

Ⓞ **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.

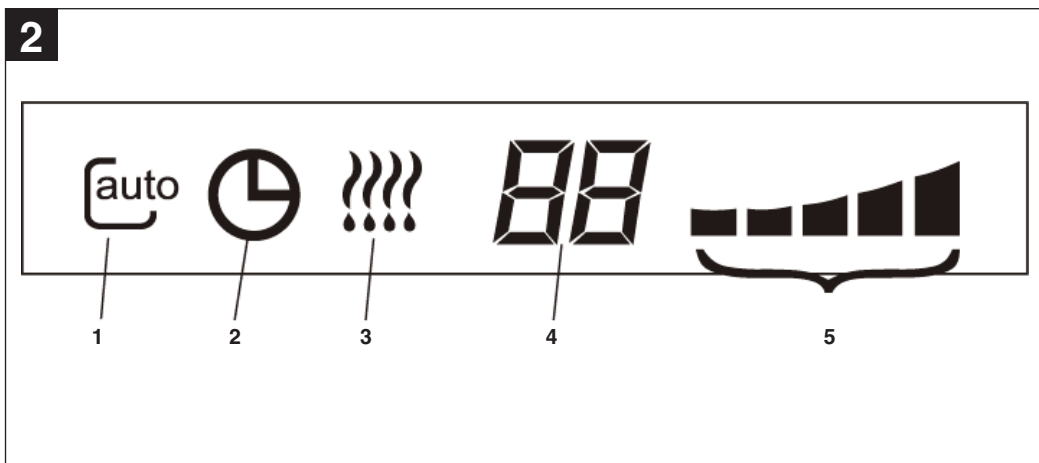
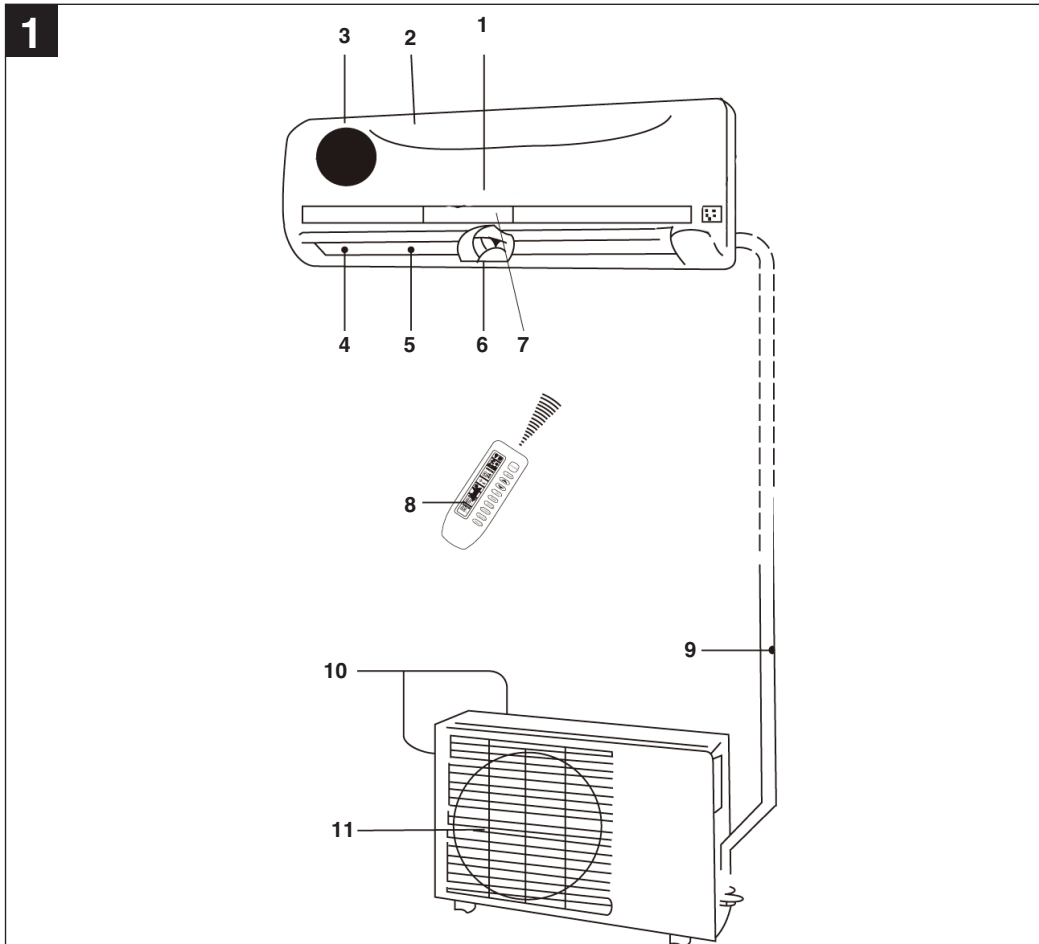
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