

**OPERATION AND
MAINTENANCE
INSTRUCTIONS**

**G2B™
TWIN ROOF EXTRACT FAN**



ROOF UNITS LIMITED

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• **STORAGE / INSTALLATION**

The unit must be stored in clean, dry conditions. DO NOT install these fans in areas where the following may be present:-

- 1) Excessive oil or grease laden atmosphere.
- 2) Corrosive or flammable gases, fluids or vapours.
- 3) Ambient temperatures higher than 45°C and below -15°C.
- 4) Relative humidity above 95%
- 5) Possible obstructions which will hinder removal.
- 6) Sudden ductwork transformations close to the unit.

If the unit is to be stored for a long period of time the fan impeller must be rotated by hand at monthly intervals to prevent hardening of the lubricant and corrosion or static indentation of the bearings.

It is recommended that before installation the resistance to earth should be measured and if found to be less than 2 MΩ the motor should be dried out before applying mains voltage.

• **IMPORTANT - SAFETY**

All air moving equipment may present electrical, mechanical or noise hazards either during installation or during operation. These instructions are meant to help in the prevention and / or minimisation of these hazards. It is important that due consideration is given to the implementation of these instructions and to due attention being given to applicable statutory requirements.

Potential hazards from rotating parts that can be reached during operation must be eliminated by using appropriate guards meeting statutory requirements.

All electrical installation must be undertaken by a suitably qualified and competent person and must be carried out in accordance with all relevant Statutory Requirements. Please check the details on the unit rating plate to ensure that the correct power supply (Voltage, Frequency, and Phase) is available. Do not use the fans with an incorrect power supply, overheating and failure of the motor will occur.

All fans generate noise during operation. Dependant on the installation sound attenuators or other acoustic treatment may be necessary to achieve acceptable noise levels in the ventilated area or the area surrounding the fan installation. The product catalogues indicate the noise levels generated by the equipment in standard test situations. The installed condition may affect the actual noise levels experienced in operation.

Please note a wide range of accessories for this product are available from Roof Units Limited.

- **MOUNTING**

Trimmers, Adaptors And Soaker Sheets.

Trimmers and adaptors should be secured loosely to the purlins. After final alignment with the soaker sheet, all fixings need to be securely fastened. M10 dia. Lindapters Type 'A' short tail, (not supplied by Roof Units Limited) should be used when securing adaptors to the trimmers.

Backdraught Shutter.

A backdraught shutter is supplied as standard. The shutter fixing holes match the glass fibre fan unit fixing holes, therefore both must be fitted at the same time.

Glass Fibre Unit Assembly.

Curb Mounting:- position onto roof curb and secure with M10 dia. coach screws, (not supplied by Roof Units Limited) ensuring fibre washers are fitted under screwheads. **DO NOT OVER TIGHTEN COACH SCREWS AS THIS MAY DAMAGE THE HOUSING.**

Purlin Mounting:- secure to top flange of adaptor with set of screws provided, ensuring fibre washers are fitted under screwheads. **DO NOT OVER TIGHTEN SCREWS AS THIS MAY DAMAGE THE HOUSING.**

Drop In Silencers.

Drop in silencers should be fitted onto the curb or purlin adaptor before the glass fibre unit and shutter. The silencer flange fixing holes match the glass fibre unit fixing holes, therefore both must be fitted at the same time utilizing the same fixings.

- **GENERAL WIRING**

Warning:- The Fan And Ancillary Control Equipment Must Be Isolated From The Power Supply During Installation And / Or Maintenance. The Equipment Must Be Earthed.

Remove the cover from the fan terminal box. Connect the power supply from the local isolator (via any appropriate controls if fitted) to the terminal box via an appropriate cable gland. Refer to the wiring diagrams and select the appropriate connections for the fan, controller or other devices as being installed. Ensure that all earth connections have been made.

After completing and checking the connections to the terminal box replace the terminal box lid ensuring that the gasket is correctly seated in place. Ensure that all cable gland / grommet fixings and terminal box lid fixings are tightened correctly to prevent water ingress.

All fans are fitted with thermal protection, which is self re-setting. If the thermal protection device operates you **MUST** check for the cause before allowing the fan to resume operation. Failure to do so may cause damage to the motor and invalidate the guarantee.

Fuses in the circuit should be regarded as only protecting the wiring against short circuits or earth faults; they are not suitable for overload protection. Fuse ratings must be able to carry starting loads, which can be taken as a maximum of six times the running current for 25 seconds.

- **CHECK LIST**

- 1) Are all links and wiring complete (refer to wiring diagrams)?
- 2) Are all fixings secured?
- 3) Are all relevant guards fitted?
- 4) Are all protective circuit devices fitted and wired correctly?
- 5) Are all terminal box covers and gland fittings secure?
- 6) Are all earth connections secured?
- 7) Check that no hazard exists for persons in the locality of the fan. Check that the fan rotation is correct as per the direction arrows on the fan plate / casing. If not isolate power supply and check wiring.
- 8) Check that the current (amps) taken by the fan does not exceed the current shown on the rating plate.
- 9) Ensure rotation of impeller is correct. Incorrect rotation may cause irreversible damage to the motor. Three phase units require a trial connection, to reverse direction interchange any two supply leads.

- **RESPONSIBILITY**

Roof Units Limited, as suppliers of the equipment cannot be responsible for the final installation and electrical connection of the product on site. We have made reasonable effort to offer guidance and assistance but the installer and electrical contractor on site have a responsibility for ensuring the equipment is safely and securely installed and electrically / mechanically safe in accordance with statutory requirements.

