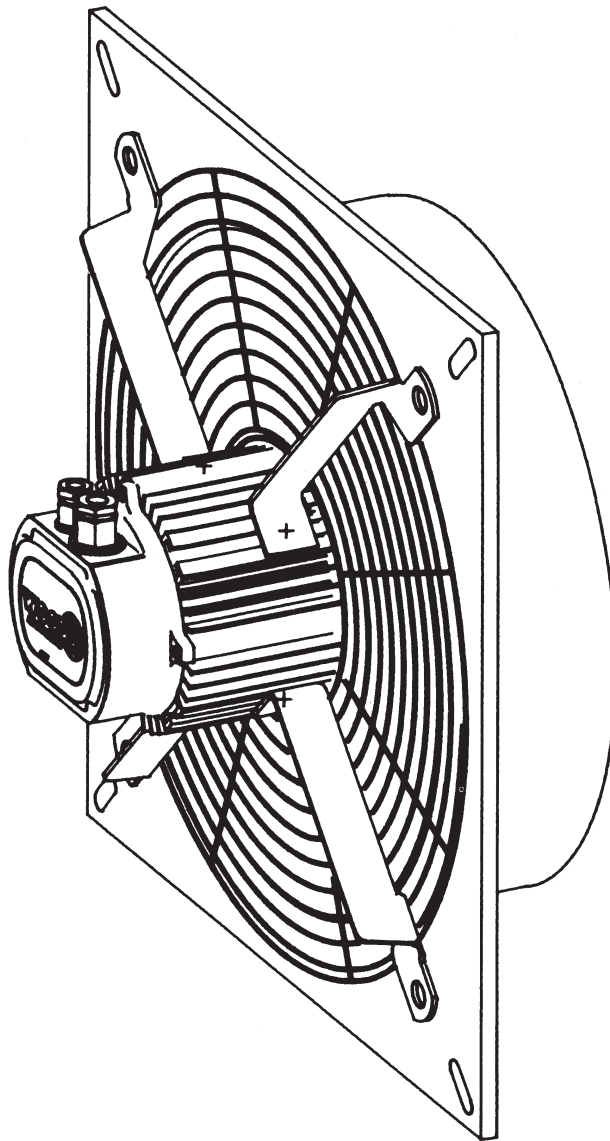




2102 Series Plate Mounted Fans



Safety, Installation and Maintenance Instructions



Installation Operation and Maintenance Instruction for 2102 Series Plate Mounted Fans

SAFETY

**This product contains rotating parts and electrical connections
which can be a danger and cause injury.**

1. Whatever the application, access from either side to the rotating parts must be prevented whilst the fan is operating. Guards are available for this purpose.
2. The fan must be earthed and no installation or maintenance work should be attempted without first switching off and isolating the fan and its controls from the electrical supply and allowing the rotating parts to come to rest.
3. The fan is intended for moving air and is not suitable for use in environments or for purposes other than those specified in these instructions. If used improperly, or for different purposes without the prior agreement of Woods Air Movement Limited or their agents, then such use would be outside the scope of reasonably foreseeable circumstances, and may be unsafe.
4. It is the responsibility of the users to satisfy themselves that the fan is suitable for the conditions of use, and that installation and regular maintenance is carried out by personnel with the appropriate skills and in accordance with these instructions.

INTRODUCTION

The series 2102 Range of plate mounted fans is designed to move air from one side of the mounting plate to the other against a resistance. It should not be used for any other purpose. Where indicated in the product literature, the flow may be varied by controlling the speed of the motor with a suitable speed regulator. The maximum ambient temperature in which an individual fan may be used is given on the nameplate.

Standard fans are suitable for handling air containing free moisture but with any air containing corrosive or flammable fumes or explosive mixtures, the installation should be treated with caution. Consult your local sales agent if in doubt with the application. It is the responsibility of users to satisfy themselves that the fan is suitable for the conditions of use, and that regular maintenance is carried out by personnel with the appropriate skills and in accordance with these instructions. Failure to comply with these instructions may invalidate the guarantee. Installers, users and maintainers are reminded of their duties under the UK Health & Safety at Work Act, the European Community Workplace Directives and other national legislation on safety.

