

230/300 FANS Installation Instructions

READ INSTRUCTIONS IN CONJUNCTION WITH THE ILLUSTRATIONS

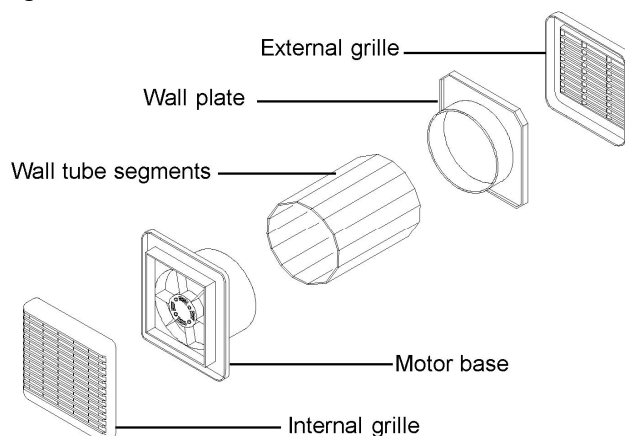
IMPORTANT

- (i) **THE FAN MUST BE SITED AND CONNECTED IN ACCORDANCE WITH CURRENT IEE REGULATIONS, BS7671(UK) OR THE APPROPRIATE STANDARDS IN YOUR COUNTRY.**
- (ii) **THIS APPLIANCE IS NOT SUITABLE FOR INSTALLATION IN A SHOWER CUBICLE OR ENCLOSURE AND MUST BE SITED AWAY FROM ANY SOURCE OF WATER SPRAY, AND MUST BE OUT OF REACH (1.5 METRES) OF A PERSON USING A FIXED BATH OR SHOWER.**
- (iii) **SITE AWAY FROM DIRECT SOURCES OF HEAT IN EXCESS OF 50°C.**
- (iv) **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. IF THE FAN CAN BE USED TO SUPPLY AIR INTO THE ROOM THE INSTALLER MUST ENSURE THAT THE FAN INTAKE IS LOCATED AT LEAST 600mm AWAY FROM ANY FLUE OUTLET.**
- (v) **A SHORT CIRCUIT OF THE AIRFLOW SHOULD ALWAYS BE AVOIDED BY SITING THE FAN AS FAR AWAY AS POSSIBLE FROM AND OPPOSITE TO THE MAIN SOURCE OF THE AIR REPLACEMENT INTO THE ROOM.**
- (vi) **WIRING SHOULD BE VIA A DOUBLE POLE ISOLATING SWITCH WITH A CONTACT SEPARATION OF AT LEAST 3mm. THE FUSE RATING SHOULD BE 3 AMP. IF THE FAN IS SITED IN A ROOM WITH A FIXED BATH OR SHOWER, THE SWITCH SHOULD BE LOCATED OUTSIDE THE ROOM.**
- (vii) **ALL REGULATIONS AND REQUIREMENTS MUST BE STRICTLY FOLLOWED TO PREVENT HAZARDS TO LIFE AND PROPERTY BOTH DURING AND AFTER INSTALLATION, AND DURING ANY SUBSEQUENT SERVICING AND MAINTENANCE.**
- (viii) **THIS APPLIANCE MUST NOT BE EARTHED.**
- (ix) **READ THESE INSTRUCTIONS FULLY BEFORE COMMENCING INSTALLATION.**

1. DESCRIPTION

The 230mm and 300mm fans are axial extract fans suitable for commercial applications such as offices, clubs, restaurants, commercial kitchens, etc., where the ventilation requirements are high. The components are shown schematically in Fig. 1.

Fig. 1 EXPLODED VIEW OF WALL MODEL



For overall dimensions, refer to Fig. 2. Before commencing work, check that the fan will fit in the position proposed.

For best results the fan should be fitted to a wall but if this is not feasible, all models except the pull-cord actuator type can be fitted to the ceiling.

