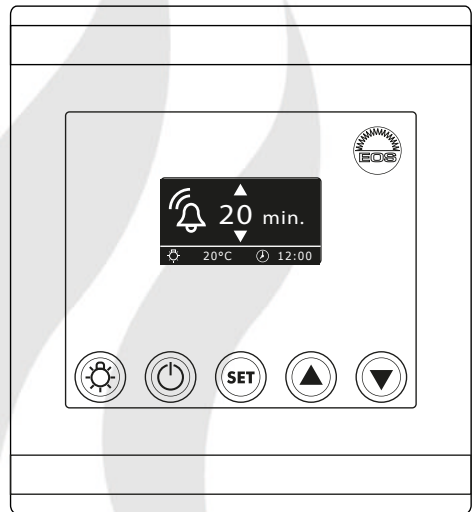


InfraTec Premium



GB Installation and operating instruction

Made in Germany



English

Table of Contents

Specifications.....	4
Scope of delivery	4
General information.....	5
General safety precautions	5
Assembly.....	6
Relay box installation.....	6
Control panel installation	
Installation.....	7
Laying the connection cable.....	7
Electrical Connection.....	8
Adapting the control to the installed components.....	8
Installation diagram	9
Terminal arrangement on the circuit board.	9
Connection diagram for IR radiant heaters	10
Connection diagram for IR heating foils.....	11
Connection diagram for IR radiant heaters and IR heating foils	12
Connecting the sensor cables	13
Installation of the room sensor.....	13
Installation of the optional heating foil sensor	14
Operation.....	15
General.....	15
The user interface	15
Operating buttons.....	15
Default display Stand-by.....	16
Default display in operation.....	16
Energy-saving display.....	16
Initial commissioning	17
Change language.....	18
Change time	18
Foil temperature	19
Switching on the IR system	20
Switching off the IR system	20

Individual settings	20
Room temperature	21
Room temperature for heating foil operation	22
Radiant heater for back.....	24
Front radiant heater	26
Radiant heater for legs	28
Heating time	29
Switch Off.....	30
Error messages	31
Service Address:.....	32
Warranty Terms	32
General Terms and Conditions of Service.....	33

Specifications

Voltage:	230 V 1N AC 50 Hz
Fuse:	1 x 16 A
Power rating:	max. 3500 W
Output circuits:	3 (2 circuits individually dimmable)
Temperature control range:	30 - 70° C
Control characteristics:	Digital output control (channels 1 and 2)
Sensor system:	KTY sensor (main sensor, cabin temperature) KTY sensor (heating foil sensor, optional)
Heating time limitation:	1 - 99 minutes / 0 -12 hours
Ambient temperature:	-10 to 40° C
Dimensions control panel, HxBxT:	139 x 194 x 49 mm
Dimensions relay box, HxBxT:	240 x 230 x 70 mm
Weight control panel:	ca. 120 g
Weight relay box:	ca. 1,5 kg

Scope of delivery

(subject to changes)

Included in control unit scope of delivery:

- Control panel, incl. 5 m connection cable
- Relay box
- Plastic bag containing four mounting screws 4 x 20 mm
- Temperature sensor, two mounting screws 3 x 25 mm, sensor cable 2 m

Dear customer,

with the purchase of this IR control unit, you have opted for a superior quality and an innovative electronic device which has been developed and manufactured according to the highest standards and norms.

Please read the guidelines in these instructions carefully so that you can familiarise yourself quickly and easily with the unit.

General information


The IR control unit is designed for power supply 230 V 1N 50 Hz AC and shall be protected with a separate 16 A fuse.

The installation and connection of the sauna facilities and other electrical operating equipment may only be carried out by a specialist from an authorised specialist electrical company; here VDE 0100 Part 703/2006-2 must be observed.

Please read the following installation and operating instructions through carefully so that your IR system can be operated without malfunctions. Please also follow the information and instructions provided by the IR cabin manufacturer.

General safety precautions

- The unit may only be used for its intended purpose as a control for IR radiators or IR heating foils up to max. 3.5 kW.
- The electrical installation may only be performed by an authorized electrician.
- You must comply with the regulations of your utility company as well as the standard VDE-guidelines (DIN VDE 0100).
- **CAUTION!** Danger of death, never carry out repairs and installations yourself. Only a qualified technician may remove the housing cover.
- **Caution:** The control power element may not be installed in enclosed switching cabinets or be enclosed in wooden panelling!

- The unit may only be used for its intended purpose as a control for IR radiant heaters.
- The system must be disconnected at all poles from the mains during all installation and repair work, meaning that you must switch off all fuses or the main switch.
- Follow the safety and installation information provided by the manufacturer.
- This unit is not intended for use by persons (including children) with restricted physical, sensory or mental capacity or by persons without the necessary experience and/or knowledge unless they are supervised by someone responsible for their safety or receive instructions from them on how to use the unit.
- Children are to be supervised in order to ensure that they do not play with this device.
-  Only IR radiators acc. DIN 60335 or IR heating foils with integrated overheating protection (140°C) may be connected.
- Follow the safety and installation information provided by the IR radiant heater manufacturer.

Installation

Relay box

The relay box may only be installed outside the cabin. It is advisable to select the outside wall of the cabin or the cabin ceiling for the installation. If ductwork is provided for the electrical installations then the position of the power switchgear is predetermined by that. Please follow the instructions for installation:

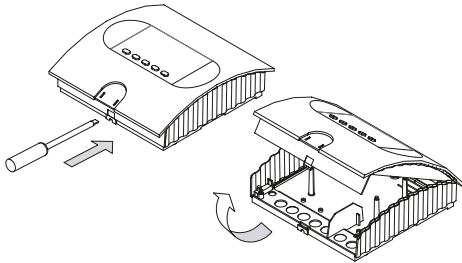


Fig. 1

1. Remove the cover of the power element. To do this, push the retaining tang to the inside with a flat screwdriver and pivot the housing top upwards (Fig. 1).

The 5 mm diameter boreholes for the supplied wood screws 4 x 20 mm are drilled according to the dimensions shown in Fig. 2.

2. Insert one of the wood screws into the top center hole. The power element is hooked onto this screw. Therefore, leave the screw out by ca. 3 mm (Fig. 3).

