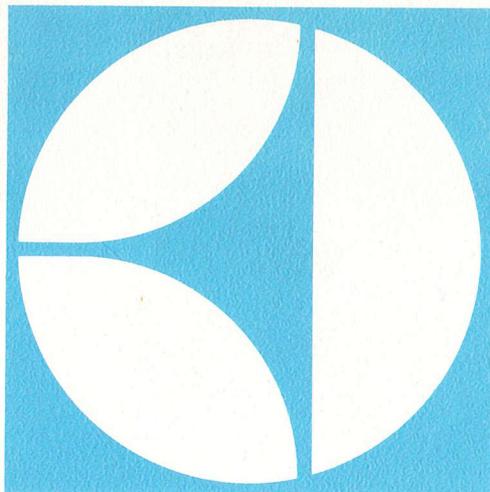
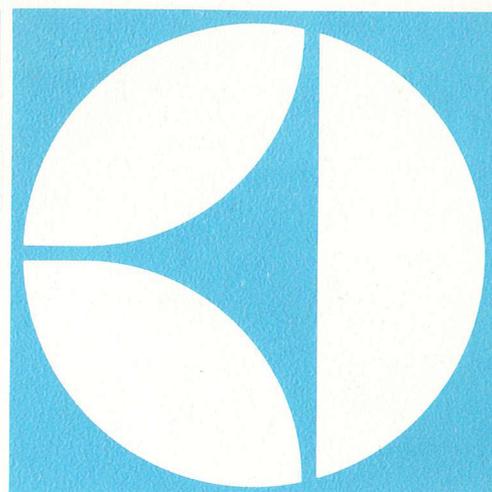


Installations- und  
Gebrauchsanweisung  
für Einbauschränke  
RM 182



Operating instructions  
for built-in refrigerators  
RM 182



Mode d'emploi  
pour  
réfrigérateurs encastrés  
RM 182

This refrigerator is intended exclusively for installation on roadable vehicles and trailers of any type used as a habitation or a lounge and in particular for dormobiles equipped by Westfalia Works, Franz Knöbel and Sons Co.

Before putting your refrigerator into operation, study carefully the following Operating Instructions:

### 1. Cleaning of the Refrigerator.

Before putting the refrigerator into operation for the first time, wipe it inside and outside with lukewarm water containing a mild detergent. From time to time, rub the PVC seal of the lid with a little talcum powder. Once a year, clean with a brush or a smooth cloth the cooling unit mounted at the back.

### 2. Setting-up and Installation of the Refrigerator (Fig. 1-3).

Use a spirit-level to check that the box is standing level in both directions. This is essential for the satisfactory functioning of the unit. The refrigerator must not be placed near heat-sources, and direct sunlight should be avoided. This has a detrimental effect on the cooling performance and energy consumption.

A satisfactory circulation of air at the back of the unit is extremely important for the proper functioning of the refrigerator. Make sure that adequate space (approx.

170 mm) is maintained between the wall and the back of the unit to avoid a performance-affecting heat build up. Great care must be taken to ensure correct ventilation when a refrigerator is installed in caravans or furniture.

The installation must be carried out in such a manner that there is a sufficient supply of fresh air from underneath, and warm air can escape above the unit without a heat build up (Fig. 1).

The gas burner with a closed sealed combustion chamber is totally insulated towards the inside of the car. Combustion air is drawn in through the air supply duct, and waste-gas evacuated through the escape duct. The air supply and waste-gas evacuation system supplied with the unit consisting of a wall vent with accessories, must be installed in the wall of the dormobile (Fig. 2 + 3). This system has been tested for the refrigerator and no

