f) Fix the 38mm aluminium flexible exhaust pipe to the heater spigot and secure with a 38mm hose clip. Now route the exhaust to the sill of the vehicle and cut to length. Secure the flue terminal to the sill of the vehicle and fix the exhaust pipe with a 38mm hose clip. Ensure that the exhaust has a continuous downward slope to prevent any water traps.

The combustion air pipe can now be fixed to the heater and cut to length with the end facing towards the rear of the vehicle. It is not necessary to extend the combustion air inlet pipe to the sill of the vehicle or fit a flue terminal on it.

GAS CONNECTION.

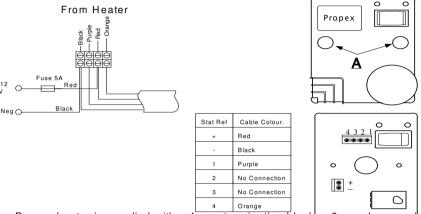
a) The heater uses a 1/4" gas connection and it is provided with the appropriate olive.

b) The gas supply should be connected with copper gas pipe with an isolating valve inline and all connections made with brass compression fittings.

c) When the gas line is complete the system should be checked for leaks and the final connection made by a corgi registered dealer.

WIRING INSTRUCTIONS

Wiring Instructions for Solid State thermostat.



1. The Propex heater is supplied with a 4 way termination block, a 2 core loom and a 4 core loom.

2. Find a suitable location for the thermostat between waist and shoulder height. Make sure that it is not mounted in an area with poor air circulation or in direct sunlight. Also make sure that it is not situated above a cooker or refrigerator. Ensure that the location chosen enables clearance for the connector on the back of the thermostat.

3. When you have chosen the location, drill a 13mm hole and feed the bare end of the 4 core loom through and down to the heater.

4. Undo screws 'A' and release the backplate off the thermostat. Fix the backplate to the wall making sure that the square cut-out in the back lines up with hole for the cable.

5. Connect the loom into the thermostat as in the diagram above and fix the lid back onto the baseplate with the screws provided.

6. Push the 'caps' into the lid to cover the screw heads.

7. Cut the 4 core loom to length and terminate into the block at the heater as per the diagram above. Cut the 2 core loom to length, insert the fuse holder supplied and wire directly to the battery. Terminate the loom at the heater as per the above diagram.

- 5 -

8. Insert the 5 amp fuse and test.

TECHNICAL DESCRIPTION.

Propex Heaters are indirect combustion heaters fuelled by either Propane or Butane gas and designed to work on either a 12 or 24 volt D.C. power source.

Principle of operation.

The air for combustion is taken from outside the vehicle, mixed with the gas inside the heater where it is ignited by an electronic spark generator. The flame burns inside a two stage stainless steel heat exchanger and exhausts through a flexible tube to the outside.

The air for heating is drawn in through a seperate orifice by a fan and forced over the outside of the heat exchanger where it is then distributed by ducting to one or more outlets to heat the interior of the vehicle or boat.

The fact that the combustion side of the heater is totally seperate from the heated air means that the heater produces no condensation and the electronic monitoring system means that it is fully automatic and safe for overnight sleeping.

SAFETY INFORMATION.

a) The gas supply to the heater must be either 28 mbar Butane or 37 mbar Propane. *Warning:* <u>Do not use Industrial or adjustable regulators!</u>

b) Propex heaters are negative earth and must be protected with a 5 amp fuse. Both 12 or 24 volt versions are available.

c) A data label is situated adjacent to the gas inlet.

d) Propex heaters are designed for mounting inside the vehicle or boat.

e) Do not operate the heater whilst refuelling.

f) Do not use whilst in a confined space such as a garage.

g) Make sure the hot air outlet and recirculation air inlet vents are not obstructed.

h) Regularly check exhaust and combustion air pipes or damage or obstruction.

i) The gas supply line should be checked regularly for damage or leaks, and tested under pressure with a proprietary leak tester or inspected by a corgi registered installer.

j) The heater does not contain any asbestos or asbestos related products.

k) The heater shall be installed by a competant person in accordance with the relevant regulatory and safety requirements.

MAINTENANCE

The heaters and their controls are designed to require no periodic servicing as such, however we do recommend that the safety checks listed under "safety information" are carried out.

A pre-season check on the heater installation to check for any blockages or damage to the exhaust pipe or gas pipe is recommended to ensure reliable and safe operation of your heater.

The heater should not be left for long periods without use, so it is advisable to run the motor for short periods throughout the summer.

VEHICLE INSTALLATION

OPERATING INSTRUCTIONS.

Operation.

a) Check that the gas supply is turned on.

b) Rotate the thermostat dial fully anticlockwise and push the three position

switch to the left. The red power light should illuminate.

c) Rotate the thermostat dial until the orange light illuminates. The heater motor will start and ignition should occur within 10 seconds.

d) Find the desired temperature setting within the cabin by adjusting the dial on the thermostat. The heater should then cycle on and off to maintain that temperature.

e) When the cabin reaches the set temperature the orange light will go out on the thermostat and the heater will switch off. When the temperature falls the orange light will come on and the heater will repeat the cycle.

f) Push the three way switch to the right and the right hand LED will illuminate green and the fan will blow cold air only.

SEQUENCE OF OPERATION.

Switch On

Heater motor starts

5 second pre-purge to clear gases from heat exchanger.

gas valve opens and spark generator operates

Heater lights and runs.

Temperature in cabin reaches thermostat setting.

Heater switches off.

If case temperature is above 60°C the heater motor only will come on to cool it down.

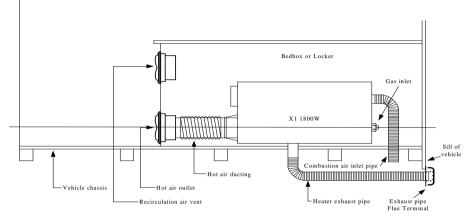
Temperature in cabin drops.

Cycle repeated

Switch Off

Motor may start again to cool heat exchanger down.

STOP.



Fitting the heater.

a) Find a suitable location, usually in a bedbox, locker or base of a cupboard and check that there are no chassis members underneath the location of the exhaust and combustion air spigots.

b) Examine underneath the vehicle to check that there is adequate clearance for a 45mm hole saw. Drill a 3mm pilot hole through the exhaust spigot centre.Cut away any carpet around the exhaust, drill a 45mm hole and place the heater in position

[Do not fix yet]. Repeat for the combustion air pipe.

c) Attach the mounting brackets to the heater with the screws provided and mount the heater in position. Drill 4 x 3.5mm holes and fix the heater to the floor with the

3/4"x No.8 self tapping screws provided.

d) Now mark the positions of the hot air outlet and air inlet vent and drill a pilot hole through the centres. Drill a 95mm hole to mount the vents and fix with the black

1/2" x No8 countersunk screws provided.

e) Fix the 63mm reducer (push fit) into the hot air, cut the ducting to length and fix with the clips provided.

NOTE: It is not necessary to put ducting on the air inlet vent which is why there is no reducer supplied for it.

PROPEX

Installation and operation Instructions for Propex X1 Heaters.

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