3. Hook the power element to the 3 mm protruding screw in the upper mounting hole

Insert the supplied rubber grommet into the openings at the rear wall of the housing and insert the connecting cable through these openings.

Fasten the bottom section of the housing firmly to the cabin wall or cabin ceiling by inserting the screws into the two lower boreholes (Fig. 4).

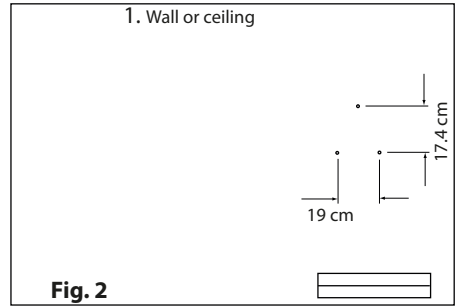


Fig. 2

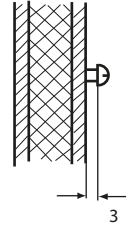


Fig. 3

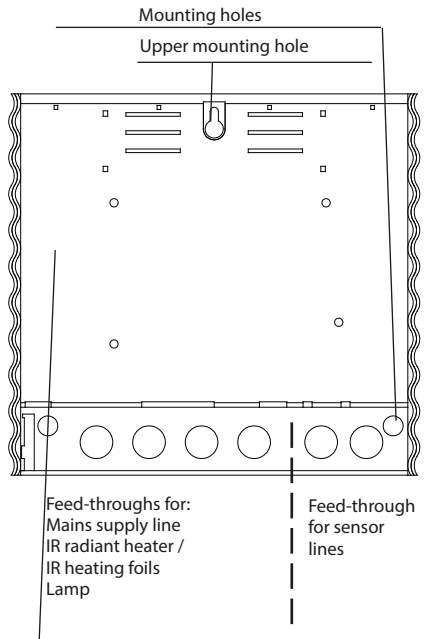


Fig. 4

Installation

Control panel

The control panel should be mounted outside the cabin. If the control panel is mounted inside the cabin it may not be placed in the direct range of the IR-beam and the maximum room temperature may not exceed 60°C. If ductwork is already provided for electrical installations then the position of the control panel is predetermined by that. The installation is done into the cabin wall. Please follow the instructions for installation:

The mounting position must be specified first for installation outside the cabin.

Inside the cabin select a mounting position that is preferably underneath an IR-beam.

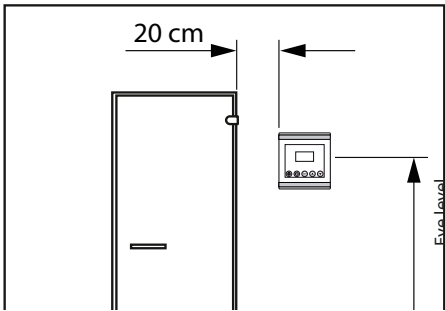


Fig. 5

Make a wall opening to a size of 105 mm (width) X 90 mm (height) X 25 mm (min. depth).

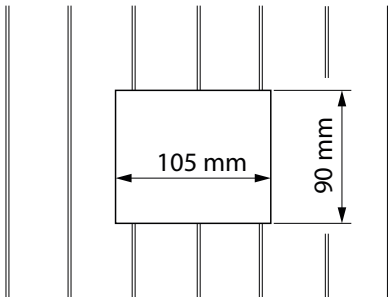


Fig. 6

Connection cables

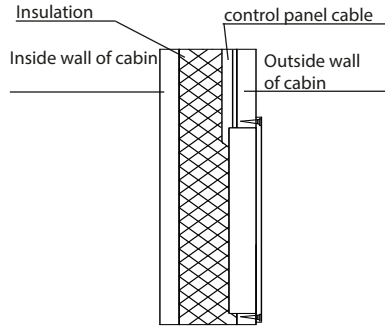


Fig. 7

Lay the connection cable from the control panel to the relay box.

The connection cable may only be laid between the insulation and the outside wall of the cabin (Fig. 7). The insulation must be designed for max. outside temperature of 75 °C.

Mount the control panel in the wall opening and fix it with the 4 screws enclosed.

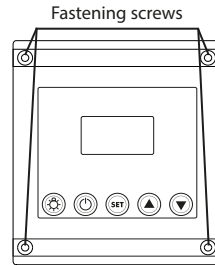


Fig. 8

Finally glue the self-adhesive decorative strips into the horizontal grooves of the control panel.

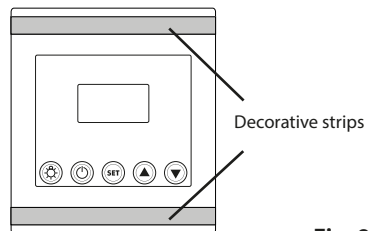


Fig. 9

Electrical Connection

The electrical connection may only be done by a certified electrician in compliance with the guidelines of the local utility company and the VDE.

Mains connection is carried out using a Schuko type plug, to be mounted by the customer, to a separate Schuko type socket with a 16A fuse.

Because of the higher starting current has the unit to be fused by a 16A circuit breaker with K characteristic.

All electrical installations and all connection lines that are installed inside the cabin must be suitable for an ambient temperature of at least 170 °C.

Lay the connection cables (max. 5 m length) from the separate IR radiators to the relay box and connect according to the connection diagram.

If more than one IR-radiator is to be connected per heating circuit, the respective connection lines from these radiators must be connected in junction boxes provided by the customer outside the power unit. Only one cable line may be connected to the terminals of each power output circuits.

Lay the connection cable from the control element to the power switchgear and produce the plug connections according to the connection diagram.

Adapting the control to the installed components.

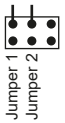
On the circuit board of the IR control power unit you will find a pin block for three jumpers



The type of emitters used is set using the jumpers 1 + 2.

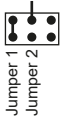
IR radiant heater

If exclusively IR radiant heaters are installed, both jumpers remain open



IR heating foil

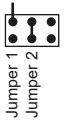
If IR heating foils are installed, Jumper 1 is connected and Jumper 2 remains open.



A radiant heater for the legs can also be installed

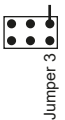
IR radiant heater & IR heating foil

If both IR radiant heaters - except for the radiant heater for legs - and IR heating foils are installed, Jumper 2 is connected and Jumper 1 remains open.

