

# INSTALLATION INSTRUCTIONS FOR THE 12 VOLT RANGE OF FANS AND TRANSFORMERS

**N.B. Pullcord models not suitable for ceiling mounting.**

## FAN INSTALLATION

Fans can be window, wall or ceiling mounted and are available in three diameters 100mm (4") 120mm (5") 150mm (6").

All fans are of the standard type but are manufactured with 12V ~ 50 Hz shaded pole motors. The unique feature of this product is that the control gear and switching mechanism is mounted remotely either in the roof space or high on the wall next to the pullcord light switch. Obviously Pullcord, Humidistat, PIR and Photoelectric versions have to be mounted inside the room where the fan is installed but must be mounted out of reach of the person using the bath or shower.

FAN	TRANSFORMER
100mm	T12 RANGE
120mm	T12 RANGE
150mm	LT12 RANGE

**CAUTION** These fans must **NOT** be connected to a mains supply. Only use the Manrose Type T12 / LT12 range of 12V Safety isolating transformers.

For best results the extractor fan should be fitted as high on the wall as possible or if preferred on the ceiling.

**SLV 100mm (4") 1.A.** Cut a 112mm (4 $\frac{1}{2}$ " ) min diameter hole in the wall. If the fan is to be fixed in the ceiling ensure that the hole is between the joists. N.B. Fan to be fitted minimum 1.8 metres from floor.

**SLV 120mm (5") 1.B.** As above but cut a 140mm (5  $\frac{1}{2}$ " ) diameter hole.

**SLV 150mm (6") 1.C.** As above but cut a 173mm (6  $\frac{3}{4}$ " ) diameter hole.

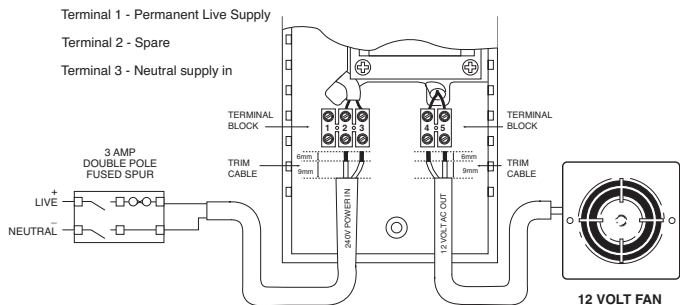
- Fit 100mm (4") (internal diameter) ducting flush to the plaster.
- Remove the cover from the fan by removing the two small screw caps on the front cover and remove the two retaining Philips screws.
- Hold the body of the fan against the wall or ceiling and mark the four screw holes and the cable entry.  
**IMPORTANT:** Ensure that the fan is square on wall or ceiling.
- Bring power cable into position, as marked. Allow an extra 230mm (9") protruding to facilitate connection.
- Connect the cable from the fan to the transformer which must be fitted at least 2m away from a fixed bath or shower cubicle.

Supplied by a remote safety isolating transformer. After checking that all wiring is secure, fit the transformer on the pattress.

## WIRING INSTRUCTIONS No. T1

- T1** i) Fit the pattress to the wall and connect the 240V ~ 50 Hz supply to terminals No.2 and No. 3 as shown in diagram T1 below.
- ii) The cable to the fan must be at least 1.5mm<sup>2</sup> in section and is connected to terminals No. 4 and No. 5, as shown in diagram T1 below.

**Diagram T1. Rear of Transformer with Pattress removed.**

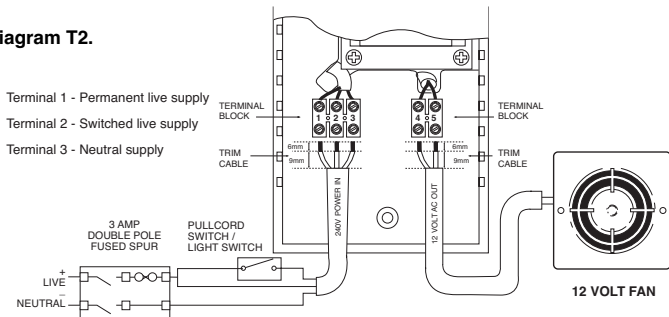


## WIRING INSTRUCTIONS No. T2

Timer or humidity unit which is operated by a remote pullcord switch or light switch.

