

REMKO ATY

ATY 260, ATY 350

Wall - room air conditioner in split design

Operation · Technology · Spare parts



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Read these operating instructions carefully before start up / use of units!

These instructions are part of the unit and must always be stored in immediate vicinity of the placement location or on the unit.

Changes reserved; no liability for errors or printing errors!

Safety guidelines

Before using your unit for the first time, carefully read the operating instructions for your unit.

It contains useful tips , remarks as well as warnings  to avoid danger to personnel and property. Non-observance of these instructions can endanger persons, the environment and the system and therefore lead to loss of any possible warranty claims.

- Keep these operating instructions and the refrigerant data page near the unit.
- The set up and installation of the units and components may only be carried out by expert technicians.
- Set up, connection and operation of the unit and components must be made within the usage and operating conditions according to the instructions and valid regional regulations.
- The units for mobile use must be set up on a suitable base, safe to operate and vertically. Units for stationary operation may only be operated in permanently installed condition.
- Modification and changes of units or components supplied by REMKO are not permissible and can cause malfunctions.
- The units and components may not be operated in areas with increased danger of damage. The minimum clearances must be observed.
- The electrical power supply must be matched to the requirements of the units.
- The operational safety of the units and components is only ensured in case of proper and destined use and in completely installed condition. Safety devices may not be changed or bypassed.
- Any units or components with noticeable defects or damage may not be put in operation.
- All housing parts and unit openings, such as air inlets and outlets must be clear of foreign objects, fluids or gases.
- The units and components require a sufficient safety distance to inflammable, explosive, combustible, aggressive and contaminated areas or atmospheres.
- Contact with certain unit parts or components can cause burns or injuries.
- Installation, repairs and maintenance may only be carried out by authorized technicians, visual inspections and cleanings can be made by the operator, if the unit is unplugged.
- Suitable measures and preparations must be made for installation, repair, maintenance and cleaning of the units to eliminate danger from the unit for personnel.
- Do not subject the units or components to mechanical loads, extreme moisture and direct sun exposure.



Environmental protection and recycling

Disposal of packaging

All products are packed for transport in environmentally friendly materials. Do your part in the reduction of waste and conservation of resources and dispose of the packaging material only at appropriate collection points.



Disposal of old units

Our Production department is under constant quality control. Only top quality materials are processed, the majority of which are recyclable. Do your part to protect the environment by ensuring that your old unit is disposed of according to regionally valid regulations, for example in authorized disposal and recycling centers or collection points.

Warranty

Prerequisite for any warranty claims is that the purchaser or his client has completely filled out the "warranty registration card" included with any unit within the relevant time period of sale and initial operation as well as the „Start up protocol“ and returned it to REMKO GmbH & Co. KG . The warranty conditions are listed in the „General business and delivery conditions“. Above and beyond these conditions, special agreements can only be made between contracting parties. For that reason, please contact your direct contracting party / dealer first.

Transport and packaging

The units are delivered in strong transport packaging. Please check the units immediately at delivery and note any damage or missing parts on the shipping papers and inform the carrier and your contracting party.

No warranty can be assumed for later claims.

Unit description

The room air conditioning units ATY 260-350 have a REMKO ATY...AT exterior section as well as an interior unit ATY...IT.

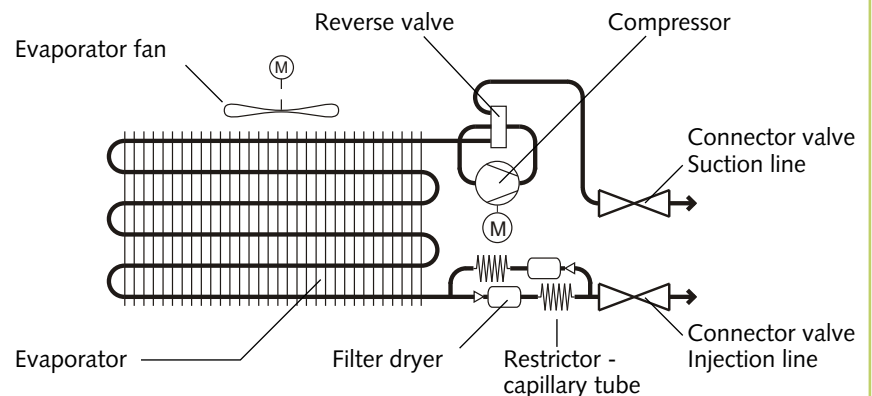
The exterior section is used in cooling operation to discharge the heat, which was removed to the exterior by the interior unit from the room to be cooled. In heater operation, the heat taken up by the exterior section can be discharged by the interior unit into the room to be heated.

