

GB **Operating Instructions for the
Indoor and Outdoor Device**

Einhell®

Split-system Air Conditioner



Important note:

This high-quality product will only offer optimum service if installed correctly and in the right place, and is put into operation for the first time by a suitably competent person. Avoid malfunctions by seeking competent advice from an expert with regards to the location, installation and starting up of the system.

We shall accept no liability for malfunctions or inadequate cooling performance resulting from the improper handling of the product.

Only a suitably qualified firm is permitted to undertake any work of making the electrical and cooling system connections and putting the system into operation for the first time.

If the system is to be moved to another location or disposed of, only a suitably qualified electrician's/cooling system firm is permitted to undertake any work of disassembly or disposal.

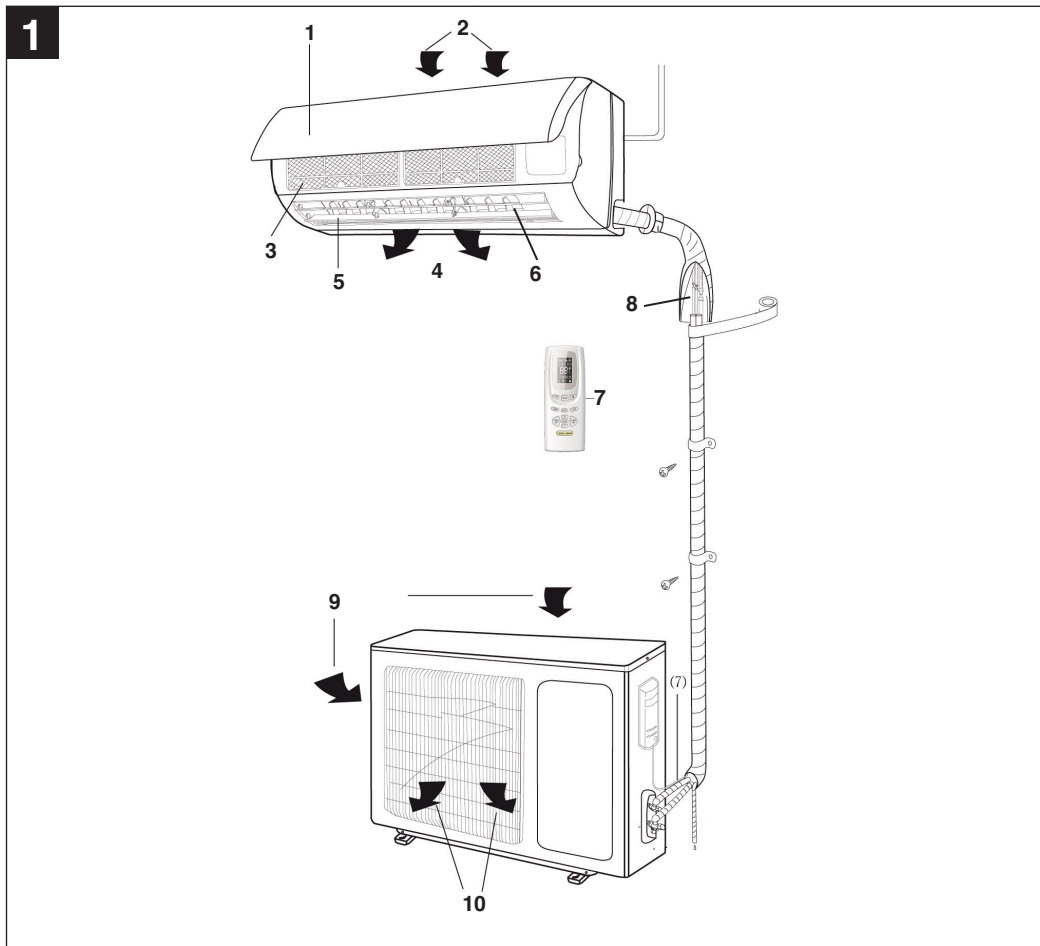
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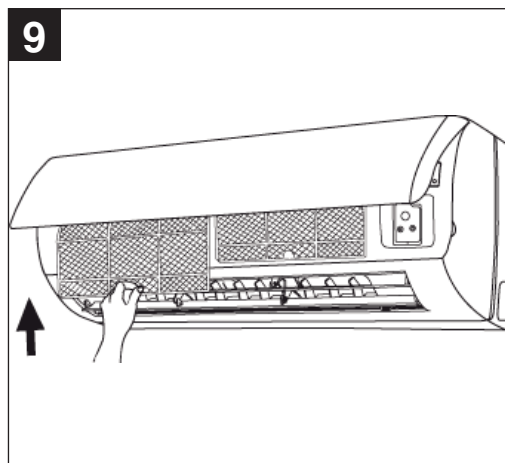
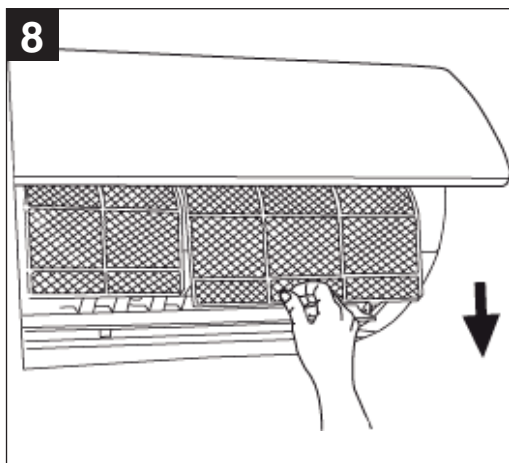
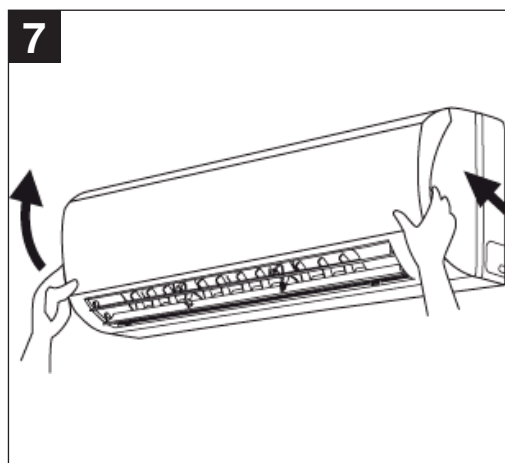
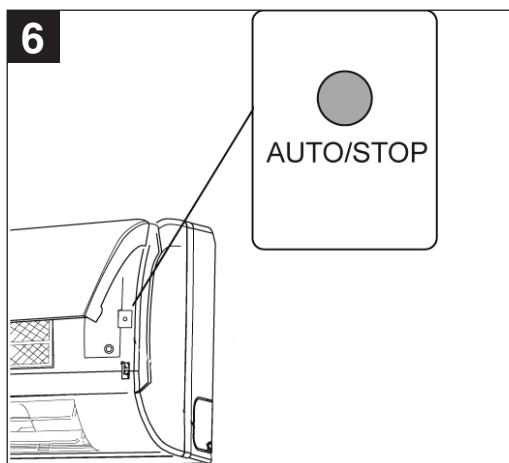
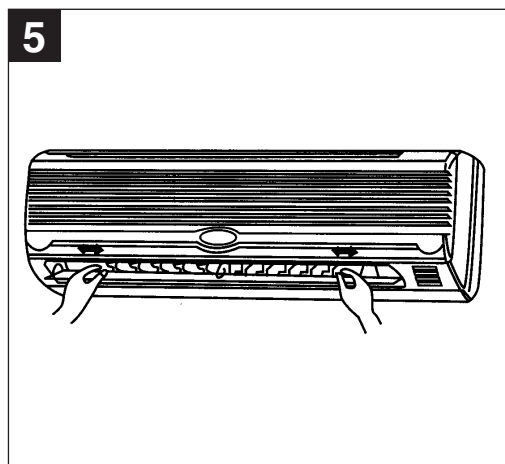


