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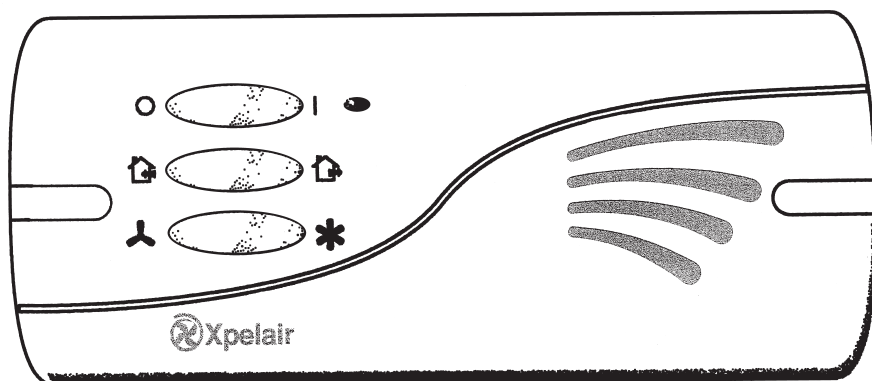
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# *FR22-30*

## *FAN CONTROLLER*



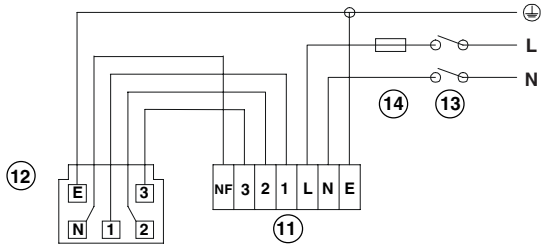
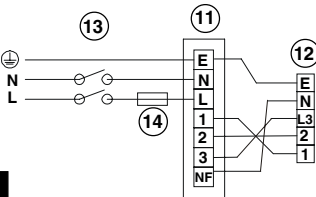
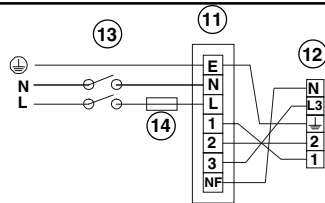
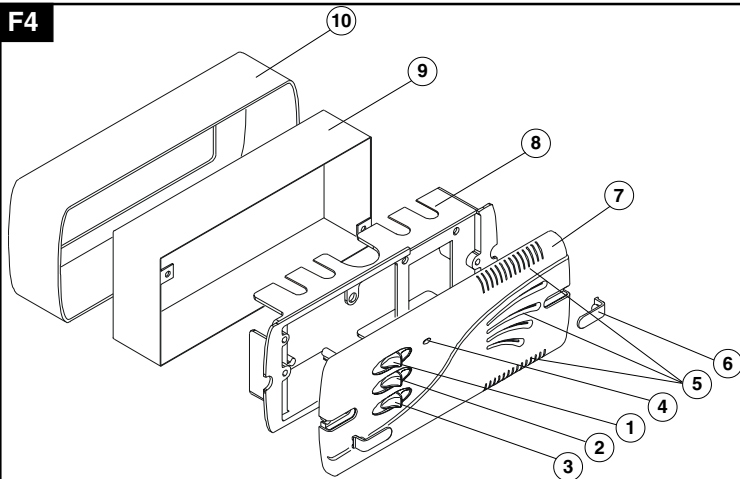
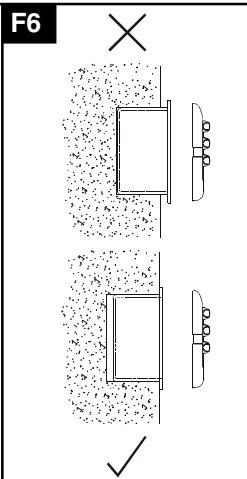
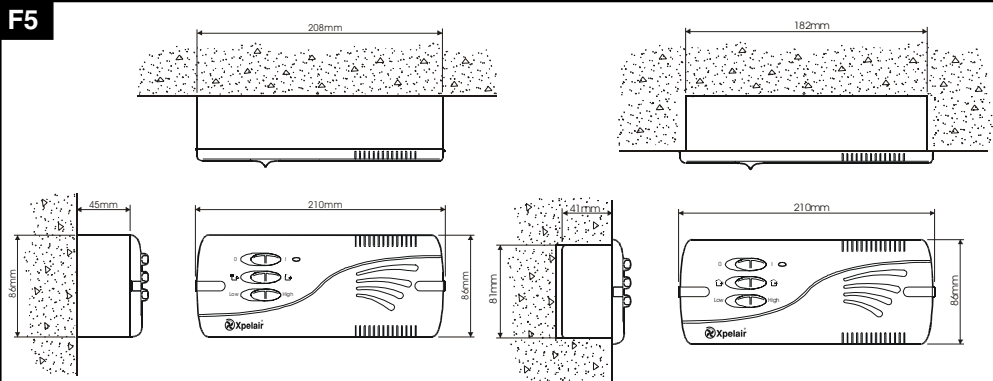
### *Installation and Operating Instructions*