Fig. 2 CONSTRUCTION AND DIMENSIONAL SPECIFICATION

FAN SIZE (mm)	230	300
Grille Width (mm)	340	403
Grille Height (mm)	340	403
Wall Model, hole dia. (mm)	280	337
Wall Model, max. wall thickness (mm)	305	305
No. of Wall Tube Segment	14	17
Window Model, glass hole dia. (mm)	260	337
Window Model, glass thickness range (mm)	5 to 32	6 to 32
Number of Window Kit Fasteners	3	4

2. FITTING INSTRUCTIONS

A. Wall Model

- (i) Cut the required diameter hole in the wall, Fig. 2. If the fan is to be fitted into the ceiling, ensure that the hole is between the joists.

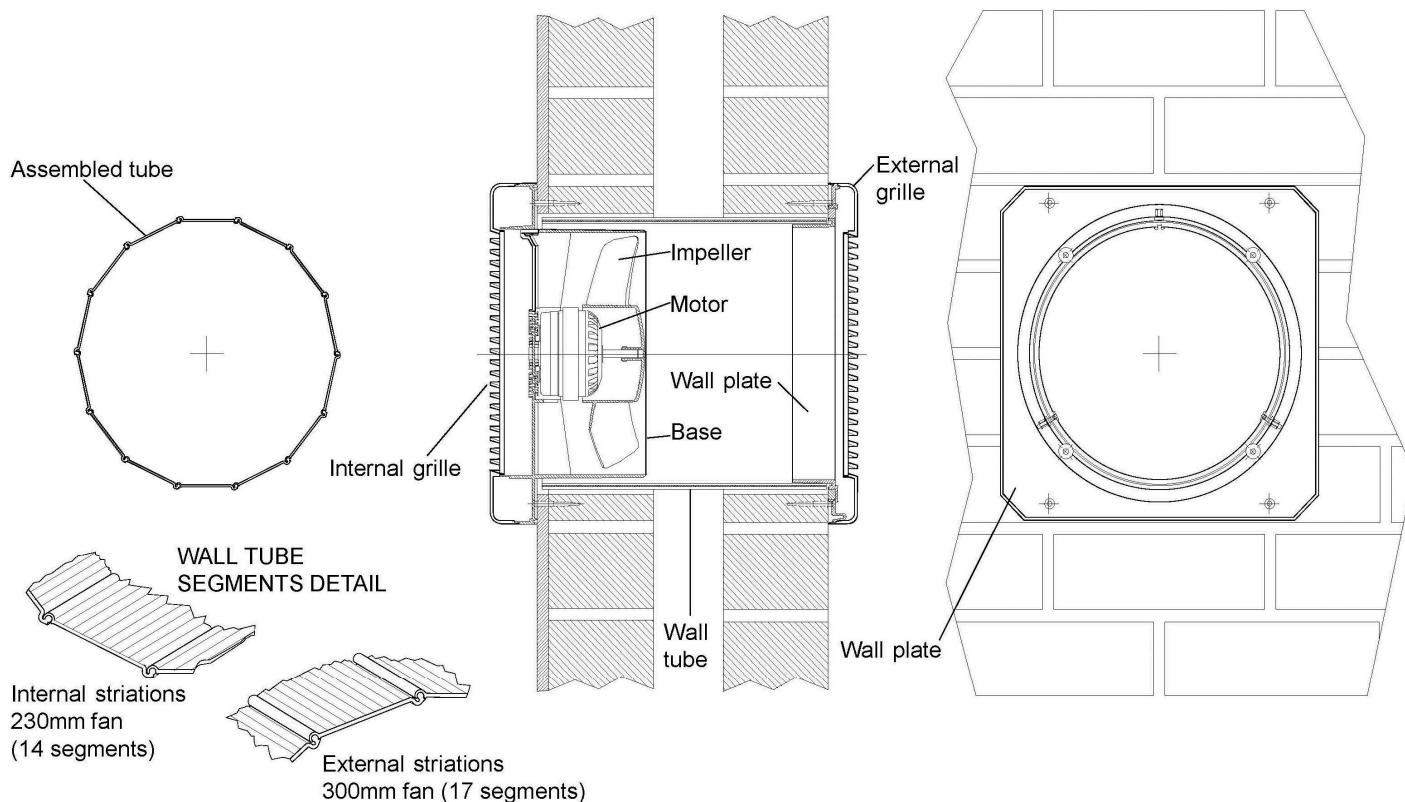
- (ii) Construct the wall tube by assembling the wall tube segments in the correct orientation as shown in Fig. 3. For the 230mm fan the segment striations are on the internal diameter of the assembled tube. For the 300mm fan the segment striations are on the external diameter of the assembled tube. For wall thicknesses less than 305mm, the wall tube segments will need to be cut to length before assembling the tube.
- (iii) If the tube needs to be cemented in, it may be necessary to construct formers to ensure the tube stays circular during the time that the cement sets.
- (iv) Unclip the grille from the wall plate by pressing down the two fixing clips with a suitable tool. (A new UK 50p coin is ideal for this purpose).
- (v) From outside, hold the wall plate against the wall locating the flange inside the wall tube. Mark the 4 positions holding the wall plate to the wall, drill, plug and screw the wall plate into position ensuring that the "this way up" arrow is pointing up.
- (vi) Clip the external grille in position by locating the recessed grille slots on the two arms at the top side of the motor body, rotating the grille and closing the clip fixings. The grille louvres should be pointing down.
- (vii) Unclip the grille from the motor body by pressing down the two fixing clips with a suitable tool.
- (viii) From inside, hold the motor body against the internal wall, locating the fan spigot/flange inside the wall tube. With the "this way up" arrow pointing up, mark the 4 screw hole positions that hold the motor body. Drill, plug and screw the motor body into position.
- (ix) After installation, **ensure that the impeller rotates freely.**
- (x) Connect the fan to the mains supply as outlined in the Wiring Instructions, Section 3.
- (xi) Fit the internal grille in position by locating the recessed grille slots on the two arms at the top side of the motor body, rotating the grille and closing the clip fixings. The grille louvres should be pointing upwards.