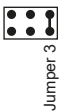


You can set the maximum heating time with Jumper 3

Maximum heating time 99 minutes
Jumper 3 open

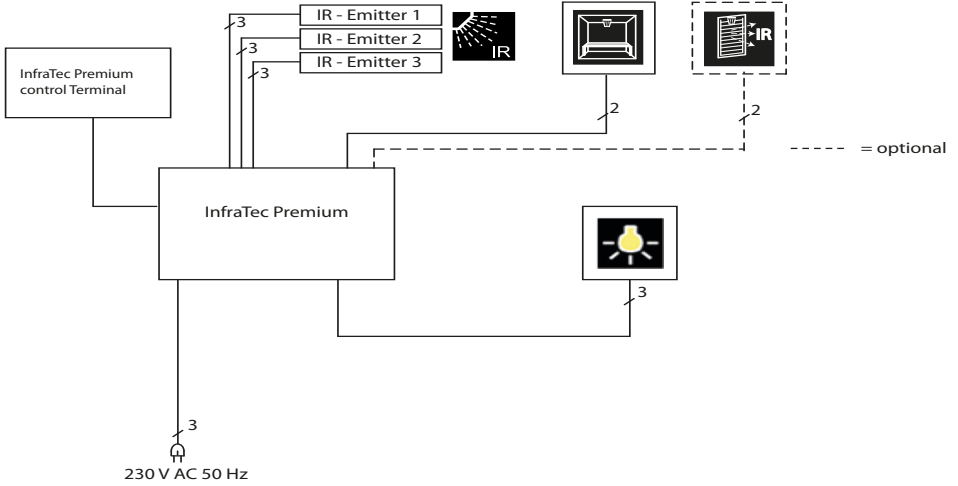


Maximum heating time 12 hours
Jumper 3 closed



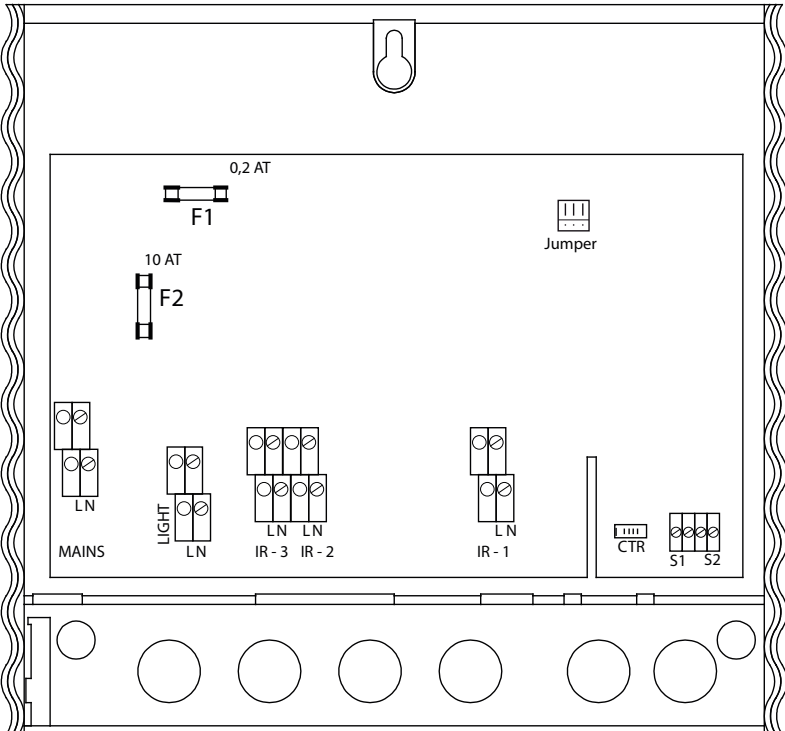
Notice: by connection of IR heating foils the optional 2nd sensor (surface sensor for heating foils) shall be connection and activated through the jumper setting.

Installation diagram

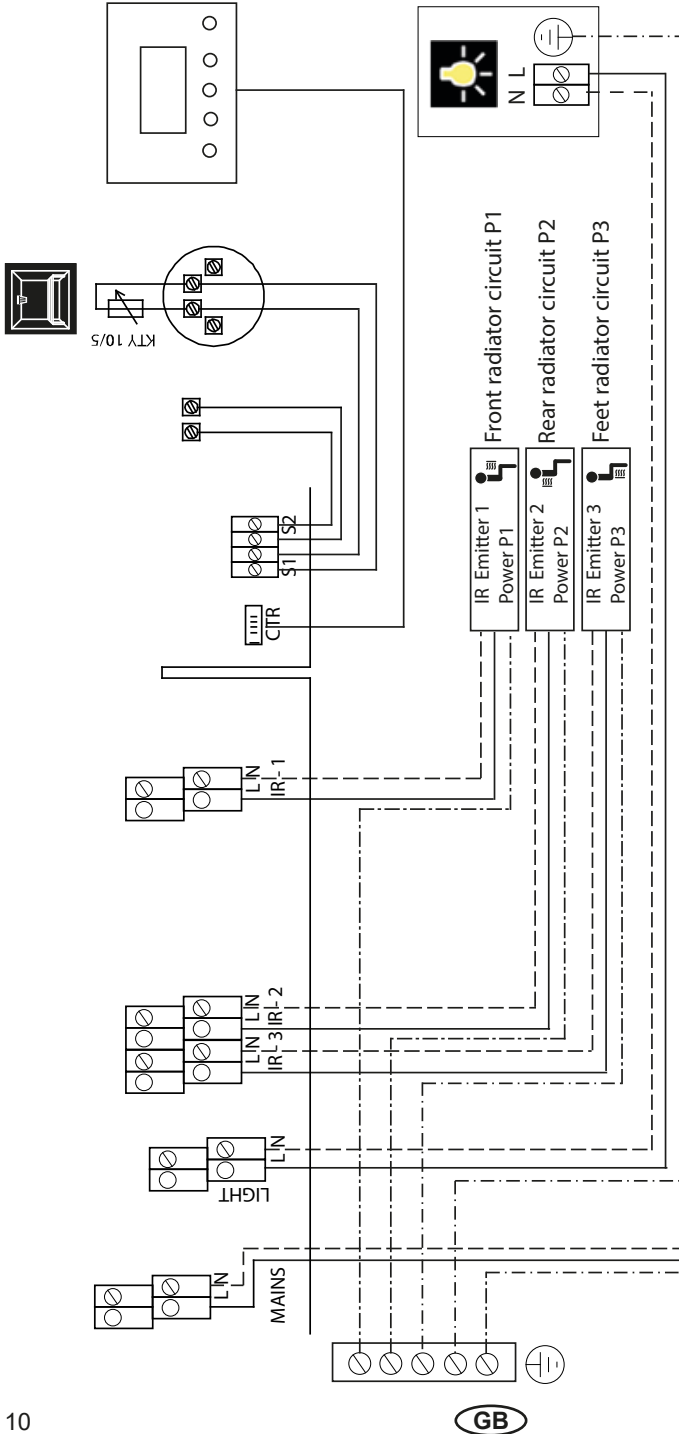


Terminal arrangement on the circuit board.