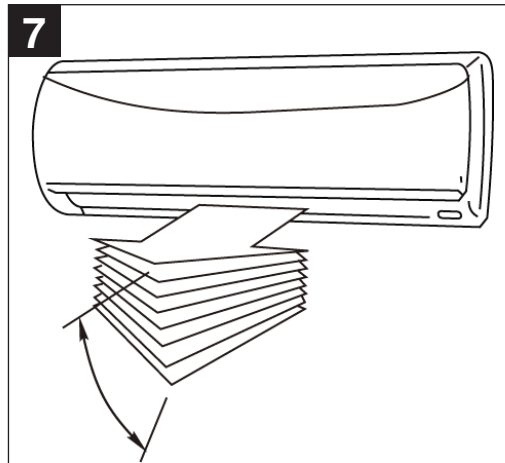
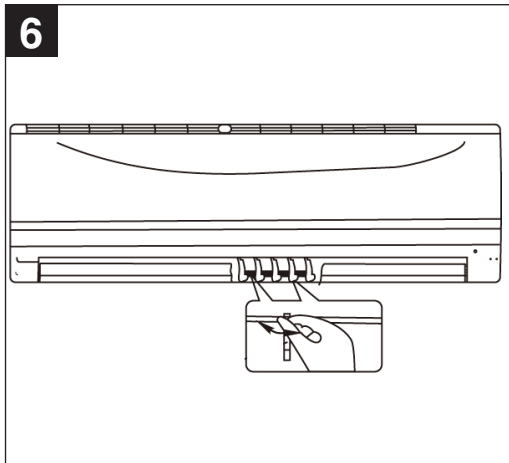
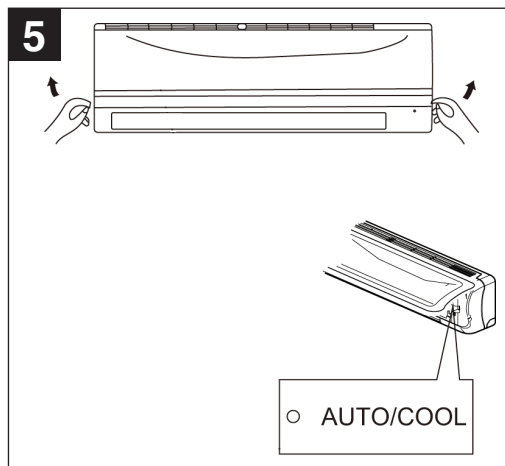
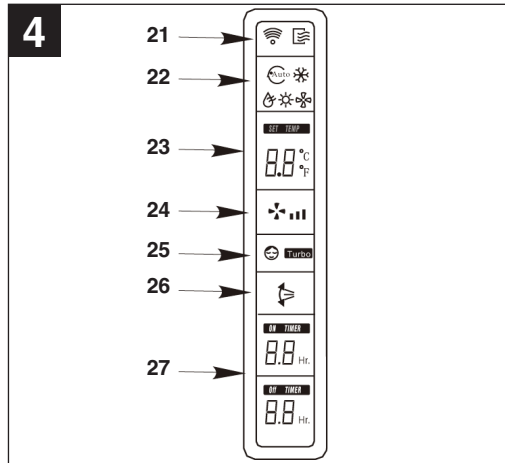
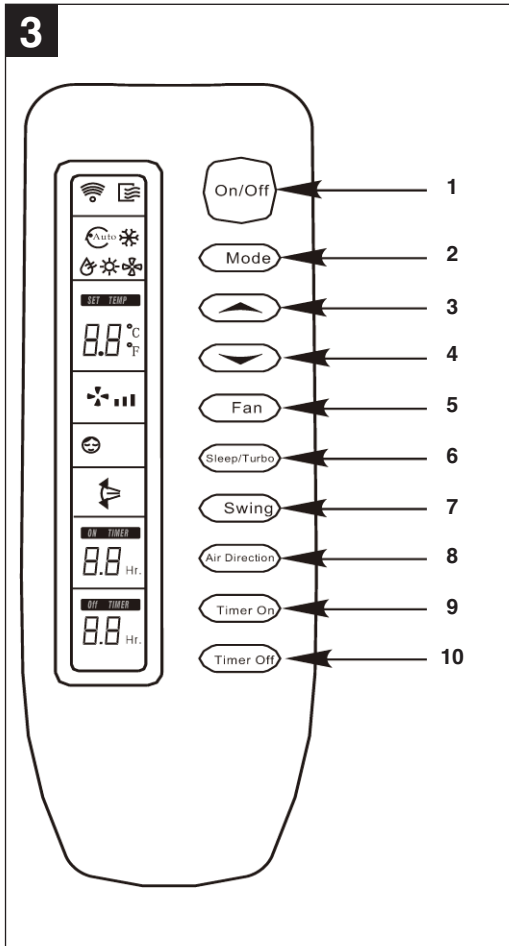


