

NUAIRE

Genie/tops

12v models & 230v models

Window mounting the unit using the optional kit (code: WINKIT)

Installation and Maintenance

NUAIRE

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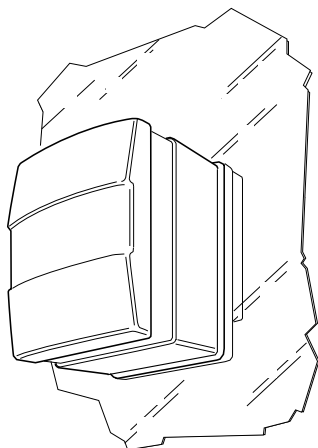


Fig. 1. General view.

WINKIT Parts checklist

The WINKIT contains the following parts. Make sure you have all the parts present before commencing installation.

1 off Outer Shutter frame assembly	011372 & 040547
1 off Outer gasket	540846
1 off Inner gasket	540845
3 off 5mm spacers	050149
3 off M4 x 12 Screws	680268
3 off M4 x 20 Screws	680087
3 off M4 x 30 Screws	680264
3 off M4 x 40 Screws	680265
Installation Instructions	670629

The window mounting kit is designed for mounting the unit into windows 4mm to 32mm thick using a 125mm dia hole.

Introduction

The Genie/TOPS range of toilet and bathroom units has been specifically designed to ventilate small rooms such as toilets, bathrooms, cloakrooms etc.

12v models have been designed to be installed within the 'splash zone' and therefore comply with the 16th edition IEE Wiring Regulations 'On Site Guide'.

Air entering the unit passes through a washable filter fitted to the front cover. Air is discharged through gravity shutters fitted to the 'outside' at a rate of 20 l/s.

Motor has sealed, self-lubricating bearings and 'Heatseeker' thermal overload protection.

The fan / motor assembly is retained by spring clips to simplify maintenance. Interchangeable plug-in electronic control modules have on/off as standard and can incorporate;

- Run - on timer,
- Humidistat,
- Continuous low duty with boost.

As a safety feature the fan / motor assembly is automatically disconnected when the electronic control module is removed. All models incorporate a LED run indicator.

12v models are supplied with a remote safety isolating transformer manufactured to BS 3535. This is mounted in a robust enclosure to prevent damage to the transformer and switched live circuit board. The cover is vented to provide effective heat distribution and prevent condensation.

WARNING:
WHEN INSTALLING GENIE UNITS FOR REMOTE SWITCHING IT IS IMPORTANT THAT THE PULL CORD (IF FITTED) IS REMOVED. IT IS RECOMMENDED THAT THE UNIT IS SWITCHED OFF (BY THE PULLCORD) BEFORE ITS REMOVAL. CUT THE PULLCORD INSIDE THE UNIT CASE A LITTLE WAY BELOW THE CONTROL MODULE.

Installation

(To be carried out by qualified personnel only)
ISOLATE THE ELECTRICAL SUPPLY BY SWITCHING OFF AT MAINS AND REMOVING FUSES.