(Power unit)

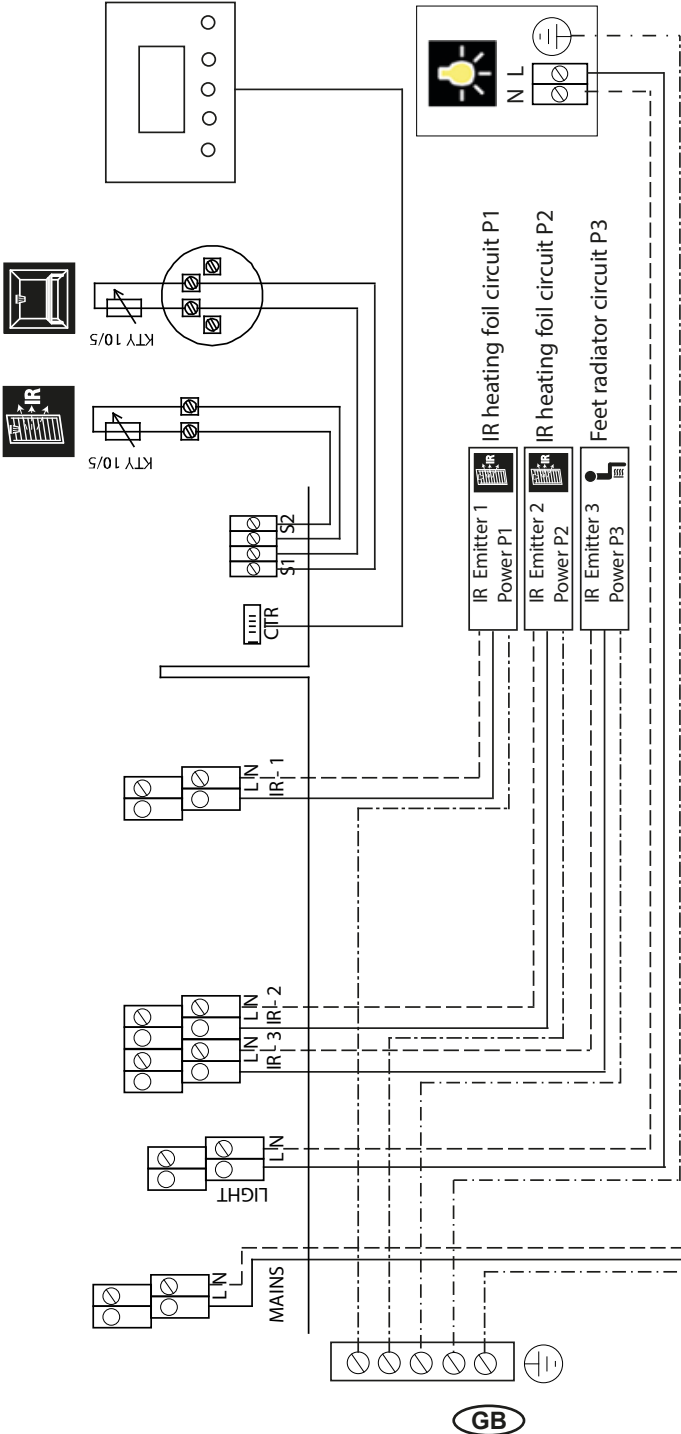


Connection diagram for IR radiant heaters



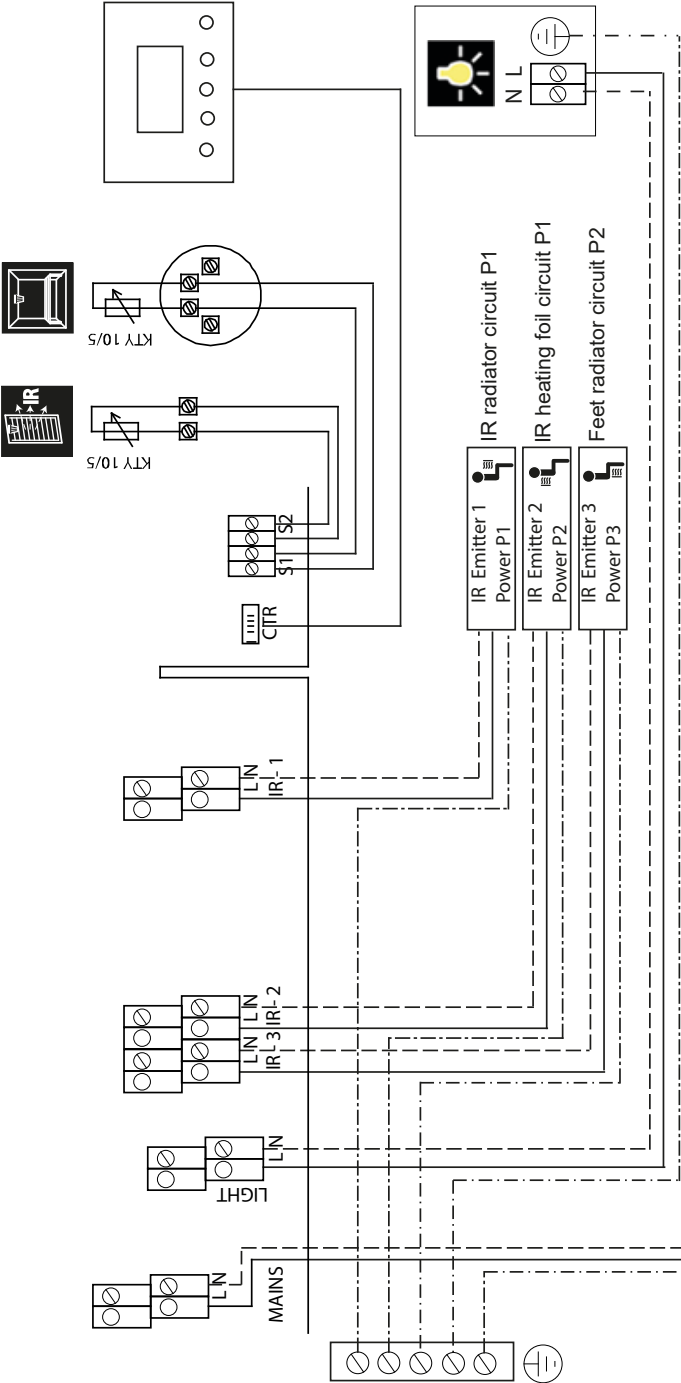
Total power load $P = P1 + P2 + P3 = \text{max. } 3.500 \text{ W}$
 Circuits with dimmable (variable) power output: P1 and P2
 Circuit with switchable output: P3
 The power load by P1, P2 and P3 may be distributed vari-
 ably, but may not exceed the above limit.

