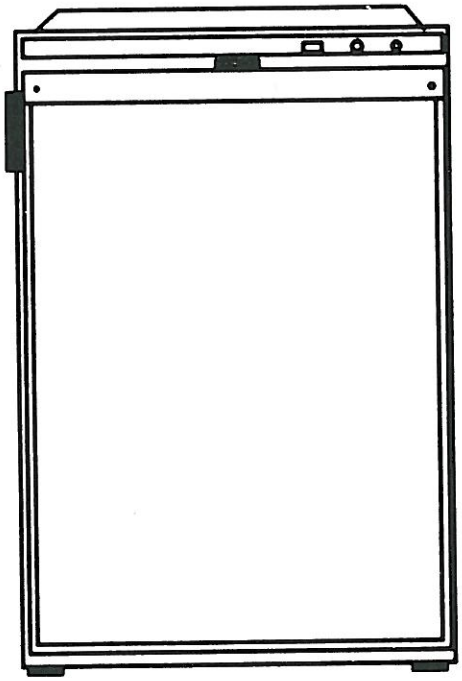
Electrolux

MODEL: RM 3500



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INSTALLATION AND BUILDING-IN

General

Installation for LP gas operation must be carried out in accordance with the Swedish Gas Association's "General instructions for LP gas installations" and the National Road Safety Office's "Regulations relating to combustion appliances and ventilation devices in caravans" in force at the time of installation.

Mounting

The refrigerator must be stood on a firm and steady supporting surface. It must be secured at right angles to the floor of the caravan (camper) so that it will be horizontal in a fore-and-aft direction as well as laterally. If possible, check with a spirit level.

Position the refrigerator so that it will not be exposed to radiant heat from an excessively close heat source (central heating system, hot-water boiler, etc) or sunlight shining through a window.

Slide the refrigerator into the niche provided for it in the furnishings and screw it firmly in place. Use the screw holes in the front flame, see Fig 4.
The distance between the refrigerator (outermost point on the refrigerating unit) and the rear wall of the niche must be at least 25 mm.

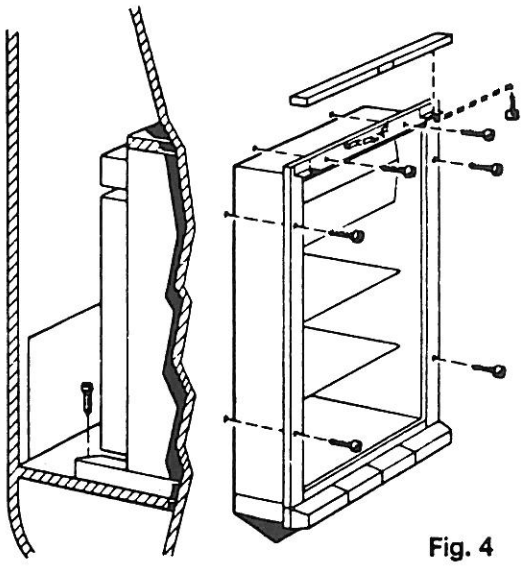


Fig. 4

Ventilation (sealed for outside ventilation)

The ventilation passage at the rear of the niche must be completely sealed off from the interior of the caravan.
Neither flue gas nor (cold) air from the ventilation openings in the wall of the caravan (outer wall of the ventilation passage) must be able to pass into the interior of the caravan (Fig 5).
The top, bottom and sides of the ventilation passage must be thermally insulated to prevent the formation of condensate and cold draughts.
The inside upper surface of the niche above the refrigerating unit's chimney pipe and the upper part of the sides of the niches by the mouth of the chimney must be protected from the heat.
Cooling air necessary for satisfactory operation of the refrigerating unit enters and leaves via two openings in the outer wall of the passage (caravan).
The upper ventilation opening should be situated above the condenser (the cooling fin assembly behind the refrigerator at the top) high up in the niche to ensure good ventilation.
The bottom of the lower ventilation opening must be level with the floor or the refrigerator mounting shelf (so that any leaking LP gas can escape).
The ventilation openings must be protected by suitable grilles of heat-resistant material on the outside of the caravan.