1. Remove cover/grille assembly by depressing the top & bottom retaining tabs. (Fig. 2)

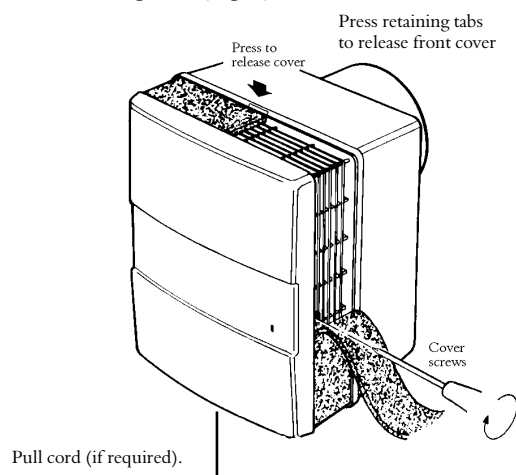
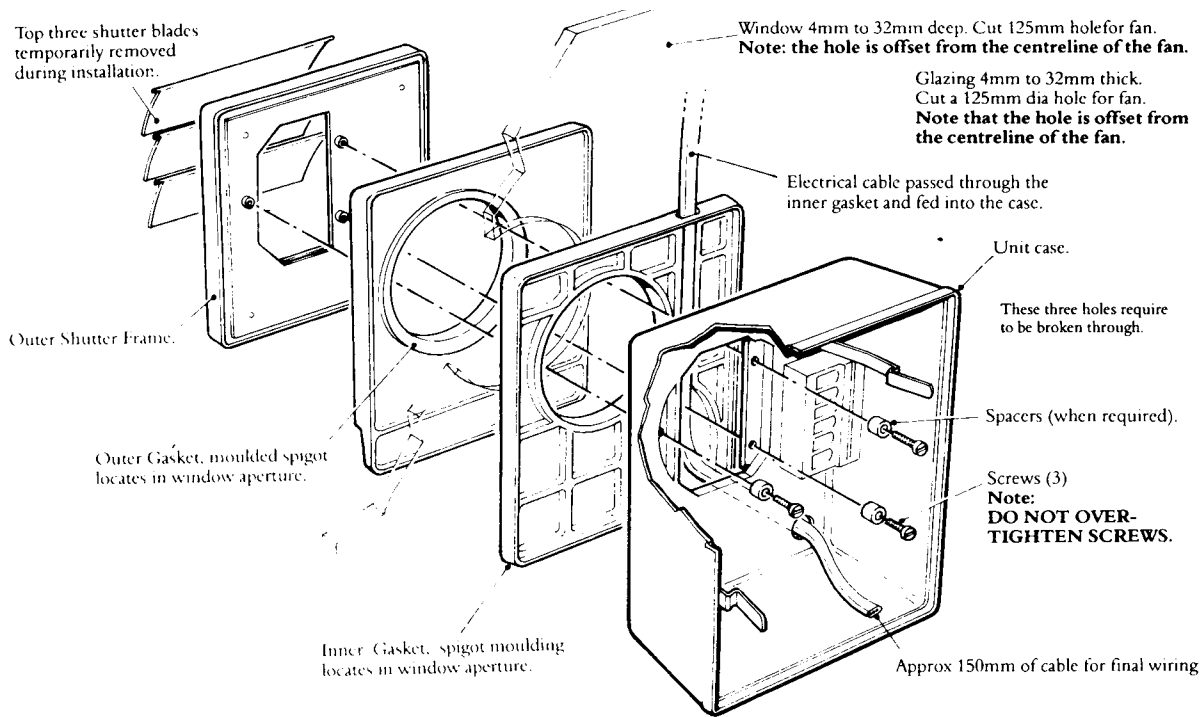


Fig. 2. Removing the front cover (filter shown installed).

2. Remove the plug in electronic control module (Fig.4)
3. Remove the fan / motor assembly by pulling aside the two spring clips (Fig.4).
4. Remove spigot and backdraught shutter and discard.
5. Break through the three holes in the base.

Continued over-



6. Cut a hole 125mm dia in the glass. This is best done by a qualified glazier or, alternatively, measure your window and replace with a new piece of glass incorporating a pre-cut hole from a glass merchant (Fig. 3).
7. The outer assembly consists of a four-bladed outlet shutter complete with clamping plate and an outer rubber gasket moulding. The gasket incorporates a moulded spigot which is designed to locate inside the 125mm dia hole in the glass. Pop-out the top three plastic shutter blades from the frame and retain for replacement later. Position the assembly on the outside of the glass. If only one person is installing the fan it may be helpful to tape the assembly to the outside glass at this stage during installation. NB: The unit is designed for installation by one person working from inside the room via an adjacent opening window pane. All fixings and assembly are completed from inside.
8. Working from inside the room with the inner gasket and unit casing. Run suitable cable through the inner gasket. (Holes are provided top and bottom). Feed the cable through the access hole in the back of the case. Allow approximately 150mm of cable to protrude into the case. (See Fig.3). Position this inner gasket and case assembly over the hole in the glass and locate the inner gasket moulded spigot in the aperture.
9. Select appropriate screws and spacers. (Fig. 3). NB: there are four sets of screws and three spacers supplied with the unit for mounting into different thicknesses of glass, see table below.

