



MEC



MEDICAL LIMITED

Purair 750

*Fully Automatic Maternity Scavenging System
For Self-Administered Analgesia*

Operators Manual

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Document Reference IL750000 R313

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Read the Manual



INTRODUCTION

Once installed the Purair 750 Maternity System becomes a fully automatic Active Anaesthetic Gas Scavenging System for self-administered analgesia, which provides medical staff with a cleaner, healthier working environment, with full attention being given to patient safety.

Two versions are available:

1. For use in a normal delivery suite
2. For use with a Birthing Pool

They differ slightly in design and installation using the same components the Birthing Pool version only has low voltage connection within the trunking to provide a safe user environment.

Product Improvement

MEC Medical Ltd. has a policy of continued product improvement and therefore reserves the right to make changes which may affect the information contained in the manual without giving prior notice.

Responsibilities of the User

The Purair 750 conforms to the specifications and operating procedures described in this manual and any accompanying notices and labels only if it has been installed, used, and maintained in accordance with the instructions. MEC Medical can only guarantee the safe function of the machine if it is regularly checked and serviced at or above the standards specified in this manual.

If you suspect that any component of the machine is worn, defective or otherwise unfit for use, do not use the machine under any circumstances.

Replace any broken, worn or contaminated component(s) immediately. Contact the MEC Medical distributor from whom the machine was obtained for further service.

Responsibilities of the Manufacturer

The manufacturer accepts responsibility for the effects on safety, reliability, and performance of the equipment only if assembly operations, extensions, adjustments, modifications, and repairs are carried out by persons with written authorization from the manufacturer, and the equipment is used in accordance with the instructions for use and the electrical installation of the relevant room complies with the 'Regulations for the Electrical Equipment of Buildings'.

If during the warranty period the equipment is serviced by an unauthorized party, the warranty will be void.

Note to Service Personnel

The Purair 750 must only be serviced by Qualified Service Personnel.

The contents of this manual are not binding. If any significant difference is found between the product and this manual please contact MEC Medical Ltd. for further information.









To ensure correct functioning, the equipment must be serviced at regular intervals.

MEC Medical Ltd. recommends that the machine should be serviced at intervals not exceeding one year.

Qualified Service Personnel and genuine spare parts should be used for all servicing and repairs. MEC Medical Ltd. will not otherwise assume responsibility for the materials used, the work performed or any possible consequences of the same.






















In communication with MEC Medical Ltd., quote the model and serial number of the equipment, with the approximate date of purchase. If the unit is being returned for repair, indicate the nature of the fault or the work you require to be carried out.

General Cautions and Warnings

-  The user *must* be familiar with the machine and its various functions before using it on a patient.
-  Incorrect use of the equipment described herein may result in injury to the patient. Read this manual before operating the machine. You must be familiar with the machine and its functions before using it on a patient.
-  Keep this manual with the system to refer to and to answer any questions that arise about the system's operation, maintenance or, if necessary, repair.
-  The PA750 is latex free, note that any replacement parts must not use latex.
-  Warning HAZARDS can result from unauthorized modification of this ME EQUIPMENT
-  WARNING: To avoid the risk of electric shock, this equipment must only be connected to a supply mains with protective earth.
-  Warning: A potential for electromagnetic or other interference between this EQUIPMENT and other devices
-  This ME Equipment is rated to over voltage category I according to IEC 60664-1

Symbols Used in this Manual

Symbols replace words on the equipment, on the Equipment Labels or in this manual.

	CAUTION: There is a potential hazard to the equipment			Exhaust
	IEC symbol for denoting type B applied part			Latex free material is used
	WARNING: There is danger of personal injury to the user or patient			Dangerous voltage
	Further relevant or helpful information			No AC power supply
	Turning the control in the direction of the thickening line causes an increase in that parameter			Internal power supply
	Power off			Under voltage power supply
	Power on			Fuse
	IEC symbol for alternating current			Read from the top of the bobbin
	Pipeline gas supply			Gas inlet
	Cylinder gas supply			Gas outlet
	Confers approval under the European Medical Device Directive and the notified body number			

Warning Notices:



Warning notices denote a potential hazard to the health and safety of users and/or patients. These notices clearly state the nature of the respective hazard and the means by which it can be avoided.