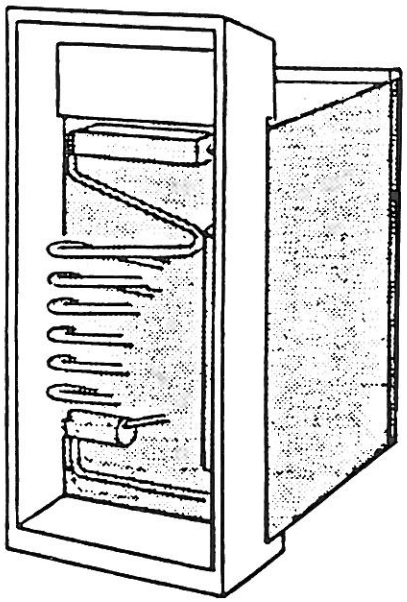
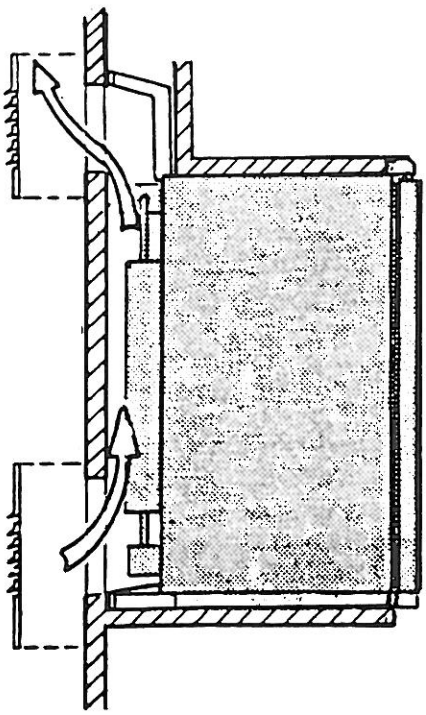


Fig. 5

Ventilation area

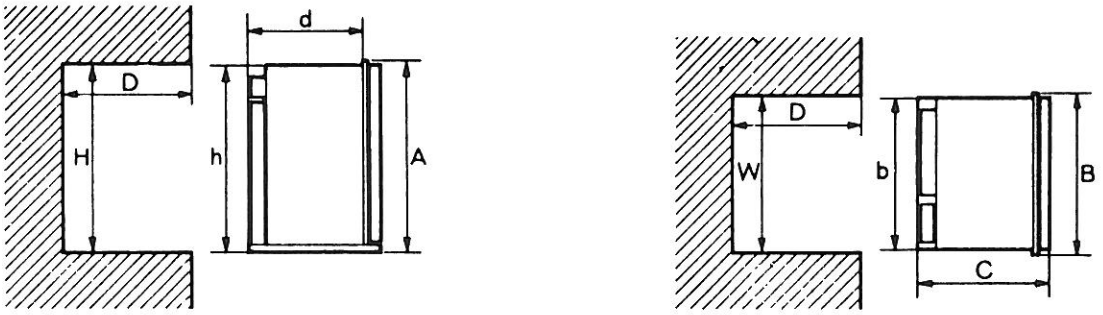
Each ventilation opening must have a free effective area, unobstructed by wire mesh or the like, of at least 400 cm^2.
The ventilation passages and their openings must not be blocked by any objects.



