

Saphir comfort RC AU



Operating instructions
To be kept in the vehicle

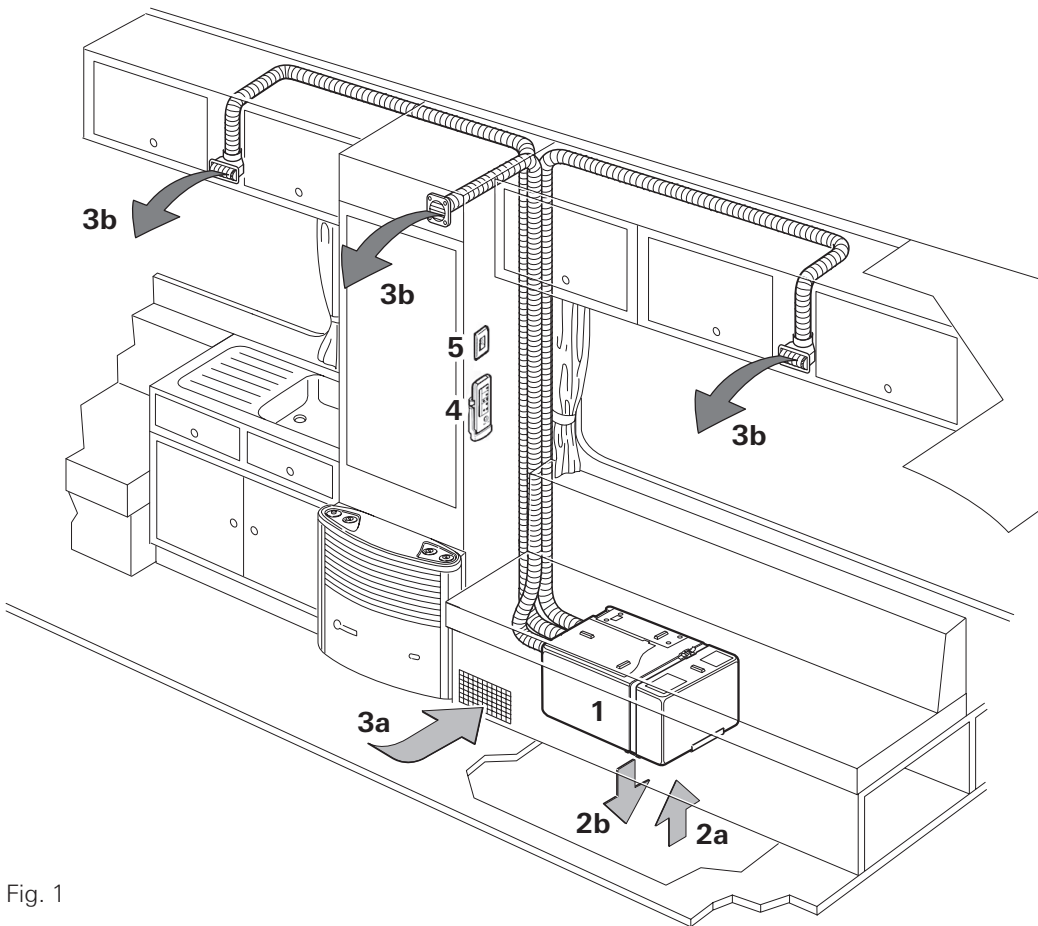


Fig. 1



Fig. 2




Installation example

- 1 Saphir comfort RC AU
- 2a Supply air intake
- 2b Supply air outlet
- 3a Circulated air intake
- 3b Air outlets
- 4 Infrared (IR) remote control
- 5 Infrared (IR) receiver


Table of contents

| | |
|--|----|
| Symbols used | 4 |
| Safety instructions | 5 |
| Notes on using air conditioning systems | 5 |
| | |
| Operating instructions | |
| Remote control | 6 |
| IR receiver and manual on / off | 7 |
| IR receiver / function indicator | 7 |
| Red LED illuminated | 7 |
| Start-up | 7 |
| Switching on | 7 |
| Temperature | 7 |
| Mode | 7 |
| Fan | 7 |
| Sleep function | 7 |
| Switching off | 7 |
| Time | 7 |
| Timer ON / OFF | 8 |
| Reset | 8 |
| Resend | 8 |
| Setup | 8 |
| Maintenance | 8 |
| Troubleshooting | 8 |
| IR remote control battery change | 9 |
| Disposal | 9 |
| Accessories | 9 |
| Technical data | 9 |
| Installation dimensions | 10 |
| Truma warranty policy | 10 |

Symbols used

-  The device must only be installed and repaired by an expert.
-  Symbol indicates a possible hazard.
-  Note containing information and tips.