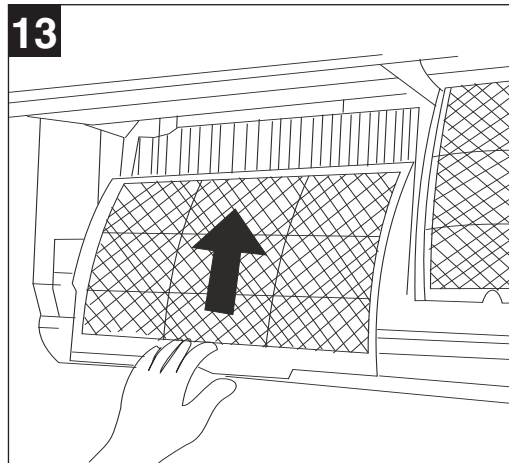
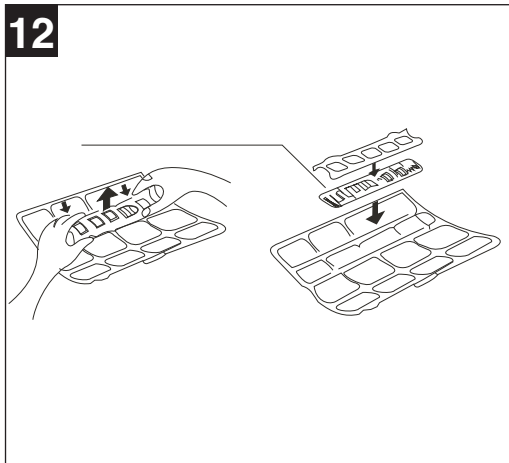
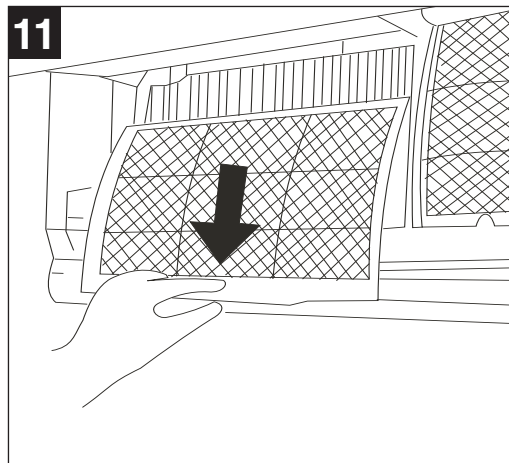
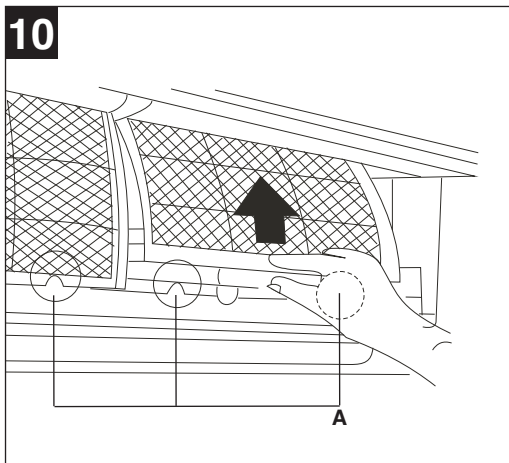
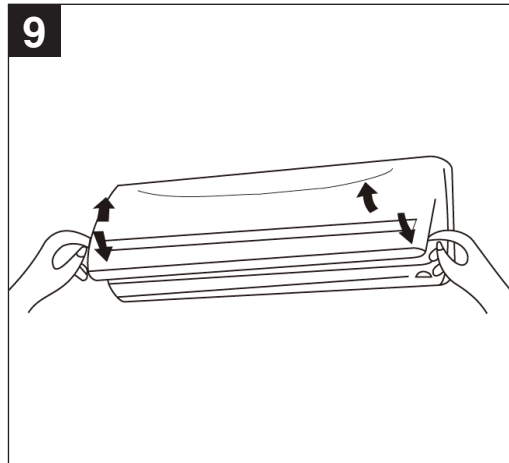
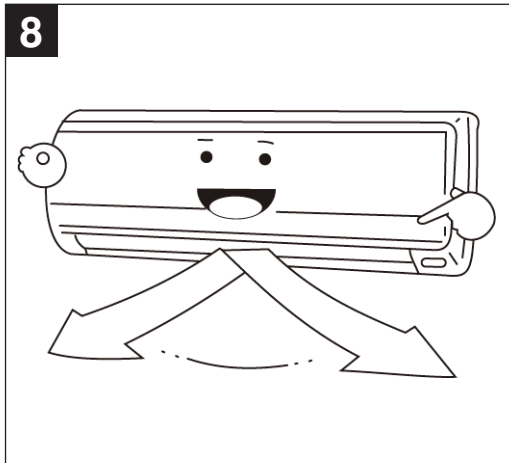
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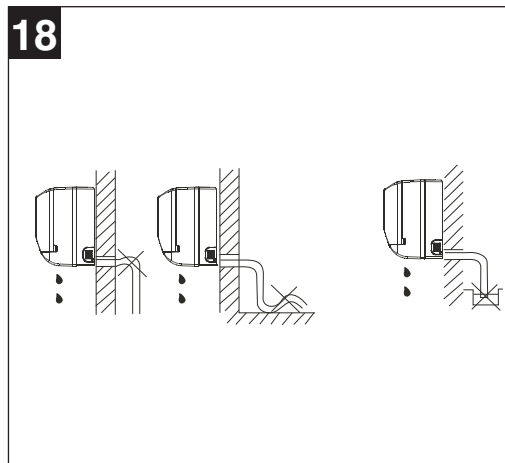
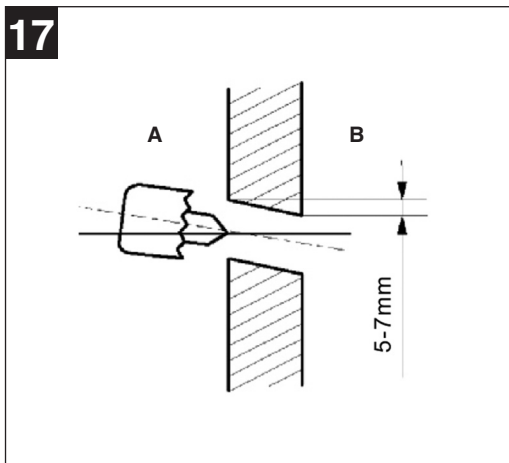