Fig. 1

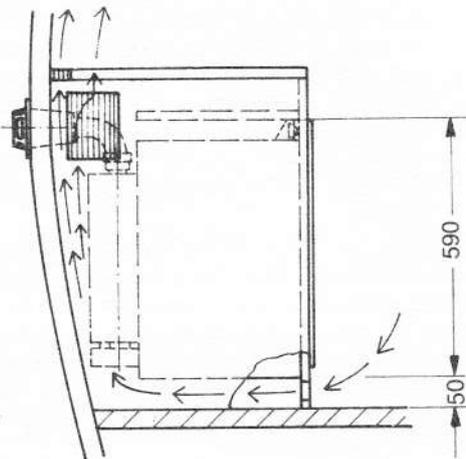
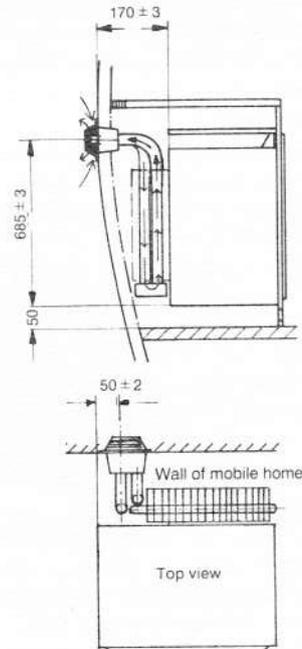


Fig. 2



other may be installed since the unit is approved with only this installation.

The installation of the refrigerator may be carried out only by a skilled representative of our Company or a liquid gas distributor, as well as by experts approved by the Liquid Gas Association, in accordance with the present Instructions and the Technical Regulations for Liquid Gas. Installation in caravans and roadable vehicles must be carried out in accordance

with the prescriptions and national regulations for liquid gas burner installations in roadable vehicles. To obtain these, consult your national Standards Organization or Occupational Safety Organization.

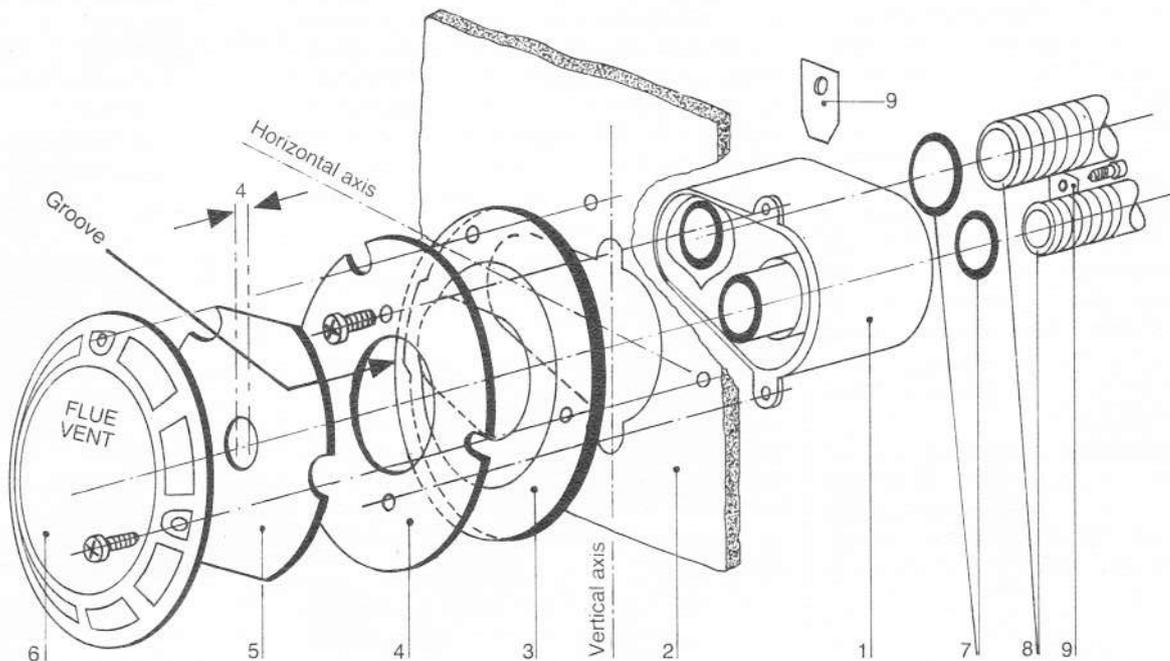
a) Installation of the Waste-Gas Evacuation and Combustion Air Supply System (Fig. 2 + 3).

1. Draw the outline of the vent casing (1)

on the doormobile wall (2), drill the hole and 3 holes for fixing the windscreen.