Safety instructions

 Only competent and trained persons (experts) may install, repair or perform the function check on the Truma product in accordance with the installation and operating instructions and the currently accepted technical regulations. Experts are persons who, based on their specialist instruction and training, their knowledge and experience with Truma products and the relevant standards, can carry out the necessary work properly and identify potential hazards.

To avoid transportation damage, the device may only be dispatched if the Truma Service Centre in Germany or the respective authorised service partner has been consulted beforehand.

The power supply must be disconnected from the mains (all poles) before opening the housing.

The 230 V, T 6.3 A H-type (slow, IEC 127) device fuse can be found on the electronic control unit in the device, and must always be replaced with an identical fuse.

The device fuses and connection cables must only be replaced by experts.

Guarantee claims, warranty claims and acceptance of liability will be ruled out in the event of the following:

- Modifications to the device (including accessories)
- Failure to use original Truma parts as replacement parts and accessories
- Failure to follow the installation and operating instructions

This may also invalidate the device operating permit, which in many countries also denotes cancellation of the vehicle operating permit.

The refrigerant circuit contains R 407C refrigerant and must only be opened **in the factory**.

The air outlet and the circulated air intake must not be obstructed under any circumstances. This is essential in order to ensure that your device operates correctly.

The openings beneath the floor of the vehicle must be kept free of dirt and slush. These openings must not be within the range of the wheel spray – fit splash guard if necessary.

If **underbody protection** is being applied to the floor of the vehicle, all openings beneath the vehicle must be covered so that the spray mist that is created does not penetrate the device and cause malfunctions. Remove covers again when the work is complete.

To prevent damage to the appliance, it should not be operated continuously at an incline of more than 8 %.

Do not operate the device for long periods with the vehicle at an angle, since the condensation that is produced may not be able to run away and may penetrate the vehicle under unfavourable circumstances.

In order to ensure that the equipment works properly and to avoid damage, only power supply sources with a purely sinusoidal waveform (e.g. voltage converter, generator) and without voltage peaks must be used.

When the floor of the vehicle is being cleaned, it must be ensured that no water penetrates the openings in the base of the device when spraying with a high-pressure cleaner, for example.

For safety reasons the device must always be closed during operation, since this is the only way to ensure that no injuries are caused by moving parts. The strap around the electronic housing must not be removed.

This appliance may be used by children from 8 years old and by persons with reduced physical, sensory or mental capabilities or with a lack of experience and knowledge only if they are supervised or have been instructed in the safe use of the appliance and understand the resulting risks.

Notes on using air conditioning systems

- The Saphir comfort RC AU is designed for minimal power consumption. You should still check whether the camp site has adequate fuse protection (min. 6 A) before starting the equipment up.
- Park the vehicle in the shade if possible.
- Darkening with shutters and / or a canopy reduces the amount of heat radiation.
- Clean your roof at regular intervals (dirty roofs heat up more than clean roofs).

- The vehicle must be properly ventilated before starting the equipment in order to remove accumulated warm air from the vehicle.
- When aprons or the like are being fitted, please ensure that adequate openings are present for dissipating the supply air. The opening for the warm outgoing air should not be at the inlet side.
- In order to obtain a healthy room climate, the difference between the inside and outside temperatures should not be too great. The recirculated air is cleaned and dried during operation. A pleasant room climate is produced by drying the moist air, even if the temperature difference is minimal.
- Keep all doors and windows closed when in cooling mode.
- Full ventilation power can only be achieved at all three openings if three cold air ducts are connected.
- The air outlet channel (part no. 40040-32500) must not be used.
- When in heating mode, only use “high” fan level for rapid heating. Set to “medium” or “low” during continuous operation.