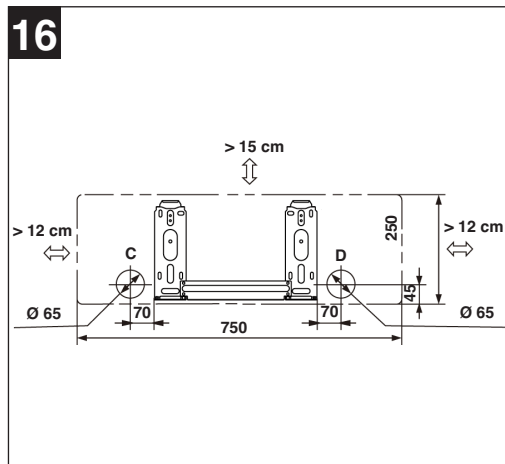
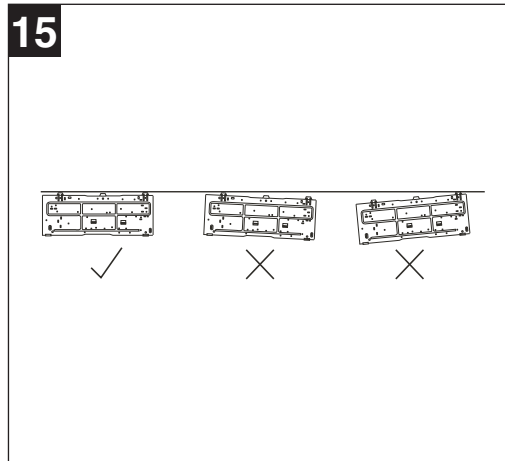
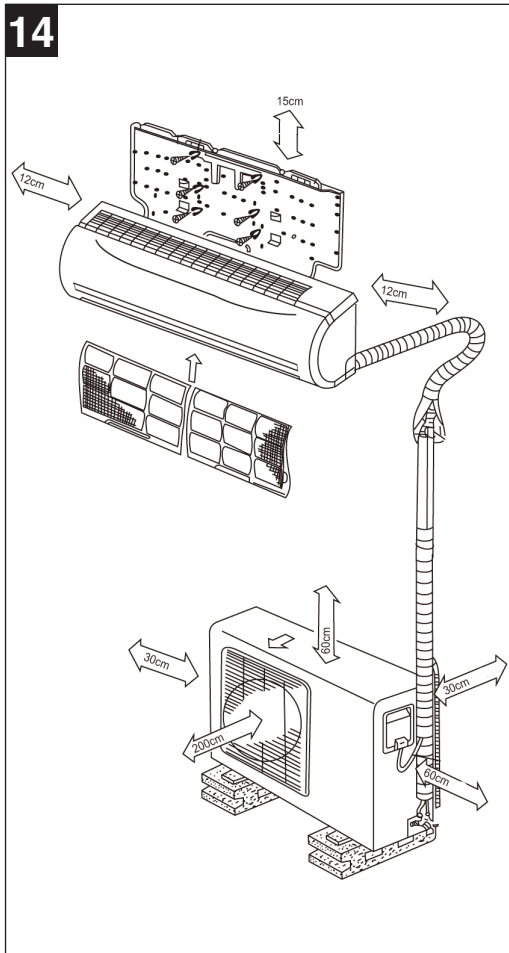
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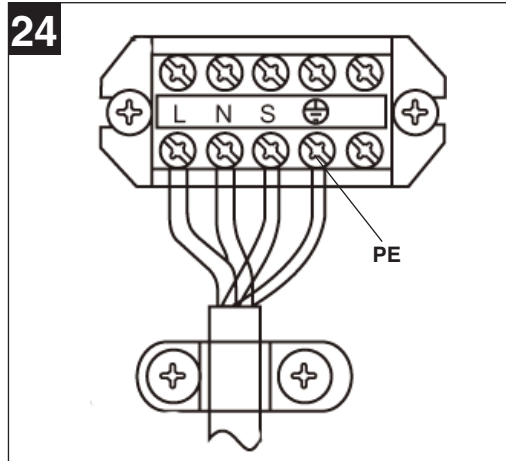
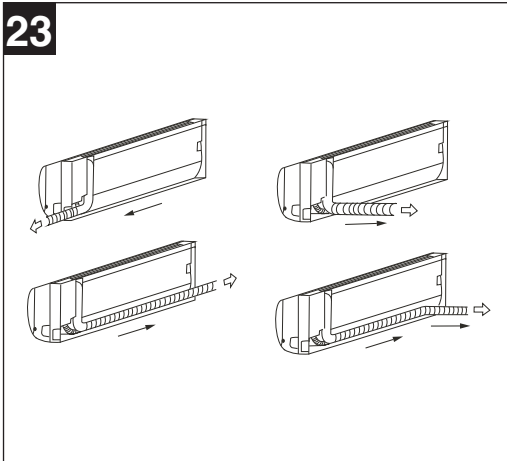
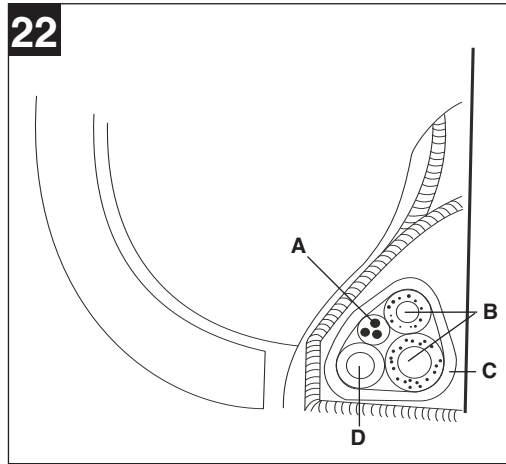
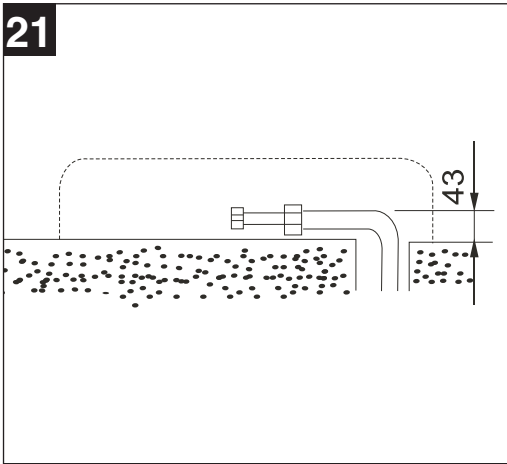
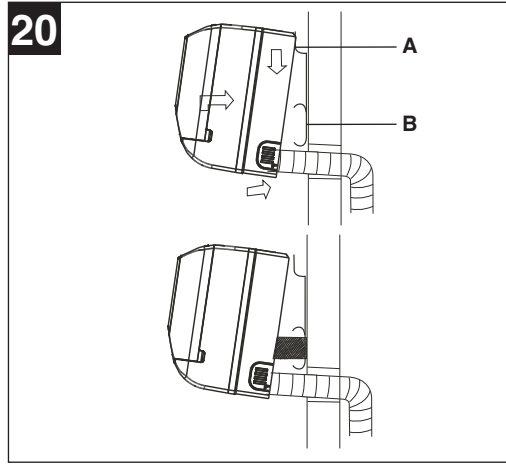
