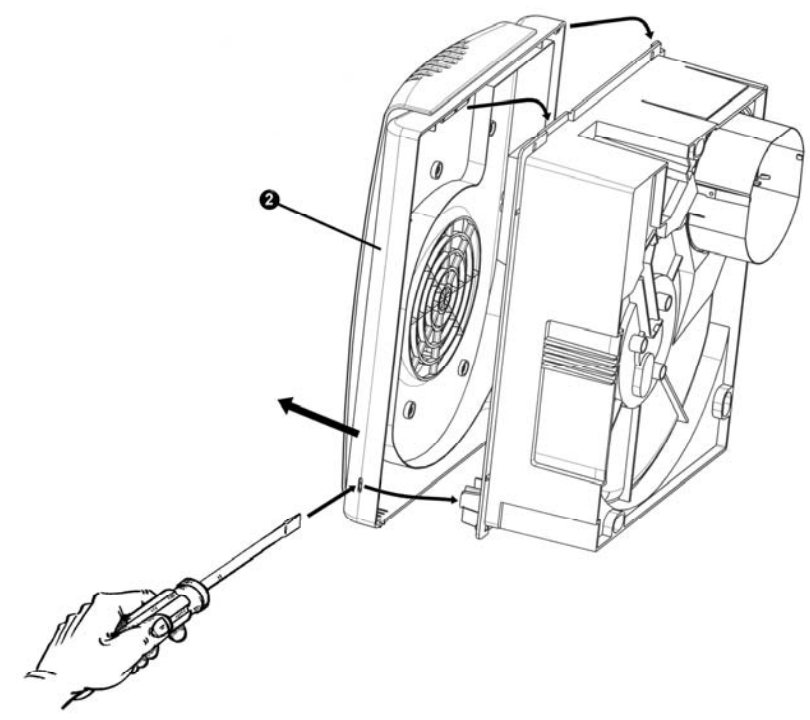
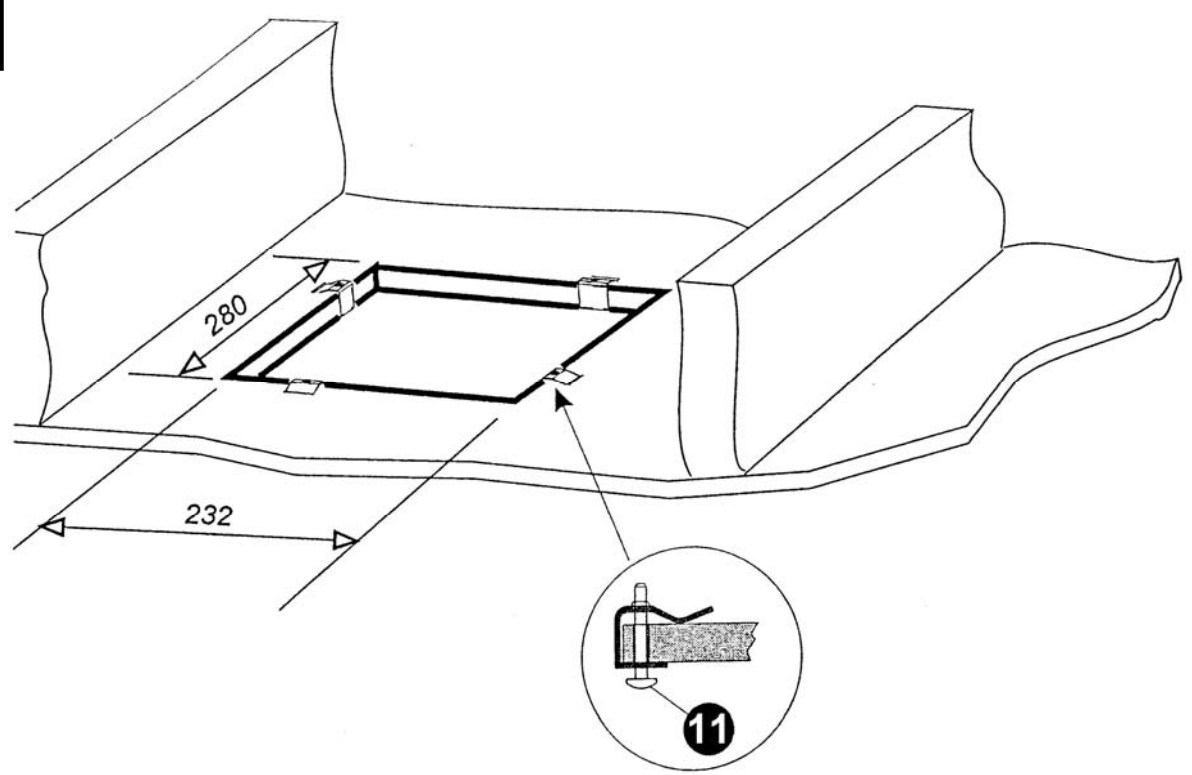
## Time delay stat feature on or off

This is set by the installer to provide a 2-minute time delay start when the fan is switched on using a separate on/off switch.

## Cleaning

1. **Isolate the fan from the mains supply.**
2. Only clean the external surface of the fan, using a damp lint free cloth.
3. Do not use strong detergents, solvents or chemical cleaners.
4. Allow the fan to dry thoroughly before use.
5. Apart from cleaning, no other maintenance is required.

**PLEASE LEAVE THIS LEAFLET WITH THE FAN FOR THE BENEFIT OF THE USER**

**A****C****B****D**