Operating instructions

Always observe the operating instructions and the "Safety instructions" prior to starting! The vehicle owner is responsible for correct operation of the appliance.

Remote control

i The symbols in the display are visible depending on the settings.

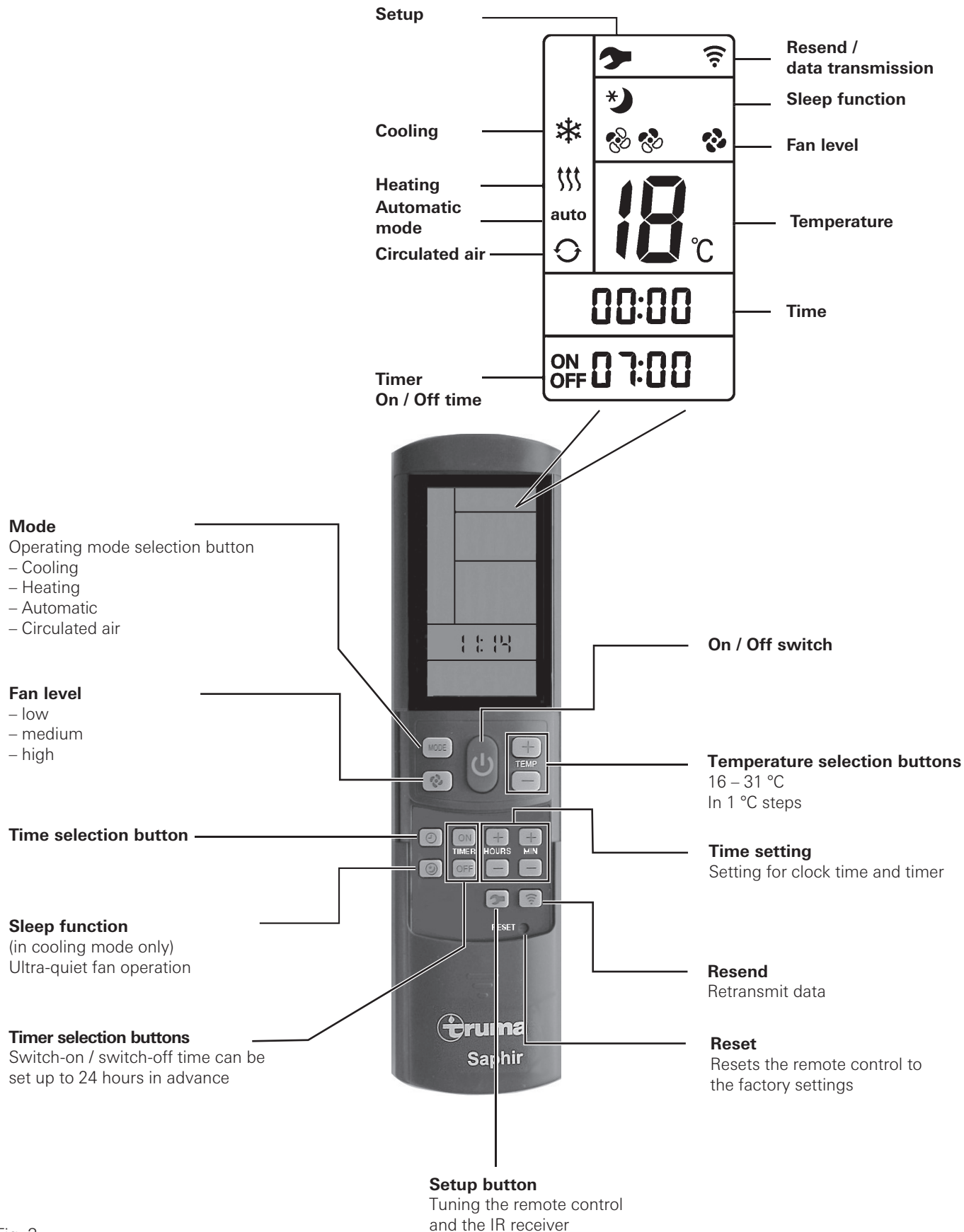


Fig. 3

IR receiver and manual on / off

There is an additional pushbutton on the IR receiver (m), with which the unit can also be switched on and off without the remote control (e.g. with a ballpoint pen).