STORAGE

The fans should be stored in a clean, dry location and cartons should not be stacked more than six high. When fans are retained in storage, access by un-authorized persons must be prevented with the use of guards, barriers or secure premises such that fan impellers which may be rotating do not present a hazard.

INSTALLATION

When you receive your fan, check to see if the size, speed and electrical supply details are as required. All fans are wired for Form 'A' running, the airflow direction being as shown on the Fan Construction illustration. To assist installation, a mounting template is supplied in the carton to allow the appropriate fixing holes to be positioned. The fan should be rigidly fixed to the mounting surface using four M8 bolts or No. 18 coach screws. Should this be uneven, it will be necessary to pack under the mounting frame to prevent any distortion to the bellmouth causing the impeller to foul.

The fan may be run with the shaft at any angle. The motor, as despatched, is protected to IP55, having sealed, spigot joints, gasketed terminal box lid, and face seal at the shaft end. Three drain plugs are provided, one in the terminal box lid, one in the tail end cover and one in the drive end cover. If the fan is to operate outdoors or in damp air, the motor must be converted to IPW54 level of protection by removing the plug/plugs. However, the orientation of the fan must be such that the drain hole(s) will provide drainage of condensed moisture.

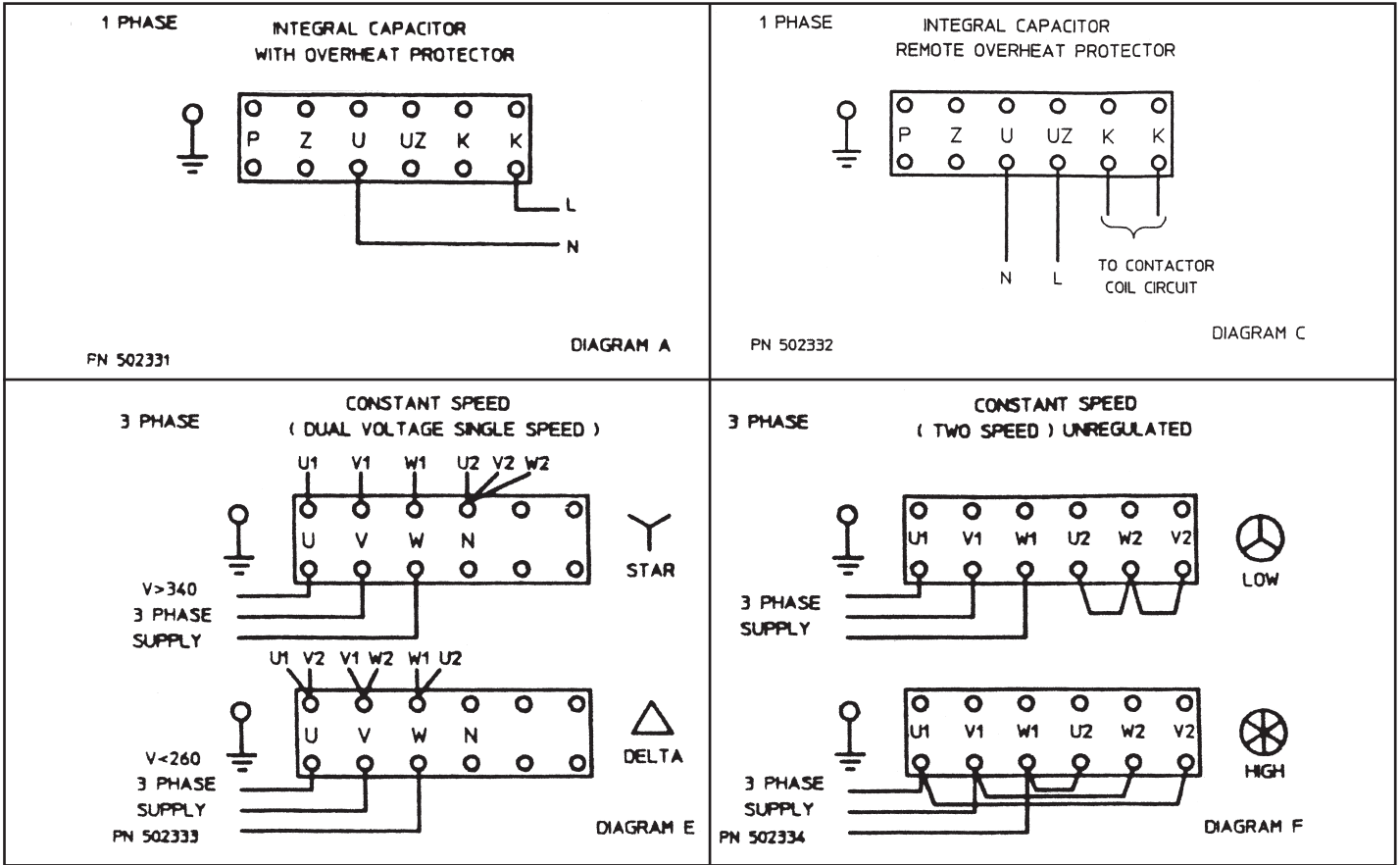
Note: If the drain plug in the drive end cover is to be removed, the impeller must first be removed from the shaft. Before operation, check impeller is free and rotation is correct. A directional arrow is moulded on the front face.