Table 1 Glass /Screw selection

Window thickness	Screw size
4mm - 6mm	M4 x 12
7mm - 11mm	M4 x 20
12mm - 16mm	M4 x 30 + spacer
17mm - 21mm	M4 x 30
22mm - 26mm	M4 x 40 + spacer
27mm - 32mm	M4 x 40

NOTE: The above table is for guidance only. Should the screws foul on the back of the shutters during installation they will need to be replaced by the next size down.

10. Using the three screws (and spacers fitting under the screw heads if required) locating with the threaded inserts in the outer assembly, draw the inner and outer assemblies together. Remove any tape supporting the outer assembly and continue to draw the units together until the rubber gaskets positively locate the unit on the window.

NOTE:
DO NOT OVERTIGHTEN THE FIXING SCREWS AS THIS MAY DISTORT THE ASSEMBLY.
- Replace the shutters in the outer frame assembly.
11. Wire unit in accordance with the appropriate wiring diagram. A cable clamp is provided inside the case. (Note: 12V units require different cable sizes for long cable runs (see Table 2. Wiring Sizes).
12. Fit the fan assembly to the case, securing it with the two spring clips. Install the electronic control module ensuring that it is fully engaged in the internal socket. If the pull-cord option is required it should be fed through the hole in the impeller housing before sliding the control module into place, see Fig. 5. (If the pull-cord option is not required the cord must be removed, see warning note on page 1).

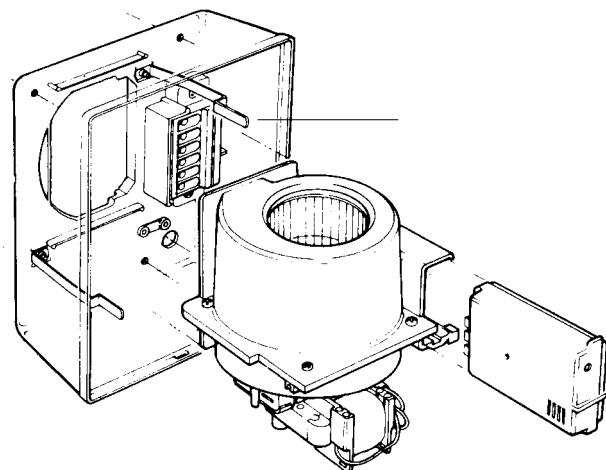


Fig. 4. Electronic control module and Fan/Motor assembly

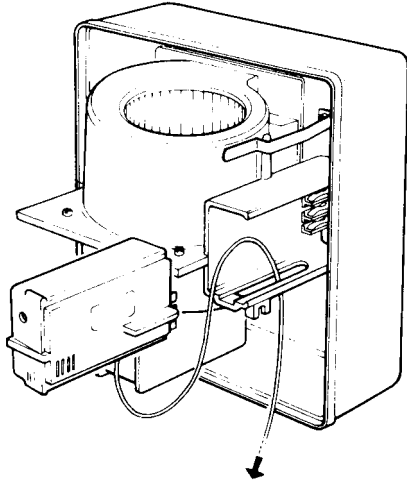


Fig. 5. Feeding the pullcord through the housing.

- Replace the front cover using two screws previously removed. Ensure pull cord (if fitted) passes through the slot in base. (Fig. 2 and Fig 5). Fit the filter which is a push fit between the front cover and body of the unit.

- Test run the unit noting that if a timer / humidistat option is fitted, the unit may run-on for the duration of the control sequence when power is initially switched on.

NOTE on 12V MODELS

It is important to note that the size of wire used between the transformer and the fan unit can have an adverse effect on the units performance. See table 2 below.

Table 2 Wiring Sizes

Mains Supply: (240v).....	0.5mm sq.
TRANSFORMER TO FAN	
Cable run (max. 10 metres)	Cable size
Up to 2 m.....	0.75mm sq.
Up to 4 m.....	1.00mm sq.
Up to 6 m.....	1.50mm sq.
Up to 10 m.....	2.50mm sq.