If the unit is switched on using this pushbutton, the system is automatically reset to the factory settings (automatic mode 22 °C).

IR receiver / function indicator

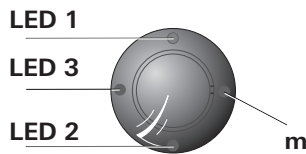


Fig. 4

LED 1 blue – illuminated – (cooling mode)
LED 1 blue – flashing – (cooling mode, compressor start-up)

LED 2 yellow – illuminated – (heating mode)
LED 2 yellow – flashing – (heating mode, compressor start-up)


LED 3 red – flashing – (data transfer in progress)
LED 3 red – illuminated – (fault)

Red LED illuminated

Device indicating fault. Switch device off, wait for a short time and switch on again. If red light stays on, contact Truma Service.

Start-up

Before switching on, be sure to check that the camp site power supply fusing is sufficient (230 V / min. 6 A).

 In order to prevent the power cable of the recreational vehicle from overheating (minimum cross-section 3 x 2.5 mm²) the cable drum must be fully unwound.

The remote control must always be pointed at the infra-red receiver in order to perform the individual switching commands.


Before switching on for the first time, the remote control must be tuned to the IR receiver.

- Insert batteries (pay attention to polarity)
- Setup symbol flashes (if symbol does not flash, perform Reset)
- Point remote control at IR receiver
- Press Setup button and hold down
- When red LED in IR receiver flashes, release Setup button.

The remote control is tuned to the IR receiver, the Setup symbol goes off and the air conditioning system starts in circulated air mode, at low fan level and with no timer set.

Switching on

Switch on the air conditioning system using the **“On/Off switch”** of the remote control. The previous settings are taken over.

 The circulated air fan runs after switching on. The compressor switches itself on after no more than 3 minutes, and the blue (cooling) / yellow (heating) LED flashes.

Temperature

If necessary, use the **“Temperature selection buttons”** to set the required room temperature with **“+”** and **“-”**.


Mode


Select the required operating mode by pressing the **“MODE”** button one or more times.

- Cooling
- Heating
- Automatic (cooling or heating mode depending on the room temperature setting)
- Circulated air

When the room temperature that was selected using the remote control is reached in **cooling mode**, the compressor switches off and the blue LED in the IR receiver goes off. The circulated air fan continues to run in order to provide ventilation. If the room temperature setting is exceeded, the device automatically reverts to cooling mode.

When the room temperature that was selected using the remote control is reached in **heating mode**, the compressor switches off and the yellow LED in the IR receiver goes off. The circulated air fan continues to run in order to provide ventilation. If the temperature drops below the room temperature setting, the device automatically switches to heating mode.

 Heating is not possible if the outside temperature is less than 4 °C. At a temperature of between 4 °C and 7 °C, the device briefly switches to thawing operation. Heating mode is unrestrictedly available at temperatures above 7 °C.

 In order to ensure that the interior is heated up as effectively as possible at low temperatures, the air conditioning system operates at the “low” level at room temperatures of less than 12 °C. As soon as 12 °C is reached, the air conditioning system automatically switches to the fan level selected on the remote control.

In **automatic mode**, cooling / heating mode and the fan level are selected automatically depending on the room temperature.

In **circulated air mode**, the interior air is recirculated and cleaned by the filters. No LED's illuminate in the IR receiver.

Fan

Select the required fan level by pressing the **“Fan level”** button one or more times.

Fan level (not functional in automatic mode):


- low
- medium
- high

Sleep function

In **“sleep function”** (cooling mode only) the fan operates at slow speed and therefore extremely quietly.

Switching off

To switch off, press the **“On/Off switch”** on the remote control. The remote control and the device are switched off.