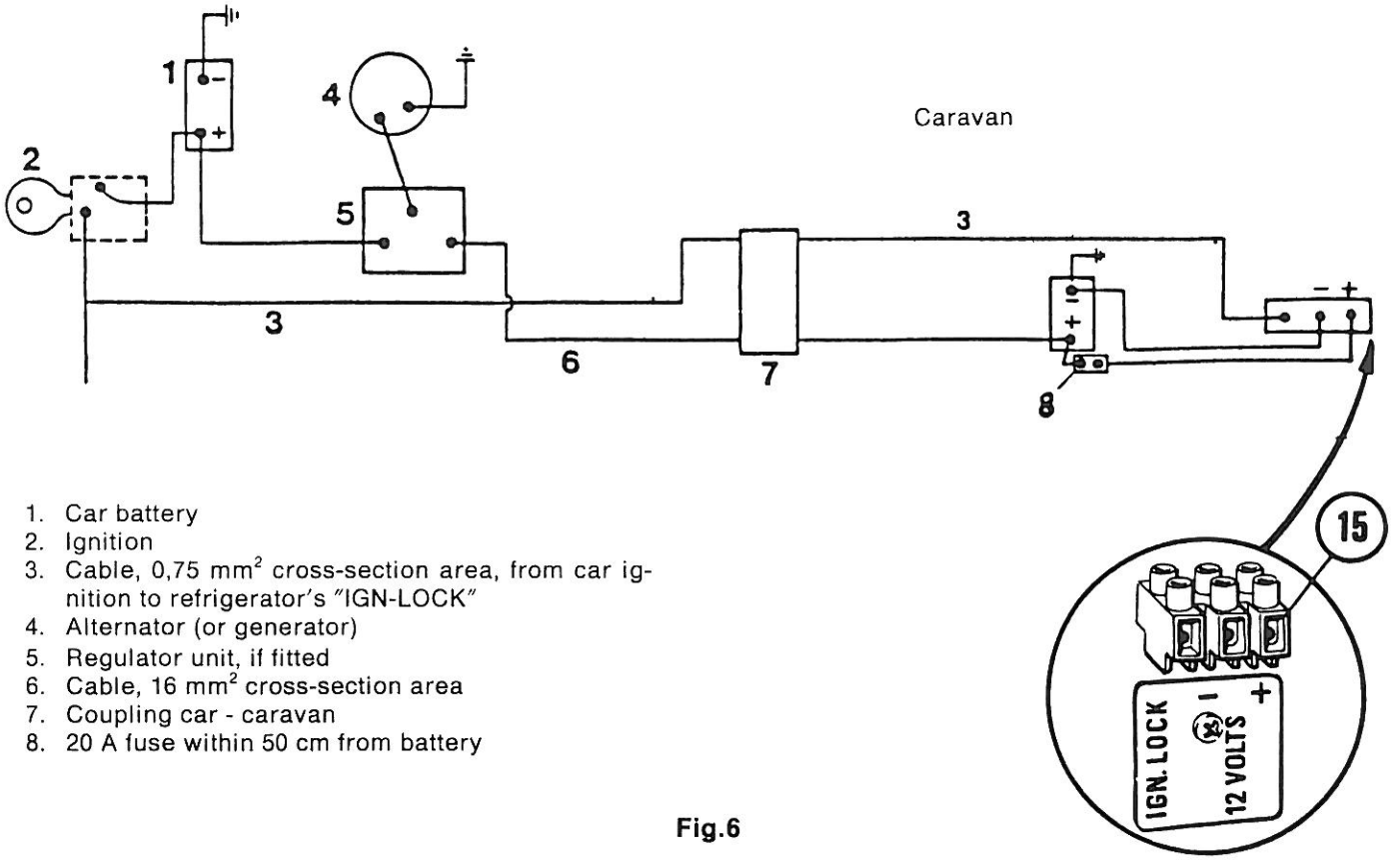
NOTE!

*Proper ventilation of the refrigerating unit is essential for its satisfactory operation.