DIMENSIONS

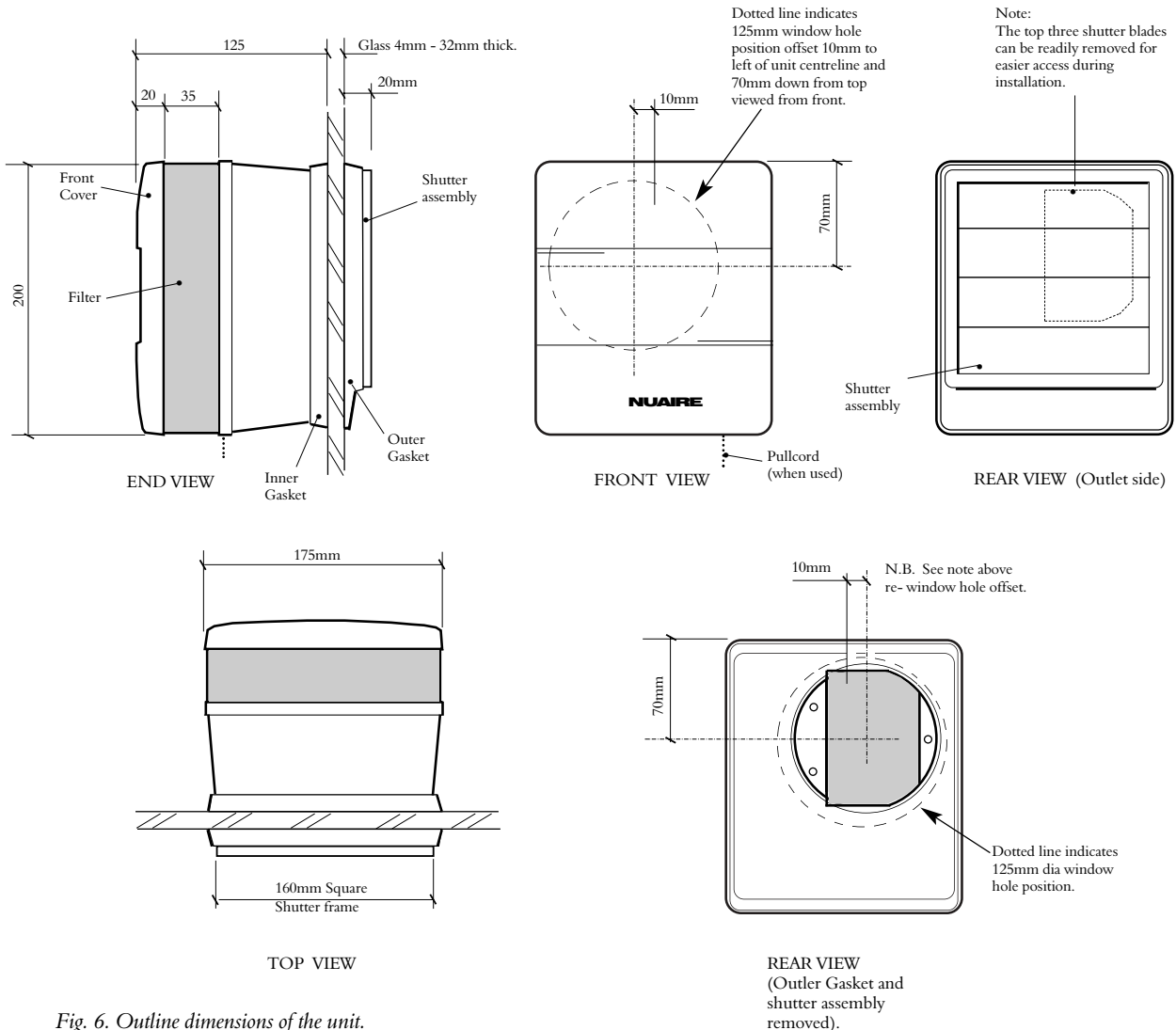