CUSTOMER WIRING INSTRUCTIONS

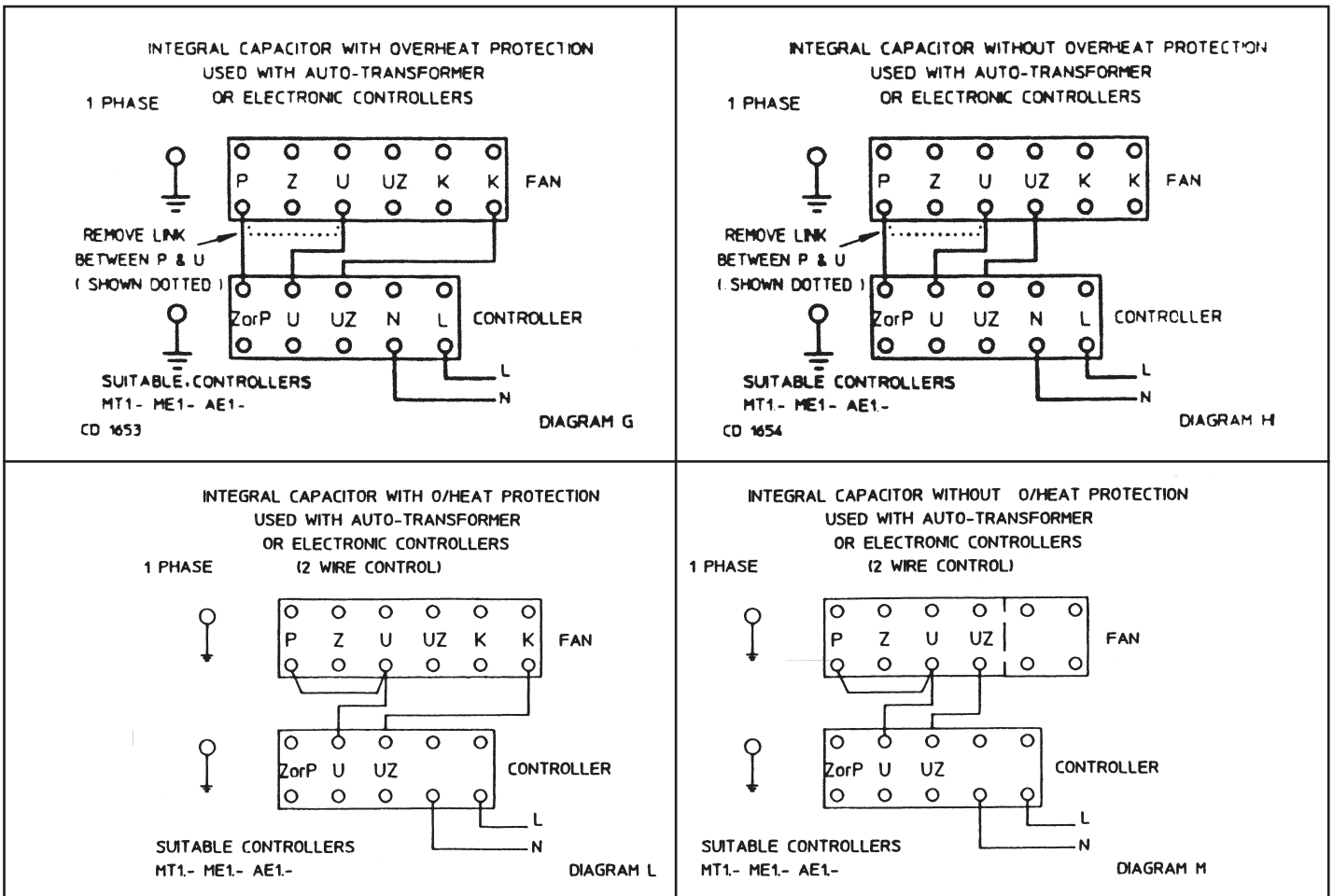
Connection Diagrams

Depending upon the requirements of fan operation and control, i.e. speed control, 2 speed etc. it may be necessary to select an alternative connection