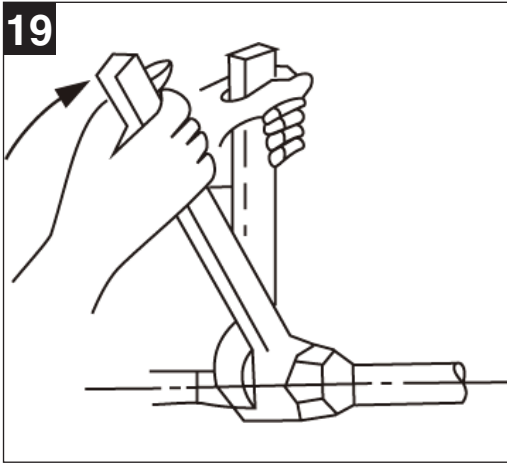
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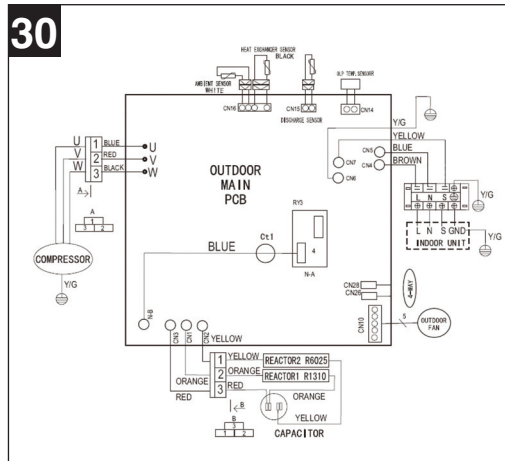
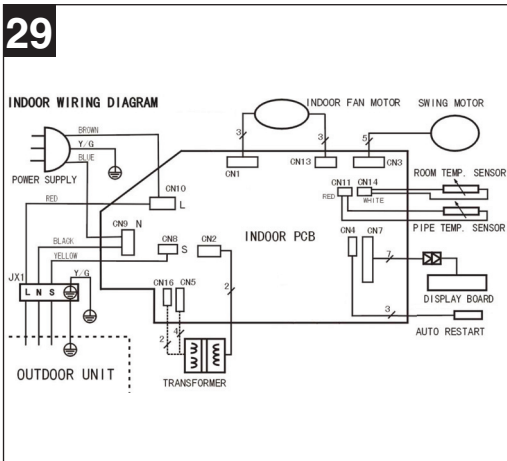
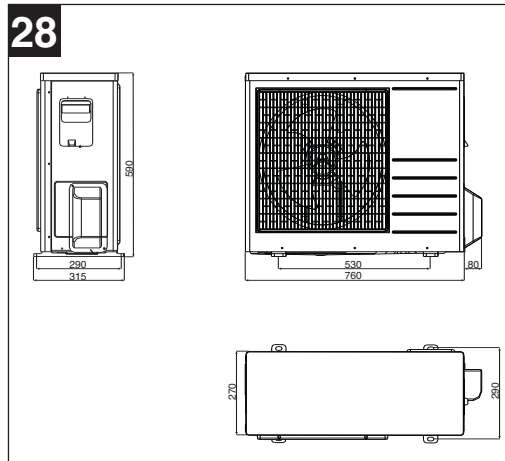
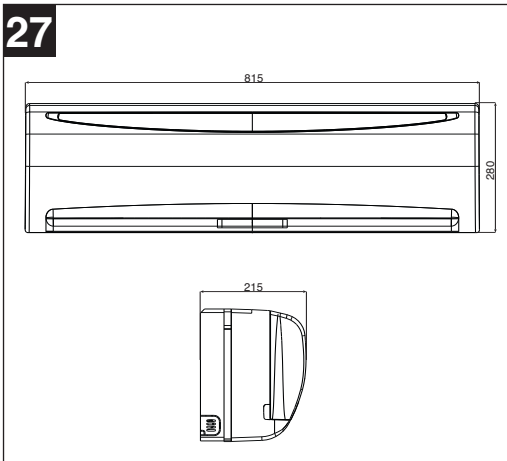
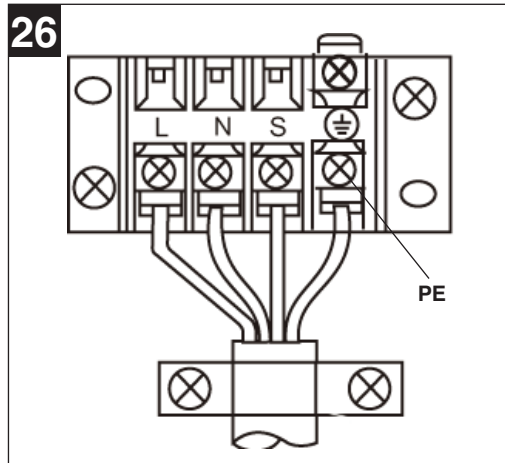
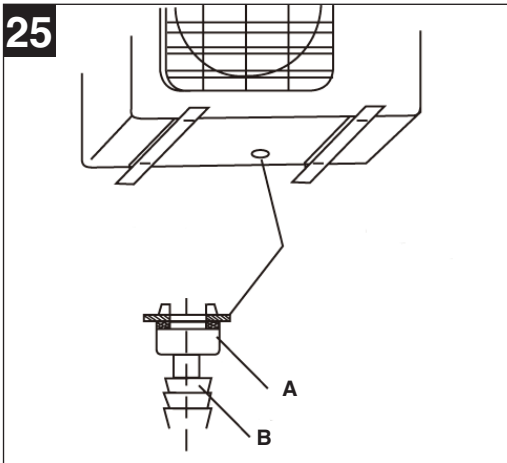