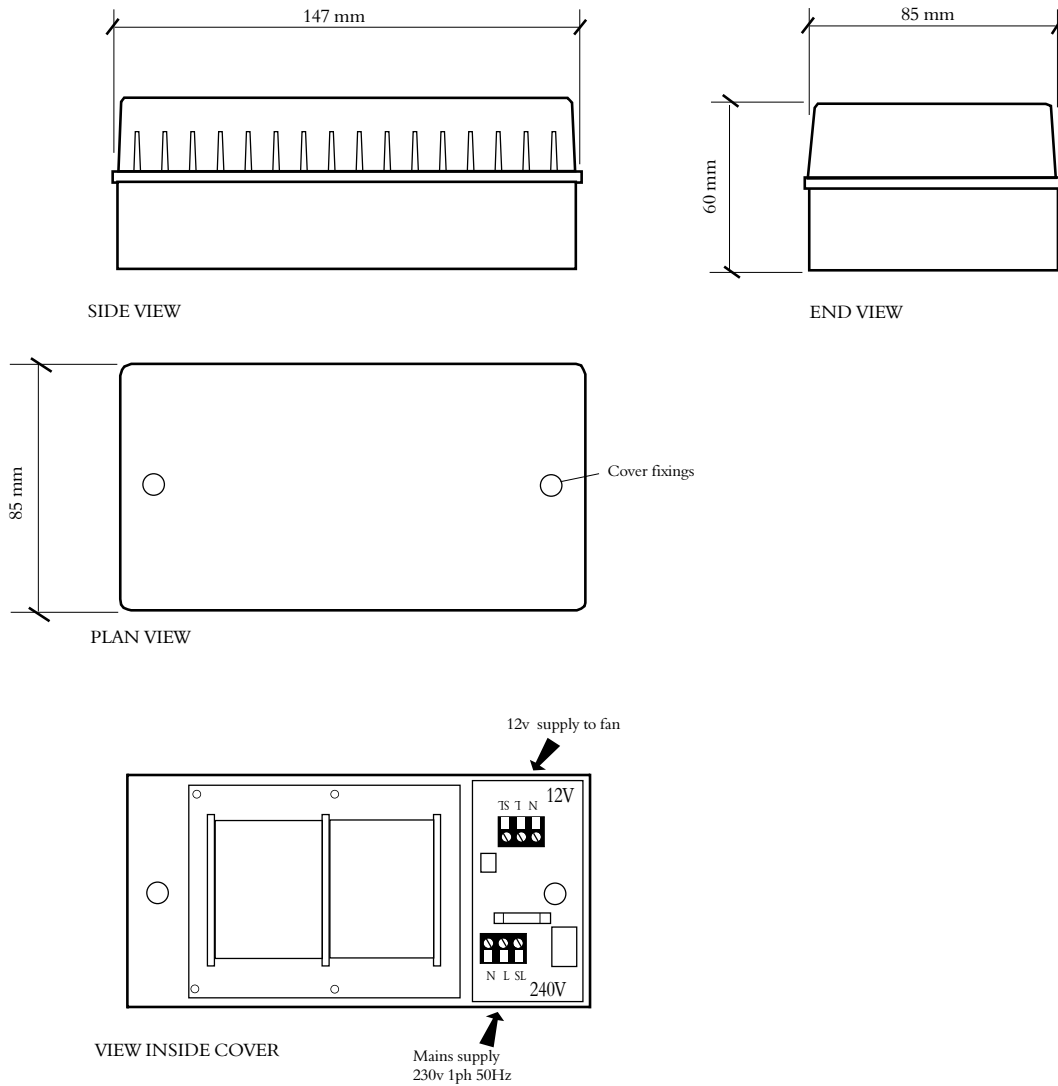