Caution Notices:



Cautionary notices denote a potential hazard to the physical integrity of equipment/software but NOT a danger to personnel. These notices clearly state the nature of the hazard and the means by which it can be avoided.

Relevant or helpful:



Relevant or helpful notices denote additional or useful information for operation or maintenance of the system.

CHECK LIST

Description Part N°	Qty	
Trunking System-Complete	750000	1
Motor Assembly	750005	1
Exit Vent Assembly	750017	1
OR		
90° Vent Assembly	750045	1
68mm PVC Pipe (Black)	750035	12 metres
Tangit Glue 131700GLUE	1 per 4	
Disposable Drain Trap Hose Assy	750048	1
Pipe Fixing Kit	750017P	1
(4 x reducers, 10 x Fixing Brackets, 1 x 90° Bend)		



Switch and Flow Indicator Detail

PA 750 Birthing Pool Variant

The Birthing Pool variant is similar in appearance and performance to the standard unit, but the front panel mains switch is removed and replaced with a "PULL CORD ON/OFF SWITCH" for safety reasons in respect of water.

This switch is connected via a 24V Low Voltage transformer control box.

PA 750 Standard Unit

The standard Unit has a front panel mains switch as shown in the inset

**Both systems have a Front Panel Flow indicator
A green float can be seen in the Window when the fan is running**

FOR USE IN THE UNITED KINGDOM
(UK model only)

Complying to BS EN ISO 9170-2:2008

Manufactured In accordance with BS EN ISO 9001-2015, BS EN ISO 13485-2012

Important

When connecting this System [either via a 13Amp-fused spur or a 3 pin 13Amp plug] the following wiring colour code applies:

Blue	Neutral
Brown	Live
Yellow/Green	Earth

A qualified electrician must undertake connection of this equipment.

For wiring illustrations see page 12

SAFE USE OF THIS UNIT

- Use a standard electrical AC wall outlet: Do not connect to any high voltage source, used for air conditioning or central heating.
- A DC power source must not be used. Check your power source, especially on board ships or other places where DC power is used.
- Covers should not be removed by any unauthorised person for any reason.
- Do not cover any air inlet grills or block the space around the base of the unit as this will restrict air flow and increase the induced flow at the patient inlet.
- Do not restrict or occlude the exit vent as this will cause the fan motor to overheat and the System will malfunction.

TECHNICAL SPECIFICATION

Standard installation provides an extraction flow rate of approx. 600Lpm
Trunking System dims (W x D x H) 178mm x 127mm x To customer spec.
Power supply 220/240 volts.
Trunking System weights approx. 14 kilos.
Pump weight 3.5 kilos.

EQUIPMENT SPECIFICATION

Electric Class 1 IEC 60601-1
Pump Power rating 46 watts / 0.35 amps.
Induced Flow rate maximum 0.8LpM .
NOTE appendix F2 130 LPM to be substituted by maximum flow.
Inlet and Exhaust pipe to be clipped at not more than 2.5 Metre Intervals
Timer over-run 15/20 minutes.

USER GUIDE

The Purair 750 Maternity System is activated when the patient lifts the mask [Fig.1 No.6.] from the hook-switch [Fig 1. No.12.] to self-administer analgesia during labour. Room ventilation begins simultaneously as air is drawn from the base of the unit.

When the mask is replaced on the hook-switch, the System will continue to run for approximately twenty minutes, to clear the immediate area, and then switch off automatically.

The Purair 750 Maternity System is connected to the analgesic handset by means of a Disposable Drain Trap Hose Assembly [See Fig.1] which is recommended as SINGLE PATIENT USE.

A DISPOSABLE DRAIN TRAP HOSE ASSEMBLY COMPRISES:

Two lengths of 22mm transfer hose [Fig.1 No.3.]

One drain-trap [Fig. 1 No. 10]

One 30mm Female Connector [Fig. 1 No. 4]

One 30mm Male Connector [Fig. 1 No. 2]

The purpose of the drain-trap [Fig. 1 No. 10.] is to collect naturally occurring condensation.