Connection diagram for IR heating foils



Total power load $P = P1 + P2 + P3 = \text{max. } 3.500 \text{ W}$
 Circuits with dimmable (variable) power output: P1 and P2
 Circuit with switchable output: P3
 The power load by P1, P2 and P3 may be distributed vari-
 ably, but may not exceed the above limit.

Connection diagram for IR radiant heaters and IR heating foils



Total power load $P = P1 + P2 + P3 = \text{max. } 3.500 \text{ W}$
 Circuits with dimmable (variable) power output: P1 and P2
 Circuit with switchable output: P3
 The power load by P1, P2 and P3 may be distributed vari-
 ably, but may not exceed the above limit.

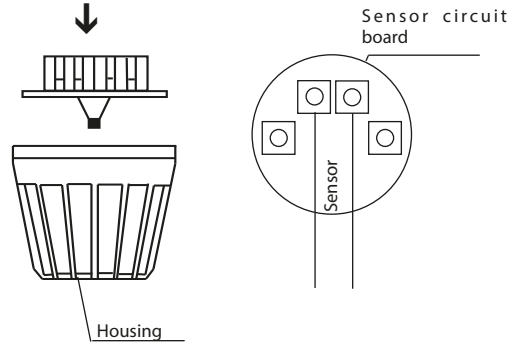
Connecting the sensor cable

You should not draw sensor and power supply cables together or lead them through the same duct. This can lead to interferences in the electronics, such as "fluttering" in the relays. If it is necessary to lay the cables down together, or if the sensor line is longer than 3m, use a shielded sensor cable (2 x 0.5 mm²).

Connect the shielding to ground in the control unit.

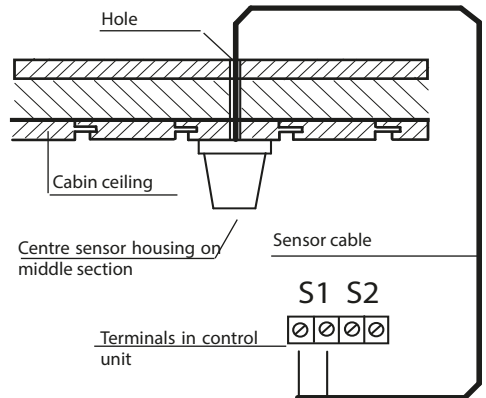
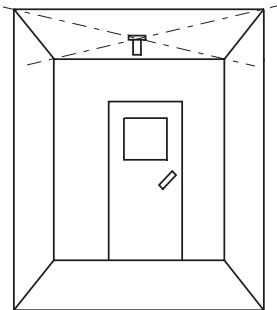
Please observe that the following dimensions relate to the values stipulated during the unit inspection acc. EN 60335-2-53. The room temperature sensor must always be mounted on the ceiling in the centre of the cabin. The following Figs. give you an overview of the installation point for the sensor.

2. Drill a hole to lead the cable through, preferably through the middle of one of the wooden boards.
3. Draw the sensor cable through the drilled hole and connect it to the sensor board according to the Fig. below.



Installation of the room sensor

1. The heater sensor is mounted in the centre of the cabin ceiling.





Installation of the optional heating foil sensor

- Fix the heating foil sensor cable outside the IR heating foil with the strain relief

Installation location:

The heating foil sensor shall be mounted in the area of the overheating protection of the smallest heating foil installed and shall be reliably fixed with a strain safeguard.



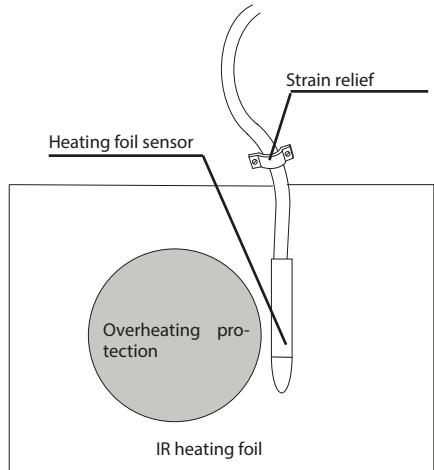
CAUTION! Measurement value falsification!

If the heating foil sensor is not directly mounted onto the IR heating foil, the measurement values will be falsified. Therefore place the heating foil sensor directly onto the heating foil.



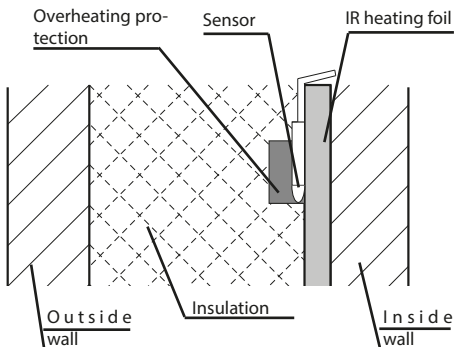
Only mount the heating foil sensor when using IR heating foils with integrated overheating protection.

- Mount the sensor directly between the heating foil and the insulation.



CAUTION! Do not damage the IR heating foil during installation.