Fig.7
12v Transformer
dimension details.



Installation of Transformer enclosure (12 Volt units only)

The enclosure containing the transformer is intended to be mounted out of sight (e.g. in a loft, cupboard, under floorboards etc.). However, if this is not possible the transformer enclosure should be mounted as close to the ceiling, or as far from the "splash zone" as possible (see below for definition of the splash zone). As can be seen from the table of wiring sizes on page 3, it is advisable to place the enclosure as close to the fan as possible to reduce the costs of wiring and assist in installation.

'SPLASH ZONE'

The 'Splash Zone' can be considered to be an area within a bathroom or shower room where a person using the bath or shower can effectively reach. An arms reach is defined as 0.6 metres from the edge of the bath or shower up to a height of 2.25 metres.

Procedure

1. Remove two screws securing the cover and remove the cover.
2. Position the base enclosure on mounting surface and route cables through knockouts. Mark the fixing points on the mounting surface and secure using suitable fixings (by others).
3. Connect wiring as shown.
4. Replace cover.
KEEP VENTS CLEAR OF OBSTRUCTION.

ADJUSTMENT

Run - on Timer and Humidistat humidity set point

Run - on timer

When installing a unit with run-on timer the adjuster should initially be turned fully anti-clockwise. (This equates to approx. 5 mins. run-on).

Isolate unit from supply, and remove front cover.

Locate the electronic control module situated to the right of the fan/motor assembly. Using small screw driver, turn the adjuster to the fully anti-clockwise position.

Adjustment to the timer can subsequently be made to suit individual preferences.

Turn timer clockwise to increase run on time - max run on is 30 mins.

Humidistat.

By adjusting the humidity set point it is possible to alter the humidity level at which the fan operates. NOTE: The adjustment is set to maximum at the factory prior to delivery.

Isolate the unit from the supply and remove the front cover, locate the electronic control module situated to the right of the fan/motor assembly (fig.8). Use a small screwdriver to turn the adjuster (clockwise to sense a higher humidity level or anti-clockwise a lower level).

When initially running a Genie/TOPS with humidistat option, the humidity control will be adjusted to maximum (fully clockwise). Start the fan and after approx. 30 minutes the fan will switch off. Adjust the humidity set point downward (by turning the control anti-clockwise) until the desired level is achieved. The fan will 'cut in' when the humidity level in the room is reached.

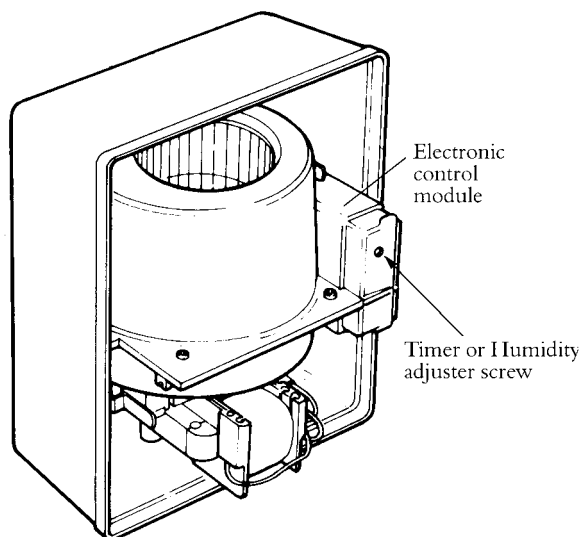


Fig. 8. Internal view of unit.

MAINTENANCE

(General notes for the 'End User' / Maintenance Engineer).

General

A washable filter is fitted to protect the fan/motor assembly from towel lint, talc etc. and to prolong the life of the unit. However, some fine dust may find its way through the filter and, if allowed, will build up on the motor and/or impeller. It is therefore strongly recommended that all units are inspected and cleaned every six months.

Isolation

WHEN CARRYING OUT ANY WORK ON THE UNIT IT IS ESSENTIAL TO ISOLATE IT FROM MAINS SUPPLY.

Procedure

At all times take care not to damage, distort or disturb the balance of the impellers.

Remove the filter and front cover as previously described.

Remove the electronic control module.

Spring aside the two clips and remove the fan module.

Visually inspect all parts, replace any damaged items.

Using a soft brush or dry cloth remove any dust and dirt from the fan module. Stubborn dirt may be removed by careful use of a soft scraper.