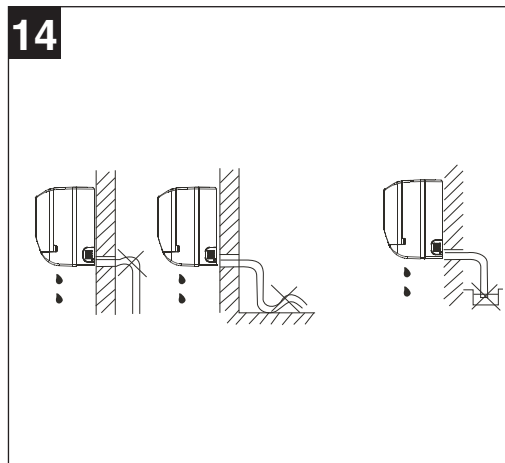
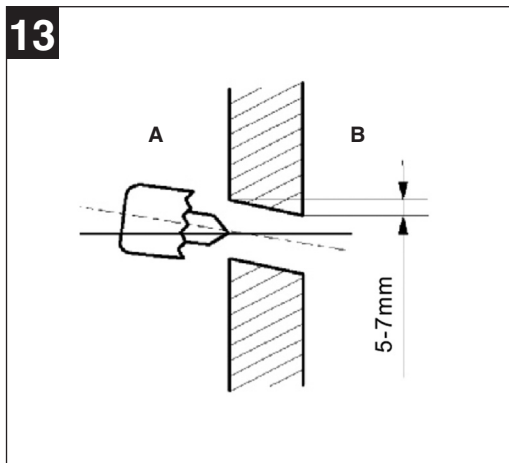
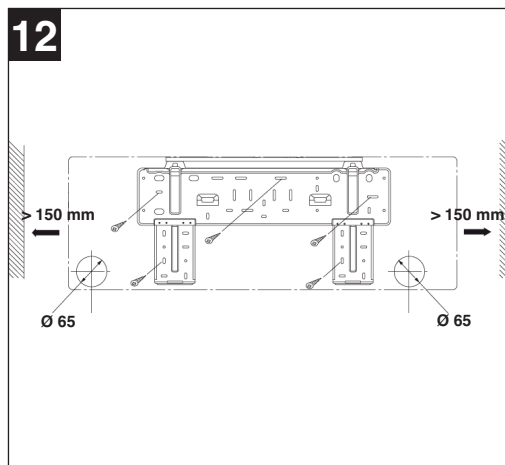
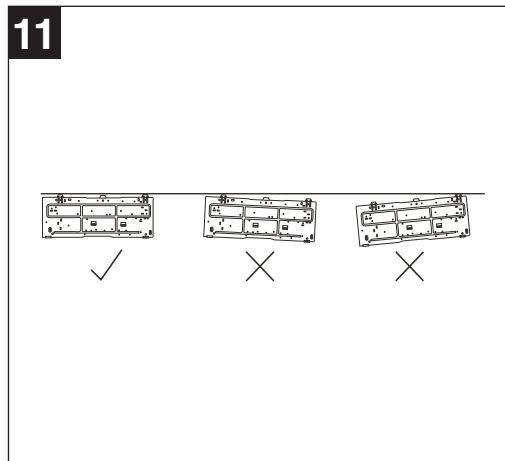
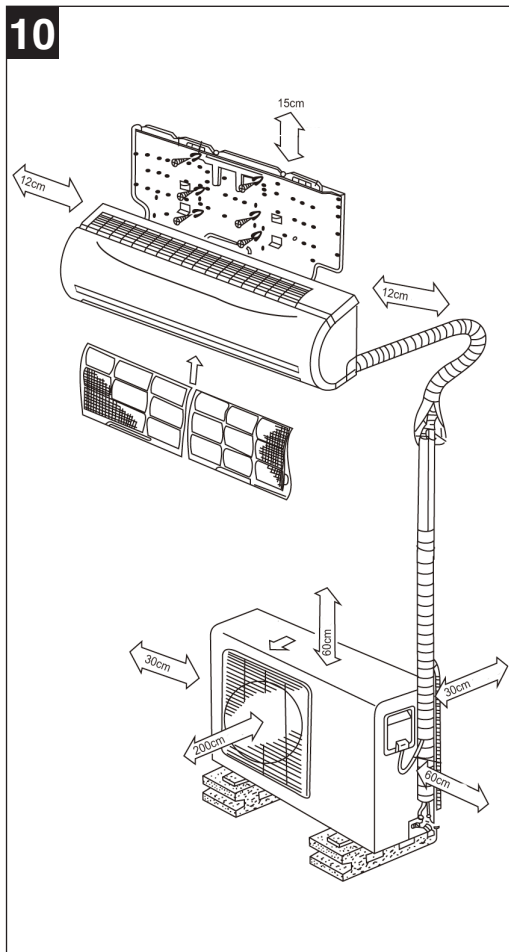
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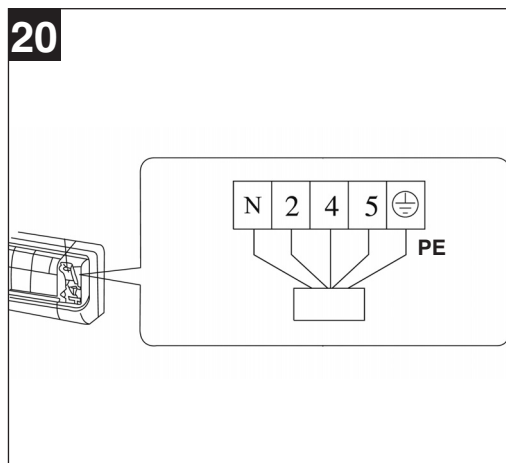
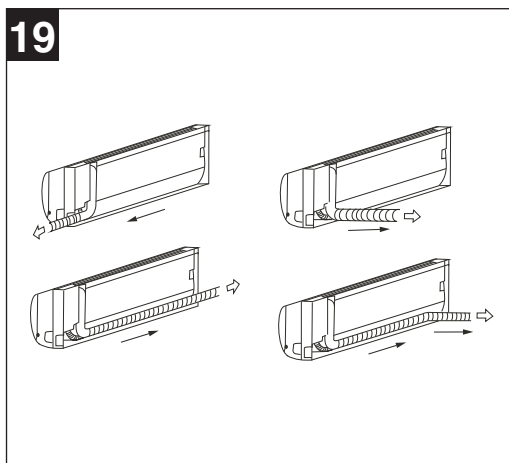
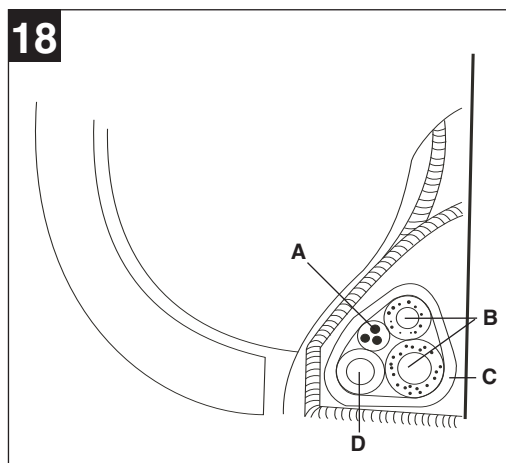
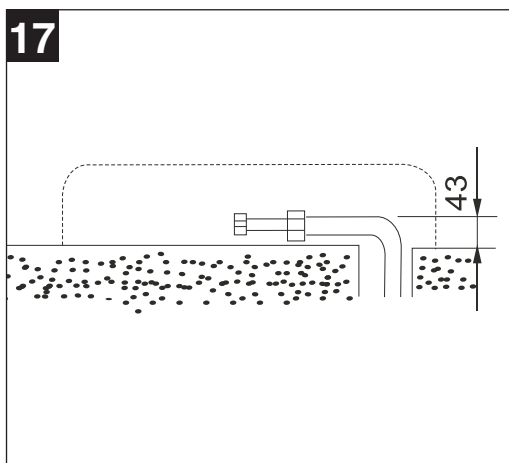
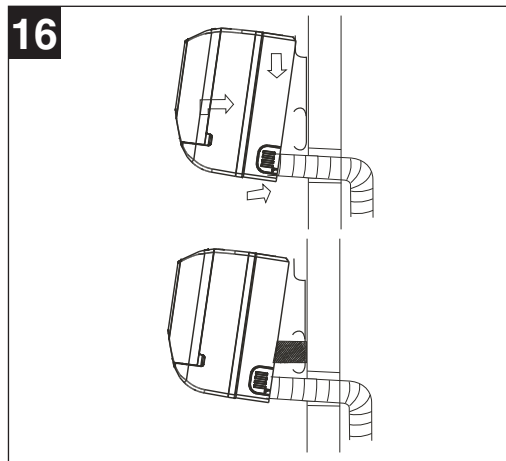
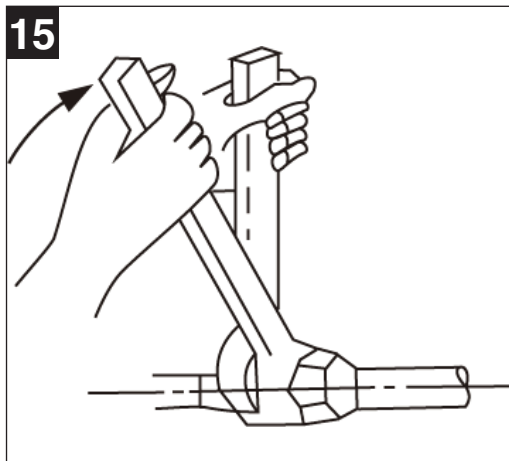
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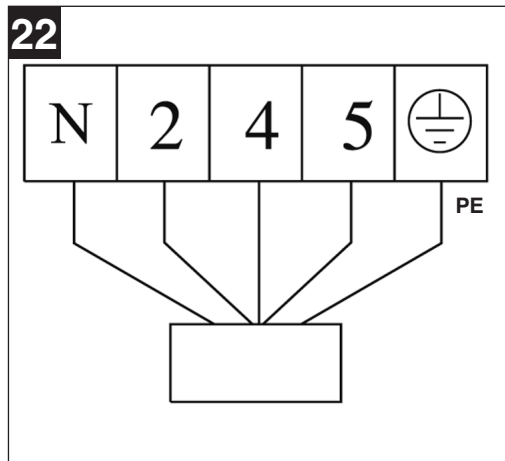
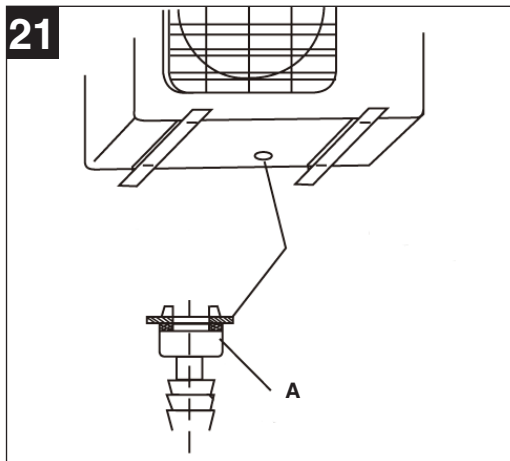