CONNECTION:

One end of the Drain Trap Hose Assembly is connected to the Patient Inlet [Fig.1 No.1.] using a 30mm Male Connector [Fig.1 No. 2.]

Following Supplier user instructions for Patient Demand Valve, the other end of the Drain Trap Hose Assembly is connected to the Analgesic Handset [Fig 1. No.5.] using a 30mm Female Connector [Fig.1. No. 4.]

Following Supplier user instructions for Patient Demand Valve, connect Gas Delivery Hose [Fig.1 No 7.] to Gas Supply [Fig. 1. No. 8 or 9].

Fig 1

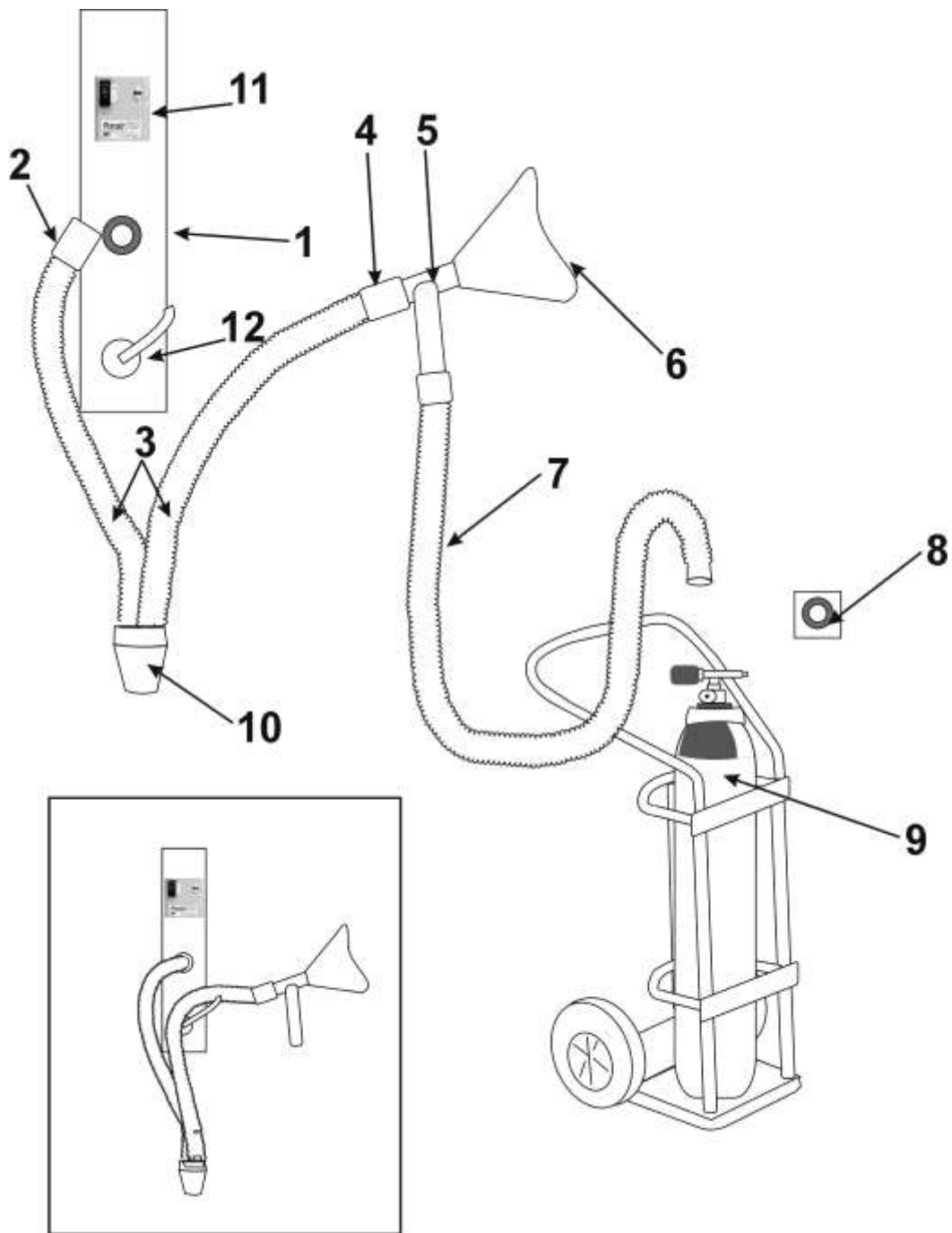


Fig 2

- | | |
|--------------------------|---------------------------|
| 1. Patient Inlet | 7. Gas Delivery Hose * |
| 2. 30mm Male Connector | 8. Gas Outlet Supply or 9 |
| 3. 22mm Transfer Hose | 9. Gas Cylinder Supply |
| 4. 30mm Female Connector | 10. Drain Trap |
| 5. Analgesic Handset * | 11. Power Supply Switch |
| 6. Face Mask * | 12. Hook Switch |

* Not included

GENERAL MAINTENANCE

The trunking system should be checked regularly for dirt and obstructions. The unit may be cleaned using a standard vacuum cleaner. In the case of the Receiving System, entry is through the base of the trunking and care should be taken, when using a vacuum cleaner, not to damage the foam in the silencer. All pipes should be checked regularly for damage.

MAINTENANCE

The Purair 750 requires maintenance twice yearly.

The fan is an in-line flow fan with a factory pre-set timer for approximately 20 minutes overrun.