Wash front cover in warm soapy water and dry thoroughly.

Re-fit fan and electronic control module, replace the front cover and secure with the two screws.

Wash the filter in tepid water to which a little mild detergent has been added. Shake out excess water and allow the filter to dry naturally.

Replace the filter.

Test run the unit.

Coding 230 VOLT Models

GENIE/TOPS

ON / OFF control, operated by pull cord or alternatively by remote switch* (lightswitch or similar).

GENIE/TOPS S

With integral run-on timer, operated by remote switch* only.

GENIE/TOPS H

With integral humidistat, over ridden by pullcord or remote switch*

GENIE/TOPS X

Continuous low duty with boost facility operated by pull cord or remote switch*

* Remote switch by others.

Coding 12 VOLT models

GENIE/TOPS 12

ON / OFF control, operated by pull cord or alternatively by remote switch* (lightswitch or similar),

GENIE/TOPS S 12

With integral run-on timer, operated by remote switch* only.

GENIE/TOPS H 12

With integral humidistat, over ridden by pull cord or remote switch*

GENIE/TOPS X 12

Continuous low duty with boost facility operated by remote switch only.*

* Remote switch by others.

SERVICE

As a manufacturer NuAire provides you with factory trained Service Engineers.

Our Engineers are supported by a comprehensive range of spare parts 'off the shelf'.

If you are an industrial or commercial user, you may be interested in details of NuAire's regular maintenance Service Contracts. This is a worthwhile service that helps you get the most from our products.

Our Service Department will be happy to give you more information.

Please telephone: 029 2085 8585

SPARES

GENIE/TOPS 230v Fans

ITEM	PART No.
Internal fan assembly	770976
Front Cover / grille / filter assembly	770977
Mounting Bracket assembly	770982
Inner / Outer Gasket assembly	771321
Basic on / off Module	770978
Run on Ttimer Module	770979
Humidistat Module	770980
Two Speed Module	770981
Humidistat Two Speed Module	771139
Replacement Foam Filter	130070

GENIE/TOPS 12v Fans

ITEM	PART No.
Internal fan assembly	771280
Front Cover / grille / filter assembly	770977
Mounting Bracket assembly	770982
Inner / Outer Gasket assembly	771321
Transformer Box assembly	771279
Basic on / off Module	771238
Run on Timer Module	771239
Humidistat Module	771240
Two Speed Module	771241
Humidistat Two Speed Module	771242
Replacement Foam Filter	130070

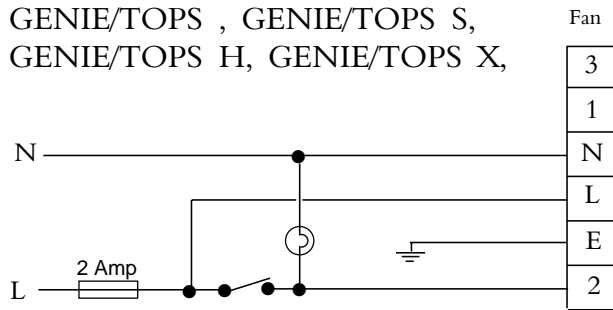
GENIE/TOPS fans

Optional Window installation kit

Code ref: WINKIT

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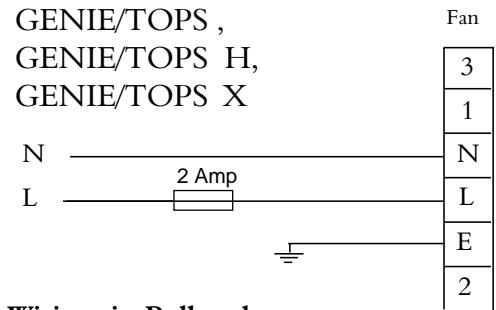
WIRING DIAGRAMS (230 Volt units)



Wiring via. Remote Switch

Power Consumption:

Unit input power (watts) 23.0
 Full load current (amps) 0.170
 Starting Current (amps) 0.215