The exterior section can be installed outside or in interior areas, if certain requirements are met. The interior unit is designed for the upper wall area in the interior. It is operated via an infrared remote control.

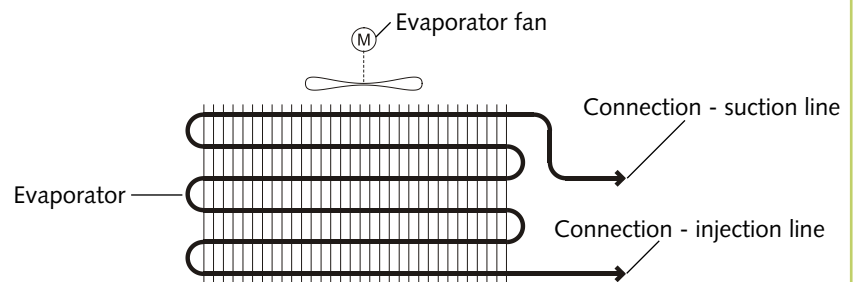
The exterior section consists of a coolant circuit with compressor, fin evaporator, evaporator fan, reverse valve and restrictor. The exterior section is controlled via the regulation of the interior unit. The interior unit consists of a fin evaporator, evaporator fan, regulation and condensation pan.

Floor consoles, wall consoles, refrigerant lines and condensation pumps are available as accessories.

Diagram - Cooling circuit - exterior unit

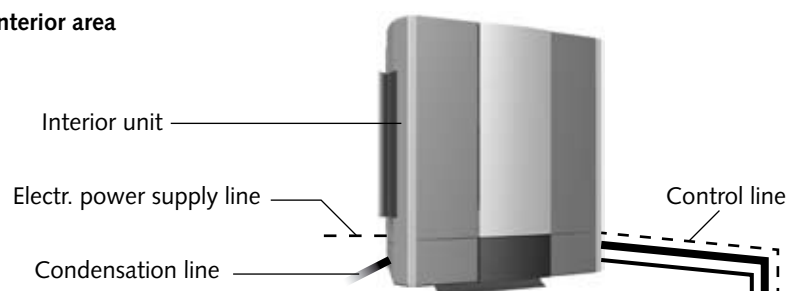


Circuit diagram - coolant circuit - interior unit

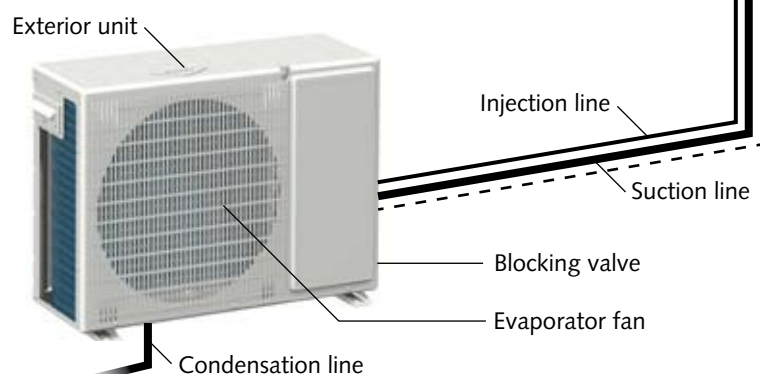


System design

Interior area



Exterior area



The connection between the interior unit and the exterior unit is made with refrigerant lines.

Operation

The interior unit can be comfortably operated with the standard infrared remote control. The proper data transfer is confirmed by the interior unit with a signal sound. If programming via the infrared remote control is not possible, then the interior unit can also be operated manually.

Manual operation

The interior unit can also be operated manually. To do so, press the button on the right side of the unit to activate the automatic mode.