2. Push vent casing (1) on the flexible hoses (8) fixed to the refrigerator after placing sealing rings (7) in the third groove of the hoses, push locking plate (9) in the grooves between the hoses near the casing and secure by means of screw M 5 x 10.

Fig. 3



3. Push the refrigerator or the piece of furniture with the refrigerator into the recess. Make sure that the vent casing protrudes through the hole in the wall by approx. 3 mm. Place sealing (3) between the fixing plate (4) and the doormobile wall (2) and fasten to the vent casing by means of 2 screws M 4 x 10. The hole near the outer rime of the sealing must be mounted in the driving direction.

4. Place separating plate (5) in the windscreen (6), adjust both parts to the wall and fix by means of 3 self-taping screws. Check that the hole in the separation plate is placed 4 mm off center and is inserted in such a way that it is engaged in the ventilation casing collar and the cross-section of the opening is not narrowed. A window which may be opened must not be installed in the wall above the windscreen. The windscreen must be kept clean and free of dirt, etc. During winter, it is of vital importance to make sure that the openings are always free of snow and ice.

If after installation, a sensible warming of the walls, resp. the floor, is noticed when the unit is in operation, these parts of the vehicle must be covered with a quality insulating material to prevent fire.

1. Vent casing
2. Doormobile wall
3. Sealing
4. Fixing plate
5. Separating plate
6. Windscreen
7. Sealing rings
8. Flexible hoses
9. Locking plate

### 3. Putting into operation of the refrigerator.

Your refrigerator is fitted with a newly developed absorber cooling unit which warrants good performance even when the vehicle travels or is parked on slopes up to 15 %; the same applies to parking on sloping lay-bys or car parks.

This causes only a slight rise in the cooling chamber temperature.

The plastic cover cup on the flue vent must be removed before the refrigerator is put into operation. Save the cover for future use.

The cover should be put on when washing the motorhome or when using a car wash. This to prevent water to enter into the burner. The cover must be taken off when the refrigerator is in operation.

#### a) Control Panel-Explanation.

,C' – Button for operating the air pump as well as the piezo gas-lighter (see fig. 5). It is mounted pivotally

to facilitate manipulation).

,F' – Push button for ignition control. –

,A' – Rotating button for thermostat.

The combined electro-gas thermostat is used for 220 V as well as for gas operation; the 12 V circuit has no thermostat control. If the button is turned completely to the left over the point where a slight resistance is felt, then the 220 V circuit is switched out. During gas operation, the same position corresponds to MIN-position (gas operation is switched off only by closing the supply of gas to the refrigerator).

,B' – Push-button for voltage selection.

,D' – Flame indicator sight peep.

,E' – Screw plug for fuse.

#### b) 220 V-Mains Current (Fig. 4).

Before putting your refrigerator into operation, check whether the mains-voltage to the house or at the camping site is the same as the one specified on the rating-plate. The rating-plate is located in the upper left corner of the interior of the refrigerator. The refrigerator must be properly earthed. Our units are equipped with an appropriate earthed plug (Schuko) for connection to a matching plug-socket.

When abroad, use an adaptor for the power sockets in use there. Turn the voltage selector control (B) to 220 volts.

Turn the combined electro-gas thermostat control (A) to 'maximum' position, completely to the right.

When a sufficient low temperature has been reached, the thermostat control (A) can be turned to the left to obtain the temperature desired.

To switch off the unit, turn the thermostat control (A) completely to the left to the '220 V AUS' position (a slight resistance will be felt) and the voltage selection control (B) to 'O' position (mid-position).

c) 12 V d.c. -Car Battery (Functions only when the engine is running).

When running on 12 volts, your refrigerator is protected by a 10 amps fuse (E) mounted in the control panel.

For driving, set the selector control (B) on 12 volts. The 12 volts circuit is not thermostatically regulated. To improve the cooling performance when ambient temperature is high, the ventilator (0,6 watts) fitted under the cooling unit switches on automatically when the temperature around the condenser fins reaches 60°C and switches off again when it drops to approx. 50°C.

Note: The ventilator is connected to the 12 V-circuit in such a manner that it is operative also during the 220 V and gas operation.

d) Operation of the Refrigerator by Liquid Gas.

The refrigerator can be operated by gas also during drivings.