1. It is recommended the fan should be inspected after three months' use to ensure there is no build up of dirt or other deposits on the impeller or motor. Thereafter it should be checked periodically as experience dictates or at least twice yearly.
2. All fan motors are fitted with sealed-for-life bearings and therefore do not require lubrication.
3. To remove fan motor: Disconnect power supply. Remove motor from main housing. After cleaning, re-assemble motor within housing, ensuring the direction of airflow (i.e. arrow) is pointing towards the exit. Once assembled, re-connect the power supply and test.

Cleaning and Sterilization

The Purair 750 is not a sterile system but requires periodic cleaning of all outer surfaces with commonly used disinfectants, cleaning agents and methods.

Service / Repairs

Regular servicing of your Purair 750 Maternity AGSS can be arranged by telephoning MEC Medical Ltd on +44 (0) 1462 436396

NB. ACCESS to Standard Unit

When removing the cover from this unit the mains switch is connected via 2 connectors which allows the panel to be separated from the main body

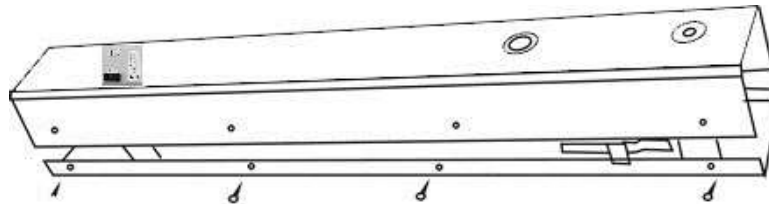


ASSEMBLY

Remove trunking from packing and place on a flat surface.

Remove screws from both sides of the trunking and lift off top panel.

TAKE CARE WITH THE HOOK SWITCH - especially when replacing top panel.



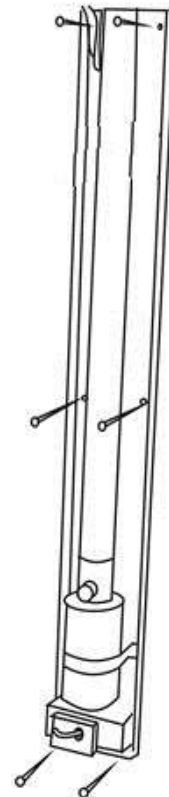
Fix the back panel to the wall, by the 6 fixing holes as shown in the assembly drawing, ensuring the top of the panel is flush to the ceiling.