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For the expert only

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⚠ Important!

When using the equipment, a few safety precautions must be observed to avoid injuries and damage. Please read the complete operating instructions and safety regulations with due care. Keep this manual in a safe place, so that the information is available at all times. If you give the equipment to any other person, hand over these operating instructions and safety regulations as well. We cannot accept any liability for damage or accidents which arise due to a failure to follow these instructions and the safety instructions.

1. Safety instructions

- Read the safety instructions before you start to use the device.
- These points set out extremely important precautionary measures that you must comply with.
- Keep the Operating Instructions in a safe place once you have read them.
- Check that the drainage line is correctly connected. If not, water will escape.
- **Warning!**
Do not extend the cable and never use multiple plugs. A poor electrical connection, poor insulation or voltage which is higher than permitted can cause fire.
- **Remove all dirt from the power plug and plug it in firmly. Soiled plugs can cause fire or an electric shock.**
- **Warning!**
- Never pull out the plug while the device is in use.
- Never permit cool air to be blown directly at you for any lengthy period of time.
- In the event of any abnormalities (e.g. smell of burning), immediately switch off the device and pull the plug. Contact your service partner.
- Never poke fingers or sticks in the air inlet and outlet vents.
- Never attempt to repair the air conditioner yourself. Always contact your service partner if it requires repair.
- Never pull the plug out by pulling on the cable. Hold the plug firmly and pull it out of the plug socket, otherwise there is a risk of damaging the cable.
- Always switch off the device and pull the plug before you start to clean it.
- Never actuate any switches with wet hands.
- Never clean the air conditioner with water.
- Never place any plants or animals under a location to which cool air flows as this could have an undesirable affect on them.
- Never use combustible cleaning agents as these could cause a fire or deformation.
- If the air conditioner is to be used in conjunction with other heaters, the air should be refreshed periodically, otherwise there is a risk of lack of oxygen.
- Never use the device for any other purpose than the intended use. Never place food, precision instruments, plants, animals, paint, etc. on the device.
- Never hold any burning objects close to the device if they could be directly affected by the emitted air.
- Always pull out the power plug if the device is not going to be used for any lengthy period of time. Collections of dust can cause fire.
- Never step onto the outdoor device and never place anything on it.
- Never use an unsteady or rusty base.
- Never allow the device to run for too long with the doors or windows open, or if the humidity is very high. If the air conditioner runs for a long time in cooling mode and the humidity is high (over 80%), condensed water may drip out of the device.
- Never stand on an unsteady base when you remove the device from the holder on the wall.
- Check that the condensation water can run off unhindered. Water damage can result if the condensation water cannot run off properly.
- Never touch any metal parts on the indoor device when removing the air filter. You may injure yourself.
- Never install the device in a room in which combustible gases can be emitted. Emitted gases may collect and cause an explosion.
- Always switch off the device and pull out the power plug during a storm. Electrical parts may get damaged.
- **Earthing connection!**
The power cable (plug) comes with an earthing wire. Do not, therefore, change the plug.
- For electrical safety purposes we recommend that you install an earth-leakage circuit-breaker.
- Have all electrical installation work performed by a qualified electrician.
- Ask a service partner or specialist cooling system firm to undertake all work of cooling system-related installation.
- Incorrect installation may cause injury or damage to the device.
- Check the mains lead at regular intervals for signs of defects or damage. A damaged mains lead may only be replaced by an electrician or ISC GmbH in compliance with the relevant regulations.