 If the air conditioning system is switched on again, the blue / yellow LED flashes. The circulated air fan runs, and the compressor switches on after no more than 3 minutes.

Time

Press **“Time selection button”** and set current time using the “Time setting” buttons.

The time always appears on the display.

The time must be reset after changing the batteries or after a daylight saving time change.

Timer ON / OFF

The On / Off time of the air conditioning system can be set in advance for a minimum of 15 minutes to a maximum of 24 hours, starting from the current time, using the integrated timer

The device must be switched on using the remote control in order to program it.

Set required operating mode and room temperature.

Then select TIMER ON or TIMER OFF using the **"TIMER selection buttons"**. Set the required On / Off time using the **"Time setting"** buttons (15 minutes to 24 hours) and **confirm** with TIMER ON or TIMER OFF.

Pressing the relevant timer button again deactivates the timer function.

Reset

Resets the settings of the remote control to the factory settings when pressed using a ballpoint pen, for example. Setup symbol flashes.

Resend

The previous settings are resent.

Setup

Tune the remote control to the air conditioning system that is going to be operated. Settings set to "Circulated air", fan level low, no timer set.

Maintenance

There is a fluff filter (n) and a particle filter (p) on the front of the device for cleaning the room air.

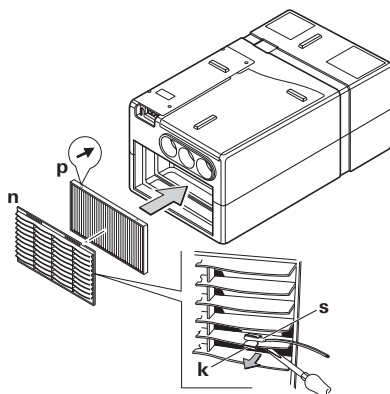


Fig. 5

The fluff filter (n) must be cleaned at regular intervals (at least 2 x per annum) and changed if required (part no. 40090-64600).

We recommend replacing the particle filter (p) every year at the beginning of the season (part no. 40090-58100).

The cold air ducts must be removed before replacing the filters. Before replacing the fluff filter (n), release the clip (k) and the sensor (s) using a flat-bladed screwdriver. Pull the fluff filter (n) a little way forward at the recesses at the top edge and remove from above. Then remove particle filter (p) from the front. Re-fit the clip and the sensor in the same position during assembly.

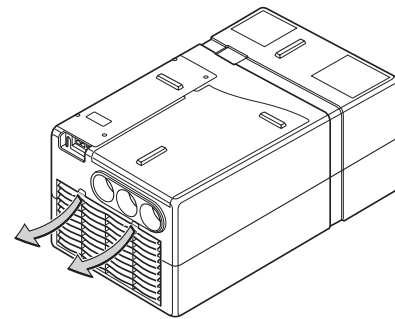


Fig. 6

i When installing the particle filter (p) the printed arrows must point towards the device – they indicate the circulated air flow direction. **Never operate the device without filters.** Operating the device without filters can cause evaporator coil soiling, which can have a detrimental effect on the performance of the device!

The condensation drain is beneath the floor of the vehicle. In order to allow the condensation to drain away freely, check whether the drain is free of dirt, leaves and the like at regular intervals. **Failure to do this may allow condensation to penetrate the vehicle!**

Troubleshooting

Is the motor home / caravan 230 V power supply lead properly connected, and are the fuses and circuit breakers OK?

| Fault | Cause / Remedy |
|--|--|
| Device not cooling | <ul style="list-style-type: none"> – Thawing process in progress / wait until thawing process is complete. – The temperature set on the remote control has been reached / set temperature on remote control to less than room temperature. |
| Device not heating | <ul style="list-style-type: none"> – Thawing process in progress (outside temperature between 4 °C – 7 °C) / adjust fan to lower setting – Outside temperature below 4 °C |
| Device providing insufficient cooling or no cooling at all | <ul style="list-style-type: none"> – Filters soiled / change filters – External air routes soiled, blocked / clear air routes |
| Moisture at cold air ducts | – High air humidity / close windows and doors and select high fan level |
| Remote control not working | – Check batteries in remote control / replace batteries if necessary |
| Device not reacting to remote control commands | <ul style="list-style-type: none"> – Check whether there are obstructions between the remote control and the IR receiver / remove obstructions if necessary – Is the remote control tuned to the IR receiver? / tune remote control to IR receiver |

If these actions fail to remedy the fault, please contact Service Australia.