diagram for wiring up to the fan to that supplied in the fan terminal box. These will be indicated in the panel marked "connection" on the motor nameplate.

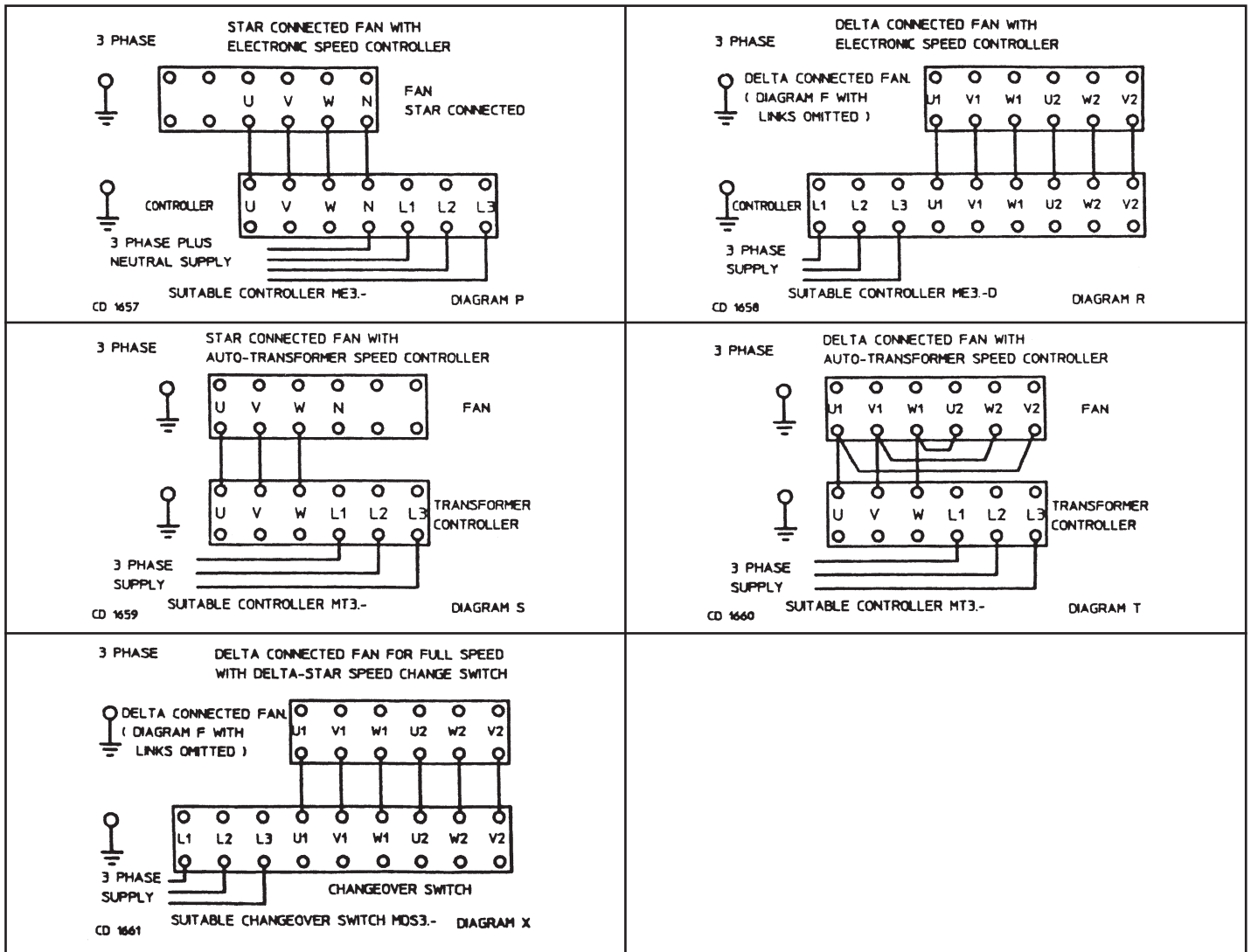
SINGLE SPEED FANS - SINGLE AND THREE PHASE



