

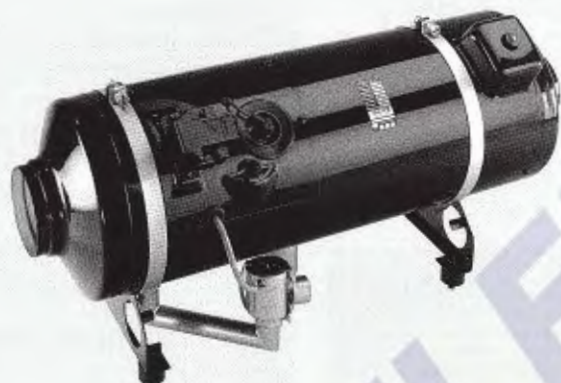


Air heaters D 7 L

Technical Description
Installation Instructions

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**Hot air heater independent of engine
for universal installation**



Cat. No.

Basic unit with standard equipment	12 Volt	25 1480 00 00 00
	24 Volt	25 1481 00 00 00

Specification:

Heating medium: Air
 Heating-air flow at rated voltage without counterpressure: 350 kg/h \pm 10 %
 Heating capacity*:
 at full setting: approx. 8.000 Watts \pm 10 %
 at half setting: approx. 4.000 Watts \pm 10 %
 Regulation of heating capacity:
 Full - Half on on-off switch,
 Full - Half also possible with room thermostat
 Fuel: Diesel or fuel oil (commercial grade)
 Fuel consumption*:
 at full setting: approx. 1.05 l/hr \pm 5 %
 at half setting: approx. 0.5 l/hr \pm 5 %
 Rated voltage: 12 or 24 V

Operating range:
 Min. voltage: An undervoltage protection device incorporated in the control unit cuts out at approx. 10 or 20 volts. 14 or 28 volts.
 Max. voltage:
 Electric power consumption*:
 at start: 230 W \pm 10 % with 12 V
 345 W \pm 10 % with 24 V
 in operation: 115 W \pm 10 %
 Ventilation: Possible
 Degree of radio interference: Remote, additional interference suppression measures possible approx. 20 kg

Weight:
* at rated voltage

Fuel grades

Fuel of D 7 L at low temperatures

The heater can take without problem the fuel you use in your tank and which is commercially available. In the USA diesel fuel no. 1 and no. 2. Admixture of used oil is not permitted.

The refineries automatically adapt their fuels to normal winter temperatures (winter diesel).

Difficulties can therefore only arise at extremely low temperature (as in the engine – see the vehicle's instruction manual).

If the heater is fuelled from a separate tank, the following rules must be observed: at temperatures above 0 °C, any type of diesel fuel can be used.

If there is no special diesel fuel available at low temperatures, mix in petroleum or petrol according to the table.

Temperature	Winter diesel fuel	Additive
0 °C to – 15 °C**	100 %	–
– 15 °C to – 25 °C	50 %	50 % Petroleum or petrol
– 25 °C to – 40 °C	–	100 % Petroleum*

* or special winter diesel fuels.

** or in accordance with fuel manufacturer's specifications.

The fuel line and the fuel pump must be filled with new fuel by operation for 15 minutes.

Fuel for special cases

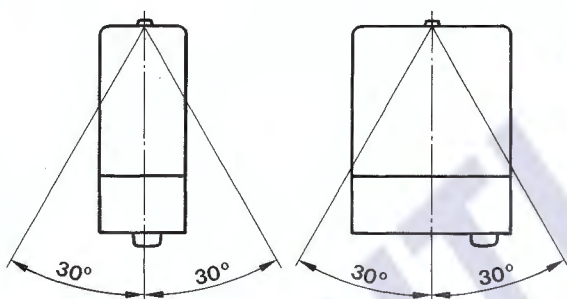
In special cases, the heaters can also be operated with extralight fuel oil (above 0 °C) or petroleum. If in doubt, please consult the manufacturer.

Electrics:

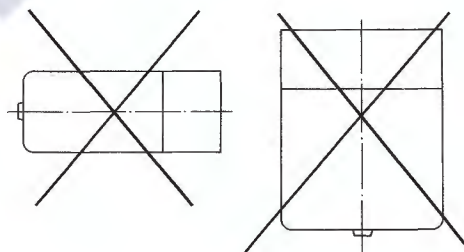
Arrange electric cables, switch and control units in the vehicle in such a way that their correct functioning cannot be impaired under normal operating conditions.

Fit the control unit so that it is protected from splash water (from both its own vehicle and preceding ones). Outside installation is thus not permissible. The unit is best arranged in the vehicle interior, with the plugs pointing downward.

Control unit
Permissible installation angles



Control unit
Non-permissible installation angles



Electric installation

The required cross-sectional areas of the + lines and – lines must be determined from the following table.

If the dimensions of the line are too small then there is a danger that the heater will be switched off automatically after starting due to undervoltage.