The unit is only suitable for use with propane-butane gas. It is important to use a non-adjustable pressure regulator to reduce the pressure in the gas cylinder to the operating pressure specified on the rating-plate. Your refrigerator is equipped for a specific gas pressure, corresponding to the standard pressure of the country where it is sold. The rating-plate states the pressure which is correct for your refrigerator; no other pressure may be used. The refrigerator is **not** designed for connection to mains-gas or natural gas system!

Connection of Gas Supply.

Connect your refrigerator in the following sequence and make sure that the joints are properly tightened.

Gas cylinder – pressure reducer – shutoff valve for the refrigerator – gas connection union of the refrigerator.

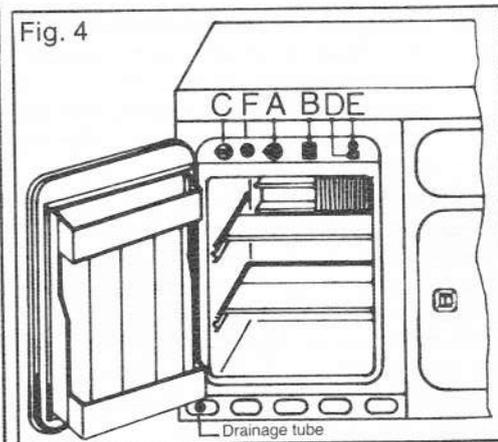
The gas connection union at the back of the unit is made of 8 mm O.D. steel tubing and accepts a threaded metal-seal type counterpart.

The Technical Regulations for Liquid Gas strictly prohibit the use of a naked flame for the detection of leaks in gas connections and appliances of any kind. These re-

gulations apply to all types of gas cylinders and liquid gas.

The regulations recommend the use of foam-forming agents such as hand-washing liquids, liquid soap, etc. for the detection of leaks. For your personal safety, all parts carrying gas and connections in particular should be checked in this way, i.e. by coating them with a soapy film.

The gas system equipment consists of a combined electro-gas thermostat, the ignition control, the air pump, the piezo gaslighter and the burner.



### Explanations concerning the Air Pump, resp. Piezo Gas-Lighter function of Control Button (C)

To use button (C) as an air pump, pull it out completely and push it back swiftly to rest position (see fig. 5).

To use the same button (C) for actuating the piezo gas-lighter, pull it beyond rest position and push it in until it clicks (beyond the rest position). (Fig. 5).

### To light the Burner (Fig. 4).

1. Place voltage selector (B) in zero position (mid-position).
2. Turn on gas (open gas cylinder valve and refrigerator shutoff valve).
3. Turn thermostat button (A) to 'MAX'.
4. a. Operate button (C) 5-7 times as an air pump.  
b. Then push in ignition control button (F), hold it down, and actuate simultaneously button (C) as a piezo gas-lighter, several times rapidly in succession until the flame burns.

As soon as the burner ignites, i.e. the flame burns, the red needle of the flame indicator (D) moves from the white field into the green field. If the needle remains in the green field, keep the button (F) down for another 15 seconds; after that, the thermoelectric ignition control keeps the gas supply open automatically.

### Remarks.

When connecting a new gas cylinder or if the unit has been out of operation for approx. 24 hours, it may happen that you do not succeed immediately to light the burner as described above. In this case, proceed as follows:

Turn thermostat button (A) to 'MAX' position; let in the gas by holding down the ignition control button (F) during approx. 20 seconds. Thereafter, release button (F) and actuate button (C) approx 20 times as an air pump. Then light the burner as described under 4a. 4b.

After a few minutes, check once more if the flame is still burning. If the refrigerator is fitted out also with a light conductor rod (lower left in the refrigerator), then you can observe the flame through this.

If, for any reason, the gas flame goes out, the ignition control comes into action and automatically shuts off the supply of gas.

5. When a sufficiently low temperature has been reached, the refrigerator can be set to the cooling temperature required by turning the thermostat button from MAX to the desired position.
6. When the refrigerator is no longer used, turn off the supply of gas.

### 4. What To Do When the Refrigerator Is Not To Be Used For a Long Time.

If you are not going to use your refrigerator for some time, turn off the energy supply and empty the refrigerator of its contents. Defrost the refrigerator, and carefully clean and dry the interior. To prevent any unwanted odour from forming in the interior, it is advisable to leave the door of the refrigerator slightly open.