- Draw the sensor line to the control power unit and connect to the S2 terminals.



Operation

Once the system has been installed with all components and all covers have been fixed, you can put your IR cabin into operation.

The following pages explain the operation, settings and options of the Infratec Premium control unit.






General

The user interface



The fig. shows the operating unit in Stand-by mode with the light switched on.

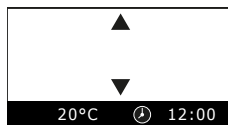
Operating buttons

-  = Cabin lighting
-  = Heating On - Off (stand-by)
-  = Programming mode
-  = Previous function / Increase the value
-  = Next function / Decrease the value

Default display Stand-by

is shown if the system is in Stand-by mode.

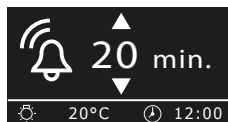
Reset to this display takes place from other menu items if no activity is carried out > 15 s.



Default display in operation

is shown if the system is in operation.

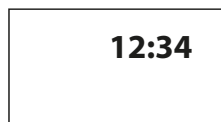
Reset to this display takes place from other menu items if no activity is carried out > 15 s.



Energy-saving display

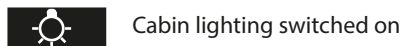
If the unit is not used, it will switch after 15 seconds into energy-saving mode. First the background lighting is switched off and then a moving time is shown after 30 minutes, similar to a PC screensaver.

By pressing any key you can return to the Stand-by default display.

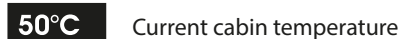


The following applies for all settings:

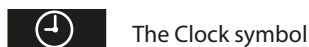
The following is shown at the bottom area of the display:



Cabin lighting switched on



Current cabin temperature



The Clock symbol

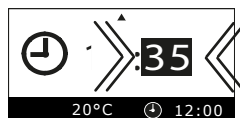
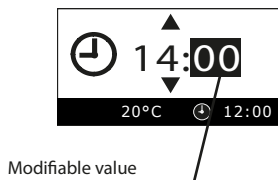


Current time

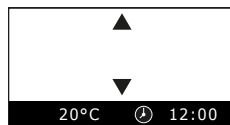
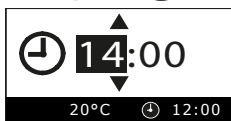
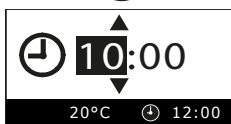
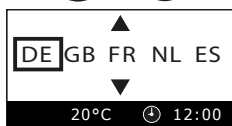
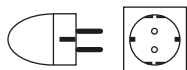
If the background around a value in the bottom part of the display is shown in black, this value can be changed using ▲ or ▼ .

If no key is pressed for >15 s., the unit switches back into the default display. Changes made up to then are not saved

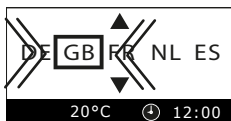
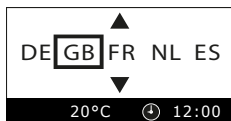
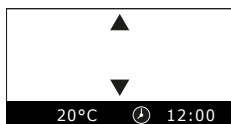
All settings out of Stand-by are confirmed by pressing (SET) >3 s and saved in the unit. After saving, the changed value will flash twice.



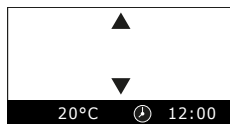
Initial commissioning

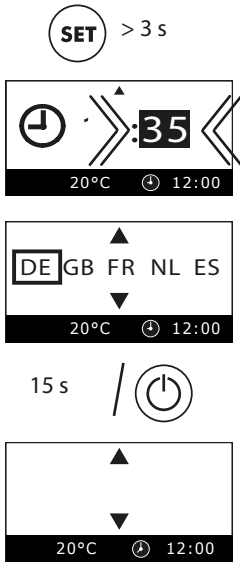


Change language



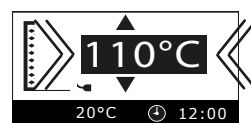
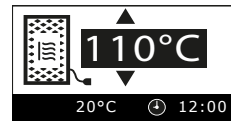
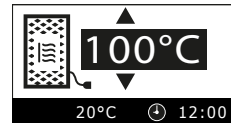
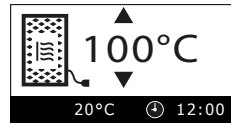
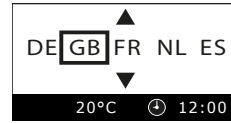
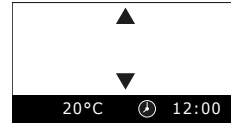
Change time

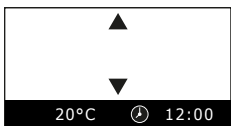
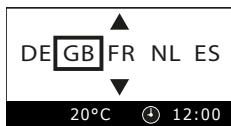




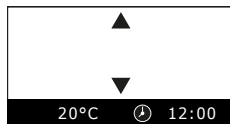
Foil temperature

If IR heating foil and the optional heating foil sensor are connected to your IR cabin, the maximum permitted temperature for the IR heating foil is set.

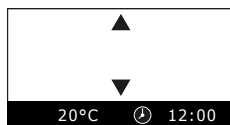




Switching on the IR system



Switching off the IR system



Individual settings

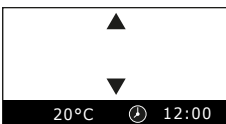
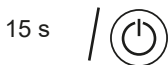
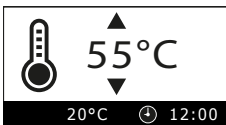
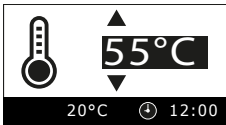
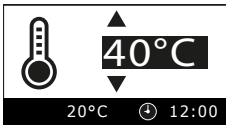
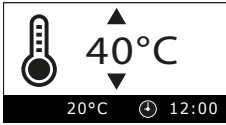
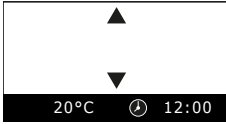
The following pages show you the options for adapting the control unit to your individual requirements. Permanent changes of settings can only be carried out in Stand-by mode.

The individual parameters can be adjusted in the same way during operation. These changes take effect immediately and are not stored permanently. They apply only for the respective session.