IR remote control battery change

Only use micro-batteries that will not leak, type LR 3, AM4, AAA, MN 2400 (1.5 V).

The battery compartment is on the rear of the remote control.

When inserting new batteries, make sure the positive / negative terminals are connected correctly!

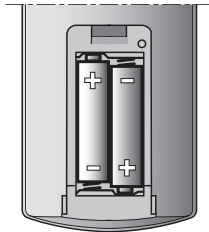


Fig. 7

! Empty, used batteries can leak and damage the remote control! Remove the batteries if the remote control is not being used for a long period of time.

i The tuning between the remote control and the air conditioning system is retained if the batteries are removed.

No warranty given for damage caused by leaking batteries.

Disposal

Before disposing of a defective remote control, always remove the batteries and dispose of them correctly.

The device must be disposed of in accordance with the administrative regulations of the respective country in which it is used. National regulations and laws (in Germany, for example, the End-of-life Vehicle Regulation) must be observed.

Accessories

Sound muffler for installation in the cold air duct for additional noise reduction inside the living compartment. (Part no. 40090-00038).

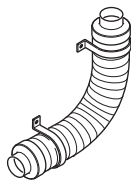


Fig. 8

The flexible air conditioning intake allows the air conditioning system to be installed in a space that is sealed off from the interior (e.g. false floor or rear storage space) and prevents contaminated air from being drawn in. (Part no. 40090-59100).

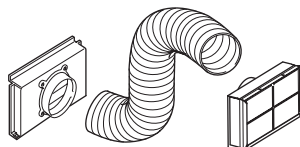


Fig. 9

Technical data

Determined on the basis of EN 14511 or Truma test conditions

Designation

Saphir comfort RC AU, comfort air conditioning system

Number of structural units

1

Dimensions L x W x H

628 x 400 x 290 mm

Weight

approx. 23.5 kg

Power supply

230 V – 240 V ~, 50 Hz

Maximum cooling power

2.4 kW

Heating power

1.7 kW

Effective power consumption

0.98 kW

Starting current

20 A (150 ms)

Power consumption

4.2 A / 35 °C

Protection class

IP X5

Energy Efficiency Rate (EER)

2.4

Volume flow (cold air)

max. 380 m³/h

Refrigerant

R 407C

Refrigerant content

see type plate on unit

Compressor oil

Diamond MA32, 300 cm³

Noise

depending on installation situation

Maximum incline of vehicle during operation

5° / 8 %

Usage limits

+4 °C to +43 °C.

- An interior air sensor prevents the compressor from operating at temperatures of less than +16 °C during cooling.
- An anti-freeze sensor prevents non-permitted ice formation on the evaporator coil.
- A temperature switch prevents excessive current and temperature at the compressor.



Right reserved to make technical changes!

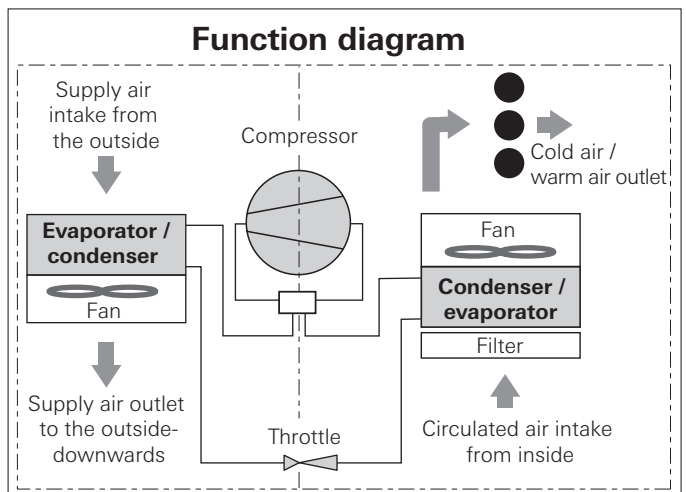


Fig. 10

Installation dimensions

The dimensions are in mm.