- The equipment is not designed for installation in laundries.
- The equipment must be positioned in such a way that the mains plug is accessible at all times.
- The temperature in the cooling circuit may become very hot. For this reason keep all cables away from the copper lines.

⚠ CAUTION!

Read all safety regulations and instructions.

Any errors made in following the safety regulations and instructions may result in an electric shock, fire and/or serious injury.

Keep all safety regulations and instructions in a safe place for future use.

Packaging:

The unit is supplied in packaging to prevent it from being damaged in transit. The raw materials in this packaging can be reused or recycled.

Tips on saving energy

Only use the air conditioner when you really need to. Do not select too high a temperature for heating or too low a temperature for cooling. Select the "Sleep" function during the night.

Close all windows, doors and Venetian blinds in order to reduce incoming sunlight as far as possible.

Principle of operation for cooling

Heat is extracted from the air in the room by the air heat-exchanger (evaporator) in which the coolant circulates. This air is conveyed to the outside air heat-exchanger (condenser).

This gives off heat to the outdoor air. Electrical energy is required for this. In certain circumstances condensation may form on the evaporator on the indoor unit, which will be removed by the condensation hose.

Principle of operation for heating

In heating mode, heat is removed from the outdoor air by the outdoor device and fed into the indoor device. This passes the heat on to the room which it is to heat. Electrical energy is required for this. In certain circumstances condensation may be produced on the outdoor device, which must be discharged via the condensation drain on the underside of the outdoor device.

1 set of installation accessories (for details, see page 16)

3. Technical data

Cooling capacity	3400 watts
Heating capacity	3500 watts
Energy efficiency	C (EER 2.90/COP 3.05)
Air capacity	520 m³/h
Absorbed humidity (30°C/80% RH)	1.0 l/h
Timer	24 h
Operating voltage	230 V ~ 50 Hz
Socket fusing	16 A
Nominal power consumption, cooling	1170 watts
Nominal current consumption, cooling	5.3 A
Nominal power consumption, heating	1150 watts
Nominal current consumption, heating	5.2 A
Compressor	Rotary piston
Compressor starting current	28 A
Outdoor temperature	-15 - +46°C
Indoor temperature	+16 - +30°C
Fluid line Ø A	6.35 mm
Suction pipe Ø A	12.7 mm
Length of refrigerant line supplied	4 m
Length of refrigerant line, max.	10 m
Max. difference in height between indoor/outdoor device	5 m
Refrigerant	R 410 A
Refrigerant filling capacity	820 g
Refrigerant refill quantity from 5 m	25 g/m
Sound pressure level	
Inside	≤ 40 dB (A)
Outside	≤ 52 dB (A)
Dimensions	
Inside	77 x 18 x 25 cm
Outside	85 x 32 x 54 cm
Weight	
Inside	8,5 kg
Outside	35 kg

Note:

The specified capacities and performances are based on the following conditions (EN 14511):

2. Items supplied

- 1 indoor device (box 1, art. no. 23.654.04)
- 1 outdoor device (box 2, art. no. 23.654.05)

GB**Cooling:**

Air temperature at the inlet on the indoor device:
27°C for dry thermometer bulb (DB), 19°C for wet
thermometer bulb (WB). Outdoor air temperature:
35°C for dry thermometer bulb (DB), 24°C for wet
thermometer bulb (WB).

Heating:

Air temperature at the inlet on the indoor device:
20°C for dry thermometer bulb (DB), 15°C for wet
thermometer bulb (WB). Outdoor air temperature:
7°C for dry thermometer bulb (DB), 6°C for wet
thermometer bulb (WB).

Temperature ranges:**Cooling**

Room temperature 16°C ~ 30°C
Outdoor temperature > +18°C

Heating

Room temperature 16°C ~ 30°C
Outdoor temperature > 0°C

Dehumidifying

Room temperature 16°C ~ 30°C
Outdoor temperature > +18°C

Notes:

1. For health reasons the room temperature should be no more than 5 – 6°C below the outdoor temperature in cooling mode.
2. The perfect performance of the system is achieved within the temperature ranges shown in the table.
3. If the air conditioning system is operated below the temperature range shown above, protection functions may be activated in certain circumstances which will cause the device to operate abnormally.
4. If the air conditioner is operated in a relative humidity level of over 80%, condensation may be deposited on the top of the system which will then drip on to the floor. In this case set the horizontal air flap to its maximum angle (perpendicular to the floor) and set the FAN to "HIGH".

4. Intended use

The air conditioner is only designed for cooling, heating or dehumidifying private homes or bedrooms.

The machine is to be used only for its prescribed

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purpose. Any other use is deemed to be a case of misuse. The user / operator and not the manufacturer will be liable for any damage or injuries of any kind caused as a result of this.

Please note that our equipment has not been designed for use in commercial, trade or industrial applications. Our warranty will be voided if the machine is used in commercial, trade or industrial businesses or for equivalent purposes.

5. Description of parts (Fig. 1)

- 1 Front panel
- 2 Air inlet
- 3 Air filter
- 4 Air outlet
- 5 Horizontal air flow grille
- 6 Vertical air slit
- 7 Remote control
- 8 Refrigerant line, condensate hose
- 9 Air inlet
- 10 Air outlet

6. Remote control display

Explanation of "MODE" display

AUTO = Automatic
COOL = Cooling
DRY = Dehumidifying
FAN = Fan function
HEAT = Heating

Explanation of "FAN" display

Auto = Automatic fan speed
Low Fan = low fan speed
Middle Fan = middle fan speed
High Fan = high fan speed

7. Setting up the remote control**Insert batteries**

1. Open the battery compartment cover.
2. Insert two new batteries. Be sure to observe the correct polarity (+/-) of the batteries.
3. Close the battery compartment cover.

Notes

- The radio signal has a range of approx. 8 m.
- Use two alkali batteries, type R03 AAA (1.5 V).
- Always replace both batteries at once when you can no longer see the LCD display.
- Never use a combination of new and used

batteries.

- Never use a battery type other than the specified one.
- If the remote control is not used for a lengthy period of time, remove the batteries to prevent them leaking.
- The service life of the batteries if the remote control is used normally is approximately 12 months.
- Dispose of spent batteries properly.

Notes

Keep the remote control approximately 1 m from television sets or other electrical appliances. Direct sunlight may considerably reduce the range of the remote control.

Objects between the remote control and the IR receiver which can impede reception of the signal must be avoided. Handle the remote control with care. Do not drop it, keep it away from heat and moisture so as not to damage the remote control.