Transformer Type T12T

**Diagram T2.**



## TRANSFORMER INSTALLATION

The T12 Series, Safety Extra Low Voltage Transformers can be mounted in the loft area (not Pullcord, Humidistat, PIR or Photoelectric Models) or high on the wall or ceiling next to the pullcord light switch away from the bath or shower and designed to power 12V Low Voltage fans installed in the splash area of the bath or shower.

**N.B. Pullcord models not suitable for ceiling mounting.**

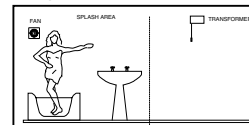
Eight models in the range.

Comes complete with pattress but can be flush wall mounted. (Protrusion 25mm). All models fitted with neon light.

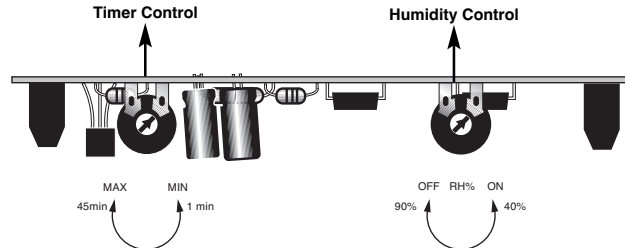
TYPE	WIRING DIAGRAM	INSTALLATION
T12S LT12S	T1	Standard model for remote switching.
T12P LT12P	T1	As above supplied with pullcord switch. Not suitable for ceiling mounting.
T12T LT12T	T2	Timer model incorporating integral adjustable electronic timer (adjustable 1-20 mins). For remote switching.
T12TP LT12TP	T1	As above but with pullcord override switch. Requires no switched live. Not suitable for ceiling mounting.
T12H LT12H	T2	Humidity control with built-in humidity sensor which will switch on when the humidity rises over 75% RH and will switch off as the humidity drops below 75% RH. This level can be adjusted between 50% - 90% RH.
T12HP LT12HP	T1	As above but with Pullcord override switch. Not suitable for ceiling mounting.
T12PIR LT12PIR	T1	PIR activated model with adjustable timer which switches on as a person enters the room and runs on after the room is vacated, there is no need to connect to a separate switch. Timer adjustable between 1-20 mins. Requires no switched live.

**CAUTION** While a 12V fan may be fitted anywhere in the splash area of a bath or shower the transformer **MUST** be mounted at least 2m from a bath or shower and as high on the wall as possible as in diagram L1.

**Diagram L1**



**Diagram L2**



After checking that all wiring is secure, fit the transformer on the pattress.

## Special features - Diagram L2

**T12 T** As the transformer has a timer fitted the time delay can be adjusted by turning the adjuster on the front cover to the required time delay, as indicated.

**T12 H** As the transformer is fitted with an internal electronic humidity sensor and time delay, these can be adjusted on the front cover to the required settings.

### Ideal settings are:-

Timer set to about 10mins

Humidity set to about 75% to 80% R.h.

In new buildings the fan will probably run for prolonged periods or even several days. It may be necessary to increase humidity setting to about 90% until the building has dried out.

## ELECTRICAL INSTALLATION

All wiring must be fixed securely and the cable to the fan should be a minimum of 1.5mm<sup>2</sup> in section. All wiring must comply with current I.E.E. Regulations.

A double pole fused spur having a contact separation of at least 3mm in all poles must be used and fitted with a 3 amp fuse, and must be sited outside any room containing a shower or fixed bath. Must be mounted out of reach of the person using the bath or shower. These appliances are double insulated and do not require an earth.

## IMPORTANT

**Switch off mains supply before making any electrical connections. Installation must be supervised by a qualified electrician.**

**This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.**

**Children should be supervised to ensure that they do not play with the appliance.**

**Precautions must be taken to avoid the back-flow of gases into the room from the open flue of gas or other open-fire appliances when mounted in outside windows or walls.**

**Fan must be disconnected from electrical power before any maintenance is carried out.**