Overall dimensions mm			Build-in dimensions mm			Niche dimensions mm		
Height A	Width B	Depth C	Height h	Width b	Depth d	Height H	Width W	Depth D
993	585	627	965	547	582	970	554	608



Caravan wiring diagram



1. Car battery
2. Ignition
3. Cable, 0,75 mm^2 cross-section area, from car ignition to refrigerator's "IGN-LOCK"
4. Alternator (or generator)
5. Regulator unit, if fitted
6. Cable, 16 mm^2 cross-section area
7. Coupling car - caravan
8. 20 A fuse within 50 cm from battery

Fig.6

GAS CONNECTION

Connect an approved SIS marked LP gas hose, max. length 1.5 m, to the nipple on the gas cock (1, Fig 1). The LP gas container's reducing valve must be a type-approved model. Connection pressure 30 mbar. Secure all hose connections with hose clips. Use a soap solution to check the hose connections for leaks.
NOTE! The refrigerator gas fitting must not be pressure-teste at a pressure higher than 150 mbar (1500 mm W.G.).

Testing the flame failure monitor

Check operation of the flame failure monitor as follows:

1. Start the refrigerator without connecting it to a 200 V mains supply or "IGN-LOCK".
2. Check that the gas ignites. The green indicator lamp should light up.
3. Close the manual gas cock at the rear of the refrigerator.
4. Wait four minutes. The red indicator lamp should then start flashing and the gas flame should have gone out.
5. Open the gas cock without operating the main On/Off switch. Using a soap solution, check that no gas comes out of the nozzle. Rinse the soap solution off afterwards.
6. Turn the main switch On-Off-On. This should cause normal gas operation of the refrigerator to start. Allow the gas to burn for five minutes.

ELECTRICAL CONNECTION

General

Electrical connection shall be carried out in accordance with the regulations in force at the time of installation.

220 V supply

Plug the refrigerator into an earthed wall socket. Make sure that the power cord does not come into contact with hot parts of the refrigerating unit such as the burner unit, boiler cover, etc.

12 V supply

Connect the 12 V supply to terminal block 15, see Fig 2. See Fig 6 for wiring diagram. Connect the refrigerator to the battery and the car alternator (or generator) using sufficiently thick cables to avoid a voltage drop. Depending on the length of the cables, choose a cross-section area as shown in the table below (combined length of both cables).

Length	Cross-section area
20 m	16,0 mm^2
12 m	10,0 mm^2
8 m	6,0 mm^2
5 m	4,0 mm^2
3 m	2,5 mm^2

NOTE! It is necessary to have a battery connected in the 12 V circuit as the system may otherwise malfunction.
The integral 3,15 A fuse 51, see Fig 2, protects the system's control circuit.

For automatic switchover to 12 V operation when on the road, a cable must be connected between the ignition switch and the "IGN-LOCK" terminal on the refrigerator, see Fig 6. Fit a 20 A fuse in the 12 V cable. No other electrical equipment must be connected to the same circuit as the refrigerator.

Removing the refrigerator

Pull out the 22 V plug and disconnect the 12 V cable from terminal block 15, see Fig 6. Shut off the gas at the gas container. Disconnect the gas hose at gas cock 3, see Fig 1. Back off the retaining screws and remove the refrigerator.

INSTRUCTIONS

Indicator lamp B, Fig 3

This lamp lights up during normal operation of the refrigerator irrespective of the energy source (12 V, 220 V or LP gas).
Red indicator lamp C will start flashing if a fault develops, see below.

Before starting

Check the gas cocks, not forgetting the one at the rear of the refrigerator.
To start the refrigerator, set switch A (Fig 3) to "ON". The green lamp B will then light up.
Turn the thermostat knob inside the refrigerator to the position marked "NORMAL".
Turn off the refrigerator by setting the switch to "OFF".

Automatic Energy Selection System (AES)

This refrigerator is equipped with an AES fitting which automatically selects the most suitable type of energy at all times. The system gives priority to 220 V. It is fully automatic and no manual operation is necessary to change from one mode of operation to another.
If there is no 220 V supply available the system selects 12 V when the car alternator (or generator) is in operation. If no electricity supply is available the system selects gas operation. Should the battery voltage drop the refrigerator will automatically run continuously on gas. This also causes the green indicator lamp B to go out. When battery voltage is restored to normal the AES system will revert to its previous mode of operation.