8. Description of the remote control functions (Fig. 2-4)

Button assignment

1. **ON/OFF:** Pressing this button enables you to switch on the device. Pressing it a second time will switch off the device.
2. **MODE:** Pressing this button allows you to select the mode for the device. The mode will change each time you press the button in the following sequence: AUTO – COOL – DRY – HEAT – FAN.
3. **+**: Pressing this button increases the temperature set for the room.
4. **-**: Pressing this button reduces the temperature set for the room.
5. **FAN:** Pressing this button enables you to select the fan speed. Each time you press this button the speed will be switched in the following sequence: LOW – MED – HIGH – AUTO.
6. **SLEEP:** Pressing this button enables you to select economy mode. Pressing it a second time will deactivate this mode. The mode is also deactivated as soon as you press the ON-OFF button. This function can only be used in COOL and HEAT modes.
7. **SWING:** Pressing this button will activate the automatic direction change for the ventilation flaps. The air flow is adjusted upwards/downwards.
8. **TIMER ON:** Pressing this button enables you to

set the time at which the device will switch on. To deactivate this mode, press the button as often as required until the TIMER ON indicator disappears from the display.

9. **TIMER OFF:** Pressing this button enables you to set the time at which the device will switch off. To deactivate this mode, press the button as often as required until the TIMER OFF indicator disappears from the display.
10. **BLOW:** Pressing this button enables you to activate the Blow function which is designed to prevent moisture on the heat exchanger in the indoor device. This function is only available in DRY and COOL modes.
11. **CLOCK:** Pressing this button enables you to set the current time.
12. **TURBO:** Pressing this button enables you to set an even higher fan speed to cool or heat the room more quickly.
13. **LIGHT:** Pressing this button enables you to switch on the display light.

Operating modes

A) Cooling mode

1. Press the "ON/OFF" key to switch on the device.
2. Press the "MODE" key until the "Cooling" mode icon appears in the display.
3. Press the "Swing" key. The air flow is adjusted upwards/downwards. Press the key twice to lock the slats in their current position.
4. Press the "FAN" key to select the fan speed: Automatic -> Slow -> Medium -> Fast
5. Press the "+" or "-" key to set the desired temperature.

Notes!

- The cooling mode will only work if the room temperature set is lower than the current room temperature. When the set room temperature is reached, the outdoor compressor stops. The centrifugal fan of the indoor device circulates the air in the room.
- The set room temperature should not be more than 5°C below the outdoor temperature (example: outdoor temperature 30°C, ideal room temperature 25°C).
- The room temperature can be set between 16°C and 30°C with the remote control.
- The higher the outdoor temperature, the higher the attainable indoor temperature

B) Heating mode

1. Press the "ON/OFF" key to switch on the device.
2. Press the "MODE" key until the "Heating" mode icon appears in the display.
3. Press the "Swing" key. The air flow is adjusted

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upwards/downwards. Press the key twice to lock the slats in their current position.

4. Press the "FAN" key to select the fan speed: Automatic -> Slow -> Medium -> Fast
5. Press the "+" or "-" key to set the desired temperature.

Notes!

- The heating mode will only work if the room temperature set is higher than the current room temperature. When the set room temperature is reached, the outdoor compressor stops. The centrifugal fan of the indoor device circulates the air in the room.
- The room temperature can be set between 16°C and 30°C with the remote control.
- The attainable room temperature is a factor of local conditions and the outdoor temperature. The cooler the outdoor temperature, the lower the attainable room temperature.
- Heating mode is only designed for spring and autumn (up to 0°C).

C) Dehumidifying mode

1. Press the "ON/OFF" key to switch on the device.
2. Press the "MODE" key until the "Dehumidifying" mode icon appears in the display.
3. Press the "Swing" key. The air flow is adjusted upwards/downwards. Press the key twice to lock the slats in their current position.
4. Press the "+" or "-" key to set the desired temperature.

Notes!

- The room temperature can be set between 16°C and 30°C with the remote control.

D) Automatic mode

1. Press the "ON/OFF" key to switch on the device.
2. Press the "MODE" key until the "Automatic" mode icon appears in the display. The device automatically switches to cooling, fan or heating mode, depending on the current room temperature.
3. Press the "FAN" key to select the fan speed: Automatic -> Slow -> Medium -> Fast

E) Sleep function

1. Press the "ON/OFF" key to switch on the device.
2. Press the "MODE" key until the "Cooling", "Dehumidifying" or "Heating" mode icon appears in the display.
3. Press the "Swing" key. The air flow is adjusted upwards/downwards. Press the key twice to lock the slats in their current position.
4. Press the "FAN" key to select the fan speed: Automatic -> Slow -> Medium -> Fast

5. Press the "+" or "-" key to set the desired temperature.
6. Press the "Sleep" key to activate the sleep function.

Notes!

- If the cooling or dehumidifying mode is set in conjunction with the sleep function, the set room temperature increases (1°C during the first hour and 2°C during the second hour) in order to prevent overcooling.
- If the heating mode is set in conjunction with the sleep function, the set room temperature decreases (1°C during the first hour and 2°C during the second hour) in order to prevent overheating.

F) Timer settings (for automatically switching the device on/off)**Note:**

First of all set the current time using the "Clock" button.

1. "T-ON / Device ON timer button

This button enables you to switch on the unit automatically (max. 24 hours). The only requirement is that the device is connected to a power supply. Press the "ON / OFF" button to deactivate the "Device ON timer" again.

2. "T-OFF" / Device OFF timer button

This button enables you to switch off the unit automatically (max. 24 hours). The only requirement is that the unit is in operation. Press the "ON / OFF" button to deactivate the "Device OFF timer" again.

G) Additional functions**BLOW function**

This function prevents moisture forming on the heat exchanger in the indoor unit.

If the device is switched off using the ON/OFF button on the remote control whilst the Blow function is active, the internal fan will continue to run for around 10 minutes at the lowest fan setting. If you wish to switch off the internal fan before the end of this time, press the BLOW button.

TURBO function

An even higher fan speed in cooling or heating mode will ensure that the required room temperature is reached more quickly.

LOCK function

Press the "+" and "-" buttons at the same time to lock

and unlock the keypad on your remote control. As soon as the keypad has been locked, a lock will appear on the remote control display.

FAHRENHEIT / CELSIUS display

Press the "+" and "-" buttons at the same time whilst the device is switched off to change the temperature display from °C to °F or vice versa.

De-icing function

If the system is switched off during the de-icing process, the process will be completed. Only when the de-icing process has been finished will the system switch off.

If a system function is switched during the de-icing process, the system function will not actually be switched until the de-icing process has been completed.

If you wish to switch off the de-icing function, press the MODE and BLOW buttons on the remote control at the same time when the system has been switched off. Repeat this process to switch this function on again.

9. Indoor device settings

Setting the vertical air flow direction (Fig. 5)

The left-hand and right-hand side flow directions can be adjusted manually. Perform these adjustments before you start the device because once it has been started the slats vibrate and there is a risk of your fingers getting caught.

Remote control fails to work (emergency operation) (Fig. 6)

If the remote control fails to work (empty batteries or malfunction), use the emergency switch.

- The device is off: After the emergency stop switch has been pressed the device switches to automatic mode. The slat adjuster also operates in automatic mode.
- The device is on: The device switches off if the emergency switch is pressed.

10. Cleaning notes

Important!

Switch the device off and pull the mains plug each time before cleaning.

Note!

The time intervals at which the device should be cleaned are a factor of the area of installation. The time intervals listed below should be maintained in most cases.