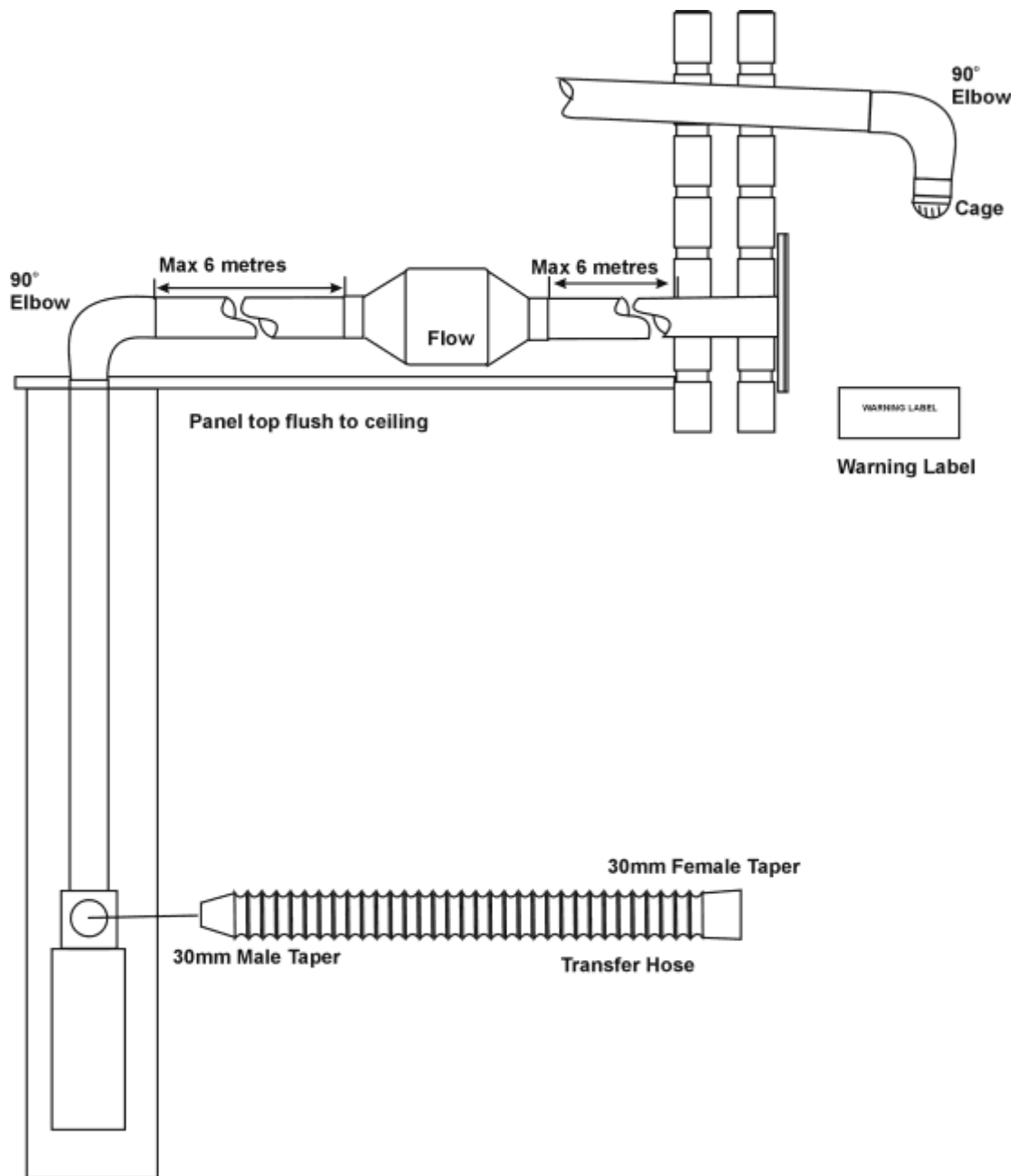
Fix the motor in the required position.

Prepare and fix the exit vent in required location. Ensure the exit vent is slightly lower than the motor to allow condensation to drain externally. See diagram Page 9.

Using the supplied 68mm pipe and connectors, connect the exit side of the fan to the exit vent. (Arrow on fan should be pointing towards the exit vent). Glue all joints with supplied glue.

Using the supplied 68mm pipe and connectors, connect the trunking system to the inlet side of the fan. Glue all joints with supplied glue.