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## **Table of contents**

### **For the user and expert**

1. Safety regulations
2. Items supplied
3. Technical data
4. Intended use
5. Description of parts
6. Display - Indoor device
7. Setting up the remote control
8. Description of the remote control functions
9. Indoor device settings
10. Cleaning notes
11. General notes
12. Troubleshooting

### **For the expert only**

13. Installation accessories
14. Installation instructions
15. Evacuation
16. Initial startup
17. Device dimensions
18. Circuit diagram



**⚠ 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.

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- 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.

**Function principle – 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.

**Inverter**

In both modes of operation, the compressor capacity adjusts to the demand and regulates the nominal temperature with minimum temperature fluctuations. This "inverter technique" saves energy compared to conventional split air-conditioning systems.

**2. Items supplied**

- 1 indoor device (box 1, art. no. 23.654.08)
- 1 outdoor device (box 2, art. no. 23.654.09)
- 1 set of installation accessories (for details, see page 18)

**3. Technical data**

Cooling capacity	3400 watts
Heating capacity	3900 watts
Energy efficiency	A (EER 3.30/COP 3.71)
Air capacity	675 m <sup>3</sup> /h
Absorbed humidity (30°C/80% RH)	1.2 l/h
Timer	24 h
Operating voltage	220 - 240 V ~ 50 Hz
Socket fusing	16 A
Nominal power consumption, cooling	1030 watts
Nominal current consumption, cooling	4.9 A
Nominal power consumption, heating	1050 watts
Nominal current consumption, heating	4.7 A
Compressor	Rotary piston
Compressor starting current	7,3 A
Outdoor temperature, cooling operation °C	+18 - + 43 (DB)
Outdoor temperature, heating operation °C	-7 - + 24 (DB)
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	1230 g
Refrigerant refill quantity from 5 m	25 g/m
Sound pressure level	
Inside	≤ 43 dB (A)
Outside	≤ 54 dB (A)
Dimension Inside	81,5 x 28 x 21,5 cm
Dimension Outside	78 x 59 x 31,5 cm
Weight Inside	9,5 kg
Weight Outside	39,5 kg

**Note:**

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

**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). Maximum air delivery rate.

**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). Maximum air delivery rate.

**Temperature ranges:****Cooling**

Room temperature	17°C ~ 32°C
Outdoor temperature	18°C ~ 43°C

**Heating**

Room temperature	17°C ~ 30°C
Outdoor temperature	- 7°C ~ 24°C

**Dehumidifying**

Room temperature	17°C ~ 32°C
Outdoor temperature	18°C ~ 43°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-conditioning system is only designed to air-condition privately used dry rooms with a maximum

room volume of 110 m<sup>3</sup>. The room volume depends on the local conditions. Large window areas, additional heat sources (PC, television, people, etc.), poor wall insulation, etc. serve to reduce this room volume.

The machine is to be used only for its prescribed 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 Display panel
- 8 Remote control
- 9 Refrigerant line, condensate hose, power supply for outdoor device
- 10 Air inlet
- 11 Air outlet

**6. Indoor device display (Fig. 2)**

- 1 **AUTO** display  
The display will be lit when the device is set to AUTO mode.
- 2 **TIMER** display  
This display is lit if the timer "ON" / "OFF" is switched on.
- 3 **DE-ICING** display  
This display will be lit when the device starts the "De-icing" function automatically or the hot air monitor is active in "Heat" mode.
- 4 **TEMPERATURE** display  
Show the temperature set for the room when the device is operating.
- 5 **COMPRESSOR SPEED** display  
If the compressor is operating, its speed will be displayed.

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## 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 in the correct manner at a public battery collection point.

### 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. 3/4)

### 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. **v:** 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. The fan speed cannot be adjusted if the system is set to AUTO or DRY modes.

6. **SLEEP/TURBO:** Pressing this button enables you to select economy mode. Pressing it a second time will deactivate this mode. The mode will also be deactivated as soon as you press another button. This function can only be used in COOL, HEAT and AUTO modes.  
**TURBO:** Not assigned.
7. **SWING:** Pressing this button will activate the automatic direction change for the ventilation flaps. The air flow is adjusted upwards/downwards. Pressing the button a second time will stop this function.
8. **AIR DIRECTION:** Pressing this button enables you to fix the angle of the ventilation flap.
9. **TIMER ON:** Pressing this button enables you to set the time at which the device will switch on (0.5 – 24 hours). Each time you press this button the activation time will move in steps of 30 minutes (steps of one hour after 10 hours). To deactivate this mode, press the button as often as required until the TIMER ON indicator disappears from the display.
10. **TIMER OFF:** Pressing this button enables you to set the time at which the device will switch off (0.5 – 24 hours). Each time you press this button the deactivation time will move in steps of 30 minutes (steps of one hour after 10 hours). To deactivate this mode, press the button as often as required until the TIMER OFF indicator disappears from the display.

### Display

21. **TRANSFER SIGNAL:** This symbol will be lit as soon as the remote control transfers signals to the indoor device. The indoor device will then confirm with a signal tone.
22. **OPERATING MODES:** As soon as you press the MODE button, the appropriate symbol for the selected operating mode will appear.
23. **TEMPERATURE DISPLAY:** The set temperature will normally be displayed here.
24. **FAN SPEED display:** If you press the FAN button, the relevant symbol for the selected fan speed will appear. The display will flash if the system is set to DRY or FAN modes.
25. **SLEEP / TURBO display:** If you press the SLEEP / TURBO button in heating or cooling mode, the "Sleep" (energy saving mode) symbol will appear. There is no "Turbo" function.
26. **SWING display:** The symbol will appear as soon as you press the "Swing" button.

27. **TIMER DISPLAY:** As soon as an activation / deactivation time has been selected, **TIMER ON** or **TIMER OFF** will appear in this area.

### Operating modes

#### A) AUTO (Automatic) mode

1. Press the **MODE** button to select **AUTO** mode.
2. Pressing the **TEMP** buttons enables you to select the required room temperature. The most comfortable temperature settings are between 21°C and 28°C.
3. Pressing the **ON/OFF** button enables you to switch on the air conditioner. **OPERATION** and **AUTO** will be lit on the display of the indoor device. In addition the temperature set on the remote control will be displayed. The fan speed will be set automatically.
4. Pressing the **ON/OFF** button a second time enables you to switch off the air conditioner.

#### NOTE

In **AUTO** mode the air conditioner will automatically select on the **COOL**, **FAN** and **HEAT** modes by detecting the temperature difference between the actual room temperature and set temperature.

#### B) COOL, HEAT and FAN modes

1. You can select the required **COOL**, **HEAT** or **FAN** mode by pressing the **MODE** button.
2. Pressing the **TEMP** buttons enables you to select the required room temperature.
3. Pressing the **FAN** button enables you to select the fan speed. Each time you press the button, the speeds will be selected in the following sequence: **AUTO** – **LOW** – **MED** – **HIGH**.
4. Pressing the **ON/OFF** button enables you to switch on the air conditioner. In addition the temperature set on the remote control will be displayed.
5. Pressing the **ON/OFF** button a second time enables you to switch off the air conditioner.

#### NOTE

**FAN** mode cannot be used to control the temperature. Only settings 1, 3, 4 and 5 can be made in this mode.

#### Information about cooling mode

If the room temperature is approx. 1°C above the nominal value setting, the air in the room will be cooled. The inverter control compares the nominal temperature setting to the current room temperature. If there is a large difference, a high cooling capacity will be generated, whilst if the different is only small, a low cooling capacity will be generated. The room temperature is thus kept at a constant

level. If the room temperature falls below the nominal temperature setting by around 2°C, the controller will shut off the cooling system. The cooling system will not be switched on again until after a waiting period of approximately three minutes to protect the compressor.