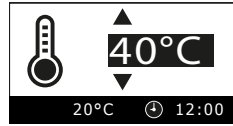
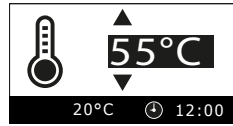
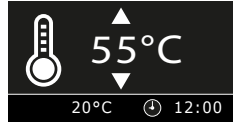


Room temperature

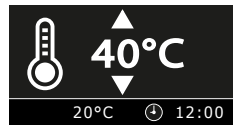
In Stand-by



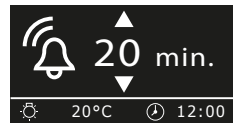
In operation



5 s



15 sek.

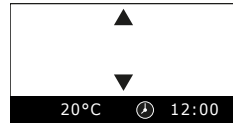
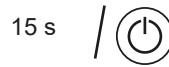
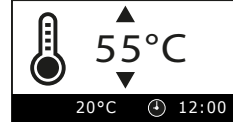
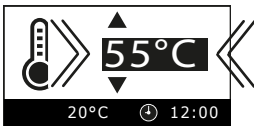
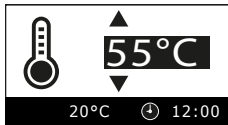
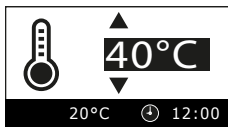
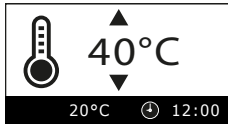
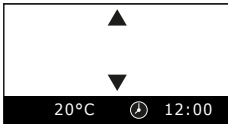




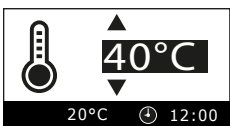
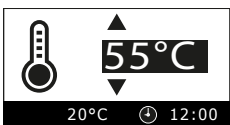
Room temperature for heating foil operation

The display shows the temperature value to be regulated in the central area (40/55° C).

In Stand-by



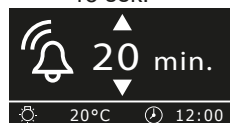
In operation



5 s



15 sek.

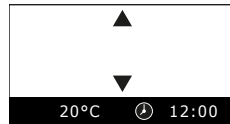
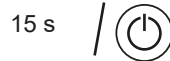
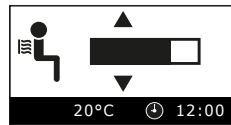
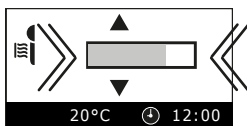
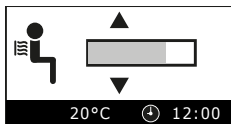
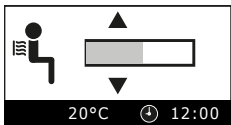
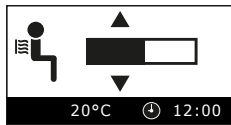
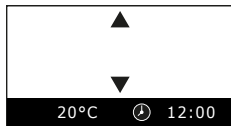




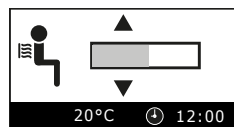
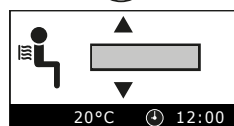
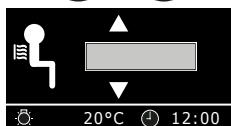
Rear side IR radiators

Only possible when operated with IR radiators.

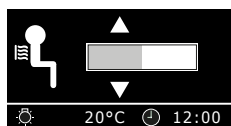
In Stand-by



In operation



5 s



15 sek.

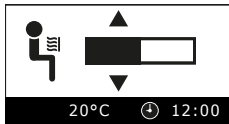
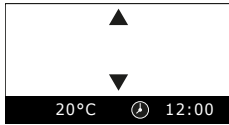




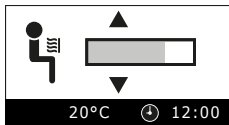
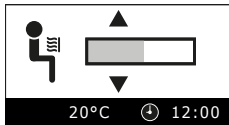
Front side IR radiator(s)

Dimmable only by operation with IR radiators and in combination mode (IR radiators & heating foils)

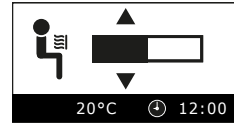
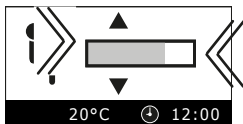
In Stand-by



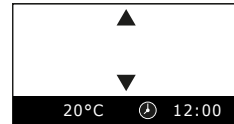
SET



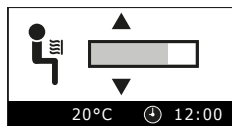
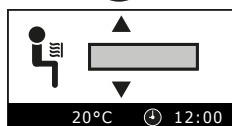
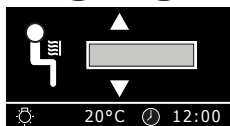
SET > 3 s



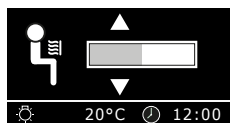
15 s /



In operation



5 s



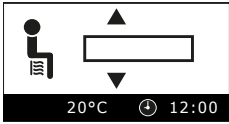
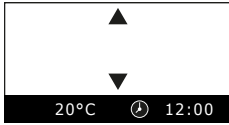
15 sek.



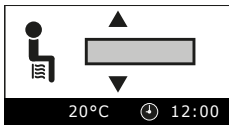
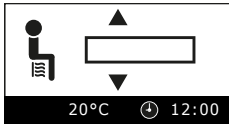


IR radiator(s) for feet

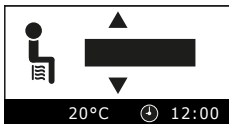
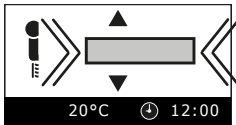
In Stand-by



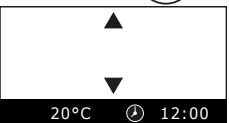
SET



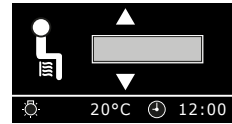
SET > 3 s



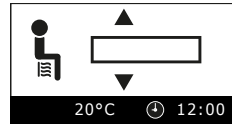
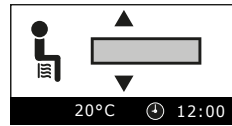
15 s / [Power button icon]



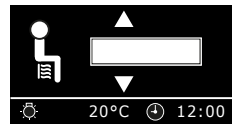
In operation



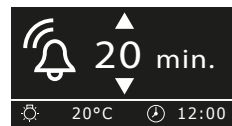
SET



5 s



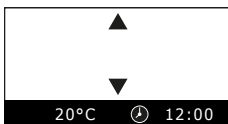
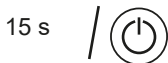
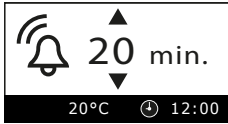
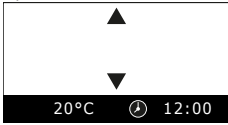
15 sek.