Keep the outdoor device and the area around the outdoor device clean. Regularly remove leaves, etc. which can collect around the outdoor device.

Cleaning the housing of the indoor device

- Clean the housing of the indoor device using only a soft, wet cloth when necessary.
- In order to avoid damaging the housing and electronics, avoid the use of gasoline, thinners, scouring powder, cleaners and the like when cleaning.

Cleaning the air filters of the indoor device

Make sure that the air filters are clean! Soiled air filters reduce the air output of the device. The air filters of the indoor device should be checked and, if necessary, cleaned on a monthly basis.

1. Raise the front panel of the indoor device until the panel audibly clicks into position in its open position (Fig. 7).
2. Raise the air filter slightly using the handle (Fig. 8) to take the filter out of the filter holder and then pull it downwards to remove it. Take the air filter out of the indoor device.
3. Clean the netting in the air filter with a vacuum cleaner or wash it out with water.
4. Then dry the filter in a cool place.
5. Place the top part of the air filter back into the device and ensure that its left and right edges are correctly aligned. Then insert the filter in full (Fig. 9).
6. Close the front panel again.

Cleaning the heat exchanger of the indoor device

The heat exchanger must be cleaned at least once annually. To do this, remove the air filters from the indoor device as described above.

- Using a vacuum cleaner or a long-bristled brush, carefully remove any dirt deposits on the heat exchanger; this will avoid damaging the heat exchanger fins. A damaged heat exchanger will lead to higher operating costs.
- Take steps to ensure that you do not injure yourself on the fin edges!

11. General notes

Restarting after lengthy non-use

If the air-conditioning system has not been used for a lengthy period, check the following before you switch it on:

1. there are no objects covering the outdoor or indoor unit.
2. the socket from which the unit is operated has been installed correctly
3. the air filters are clean

Care precautions

If the air conditioner is not going to be used for some period of time:

1. Let the fans run for 6 hours to allow the device to completely dry out. Set the highest possible temperature level while the fans are running.
2. Switch off the device and pull the power plug.
3. Clean the air filters and housing parts.
4. Remove all dirt from the outdoor unit.
5. Take the batteries out of the remote control.

If the following events occur during operation, they do not constitute a fault.

1. Safety function of the air conditioning system, compressor trip

- a) After the system has been switched on again, the compressor will not cut in until after a delay of three minutes.
- b) The device has a special function that prevents cold air being blown out in heat mode if the heat exchanger in the indoor device is in one of the following situations and the set temperature has not yet been reached:
 - Heat mode has just been started.
 - De-icing taking place.
 - Heat mode with a low temperature setting.
- c) The internal and external fans will be shut down during de-icing. De-icing is taking place.
- d) If the outdoor temperature is high and the humidity is high, the outdoor device may ice up whilst it is operating. This will result in reduced heat output by the air conditioning system. If this is the case the air conditioning system will terminate heat mode and start de-icing mode automatically. The de-icing time may be 4 – 10 minutes depending on the outdoor temperature and the amount of ice deposited on the outdoor device.

2. "White mist" is emitted from the indoor device

- a) If the temperature difference between the air inlet and air outlet is large and the relative humidity in

the room is also high. "white mist" may be generated in cool mode.

- b) If the air conditioning system is restarted in heat mode after de-icing, "white mist" may be generated by moisture in certain circumstances.

3. A low noise is emitted by the air conditioning system

- a) When the compressor is running or shortly after it has been switched off, a hissing noise may be heard, caused by the refrigerant flowing through the pipes.
- b) When the compressor is running or shortly after it has been switched off, a "screeching" noise may be audible, caused by the heat expansion and cold contraction of the plastic parts in the device due to temperature changes.
- c) The first time the power supply is switched on, the air flap will return to its initial position.

4. Dust is blown out of the indoor device

- a) This is normal if the air conditioning system has been switched off for a lengthy period of time and when it is started for the first time.

5. A strange odor emanates from the indoor device

- a) This odor is generated in the indoor device and is emitted by certain materials or pieces of furniture or by cigarette smoke.

6. The air conditioning system switches to exclusive fan mode from cool or heat mode

When the indoor temperature has reached the set temperature, the compressor will cut out automatically and the air conditioning system will be operated in FAN mode. As soon as the indoor temperature in COOL mode rises above the set value or in HEAT mode it falls under the set value, the compressor will cut in again.

7. In rooms with high relative humidity (over 80%), water droplet are deposited on the surface of the indoor device in cool mode

Set the horizontal air flap to the vertical air outlet position and select a HIGH fan speed.

8. Heat mode

In heat mode, the air conditioning system draws in warm air from the outdoor device and dissipates it through the indoor device to the indoor area. If the outdoor temperature falls, the volume of hot air drawn in through the air conditioning falls accordingly. At the same time the heat load of the air conditioning system increases as a result of the large difference between the indoor and outdoor

temperature. This may result in the air conditioning system being unable to achieve an adequate room temperature. Please note that the heat function is only really suitable for use during autumn and spring.

9. A lightning strike or the mobile phone in a car in use near the system may cause faults in the device

In this case disconnect the device's power supply briefly and then reconnect it. Press the ON/OFF button on the remote control to restart the device.

12. Troubleshooting

Device does not start. Check the following:

1. Is voltage present at the plug socket outlet?
2. Check the plug fuse!
3. Is the timer set?

The device does not provide satisfactory cooling!

Check the following:

1. Has an appropriate temperature been set?
2. Is the air filter soiled? Clean and fit back in place.
3. Are the inlets and outlets on the outdoor device blocked?
4. Has the sleep mode been set during the day?
5. Are the connections between the indoor and outdoor device adequately sealed? There may not be enough coolant? If so, please contact your service company.

The remote control does not work!

(Important! It only works within a range of 8 m from the indoor device.)

1. Are the batteries still OK? Replace if necessary!
2. Have the batteries been inserted correctly?
Check that the + and – terminals are correct!
3. Are there any objects between the indoor unit and the remote control which may interfere with the signal? Remove these objects.

In the event of a power failure, check the following:

Press the ON/OFF key after a power failure.

If the problems remain after checking through the above points, switch off the device and contact your service company.

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The following pages are intended for professional installers.

Important

Do not hesitate to contact our service partners. They will be able to give you a speedy response to all your questions so that your system can be installed correctly.

13. Installation accessories

Before you start to install the devices, please check that all the installation accessories have been supplied.

- 1 mounting plate for the indoor device
- 1 infrared remote control
- 2 batteries (type AAA, 1.5 V)
- 1 condensed water hose (L = 2 m)
- 1 sealing compound
- 1 wall hole cap
- 1 roll of plastic wrapping tape
- 1 set of refrigerant lines (L = 4 m)

14. Installation instructions (Fig. 10)

Check that the actual mains voltage is the same as the mains voltage specified on the rating plate.

- Use only suitable fastening material.
- Important. Make sure that there are no electric cables or other installations (for example water pipes) near the drill holes.
- Earth the outdoor device in accordance with current regulations.
- The device must have separate protection against short-circuits.
- Have all work of electrical installation performed by an electrician.
- Ask a service partner or specialist cooling system firm to undertake all work of installing the cooling system.
- Incorrect installation can lead to injury or damage to property.
- Always wear ear muffs, goggles and work gloves when performing work of installation.

Notes on electrical connection!