applied energy <sup>///GDA</sup>

**PLEASE NOTE:**

THE CANADIAN (CSA) VERSION OF THIS FAN IS RATED AT 95W THIS IS FOR CONNECTION TO TYPE B1 AND B2 FANS ONLY.

SEE "IDENTIFYING FAN TYPE" SECTION.

**F1****F2****F3****F4****F6****F5**

# Xpelair® **FR22/30 Fan Controller Installation and Operating Instructions**

These Instructions are for the Installation and Operation of the FR22/30 Fan Controller only. For Fan Installation and Operating Instructions refer to literature provided with the appropriate fan.

## General Information

### Description

This appliance is designed to control the operation of Xpelair fans of the GX9, GX12, WX9, WX12, RX9 & RX12 ranges (wall & window mounted). The controller may be either surface mounted, or recess mounted within it's own patress box. You may only wire one fan to each controller.

### Installing the Controller

These installation instructions are for the installation of the controller when used in combination with Xpelair supplied fans.



**The controller must be installed to fixed wiring. Ensure the Main Electrical Supply matches the rating shown on the controller casing. This appliance must be earthed.**

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

If you have any queries either before, during and after the installation of the controller, please do not hesitate to contact the UK Xpelair hotline (number on back page). Customers outside the UK: contact your local Xpelair distributor.

### What the installer will need

- A double pole isolating switch with a minimum contact gap of 3mm (Wall or Ceiling mounted).
- Suitably rated 5-core cable to connect the controller to the fan. If the fan is window mounted, use flexible cable (Available from Xpelair).
- Suitably rated 3-core cable to connect the controller to the Main Electrical Supply.



**If using flexible cable, suitable glands incorporating cable clamps must be fitted to the knockouts in the Controller Box. (Refer to Fig. 1).**

### Location of the Controller

- Not where ambient temperatures are likely to exceed 50°C.
- If installed in a kitchen the Controller must not be mounted immediately above a cooker hood or eye level grill.
- When intended for use in possible chemical corrosive atmospheres, consult our Technical Service Department (Outside the UK contact your local Xpelair distributor).
- If installed in a shower room or bathroom the controller and isolating switch must be situated so that they cannot be touched by persons making use of the bath or shower.

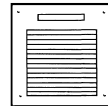
## Working with the Fan

### Identifying Fan Type

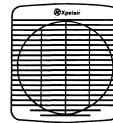
For the purpose of these instructions current and previous versions of the fans are identified into Type A & Type B, as follows:



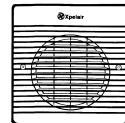
Type A1



Type A2



Type B1



Type B2

### Preparing the Fan



**If wiring to an existing installation isolate mains supply and remove applicable fuses prior to any electrical procedure.**

**If wiring to Type A fans**

A link is fitted between terminals 2 and 3 in the fan socket, this must be removed before connecting the Controller. If you do not remove it, the Controller will be permanently damaged.

**If wiring to Type B fans**

There is no wire link to be removed.

**If the fan is already installed**

- 1 Ensure the power supply is isolated.
- 2 Disconnect the mains connections from the fan's terminal socket or from the terminal block.
- 3 Remove the existing wiring and make it safe.

**If the fan is not yet installed.**

- 1 Check that the fan electrical rating matches the power supply.

### Wire the fan electrical connections

- 1 Route the 5-core cable from the Fan to the Controller position.
- 2 Wire one end of the cable into the fan connections as shown thus:

FAN TYPE	DIAGRAM
Type A1	F1
Type A2	F2
Type B	F3

Table 1.

- 3 Leave the other end ready to be connected to the Controller.

# Mounting the Controller

## Remove the Cover and Mounting Frame

- 1 Detach the Fascia from the Mounting Frame by removing the screw covers and two screws (Refer to Fig. 2a&b).
- 2 Detach the Mounting Frame from the Wall Box by removing the two screws (Refer to Fig. 2c).
- 3 Lift the Wall Box away from the Plastic Surround.
- 4 Check that the electrical rating shown inside the controller matches the power supply.
- 5 Disconnect the earth wire from the Wall Box.
- 6 Make cable entry holes in the plastic and metal boxes by removing suitable knockouts (Refer to Fig. 1).