In manual operation, the following settings apply:

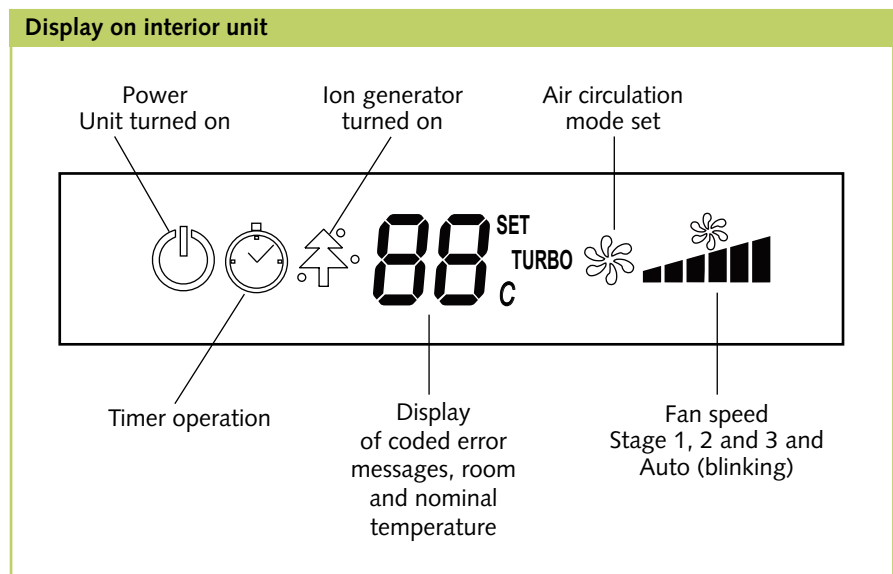
Automatic operation:

Above 21 °C = cooling operation, set temperature 24 °C under 21 °C = heater operation, set temperature 24 °C fan speed AUTO

By pressing the button of the infrared remote control, the manual operation is interrupted.

Display on interior unit

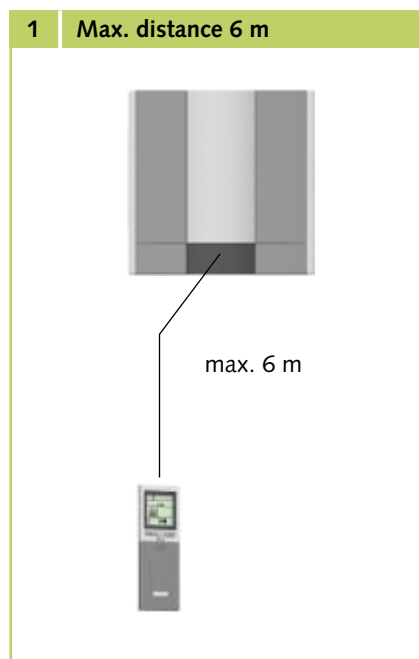
The display lights up according to the settings. In operation, the display lights up, the selected mode and the nominal temperature are shown.



Infrared remote control

The infrared remote control sends the programmed settings in a distance of up to 6 m to the receiver of the interior unit. Uninterrupted receipt of data is only possible if the remote control is directed to the receiver and no obstacles hinder the transfer.

First insert the supplied batteries (2 each, Type AAA) into the remote control. To do so, pull off the flap of the battery compartment and insert the batteries correctly by polarization (see marks).



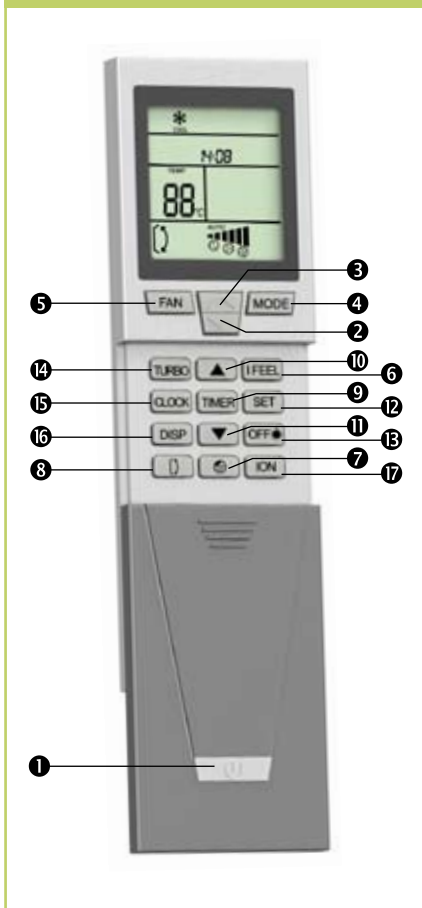
NOTE

Problems are shown in code (see chapter Troubleshooting and Customer service).

NOTE

Replace discharged batteries immediately with a new set to prevent battery leakage. For longer down times, we recommend removal of the batteries.

Buttons of remote control



Buttons of remote control

1 „ON/OFF“ button

Press this button to operate the unit.