All electrical connection work must be performed by a qualified electrician authorized to do so such work by the applicable electricity supply company. The system must have separate protection against short-

circuits. Select a suitably large cable cross-section. The yellow/green wire is to be used as a protective conductor only and under no circumstances as a voltage carrying conductor. The fixed electrical connection of the device must be capable of being isolated from the mains power supply by a device with an isolating distance of at least 3 mm (e.g. circuit-breaker).

Connect the electrical connections of the indoor and outdoor devices together first and then connect to the mains power supply. Check first that the entire system is voltage-free. Secure the system from being switched on again.

A. Selecting the place of installation

Indoor device

1. The openings for the inlet and outlet air must never be covered, otherwise the air will not be distributed throughout the entire room.
2. Install the indoor device in a location which ensures that the distance through the wall to the outdoor device is as short as possible.
3. Make sure that the drainage hose does not have any kinks or upward inclines when you connect it with the outside.
4. Do not select a location adjacent to a source of heat, high humidity or inflammable gas.
5. Select a location which is firm enough for installation so that the device is not subjected to vibrations.
6. Check that the device has been installed correctly and exactly.
7. Make sure that there is sufficient space available for later repair and service work.
8. The device should be installed at a distance of at least 1 m from all other electrical devices and installations, e.g. TV, radio, computer, etc.
9. Select a location for the device which is easily accessible so that the filter can be cleaned or replaced without difficulty.
10. The maximum distance between the standard indoor unit and outdoor unit is 4 m. The maximum possible length of the refrigerant line is 10 m with a maximum height difference of 5 m.
11. Avoid direct sunlight.

Outdoor device

1. Select a location which avoids causing a nuisance to neighbours from noise and air emissions from device.
2. Select a location which is sufficiently well ventilated.
3. Never cover the air inlets and outlets.

4. The location must be sufficiently firm for installation and the prevention of vibrations.
5. There must be no risk presented by combustible gas or gas escaping as a result of corrosion.
6. Check that the device is installed in accordance with regulations.
7. It should be installed at least 20 cm above the expected snow line. Snow must not be allowed to get into the outdoor unit.
8. The wall for installation must be strong and capable of supporting the weight of the unit.
9. The device must not be exposed to strong gusts of wind.
10. Make sure that the device is well ventilated and kept free of dust. Avoid direct exposure to rain and sunlight.
11. Install on a firm base, avoiding excessive noise or vibrations.

Important:

The following could cause malfunctions.

Check with your service company in order to prevent possible malfunctions at a later date.

The following locations should be avoided for installation:

- A location where oil (machine oil) is stored.
- A location where there is a high salt content.
- A location with numerous sulphurous sources, e.g. spa zones.
- A location where radio transmitters or amplifier aerials, welding equipment or medical equipment are in use.
- A location where the outdoor device is exposed to direct sunlight. If necessary the device must be protected with a sun-shade. Such a sun-shade must not interfere with the air flow, however.
- A location in the vicinity of heat or steam generators.
- A location which is heavily exposed to dust.
- A location to which the general public have access.
- A location with any other unusual characteristics.

Important!

- The direction in which the air is blown should correspond with the prevailing direction of the wind.
- Never install in locations exposed to aggressive air.
- Comply with all specified minimum distances (see Important notes on installation).
- The indoor and outdoor devices may only be installed if they are in a horizontal position measured using a spirit level. Check this after

you have completed the installation work.

- Do not kink or compressed the refrigerant lines.
- All the refrigerant lines, including connectors and valves must be fitted with diffusion-resistant heat insulation.
- Do not remove the protective caps from the refrigerant lines / connections on the device until immediately before you connect them.
- Open refrigerant lines must be protected from the ingress of moisture by suitable caps or adhesive tapes.

B. Installing the indoor device

It is imperative that you comply with the installation instructions.

1. Before you start installation

- Select the location for the indoor device (follow the previous notes on selecting the location for installation).
- Check that the available mains voltage is the same as the voltage specified on the rating plate.
- Fit appropriate insulation, supplied by the customer, to the coolant tubes.

2. Fitting the mounting plate (Fig. 11/12)

- The mounting plate for the indoor device must be fitted horizontally to the wall. In doing so, it is imperative that you comply with all specified distances. Mark and drill the holes for fastening the mounting plate, and then firmly fasten with dowels and screws. In order to prevent vibrations on the indoor device, make sure that there are no gaps between the wall and the mounting plate.

3. Drilling holes through the walls (Fig. 12/13)

- Drill the hole through the wall for the lines/hoses using a 65 mm drill bit, drilling from the inside (A) to the outside (B) at an angle downwards of approx. 5°. The ideal positions of the holes through the walls are shown in Figure 12.

4. Fitting the condensation water drainage hose (Fig. 14)

- The drainage water hose must be run to the outside with a drop. It is imperative that there are no bends or kinks. The end of the drainage hose must not be situated in a container of any kind in which water can collect. Any water held back in the drainage water hose could lead to water damage.
- Slide the additional drainage hose onto the mounts on the drainage hose already fixed to the indoor device. Fasten this connection point with

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adhesive tape, checking that it is fully sealed as you do so.

Important note:

The following work must be carried out exclusively by our service partner or a specialist refrigeration contractor of your choice.

5. Connecting the refrigerant lines to the indoor device (Fig. 15)

Route the refrigerant lines from the indoor device to the outdoor device.

- Remove the plastic seals on the refrigerant connection coupling on the indoor device and on the respective refrigerant line.
- Fit the gland on the coolant tube straight on the thread on the indoor device.
- Screw the first turns of the thread by hand in a counterclockwise direction.
- Then use suitably sized open-ended wrenches to tighten the glands. Please refer to the following table for the applicable torque. Check the torque using a torque wrench.

Ø 6 mm tube = 15 - 20 Nm

Ø 12 mm tube = 50 - 55 Nm

Notes:

- The top hook (Fig. 16) on the mounting plate must be securely attached to the rear of the indoor device. To simplify the connection of the pipeline, the indoor unit is to be lifted away from the wall at the bottom using a screwdriver or similar. After you have connected the pipeline, remove the screwdriver again and securely attach the indoor device to the bottom hook (Fig. 16) on the mounting plate.
- Bend and position the pipeline carefully. (Fig. 17)
- Both refrigerant lines must be insulated at the connection points.
- The condensation drain hose must be connected below the refrigerant line.
- It must be ensured that none of the pipes on the rear of the indoor device leak.
- It must be ensured that the condensation drain hose is positioned at the lowest point of the insulation package. The hose must be separated from the cables and connection pipe so that no condensation can run over the cables and pipe.
- Do not cross the mains cable with other cables.

6. Wrapping the lines/hoses in protective tape (Fig. 18/19)

- Please note that the power cable is not to be fed through to the outside. All tubes, electric cables and the drainage water hose have to be wrapped

with the supplied protective tape. Depending on whether the lines are right-hand or left-hand versions, the corresponding bushing preparations must be removed from the indoor device.

- The package of lines/hoses is to be laid between the housing of the indoor device and the wall.

Key for Fig. 18

A = Indoor / Outdoor device connection cable

B = Refrigerant line

C = Wrapping tape

D = Condensation drain hose

7. Final installation of indoor device

- Feed the package of lines/hoses through the supplied wall passage. Position the wall passage cap on the wall passage from the outside. Seal the wall passage against the wall using the supplied sealing compound.