B. Panel Model

This model may be installed as a Panel installation by discarding the wall tube segments, the external grille and the wall plate. Install as in **A** above for the internal motor body and grille.



Fig. 3 WALL TUBE ASSEMBLY

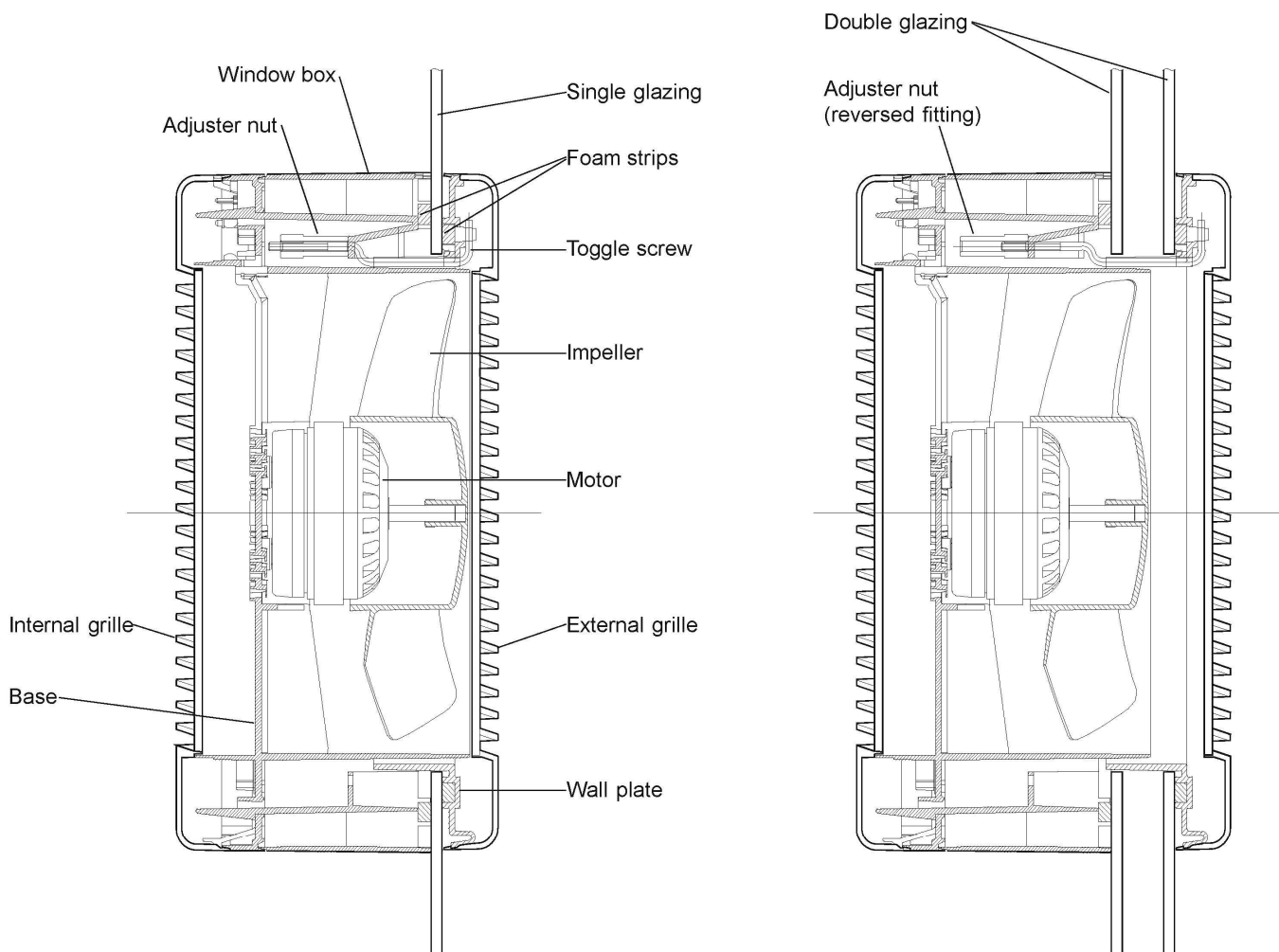


C. Window Model

This requires the wall model plus a window kit. Discard the segmented wall tube.

- (i) Cut a suitable sized hole in the glass, Fig. 2.
- (ii) Fix one strip of self-adhesive foam to the back of the wall plate using the circular groove provided and the other strip of self-adhesive foam to the rear of the window box. Note the positions of the "this way up" arrows on both wall plate and window box ensuring that the join in the foam strip is at the bottom of each component.
- (iii) Snap fit 2 window fasteners in position in the wall plate (3 for 300mm fan), Fig. 4. Position the fasteners through the glass and locate into the window box unit, Fig. 4. Fit the adjuster nuts. To cater for the wide range of glass thicknesses possible, it may be necessary to change the adjuster nut around, Fig. 4.
- (iv) Fit the last fastener in position and tighten up all adjuster nuts.
- (v) From the outside, fit the external grille. The grille louvres should be pointing down.
- (vi) From the inside, unclip the grille from the motor body and fit the motor body onto the window box. Locate motor body onto the two large clips on the window box and snap fit in position.
- (vii) After installation, **ensure that the impeller rotates freely.**
- (viii) Connect the fan to the mains supply as outlined in the Wiring Instructions, Section 3.
- (ix) Re-fit the internal grille. The grille louvres should be pointing upwards.