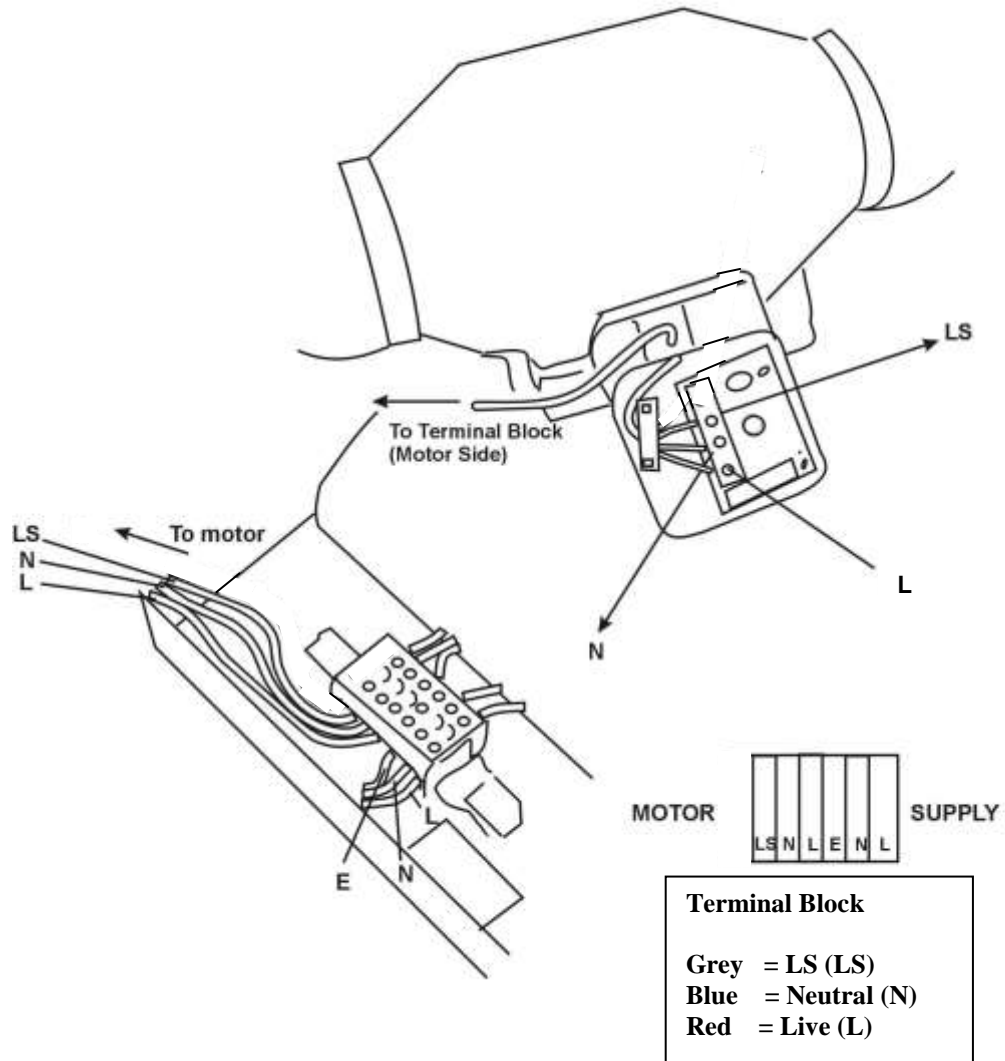
Installation of exhaust line

The exhaust line is to terminate outside of the building in either a 90° elbow or vent kit as illustrated.

Care must be taken to ensure that the exit location is positioned to minimise the risk of re-entry of expelled gasses.

On completion of installation, the Discharge Warning Label (supplied) should be attached adjacent to the discharge point.

Electrical Connection



After completion, replace front panel (taking care of the hook switch) and test for operation.

WARRANTY

This product is made from quality tested materials, is constructed using precision manufacturing methods and is fully tested.

Any defect due to manufacture or material fault will be rectified free of charge within 12 months of date of purchase.

SPARES

Item	Part N°
Motor Assembly	750005
Labels	750029
Disposable Drain Trap Hose Assembly	750048
50m Roll 22mm Transfer Hose	181933R
30mm Male Connector (pack 10)	181932P
30mm Female Connector (pack 10)	181932FP
Drain Trap (Pack 10)	750052P
Microswitch Assembly	750010

MEC reserve the right to change or alter product design and/or specification without prior notice or warning