Total length in meters (+ and – cable lengths added)	DIN cross-section in mm ²	Cable No. (in general use in America)
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up to 5	4	–
5 – 8	6	–
8 – 14	10	–
14 – 20	16	–
20 – 28	25	–

In general use in America

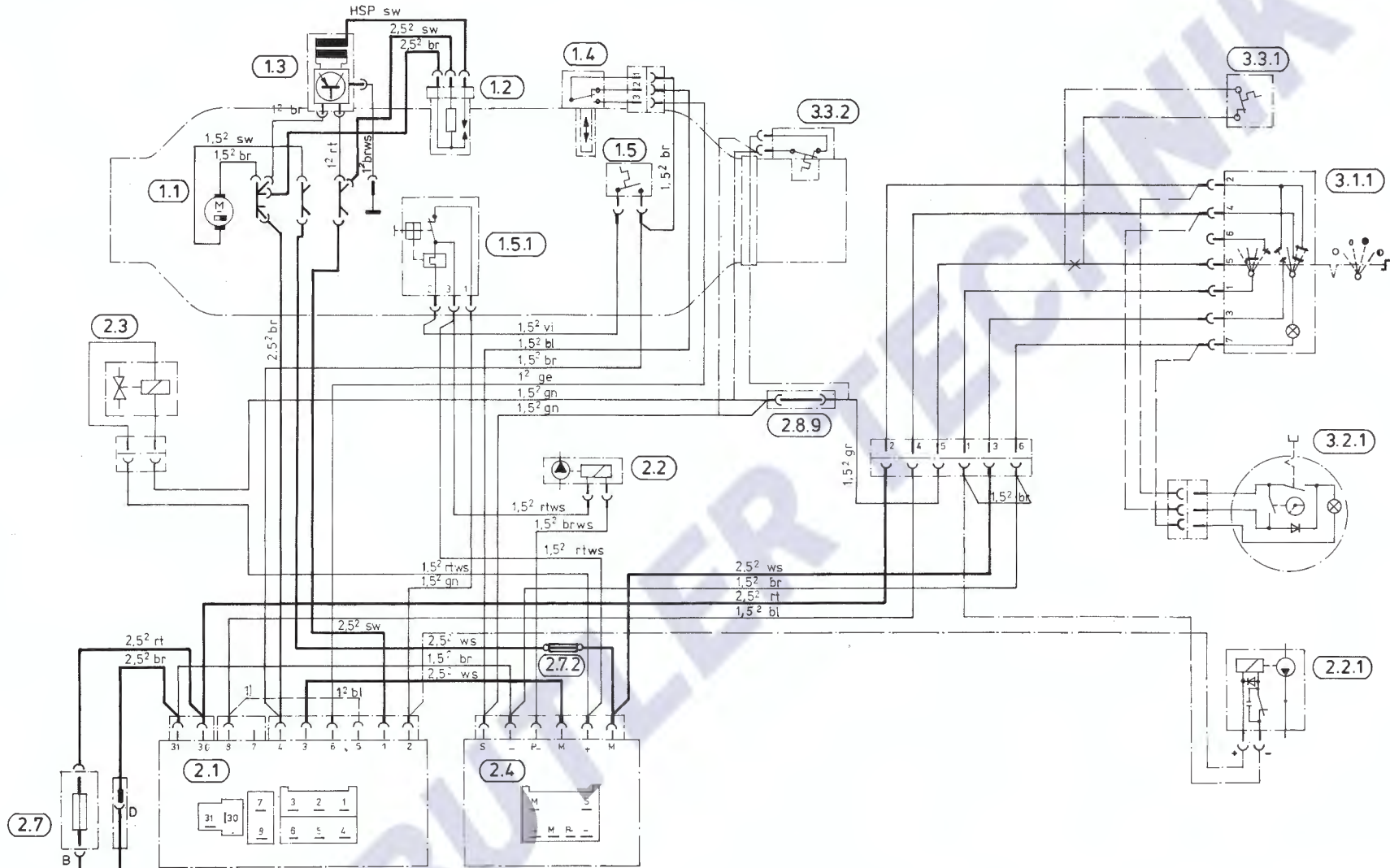
up to 7	(5.2)	10
7 – 11	(8.4)	8
11 – 18	(13.4)	6
18 – 28	(21.5)	4

Example 1:

Line length (plus)	heater – battery	= 4 m
Line length (minus)	heater – battery	= 4 m
	overall length	= 8 m
	resulting line cross-section	= 6 mm ²

Example 2:

Line length (plus)	heater – battery	= 4 m
Line length (minus)	heater – chassis	= 1 m
	overall length	= 5 m
	resulting line cross-section	= 4 mm ²



- 1.1 Blower motor
- 1.2 Glow-spark plug
- 1.3 Ignition spark generator
- 1.4 Temperature switch
- 1.5 Safety thermal cutout switch
- 1.5.1 Automatic thermal cutout fuse 0.4 A

- 2.1 Control unit
- 2.2 Fuel metering pump
- 2.2.1 Fuel circulation pump
- 2.3 Air solenoid valve
- 2.4 Impulse transmitter
- 2.7 Main fuse 16 A
- 2.7.2 Motor fuse 20 A
No. 204 00 87
- 2.8.9 Connection

25 1480 00 96 03

- 3.1.1 Universal switch
- 3.2.1 Timer
- 3.3.1 Room temperature controller
(break cable at A to connect)
- 3.3.2 Temperature limiting device

¹⁾ for Sweden only