2 „▼“ button

With this button, the desired temperature can be decreased up to 16 °C.

3 „▲“ button

With this button, the desired temperature can be increased up to 30 °C.

4 „MODE“ button

With this button, the operating mode is selected. The interior unit has 5 modes:

1. Automatic mode

In this mode, the unit works in cooling or in heating mode.

2. Cooling mode

In this mode, the cold air in the room is cooled down to the desired temperature.

3. Heating mode

In this mode, the warm air in the room is warmed up to the desired temperature.

4. Air circulation mode

In this mode, the air in the room is recirculated.

5. Dehumidification mode

In this mode, the room is mainly dehumidified, the adjusted temperature is retained.

5 „FAN“ button

With this button, the desired fan speed can be set. 4 stages are available: Automatic, high, medium and low fan stage.

6 „I FEEL“ button

With this button, the sensing of the room temperature is moved from the interior unit to the remote control.

The temperature measured on the remote control is then transmitted to the interior unit in certain intervals.

7 „☺“ (SLEEP) button

After pressing this button, the Sleep mode is activated and in cooling operation, the nominal temperature increases automatically by 1 °C within an hour, in heating operation, the nominal temperature is lowered by 1 °C within an hour. After the 2. hour, the temperature increases / decreases by 2°C. After 6 hours, the function is turned off.

8 „()“ (SWING) button

This button directly activates the oscillating function of the fins for better air distribution in the room.

9 „TIMER“ button

With this button, the automatic turn on or turn off time of the unit is activated and programmed with buttons 10 and 11 at intervals of 10 minutes.

10 „▲“ button

This button increases the value for time and timer programming.

11 „▼“ button

This button reduces the value for time and timer programming.

12 „SET“ button

Pressing this button activates the previously set timer.

13 „OFF ⌚“ button

When this button is pressed, a shut off timer of 1/2, 1, 2 or 5 hours is activated.

14 „TURBO“ button

By pressing this button, the maximum fan stage is activated for 30 minutes.

15 „CLOCK“ button

By pressing this button, the time setting is activated.

16 „DISP“ button

By pressing this button, the current temperature on the remote control is transmitted to the unit in the I-Feel function.

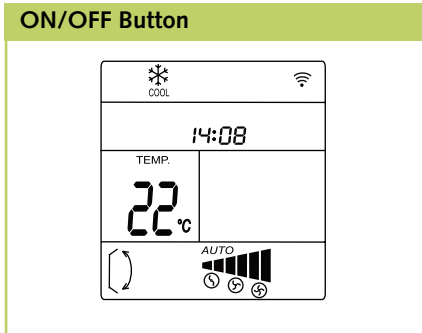
17 „ION“ button

By pressing this button, the ion generator is turned on.

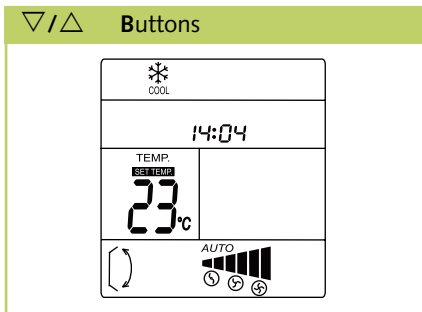
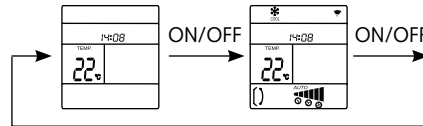
REMKO ATY

Button functions

The transmission of the settings is shown by a symbol in the display.

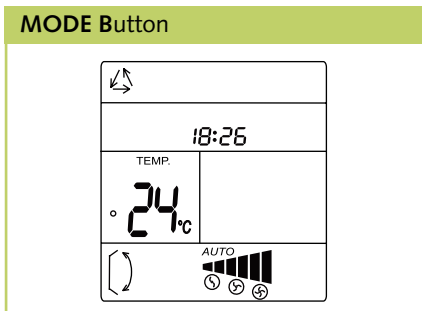
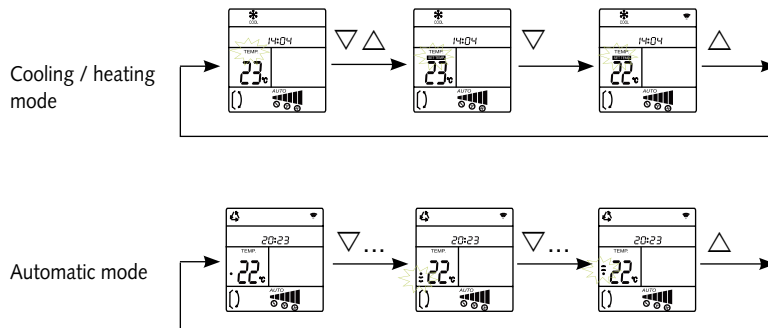


By pressing the ON / OFF button, you can activate or deactivate your unit. The programmed settings and adjustment values before the unit was turned off will appear in the display.