Starting delay

To avoid ignition of the gas flame while at a petrol station the system incorporates a starting delay of about 30 minutes (after operation on 12 V). If this delay is not wanted for any reason, set the switch to OFF and then back to ON again.

Flashing red indicator lamp C

If the electronic system has unsuccessfully attempted to light the gas, red indicator lamp C will start flashing. In such event the following measures are recommended:

1. Set the switch to "OFF" and then back to "ON" again. Green indicator lamp B should then come on and the electronic system make a fresh attempt to light the gas. If the refrigerator has not been used for some time or if the gas container has just been changed it might be necessary to repeat this procedure several times. Each attempt to start takes three minutes. If starting proves impossible, red indicator lamp C will begin to flash again.
2. If 1 is unsuccessful: Check that the gas container is not empty.
3. If there is gas in it: Check that all the gas cocks are open.
4. If it is still impossible to light the gas - call a service technician.

NOTE! The first attempt to start may prove difficult. Merely expelling all air from the gas line could take several minutes, ie 3-4 operations as described in point 1.

Regardless of whether the red indicator lamp flashes or not, the system will select electric operation if an electricity supply is available. Gas operation can only be started again after an ON-OFF operation. Green indicator lamp B should then show a steady light.

USING THE REFRIGERATOR

Thermostat inside refrigerator

The refrigerator is fitted with a thermostat which can be regulated by setting the knob at different positions. The higher the thermostat setting, the colder the refrigerator. With the thermostat set at MAX the refrigerator will be at its coldest. The thermostat controls the refrigerator temperature on both electric and gas operation.

Freezer compartment

Ice trays should be placed directly on the freezer shelf. Ice cream should be placed on the bottom of the freezer compartment, which is where it is coldest. Other frozen items can be stored anywhere in the compartment. The freezer compartment is not designed for freezing. Frozen items can be stored for up to two weeks. Fresh meat and fish can be stored three times longer than in the refrigerator itself. Such items should be wrapped in aluminium foil or plastic wrap.

Ice cubes can be made in the ice trays. Fill them with water up to 5 mm from the rim. Twist the tray to loosen the ice cubes.

The quickest way to make ice cubes is with the thermostat set at MAX. Preferably set the thermostat at MAX a couple of hours before the ice is needed. Do not forget to turn the thermostat knob back to its usual setting after making the ice cubes.

Items with a strong odour - cheese, etc - should be covered or wrapped when stored in the refrigerator to prevent them from contaminating other food items. Vegetables should also be stored in closed containers to preserve their freshness. The coldest areas in the refrigerator are next to the freezer compartment and at the bottom and this should be borne in mind when arrang- ing foodstuffs on the shelves.

The bottom shelf in the door is fitted with a divided bottle retainer. Removing either half of the retainer will make more space available for larger food packages.

Caution: Never keep lighter fluid, petrol, ether or similar substances in the refrigerator.

SHUTTING DOWN

Set the main switch to "OFF". Empty the refrigerator, wipe it dry and remove the ice trays. Leave the door in the airing position. the transit safety catch is designed so that the door can be secured ajar for ventilation of the interior. To clean the refrigerator, use lukewarm water to which a little mild detergent has been added. That applies to all parts of the refrigerator. Never use a strong detergent.