#### Information about heating mode

Heating mode is only designed for spring and autumn. If the room temperature is approx. 1°C below the nominal value setting, the air in the room will be heated. The inverter control compares the nominal temperature setting to the current room temperature. If there is a large difference, a high heating capacity will be generated, whereas if the different is only small, a low heating capacity will be generated. The room temperature is thus kept at a constant level. If the room temperature rises above the nominal temperature setting by around 2°C, the controller will shut off the heating system. The heating system will not be switched on again until after a waiting period of approximately three minutes to protect the compressor. To prevent the discharge of cold air, the fan in the indoor device is only switched on after a delay (hot air monitor). The fins on the outdoor device can ice up in low outdoor temperatures. In this case the outdoor device will be de-iced.

#### C) DRY (dehumidifier) mode

1. Press the **MODE** button to select **DRY** mode.
2. Pressing the **▲ ▼** buttons enables you to select the required room temperature.
3. Pressing the **ON/OFF** button enables you to switch on the air conditioner. The temperature set on the remote control will be displayed.
4. Pressing the **ON/OFF** button a second time enables you to switch off this mode.

#### Information about dehumidifier mode

The dehumidifier function is most effective if the room temperature is set to 24°C and the fan speed is set to **AUTO**. The fan is switched on and off at intervals in this mode.

#### D) TIMER mode (0.5 – 24 hours)

Press the **TIMER ON** button to set the automatic activation time for the device or the **TIMER OFF** button to set the automatic deactivation time for the device. Press the **ON/OFF** button to cancel the activation or deactivation time.

#### Setting the activation time

1. Press the **TIMER ON** button. The remote control display will now show **TIMER ON**, the last time set for the starting the device and the "hr"

symbol. Now set the time when you want the device to start.

- Each time you press TIMER ON, you will put the activation time 0.5 hours back (when you reach 10 hours, the interval will be one hour).

#### Setting the deactivation time

- Press the TIMER OFF button. The remote control display will now show TIMER OFF, the last time set for the stopping the device and the "hr" symbol. Now set the time when you want the device to stop.
- Each time you press TIMER OFF, you will put the deactivation time 0.5 hours back (when you reach 10 hours, the interval will be one hour).

#### Setting the activation / deactivation time combination

- Press the TIMER ON button. The remote control display will now show TIMER ON, the last time set for the starting the device and the "hr" symbol. Now set the time when you want the device to start.
- Each time you press TIMER ON, you will put the activation time 0.5 hours back (when you reach 10 hours, the interval will be one hour).
- Press the TIMER OFF button. The remote control display will now show TIMER OFF, the last time set for the stopping the device and the "hr" symbol. Now set the time when you want the device to stop.
- Each time you press TIMER OFF, you will put the deactivation time 0.5 hours back (when you reach 10 hours, the interval will be one hour).

#### NOTES

- If you set the same time for the activation and deactivation times, the automatic deactivation time will automatically be put back by 0.5 hours (if the setting is less than 10 hours) or by 1.0 hour (if the setting is 10 hours or over).
- When the device starts automatically it will start using the last operating mode, temperature and fan speed settings.
- To change the TIMER ON/OFF time, press the appropriate TIMER button and reset the time.
- Press the ON/OFF button to cancel the TIMER ON/OFF setting prematurely.

#### E) SLEEP (economy) mode

- Press the SLEEP/TURBO button on the remote control during cool, heat or auto mode.
- The air conditioning system will automatically increase (cool mode) or lower (heat mode) the set temperature by 1°C after one hour.
- After a further hour this process will be repeated

automatically.

- This mode allows you to save energy whilst maintaining a pleasant temperature.

## 9. Indoor device settings

#### Remote control fails to work (emergency operation) (Fig. 5)

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

- Open the front panel and lift it until the panel audibly clicks into position in an open position.
- Press the button until the AUTO display is lit. The device is now operating in forced automatic mode (the default temperature is 24°C)
- Close the front panel again.

#### Caution

- If you press the button repeatedly, the operating mode will change in the following sequence: AUTO, COOL, OFF.
- If you press the button twice, the device will be set to forced cool mode. This mode is only designed for testing purposes.
- The third press of the button will stop the device.
- Use the remote control to restart control using the remote control.

#### Setting the vertical air flow direction (Fig. 6)

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 started the slats vibrate and there is a risk of your fingers getting caught.

#### Setting the horizontal air flow direction (Fig. 7)

The air conditioning system automatically set the horizontal air flow direction with the operating mode. Proceed as follows to set the horizontal air flow direction manually:

- Use this function when the device is operating.
- Press the AIR DIRECTION button on the remote control until the air flap has reached the required position.
- Every time you start the device thereafter, the horizontal air flow will automatically be set to the direction in which the air flap was moved when you pressed the AIR DIRECTION button.

#### Automatic horizontally oscillating air flow change (Fig. 8)

- Use this function when the device is operating.
- Press the SWING button on the remote control. To end the function, press the SWING button a second time.
- Press the AIR DIRECTION button to fix the air

flap in the required position.

**Notes:**

1. If the air conditioning system is not switched on or TIMER ON is active, the AIR DIRECTION and SWING buttons will have no effect.
2. The air conditioning system should not be operated for a lengthy period of time with the air flow directed downwards in cool or dehumidify (DRY) mode. Otherwise condensation may be deposited on the horizontal air flap and can then drip on to the floor or on to furniture.
3. Do not adjust the horizontal air flap manually. Always use the AIR DIRECTION or SWING button for this purpose. If you adjust the air flap by hand, it may suffer a malfunction in certain circumstances. If a malfunction does occur, the system must be stopped and restarted.
4. If the air conditioning system is restarted immediately, it is possible that in certain circumstances the horizontal air flap will not move for approx. 10 seconds.
5. Do not operate the device with the horizontal air flap closed.
6. If the air conditioning system is connected to the power supply (the first time the power supply is switched on), in certain circumstances the horizontal air flap may generate a sound which lasts for ten seconds. This is normal and is not a malfunction.