## Mounting the Wall Box



**Eye protection must be worn during all drilling & chiselling operations.**



**Check there are no buried Pipes or Cables in the wall or obstructions on the outside e.g. Electricity, Gas, Water.**

### If surface mounting

- 1 Insert suitable glands into the knockouts.
- 2 Feed both cables through the glands.
- 3 Fix the Wall Box and Plastic Surround to the wall, using the mounting holes provided.
- 4 **Reconnect the earth lead to the Wall Box.**

### If recess mounting

- 1 Make a hole in the wall big enough to take the Wall Box. Discard the Plastic Surround.
- 2 Insert suitable glands into the knockouts.
- 3 Feed both cables through these glands.
- 4 Fix the Wall Box to the wall. Ensure that the flange of the mounting frame fits flush to the finished surface of the wall (Refer diagram F6).
- 5 **Reconnect the earth lead to the Wall Box.**

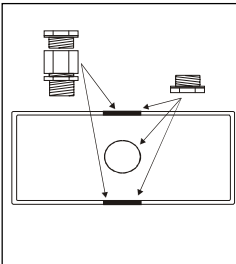


Fig. 1 : Cable Gland Positions

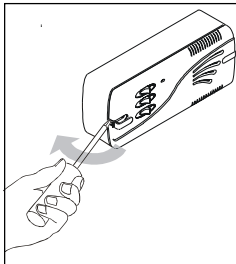


Fig. 2a: Removing screw covers

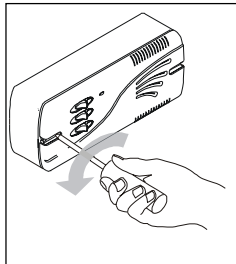


Fig. 2b: Removing fascia

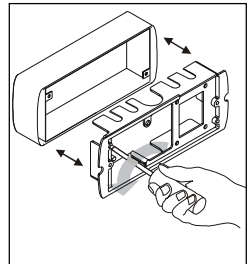


Fig. 2c: Removing mounting frame

## Wire the Controller electrical connections

- 1 Mount the Isolation Switch in accordance with the manufacturers instructions.
- 2 Wire the Controller to the Isolation Switch and to the Fan as shown in the appropriate diagram (Refer to Table 1).
- 3 Refit Mounting Frame to Metal Wall Box.
- 4 Refit the Fascia to the Mounting Frame.
- 5 Refit the Screw Covers.

## Connect to Power Supply

- 1 **Ensure power supply is isolated and fuses are removed.**
- 2 Route the Cable from the Isolating Switch to the point of connection to the power supply.
- 3 Make all connections within the Isolating Switch in accordance with the manufacturers instructions.
- 4 Following all local regulations make connection at point of power supply.
- 5 Make a final check to ensure all earth points are connected and all covers have been correctly replaced on the fan, controller and isolating switch.
- 6 Replace all fuses, and switch on the power supply.

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

### For Australia only:

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

## Using your Controller

### Operating the Controller

The Controller has the following features: (Refer to diagrams F1-F4).

- |                           |                                |
|---------------------------|--------------------------------|
| 1 On / Off switch         | 8 Mounting Frame               |
| 2 Intake / Extract switch | 9 Wall Box                     |
| 3 High / Low speed        | 10 Plastic Surround            |
| 4 Indicator light         | 11 Controller's Terminal Block |
| 5 Ventilation slots       | 12 Fan's Terminal Block        |
| 6 Screw cover             | 13 Double Pole Isolator switch |
| 7 Fascia                  | 14 Fuses                       |

## Looking after the Controller

### Cleaning

- 1 **Before cleaning isolate the Controller completely from the power supply.**
- 2 Wipe the Cover carefully with a damp cloth.
- 3 Dry thoroughly.
- 4 Ensure ventilation slots are free from obstructions at all times.



- ◆ **Never immerse the Controller in water or other liquids.**
- ◆ **Never use solvents to clean the Controller.**
- ◆ **Apart from cleaning, no other maintenance is required.**

## ***Do's and Don'ts***

- Do read the entire instruction leaflet before commencing installation.
- Do install the controller with a double pole isolating switch.
- Do make sure that the mains supply is switched off before attempting to make electrical connections or carry out any maintenance or cleaning.

## ***Guarantee - UK. (Customers outside UK - see international below.)***

- The controller 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 - UK. (Customers outside UK - see international below.)***

Xpelair have a comprehensive range of services including:

- Free technical advice 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***

GDA Applied Energy 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>**

## ***International***

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

Technical advice & service: Contact your local Xpelair distributor



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