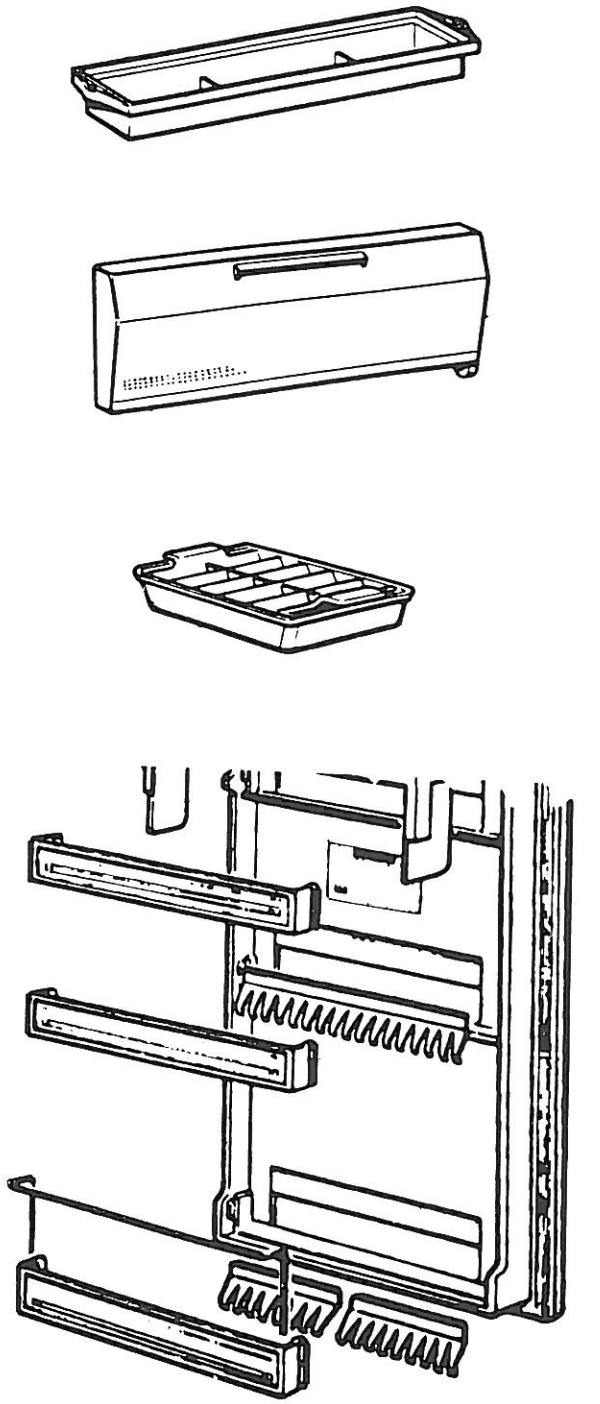


Fig. 7

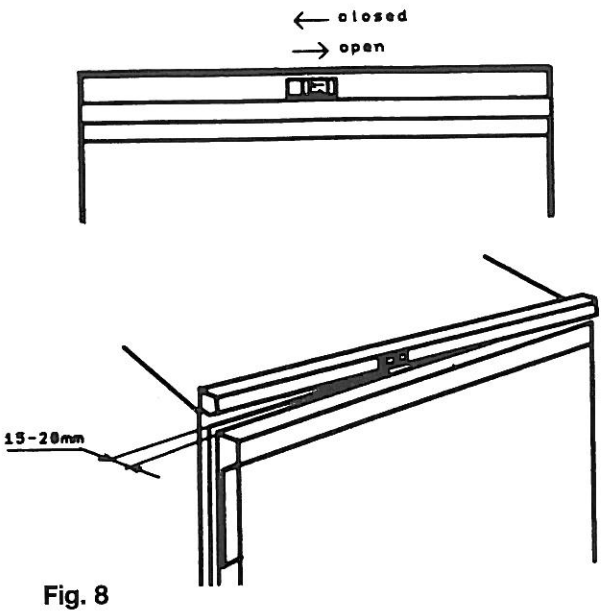


Fig. 8

MAINTENANCE

NOTE! First close all gas cocks. Disconnect from 220 V and 12 V supplies.

Burner and nozzle

The colour of the flame above the burner slits should be bright blue (Fig 1). Once or twice a year, depending on how much the refrigerator is used, it will be necessary to have the burner cleaned and adjusted by service personnel.

The electrode

To ensure proper ignition it is necessary to keep the electrode insulation clean and dry. The distance between burner tube and electrode should be max. 5 mm and min 3 mm.