## 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. 9).
2. Raise the air filter slightly using the handle (Fig. 10 / Item A) 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 (Fig. 11).
3. The left air filter also includes an activated charcoal filter. Take the activated charcoal filter (Fig. 12) out of the holder frame.
4. Clean the activated charcoal filter at least once per month and change the filter every 12 months.
5. Clean the activated charcoal filter with a vacuum cleaner.
6. Clean the netting in the air filter with a vacuum cleaner or wash it out with water.
7. Then dry the filter in a cool place.
8. Fit the activated charcoal filter again.
9. 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. 13).
10. 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

**GB****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.

### Please contact our service partner immediately if the following fault codes are displayed

#### Display E0-E8 or P1-P4

##### Display E1

Defective air circulation sensor in the indoor device

##### Display E2

Defective heat exchanger sensor in the indoor device

##### Display E4

No cooling / heating power

##### Display E5

Cool mode – frost guard tripped /  
Heat mode – overheating guard tripped

**GB****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**

Please check that all the installation accessories have been supplied prior to carrying out the installation work.

- 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)
- 2 sealing compound
- 1 wall hole cap
- 2 roll of plastic wrapping tape
- 1 set of refrigerant lines (L = 4 m)
- 8 screws ST 3.9x25
- 8 wall plugs
- 1 wall passage hole

**14. Installation instructions /Fig. 14):**

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

- Use only suitable fastening material. The supplied plugs and screws are suitable for concrete, natural stone with a dense structure, solid bricks, solid lime-sand blocks, solid blocks made of lightweight concrete, pore concrete (gas concrete), solid gypsum panels, perforated high blocks, perforated lime-sand blocks and hollow blocks made of lightweight concrete.
- 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. 15/16)**

- 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. 16/17)**

- 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 (C and D) are shown in Figure 16.

**Important note:**

The following work must be carried out exclusively by our service partner or a specialist refrigeration

**GB**

contractor of your choice.

#### 4. Fitting the condensation water drainage hose (Fig. 18)

- 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 adhesive tape, checking that it is fully sealed as you do so. Wrap the section of the drainage hose in the hole in the wall, plus approx. 10 cm in front of the wall on both the inside and outside, in insulation material.

#### 5. Connecting the refrigerant lines to the indoor device (Fig. 19)

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 6,35 mm tube = 15 - 20 Nm

Ø 12,7 mm tube = 50 - 55 Nm

#### Notes:

- The top hook (Fig. 21 / Item A) 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. 21 / Item B) on the mounting plate.
- Bend and position the condensation hose carefully. (Fig. 21)
- 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. 22/23)

- 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. 22

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, use a rubber hose cable H07RN-F 4x1.5 mm<sup>2</sup>.

- Take the corner cover off the indoor device.
- Connect the cable to the indoor device as shown on the connection diagram (Fig. 24). (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 4 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 using the sealing disc (B) (Fig. 25). Drain the water generated when the system is in heating mode through a hose.

## 2. Mounting 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.

### 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. 26)

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 (25); take account of the ground terminal as you do so (N=blue wire, 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. The insulation resistant must be more than 2 MΩ.

## Remote control holder

Before you mount the holder, check that the remote control can be received by the indoor device from the planned location for the holder. Do not select a position in direct sunlight or in the vicinity of any sources of heat.

Check that the + and – terminals on the batteries are positioned correctly in the remote control.

Fasten the remote control holder to the wall with dowels and screws.

## 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

**GB**

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.
- If the indoor/outdoor temperature is outside the "Cool" temperature range (see section 3), press the emergency switch twice to put the device into forced cool mode (see section 9). Then carry out the commissioning process.

**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.

**17. Device dimensions**

Indoor device (Fig. 27)  
Outdoor device (Fig. 28)

**18. Circuit diagrams**

Indoor device (Fig. 29)  
Outdoor device (Fig. 30)

**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](http://www.isc-gmbh.info)



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**NL** verklaart de volgende conformiteit in overeenstemming met de EU-richtlijn en normen voor het artikel  
**E** declara la siguiente conformidad a tenor de la directiva y normas de la UE para el artículo  
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**LT** deklaruoja atitiktį pagal ES direktyvas ir normas straipsniui  
**HR** izjavljuje sledeći konformitet u skladu s odredbom EZ i normama za artikl  
**LV** Atbilstības sertifikāts apliecina zemāk minēto preču atbilstību ES direktīvām un standartiem  
**IS** Samræmisýfirlýsing staðfestir eftirfarandi samræmi samkvæmt reglum Evrópubandalagsins og stöðlum fyrir vörur

## Split Klimaanlage NSK 3503 I C+H

- |   |   |
|---|---|
| <input type="checkbox"/> 98/37/EG               | <input type="checkbox"/> 87/404/EWG             |
| <input checked="" type="checkbox"/> 2006/95/EG  | <input type="checkbox"/> R&TTED 1999/5/EG       |
| <input type="checkbox"/> 97/23/EG               | <input type="checkbox"/> 2000/14/EG_2005/88/EG: |
| <input checked="" type="checkbox"/> 2004/108/EG | <input type="checkbox"/> 95/54/EG:              |
| <input type="checkbox"/> 90/396/EWG             | <input type="checkbox"/> 97/68/EG:              |
| <input type="checkbox"/> 89/686/EWG             |   |

**EN 60335-2-40; EN 60335-1; EN 50366; EN 55014-1; EN 55014-2; EN 61000-3-2; EN 61000-3-3**

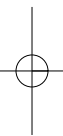
Landau/Isar, den 05.12.2007

*Weichselgartner*  
 Weichselgartner  
 General-Manager

*Stanley Wong*  
 Wong  
 Product-Management

Art.-Nr.: 23.658.15 I.-Nr.: 01017  
**Subject to change without notice**

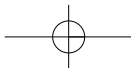
Archivierung: 2365815-34-4155050-07



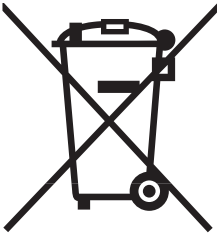
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Ⓒ For EU countries only

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.





# **GB** 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.