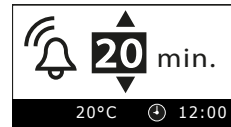


Heating time

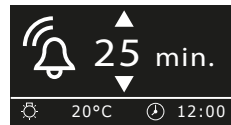
In Stand-by



In operation



5 s



The Switch-off

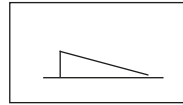
You will find the rocker switch on the top side of the control unit relay box. You can completely disconnect the control unit from the mains using this switch.

Push the switch on the left side of the rocker to the first latch (**switch setting 0**). The switch will be in the middle position. The unit is now completely switched off (disconnected).

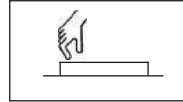
To turn the light on in the cabin while the unit is still disconnected push the left side of the rocker to the second latch (**switch setting II**).

To make the unit ready for operation, switch back to the initial position (**switch setting I**). The unit will return to stand-by mode.

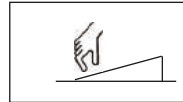
Switch-off



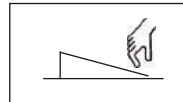
unit is turned on



unit is turned off



light is turned on,
unit is turned off



unit is turned on

Error messages

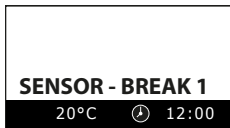
The control unit continuously monitors the temperature sensor for short circuits and interruptions. However only the sensors which are activated are monitored. That means:

If only IR radiators are connected then only the cabin temperature sensor is monitored:

If only IR heating foils are connected then both sensors are monitored.

If both IR radiators and IR heating foils are connected then both sensors are monitored.

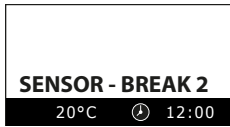
The error messages appear as follows:



= Interruption in the room sensor circuit



= Short circuit in the room sensor circuit



= Interruption in the foil sensor circuit



= Short circuit in the foil sensor circuit

If one of these messages appears contact your authorized dealer to have the system checked by a specialist.

At room temperature (approx. 20° C) the KTY sensor shall have a resistance of approx. 2 kΩ.

Please keep this address in a safe place together with the installation guide.

To help us answer your questions quickly and competently please provide the information printed on the type shield including the model, item no. and serial no., in all inquiries.

Service Address:

EOS Saunatechnik GmbH
Schneiderstriesch 1

35759 Driedorf, Germany

Tel: +49 (0)2775 82-514

Fax: +49 (0)2775 82-431

servicecenter@eos-sauna.de

www.eos-sauna.de

WARRANTY

The warranty is provided according to the legal regulations at present.

Manufacturer's guarantee:

- The period of guarantee starts from the date of purchase and lasts up to 2 years by commercial use and 3 years by private use.
- Always include the completed guarantee certificate when returning equipment.
- The guarantee is void for appliances which have been modified without manufacturer's explicit agreement.
- Damages caused by incorrect operation or handling through non-authorized persons are not covered under the terms of guarantee.
- In the event of a claim please indicate the serial number as well as the item number and model name with detailed description of the fault.
- This guarantee covers defective parts and labour but not the defects caused by wear and tear.

In case of complaint please return the equipment in its original packaging or other suitable packaging (caution: danger of transport damage) to our service department.

Always include the completed warranty certificate when returning equipment.

Possible shipping costs arising from the transport to and from point of repair cannot be overtaken by us.

Outside of Germany please contact your specialist dealer in case of warranty claims. Direct warranty processing with our service department is in this case not possible.

Equipment commissioning date:

Stamp and signature of the authorized electrician:

Handling procedures for return shipments (RMA) - Details for all returns !

Dear customer

we hope that you will be satisfied with the purchased EOS product. In the rear case if you may have a claim and will need to return a product, please follow the procedures specified below. This will enable to ensure a quick and effective handling of the return shipment.

Please observe for all returns!

- Please add the provided **RMA-voucher completely filled out** together with an **invoice copy** to the return shipment! Do not stick it on the goods or on the packaging. **We do not accept return shipments without these papers.**
- Not prepaid parcels **will be refused** and returned to Sender! Please always ask your dealer or EOS service department about the most economical return shipment way.
- **Please pay attention that** the goods have to be sent back in the **original scope of delivery** and in **original packing**.
- We recommend to use an **additional solid and break-proof covering box** which should be padded out with styrofoam, paper or similar. Transport damages as a result of faulty packing are for the sender's account.

Reason of complaint and proceedings:

1) Transportation damage

- Please check the content of your parcel immediately and advise the forwarding company of a claim (parcel service/freight forwarder)
- Do not use damaged goods!
- Ask the forwarder **for a written acknowledgement of the damages.**
- **Report the claim promptly by phone to your dealer.** He will discuss with you how to act in this case.
- If the transport box has been damaged, please use an additional covering box. Do not forget to add the **acknowledgement of the damage of the forwarding company!**

2) Faulty goods

- The implied warranty period is 2 years. Please contact your dealer in case of **faulty or wrong articles or missing accessories.** He will discuss with you the individual case and try for immediate and customer-friendly solution.
- For **economic returns** within Germany you will get an **RMA-number from the manufacturer.**
- All returns have to be in the **original packing of the goods with corresponding accessories.** Please repack the goods to avoid damages. In case of wrong delivery, please do not use this article .

3) Problems of installation and functioning

- Please **read the manual carefully first of all** and pay attention to the indicated assembly or installing instructions.
- **Your dealer should be the first contact person** because he knows his products best and also knows possible problems.
- **In case of function problems with an article,** please check at first whether there is an obvious material defect. The quality system in our factory reduces malfunctions of new appliances to almost zero.