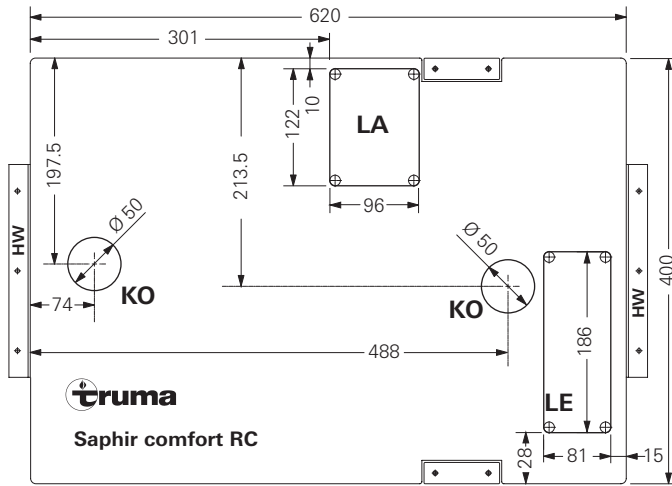


Fig. 11

Truma warranty policy

The warranty is given by Service Australia for 12 months from the date of purchase against any defect arising from faulty materials or workmanship.

Repairs will be carried out during normal business hours only by Service Australia, or its duly authorised service agents, and are subject to the warranty conditions and exclusions hereunder.

Warranty conditions

- The company will only provide service on presentation of proof of purchase, on either the Truma product, or the Caravan / RV / Pleasure Craft in which the Truma product has been installed, to any authorised service agent. The purchaser must allow the service agent to photocopy the proof of purchase to facilitate his claim to the manufacturer.
- Warranty repairs can only be performed by authorised service agents and under no circumstances will Service Australia reimburse repairs carried out by unauthorised persons. Tampering with any part of the product by unauthorised personnel will automatically void the warranty.
- The product must be used solely for domestic purposes only. If the product is used for commercial purposes the warranty is 6 months only.
- Where applicable, the products must be used on the appropriate electrical voltage, gas type and pressure, or fuel source.
- If at any time during the warranty period any part or parts are replaced with a part or parts not supplied or approved by Truma, this warranty shall immediately become void.

Important notice

Before calling a service technician please check carefully the operating instructions, service booklet and warranty terms and conditions. If the product fails for any of the reasons detailed therein, or is faulty due to abuse, misuse or improper installation, then a service fee shall be charged to the purchaser.

If you have any queries regarding the interpretation of the warranty you should contact Service Australia.

Whilst this book represents service outlets at the time of printing, changes occur from time to time. Should you have any queries or wish to locate your nearest authorised service agent please contact Service Australia.

Warranty does not cover

- Any appliance which has been:
 - (a) Subject to misuse, neglect, accident or alteration by any person.
 - (b) Damaged or destroyed by fire, flood, act of God or other inevitable accident.
- Fair wear and tear.
- Damage from foreign substances such as dirt or liquid.
- Travelling expenses or call out fee to and from authorised service agents premises.
- Accommodation or Site Expenses.
- Cleaning of the system. This is considered to be a part of normal product maintenance.
- Non operation of the appliance or resultant damage to the unit where the appliance has been operated in an out of level situation.
- Freight cost of the appliance or parts, to or from, point of service or transit damage.
- Service Australia / Truma are not responsible for resultant loss or damage sustained by the purchaser.
- Non operation of the appliance or resultant damage to the unit where the appliance has not been installed, ventilated, flued or operated in accordance with the manufacturers instructions.

Apart from any warranties implied by the Trade Practices Act 1974 or any relevant State legislation all other warranties express or implied whether arising by virtue of statute or otherwise are hereby excluded.

In Australia, always notify the Service Australia if problems are encountered; in other countries the relevant service partners should be contacted (www.truma.com).

Having the equipment model and the serial number ready (see type plate) will speed up processing.