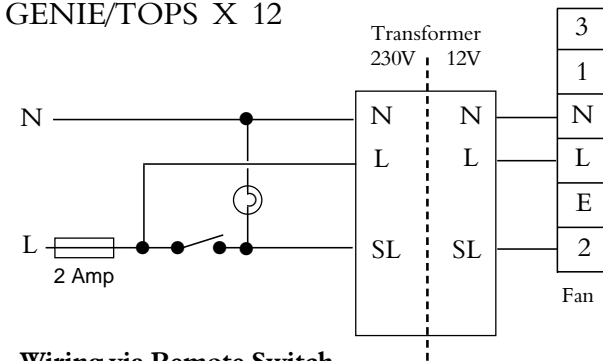


Wiring via. Pullcord

WIRING DIAGRAMS (12 Volt units)

Note: DO NOT make an earth connection between the transformer and the Fan unit

GENIE/TOPS S 12,
GENIE/TOPS H 12,
GENIE/TOPS X 12



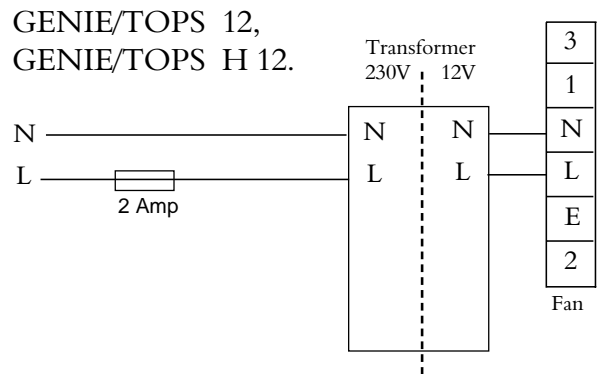
Wiring via Remote Switch

Power Consumption:

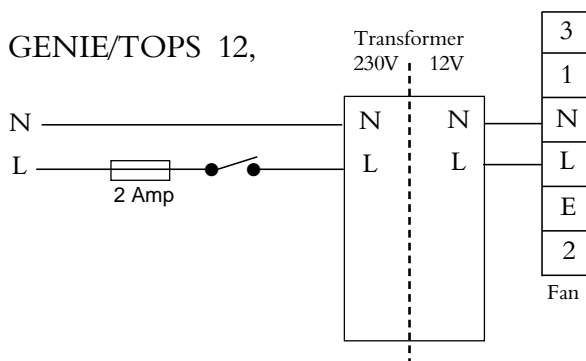
Unit input power (watts) 4.2
 Full load current (amps) 3.5
 Starting Current (amps) 3.6

Transformer input power:

Input power (watts) 67.0
 Full load current (amps) 0.28
 Starting Current (amps) 0.29



Wiring via Pullcord



Wiring via Remote Switch

It is important to note that the size of wire used between the transformer and the fan unit can have an adverse effect on the units performance if the following table is not adhered to.

Mains Supply: (230v).....0.5mm sq.

TRANSFORMER TO FAN

Cable run (max. 10 metres)	Cable size
Up to 2 m.....	0.75mm sq.
Up to 4 m.....	1.00mm sq.
Up to 6 m.....	1.50mm sq.
Up to 10 m.....	2.50mm sq.

Service

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Telephone: 029 2085 8585

Controls Application Service (CAS)

A team of Engineers and technicians is available to provide pre and post order support.

We are on hand to provide help and advice from the most basic use of any NuAire equipment to the more complex applications, maximising on the versatility of our control products.

Telephone: 029 2085 8585

Facsimile: 029 2085 8586

3 Year Warranty

The three year warranty starts from the date of delivery and includes parts and labour for the first year.

The labour element is subject to full, free and safe access to the equipment as recommended by the CDM regulations.

The remaining two years covers replacement parts only.

NOTE:

Installation & Maintenance of the equipment must be as directed in the instructions provided with the unit.

NB

If you have any comments or queries on any of our products or services please write to the Product Information Manager at the main address opposite

NUAIRE

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Technical or commercial considerations may, from time to time, make it necessary to alter the design, performance and dimensions of equipment and the right is reserved to make such changes without prior notice.

Leaflet No. 670629