SPEED CONTROLLED FANS SINGLE PHASE



SPEED CONTROLLED FANS - THREE PHASE



ASSEMBLY OF 2102 FANS SUPPLIED IN KIT FORM

If required, the fan can be supplied for self assembly.
Method is as follows in conjunction with the pictorial sketches

- (A) Insert the 'T' bolts (1) into the carcass slots (2) from the terminal box end of the motor and slide along until they abut against the stops or in accordance with the reference dimension given on sketch (A).
- (B) Place the foot of the mounting arm (3) over the 'T' bolts locating the squared end of the arm against the carcass rail and secure with M8 plain washers (4) and M8 locking nuts (5), tighten to 11 Nm torque. Repeat for all four arms.
- (C) Fit the two halves of the split grommet (6) into the arm from either side and insert the flanged spacer (7) into the grommet from the terminal box end of the fan in accordance with sketch (C). Repeat for all four arms.
- (D) A standard flat motor side guard (8) if supplied, is positioned inside the arms and is retained by four spring clips (9) fitted 50 to 75mm from the guard rim. However, if a capacitor is supplied fixed to the motor and is over 50mm long, it is necessary to remove it and its bracket from the carcass and reposition it outside the guard by bolting the bracket to the holes provided in the nearest arm using the M4 x 12LG screws (10) Shakeproof washers (11) and nuts (12).
- (E) Bolt the fan to the wallplate (13) using the four M6 x 25LG screws (14) plain washers (15) and locking nuts (16), tighten to 9Nm torque.
- (F) Alternatively a shallow sided guard (17) can be supplied positioned outside the arms and retained by four plastic clips (18) snapped onto the guard rim and secured by the standard resilient mount fixings but with the addition of M6 plain washers (15) fitted on the clip lugs and under the locking nuts (16). Note: with this type of guard, all capacitors remain on the motor carcass.
- (G) Remove motor drain plugs (19) for drainage if required.
- (H) Fit impeller (20) to shaft with the hub shrouding the motor and ensuring the key (21) is correctly located. Retain with the heavy washer (22) and locking screw (23) tightened to 6Nm.

TOOLS REQUIRED FOR ASSEMBLY
Posi-drive screwdriver No. 2



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