The fans are supplied as a component to be incorporated into a ventilation system. The final complete system installation that includes the fans **MUST** meet all relevant directives.

- **INSPECTION**

These pieces of equipment require maintenance, cleaning and inspection, therefore allow reasonable access for these operations to be carried out by a suitably qualified person safely.

ISOLATE FROM POWER SUPPLY AND ENSURE POWER CANNOT BE RE-CONNECTED BEFORE ANY WORK IS CARRIED OUT.

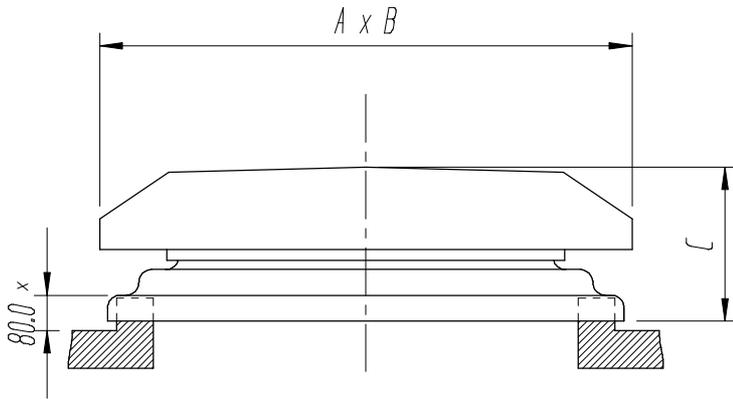
It is recommended that the fan be inspected after three months or sooner if conditions dictate. If a build up of dirt/deposits is evident then this should be carefully cleaned off. Please take care not to damage the fan or affect the balance of the impeller motor assembly (balance weights may be fitted to the impeller).

Further inspections should be carried out periodically as necessary dependant on experience and site conditions. It is recommended that a minimum of two inspections per year be carried out.

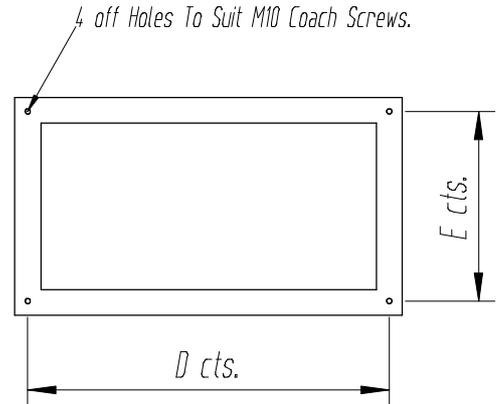
The fan motors are fitted with "sealed for life" bearings and, under normal circumstances, should not require maintenance.

G2B TWIN ROOF EXTRACT FAN ARRANGEMENT.

Dimension marked x illustrates depth of curb.



Unit Mounting Detail.



Curb Fixing Hole Detail.

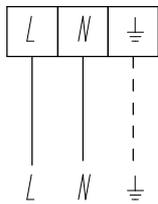
| Unit Size | A | B | C | D | E | Inside Curb | Outside Curb | Weight (kg) |
|-----------|------|-----|-----|------|-----|-------------|--------------|-------------|
| 200 | 800 | 470 | 280 | 700 | 370 | 325 x 650 | 425 x 750 | 15.0 |
| 300 | 975 | 550 | 350 | 875 | 450 | 400 x 825 | 500 x 925 | 24.00 |
| 350 / 400 | 1210 | 675 | 440 | 1000 | 500 | 400 x 900 | 600 x 1100 | 40.0 / 49.0 |
| 450 / 500 | 1430 | 830 | 540 | 1200 | 600 | 500 x 1100 | 700 x 1300 | 54.0 / 60.0 |

G2B TWIN ROOF EXTRACT FAN WIRING DETAIL.

SINGLE PHASE.

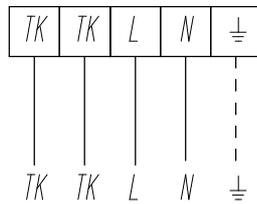
THREE PHASE.

G2B 200 (INT. TK'S).



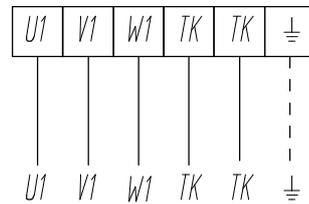
230V, 1PH, 50Hz

G2B 300 AND ABOVE (EXT. TK'S).



230V, 1PH, 50Hz

G2B 400 AND ABOVE (EXT. TK'S).



400V, 3PH, 50Hz

Please Note.

Reference should be made to the relevant controller operation and maintenance instructions, when integrating additional Roof Units Limited equipment.

These products must be installed by a suitably qualified and competent person in accordance with current applicable regulations.

Roof Units Limited Guarantee

Roof Units Limited will, free of charge, within a period of 1 year from the date of dispatch from their works repair or at its option replace any fan which are proved to their reasonable satisfaction to be defective in material or workmanship unless:-

- 1) The goods have been altered in any way
- 2) The goods have been improperly installed or connected or
- 3) The buyer has failed to notify Roof Units Limited of any defect or suspected defect within 14 days of the same coming to the knowledge of the buyer.
- 4) Any goods replaced will belong to Roof Units Limited. Any repaired or replacement goods will be guaranteed on these terms for the unexpired portion of the 1 year period.
- 5) Otherwise subject to our standard terms and conditions.

The goods returned to Roof Units Limited works, carriage paid to enable examination, repair or replacement.

Roof Units Limited reserves the right to alter specification without notice.



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