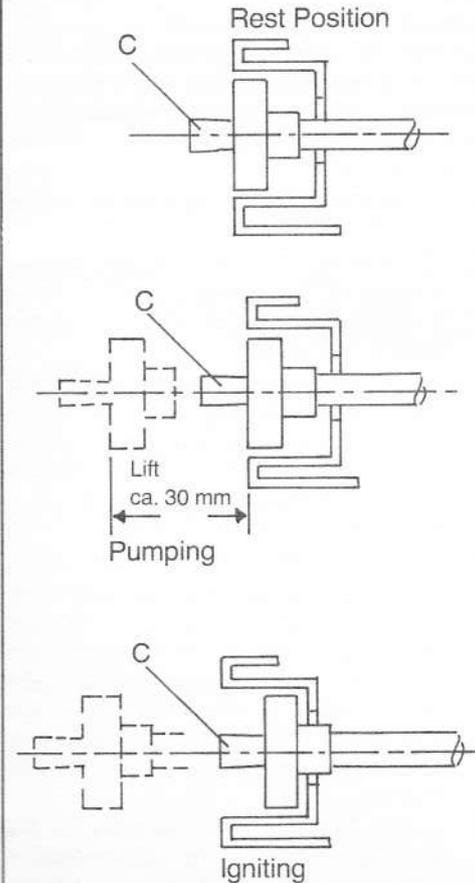
### 5. Measures To Be Taken When The Refrigerator Has Not Been Used For a Long Period.

If the refrigerator has not been used for some time, condensation or, if there has been heavy rain, rainwater may have collected in the burner housing. This must be removed before the gas is ignited. For this, the sealing plug underneath the front of the refrigerator on the left is unscrewed from the drainage tube and the water is allowed to run away. The sealing plug must then be carefully refitted since a good seal is essential for the proper functioning of the combustion system. Check that the windscreen is clean and remove any dirt that is present.

### 6. Maintenance of Appliance.

(only a specialist approved by the Liquid Gas Association is permitted to do this work).

Fig. 5



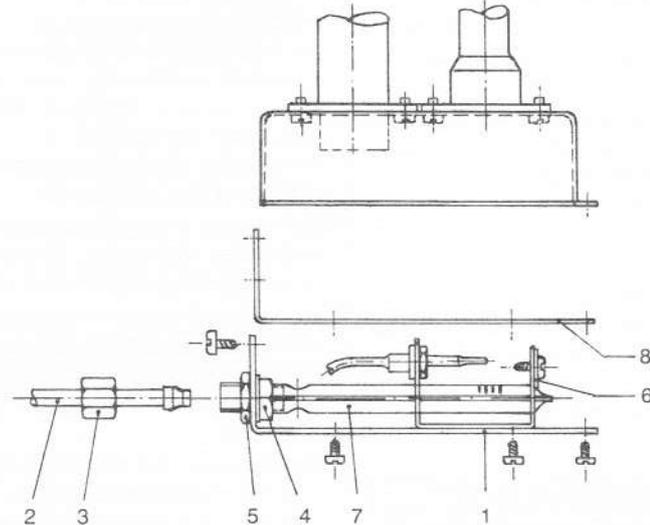
a) Cleaning of the gas-burner jet. (Fig. 6)

1. Remove refrigerator from furniture unit,
2. Unscrew nut (part 3) with a 12 mm open-end spanner, and pull off gas tube (part 2) from the jet (part 4).
3. Unscrew gas-burner assembly (part 1) (slacken 8 self-tapping screws).
4. Unscrew locking nut (part 5) of the jet with a 16 mm open-end spanner.
5. Unscrew locking plate (part 6) of the burner tube (part 7), push burner tube forward and take out jet (part 4).
6. The aperture in the jet is very tiny so

only washing petrol must be used for cleaning it. After washing it, blow out jet with your mouth. Hold jet against the light to check that the aperture really is clear. Under no circumstances must hard objects such as needles or wire-brushes be used for cleaning the jet.