Caution

If the refrigerator is only used occasionally, it must be checked and inspected at least once a year. It is important to keep the area round the refrigerator free from combustible materials, petrol and other highly inflammable substances. Check the ventilation arrangements. The ventilation space for the refrigerator must not be filled with anything that obstructs the passage of air. Check that flue baffle 54 (see Fig 1), which can easily be withdrawn from the central tube, is free from soot. Clean it. Clean the refrigerating unit and the floor under the refrigerator. Check the gas installation for leakage from time to time. Check all gas connections with a soap solution, never with a naked flame. Check the AES system by turning the main switch on and off, starting and stopping the engine, etc. Check that the AES system works as described above. If anything seems to be out of order, contact service personnel.

NOTE! All inspection of gas fittings must be carried out by service personnel.

IF THE REFRIGERATOR FAILS TO WORK

Refrigerator not cold enough

a. Check that fuse 51, see Fig 2, is intact.
b. Make sure the refrigerator is perfectly level.
c. Check that the ventilation passage is free from foreign objects. Refrigerator performance will be severely impaired if ventilation is obstructed.
d. Check the amount of frost on the evaporator. Defrost if necessary.
e. Check that flue baffle 54 is in position.
f. Check the thermostat setting.
g. Inspect the burner. If clogged it must be cleaned. A damaged or displaced burner must be changed or adjusted. Call service personnel.
h. Check the gas pressure.

Sooty flame - causes and remedies

a. The flame burns the sides of the central tube because the burner is incorrectly mounted. Adjust. Call service personnel.
b. Incorrect nozzle. Change. Call service personnel.
c. Central tube dirty. Clean. Best done by service personnel. **NOTE!** When the refrigerator is new some smoke and fumes will be caused as the enamel in the central tube grows hot.

Follow these instructions closely to ensure satisfactory opera- tion of the refrigerator and the validity of the guarantee.

NOTE! Avoid spraying water through the refrigerator ventilation grille when washing the caravan.

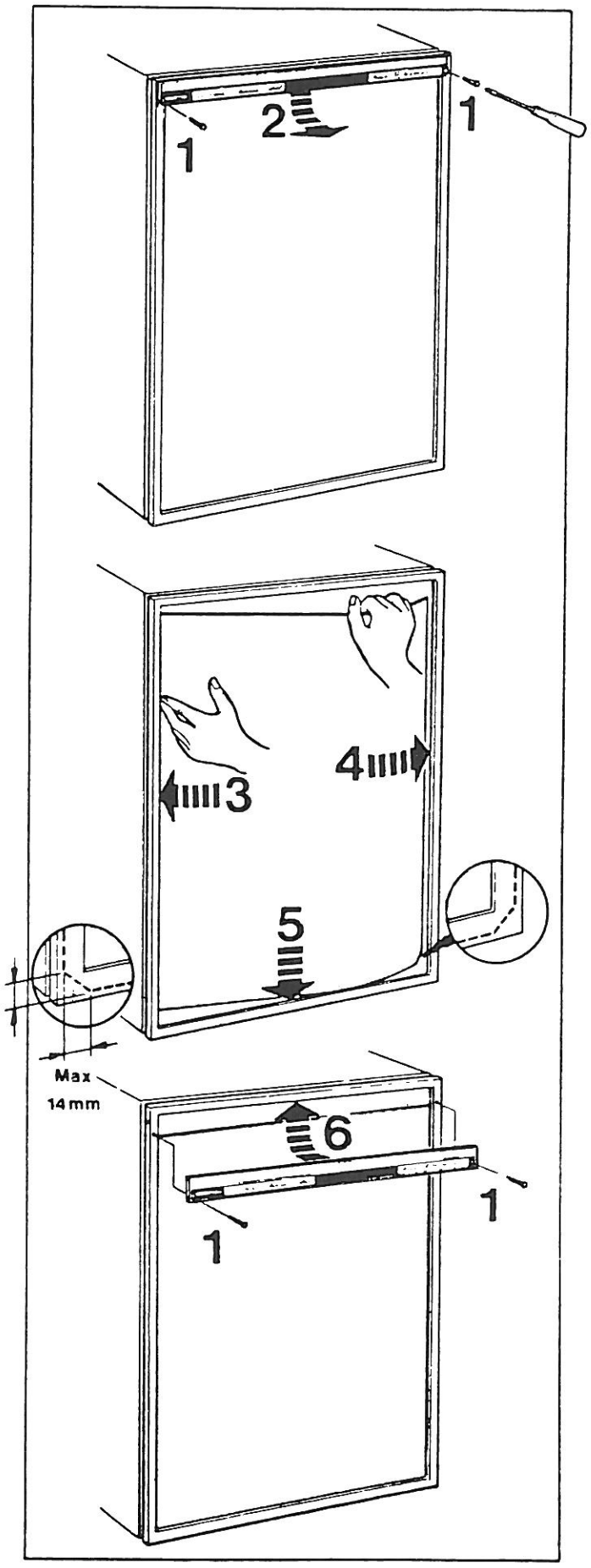
FITTING THE DOOR PANEL (See Fig)