8. Electrical connection

Important note: All work of making the electrical connection of the system must be undertaken by an electrician.

Use only the supplied connection cable or, if it is not long enough, cable of exactly the same quality.

- Take the corner cover off the indoor device.
- Connect the cable to the indoor device as shown on the connection diagram (Fig. 20). (PE=yellow and green wire)

C. Installing the outdoor device

It is imperative that you follow the installation instructions.

1. Before you start installation

- Select the location for installation (follow the previous notes on selecting the location).
- Check that the available mains voltage is the same as the voltage specified on the rating plate.
- The maximum possible distance between the indoor and the outdoor device using the supplied accessories is 5 m.
- If the outdoor device is higher than the indoor device, make sure that a curve is made in the coolant tube which is lower than the bottom edge of the indoor device.
- Secure the condensation drain (A) to the base of the outdoor device (Fig. 21). Drain the water generated when the system is in heating mode through a hose.

2. Installing the outdoor device

- The outdoor device can be fastened to the ground or to a wall bracket (e.g. special accessory Art. No. 23.651.57) with dowels and screws. To do so, use the holes on the device.

D. Connecting the refrigerant lines

Proceed as described in section B.5 to connect the refrigerant lines to the outdoor unit. Please read the following information carefully.

1. Important notes

- Please make sure that coolant is never allowed to enter the environment.
- Improper handling of coolant may be harmful to health. Always wear work gloves and goggles when handling coolant.
- Make sure that the work place is well ventilated at all times. Smoking is prohibited.
- The device must never be operated without the coolant tubes connected, otherwise the device will be damaged immediately.
- Ask one of our service partners or a specialist cooling system firm to connect the coolant lines and put the system into operation for the first time.

Important

1. Have all service work performed by a specialist firm only. Request a copy of our list of service partners for any such work.
2. If ever the voltage carrying cable between the indoor device and the outdoor device should be damaged, contact a specialist firm.
3. If the power cable should ever be damaged, have it replaced by an electrician.
4. Important note:
 - a) The maximum length of the coolant line in the basic version is 4 meters.
 - b) If the outdoor device is higher than the indoor device, a curve will be required in the coolant tube which is positioned below the height of the indoor device.

Electrical connection (Fig. 22)

Important note: All work of making the electrical connection of the system must be undertaken by an electrician.

- Remove the connection cover on the outdoor device.
- Connect the electric cable as shown in the illustration (22); take account of the ground terminal as you do so (PE=yellow and green wire).
- Ensure that the wire colors on the terminals of

the indoor device comply with those of the outdoor device.

- Fit the connection cover back on the outdoor device

After you have completed the installation of the device, check its electrical safety.

15. Evacuation

The evacuation procedure may only be carried out by an authorized expert. Draining refrigerant damages the environment and is a criminal offence.

16. Initial startup

Initial startup must be performed by an authorized specialist and documented.

a) Cool mode

- Switch on the voltage supply.
- Switch on the device using the remote control.
- Adjust the temperature setting to lower than the current room temperature using the "TEMP" button.
- Set "Cool" mode using the "MODE" button. Please note that the full cooling capacity is not achieved until the device has been operating for approx. five minutes.
- Check all the functions as described in the operating instructions.
- Measure and document all the required values and check the safety functions.
- Check the condensate line by pouring distilled water into the condensate tray, ideally using a long neck bottle.

b) Heat mode

- Adjust the temperature setting to higher than the current room temperature using the "TEMP" button.
- Set "Heat" mode using the "MODE" button. Please note that the full heating capacity is not achieved until the device has been operating for approx. five minutes.
- Check all the functions as described in the operating instructions.
- Measure and document all the required values and check the safety functions.

Then switch off the system, install any parts that you have removed and show the operator how to use the system.

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17. Ordering replacement parts

Please quote the following data when ordering replacement parts:

- Type of machine
- Article number of the machine
- Identification number of the machine
- Replacement part number of the part required

For our latest prices and information please go to www.isc-gmbh.info



Konformitätserklärung

ISC-GmbH · Eschenstraße 6 · D-94405 Landau/Isar

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Landau/Isar, den 16.10.2007

Weichselgartner
 General-Manager

Stanley Wong
 Product-Management

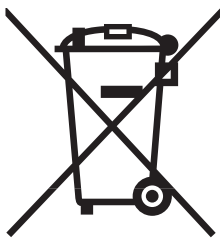
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 For EU countries only

Never place any electric tools in your household refuse.

To comply with European Directive 2002/96/EC concerning old electric and electronic equipment and its implementation in national laws, old electric tools have to be separated from other waste and disposed of in an environment-friendly fashion, e.g. by taking to a recycling depot.

Recycling alternative to the demand to return electrical devices:

As an alternative to returning the electrical device, the owner is obliged to cooperate in ensuring that the device is properly recycled if ownership is relinquished. This can also be done by handing over the used device to a returns center, which will dispose of it in accordance with national commercial and industrial waste management legislation. This does not apply to the accessories and auxiliary equipment without any electrical components which are included with the used device.

GUARANTEE CERTIFICATE

Dear Customer,

All of our products undergo strict quality checks to ensure that they reach you in perfect condition. In the unlikely event that your device develops a fault, please contact our service department at the address shown on this guarantee card. Of course, if you would prefer to call us then we are also happy to offer our assistance under the service number printed below. Please note the following terms under which guarantee claims can be made:

1. These guarantee terms cover additional guarantee rights and do not affect your statutory warranty rights. We do not charge you for this guarantee.
2. Our guarantee only covers problems caused by material or manufacturing defects, and it is restricted to the rectification of these defects or replacement of the device. Please note that our devices have not been designed for use in commercial, trade or industrial applications. Consequently, the guarantee is invalidated if the equipment is used in commercial, trade or industrial applications or for other equivalent activities. The following are also excluded from our guarantee: compensation for transport damage, damage caused by failure to comply with the installation/assembly instructions or damage caused by unprofessional installation, failure to comply with the operating instructions (e.g. connection to the wrong mains voltage or current type), misuse or inappropriate use (such as overloading of the device or use of non-approved tools or accessories), failure to comply with the maintenance and safety regulations, ingress of foreign bodies into the device (e.g. sand, stones or dust), effects of force or external influences (e.g. damage caused by the device being dropped) and normal wear resulting from proper operation of the device.

The guarantee is rendered null and void if any attempt is made to tamper with the device.

3. The guarantee is valid for a period of 2 years starting from the purchase date of the device. Guarantee claims should be submitted before the end of the guarantee period within two weeks of the defect being noticed. No guarantee claims will be accepted after the end of the guarantee period. The original guarantee period remains applicable to the device even if repairs are carried out or parts are replaced. In such cases, the work performed or parts fitted will not result in an extension of the guarantee period, and no new guarantee will become active for the work performed or parts fitted. This also applies when an on-site service is used.
4. In order to assert your guarantee claim, please send your defective device postage-free to the address shown below. Please enclose either the original or a copy of your sales receipt or another dated proof of purchase. Please keep your sales receipt in a safe place, as it is your proof of purchase. It would help us if you could describe the nature of the problem in as much detail as possible. If the defect is covered by our guarantee then your device will either be repaired immediately and returned to you, or we will send you a new device.

Of course, we are also happy offer a chargeable repair service for any defects which are not covered by the scope of this guarantee or for units which are no longer covered. To take advantage of this service, please send the device to our service address.