7. For re-assembly, proceed in the reverse order and, when the work has been completed, carry out a check in accordance with the Liquid Gas Regulations. When the burner tube has to be changed, make sure that the burner slots are pointing in the direction of the

Fig.6



gas heating tube, i.e. upwards, and that the burner tube is prevented from moving by the locking plate.

Please take care whether the gasket (part 8) between upper and bottom part of burner is inserted carefully so that the burner is absolutely tight.

In all case the old gasket has to be replaced by a new one.

#### b) Cleaning of the waste-gas and fresh-air system.

Dismantling and re-assembly as shown in Fig. 3.

1. Remove windscreen, separating plate, fixing plate and sealing.
2. Remove refrigerator from furniture unit and take off vent casing from the flexible tubes.
3. Clean dirty parts and their aperture and re-install refrigerator in accordance with the installation instructions on item 2.

#### c) Replacement of the gas filter.

The gas filter is situated in the fastening screws of the gas union. When it has to be replaced, this screw must be unscrewed, the filter has to be removed and has to be replaced by a new one.

#### Important:

Take care to avoid any kind of double heating of your refrigerator with 220 V and

12 V or even gas. The appliance will then not function and may possibly be damaged. Damage caused in this manner is not covered by the guarantee.

#### 7. Defrosting of the Refrigerator.

Too thick a layer of ice on the evaporator causes a deterioration in the efficiency of the refrigerator. This is why defrosting is necessary at certain intervals. Under no circumstances must the layer of ice on the evaporator exceed 3-4 mm.

For defrosting, cut off the supply of energy. In the case of gas operation, turn off the gas; for electrical operation, turn the thermostat knob as far as possible in the anticlockwise direction or pull out the plug from power-point. The defrosting water is collected in the drip tray which can be pulled out and emptied. After defrosting has been completed, it is advisable to thoroughly clean the evaporator and the interior of the refrigerator.

Never use a heating appliance to accelerate the defrosting process since this can cause damage to the refrigerator.

The door of your refrigerator is fitted with a PVC seal to ensure satisfactory closure. Clean this seal thoroughly with clean water only and never use any chemical additives.

If necessary, the interior of the refrigerator and the evaporator may be cleaned with a weak soda solution in lukewarm water.

#### 8. After-Sales Service and Fault in Operation.

Should there be any fault in the functioning of your refrigerator, first check for the following causes since you may be able to remedy the fault yourself without having to take it to the after-sales service agent.

- a) Is the vehicle standing at an excessive angle?
- b) Is the energy supply in order? Is there voltage at the power-point? Is there a satisfactory supply of gas? Is the gas-burner alight?
- c) Is the cooling unit properly ventilated? The ventilation grill and the hot-air outlet at the back above the cabinet must be completely clear. Ensure that the living area of the vehicle is well ventilated in hot weather.
- d) Is the thermostat correctly set?
- e) In the case of gas operation and when turning on the refrigerator, did you release the knob of the ignition control too soon? When you connect up a new gas cylinder, air has entered the gas line; that's why please pay attention to the remark at item – To light the Burner.
- f) Check the type and quantity of the food and drink in the refrigerator; it should be so placed that a good circulation of air is ensured inside the refrigerator. Please check that the door

is well sealed when closed. In this connection, remember that a thick layer of ice on the evaporator has a negative effect on the cooling performance and that defrosting must be carried out at certain intervals of time. Always make sure that the refrigerator is properly closed and that food and liquids are only placed in closed receptacles in the refrigerator. A high relative air humidity will cause ice to form on the evaporator which will act as an insulation layer and affect the cooling performance. Do not place hot food in the refrigerator.

If in spite of these checkings you can't get no good functioning of your refrigerator, please contact after sales service; indicate nature of trouble, type and serial number of appliance.

## 9. Technical Data.

Electrolux-Kreft.

### Gas operation

Nominal thermal loading:	190 W
Minimum loading:	80 W
Connection value-gas:	15 g/h
Connection pressure:	Cat I <sub>3</sub> Liquid gas: 50 mbar.

### Electric operation

220 V 50 cycles (Hz):	85 W
12 V:	85 W
Capacity:	45 litres gross (1.6 cu. ft.)
Refrigerant:	0,32 kg NH <sub>3</sub> absorber