Normally, the refrigerator will be supplied without a door panel.

The dimensions of the panel should be:
Height: max 914 mm, min 912 mm
Width: max 570 mm, min 568 mm
Thickness: 4 mm
Remove the trim moulding at top (1, 2). Fit one side of the panel into the frame (3). Exercising care, bend the panel and fit it into the opposite side of the frame (4).
Fit the bottom of the panel into the frame (5). Cover the gap at the top with the trim moulding, pressing it upwards into the frame (6). Screw the trim moulding in place (1).

CHANGING THE DOOR HINGING

Open the door and back off from underneath the two screws re- taining the front trim at the top. Remove the front trim.
NOTE! Inside the front trim is a printed circuit board. Avoid separating the wiring from the circuit board. Unscrew the hinge pin and lift the door away. Move the lower hinge pin to the other side. Fit the door in position and screw the upper hinge pin back in place. When refitting the front trim it is essenti- al to ensure that the indicator lamps mounted on the printed circuit board enter their correct positions. Check that the door swings easily and that the gasket seals all the way round. Move the handle to the other side of the door.



STATENS
PROVNINGSANSTALT

1081K
Box 857
501 15 BORÅS
Telefon 033 16 50 00

Datum 1986-09-18

Beteckning SP 607 Gpb 9

TYPGODKÄNNANDEBEVIS

Uppdragsgivare	AB Electrolux, Stockholm
Produkt	Kylskåp Electrolux RM 3500 Produktnr 926 7141
Tillverkare	AB Electrolux, Stockholm
Bevis nr	SP 607 Gpb 9
Giltighetstid	Typgodkännandet gäller högst 5 år
Typprovningen har utförts av	Stockholms Energiverk, Gasavdelningen
Intyg om typprovning	SE-15-0242-0, -1
Ritningar	Nr 926 7100 (3 st) med stycklista, detaljritningar (12 st) enligt protokoll
Bränsle	Propan/butan (lågtryck 30 mbar)
Kapacitet	Propan 25 g/h (normalförbrukning) Butan 28 g/h (normalförbrukning)
Tillförd effekt	319 W (propan), 355 W (butan)

Statens provningsanstalt typgodkänner härmed enligt tillämpliga delar av "Regler för typgodkännande verksamhet på eldstadsområdet" (RTE) Meddelande 1 och Meddelande 8 nämnda kylskåp för installation i husvagn och medger användning av godkännandebeteckningen "SP 607 Gpb 9" så länge kylskåpet är typgodkänt enligt nämnda regler.

Typgodkännandet gäller under följande förutsättningar

1 Villkoren i RTE Meddelande 1 kapitel 3:7 är uppfyllda

2 Kylskåpet installeras i enlighet med av Statens provningsanstalt godkända bruks- och installationsanvisningar nr 85E14503 upplaga 1

3 Nämnda bruks- och installationsanvisningar samt avskrift av detta typgodkännandebevis skall medfölja varje levererat kylskåp

STATENS PROVNINGSANSTALT
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