Fig. 4 WINDOW UNIT ASSEMBLY

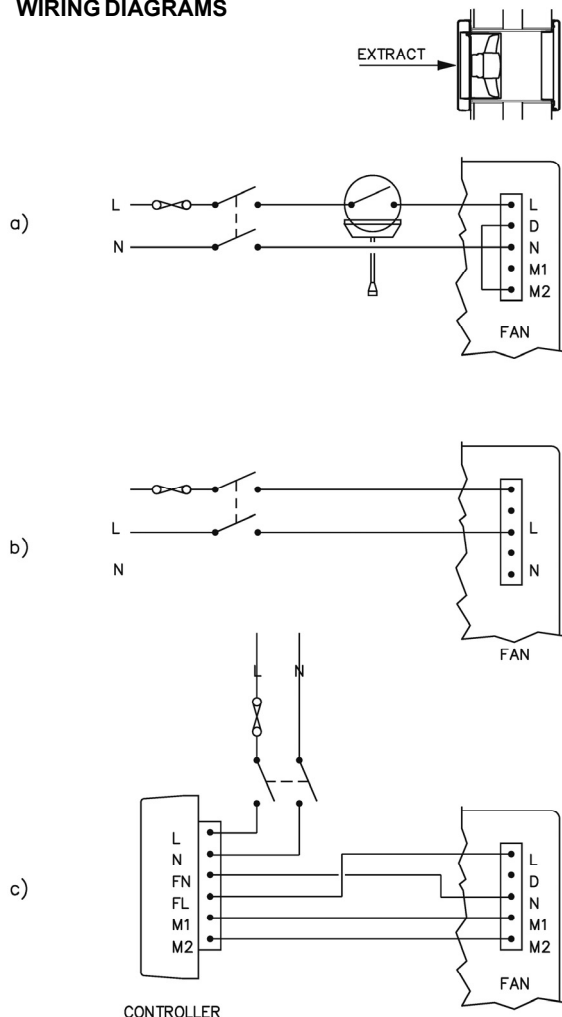


3. WIRING INSTRUCTIONS

WARNING: ENSURE THAT THE MAINS SUPPLY IS SWITCHED OFF BEFORE MAKING ELECTRICAL CONNECTIONS.

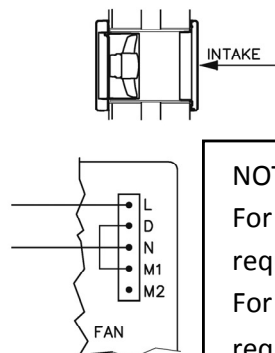
The extract fan is suitable for connection to 220-240V/1/50Hz supply. It is a class II double insulated product and **MUST NOT** be earthed.

Fig. 5 WIRING DIAGRAMS



There are two methods of cable entry to the fan. If the wiring is recessed, then use the rear knockout. If surface wiring is used, then the grommet should be pierced to permit entry from the top. A cable clamp is provided.

Electrical connections depend upon the type of fan being installed and the required mode of operation. After wiring is complete, replace the grille(s), turn on mains supply and check operation



NOTE:-

For "extract" a link wire is required between **D** and **M2**.
For "intake" a link wire is required between **D** and **M1**.

A. Basic Fan/Fan with Automatic Shutters

Single speed fan controlled by remote switch (e.g. light switch or auto-sensor), Fig. 5 a. In addition to the L & N cable entry connections, it is necessary to insert a link between **D** and **M2** for normal extract operation. If intake operation only is required, insert the link between **D** and **M1** instead.

B. Shuttered Fan with Pull-Cord Actuator

Single speed fan. Pullcord actuator used to open shutters and start fan. Repeat pullcord application to stop fan. No remote switching possible, Fig. 5 b.

C. External Fan Control

An external fan control is available as an additional accessory for on/off, 2 speed operation and intake/extract functions. It is suitable for use with the Basic Fan and Fan with Automatic Shutters. It is **not suitable** for use with pull-cord actuator fans. See Fig. 5 c.

4. CLEANING

Apart from removing odours the fan also extracts airborne impurities such as dirt, dust and grease. These gradually build up and detract from the efficiency and appearance of your fan. Therefore, to ensure peak performance of your fan it should be regularly cleaned by a competent person.

Dis-Assembly

IMPORTANT: SWITCH OFF AND ISOLATE FROM MAINS SUPPLY. KEEP ELECTRICAL COMPONENTS AWAY FROM WATER.

1. Remove the internal grille.
2. Disconnect the electrical connections from the terminal block, noting which wire goes in each position.
3. Remove the whole fan unit. See fitting instructions for guidance.

4. Grasp the impeller firmly and pull from the motor shaft.
5. The grille and impeller may be washed in warm water using a mild detergent.
6. Wipe the motor housing assembly and shutter blades (when fitted) with a damp cloth.

Re-Assembly

1. Press the impeller firmly back on to the motor shaft.
2. Refit the fan unit into position following the fitting instructions. **Ensure that the impeller rotates freely.**
3. Reconnect the electrical connections to the terminal block, ensuring that the wires are inserted into the correct positions.
4. Replace the grille(s).
5. Switch on mains supply and check fan operation.