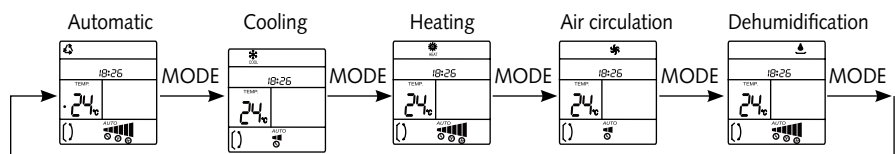
The remote control has its own temperature display. If buttons ∇/△ are pressed alternately, the display changes to **SET TEMP.** The ∇ button can be used to reduce the desired nominal temperature, the △ button can be used to increase it. This adjustment is only possible in cooling and heating mode. In automatic mode, the fixed temperature is reduced with the ∇ button from 24 °C by 1 or 2 °C and increased by 1 or 2 °C with button △. The current setting is shown next to the temperature display.

In dehumidification mode, no temperature adjustment can be made.

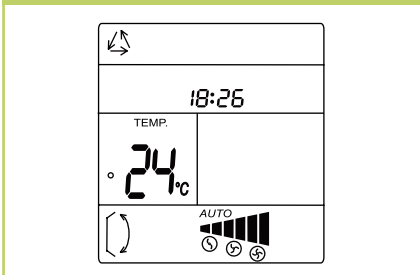


Use the MODE button to select between the individual operating modes. 5 modes are available:

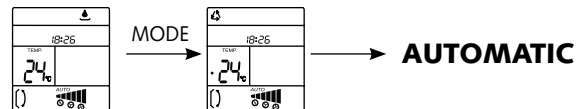
1. **Automatic** automatic selection of cooling or heating operation
2. **Cooling** predominantly summer operating mode
3. **Heating** predominantly winter operating mode
4. **Air circulation** only for air circulation
5. **Dehumidification** Summer or winter operating mode



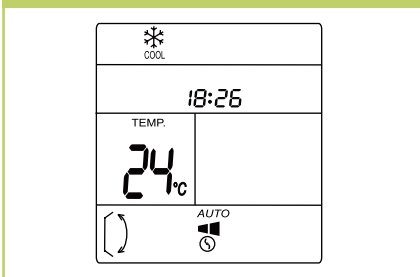
AUTOMATIK mode



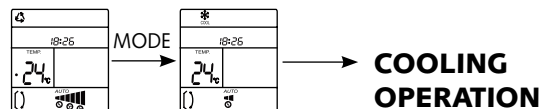
In automatic mode, the regulation autonomously selects between heating and cooling operation, when the unit is first turned on. A nominal temperature of 24 °C is preset. The regulating range is between 22 °C and 26 °C. It can be increased or decreased by 1 °C with buttons ∇/Δ . The fan speed cannot be changed.



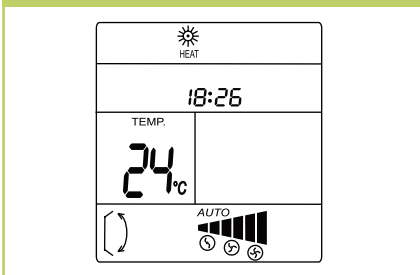
COOLING mode



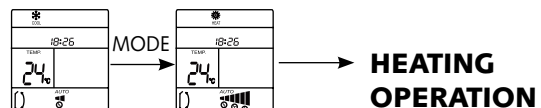
In cooling mode, the air in the room is cooled down to the adjusted nominal temperature. The desired room temperature is set with buttons ∇/Δ in 1 °C increments. If the room temperature is 1 °C above the selected nominal temperature, then the interior unit starts to cool down the air in the room. If the adjusted room temperature is lower than approx. 0.5 °C, then the regulation turns the cooling function off. To protect the compressor, the regulation only turns the cooling on again after a waiting period of 3 minutes.



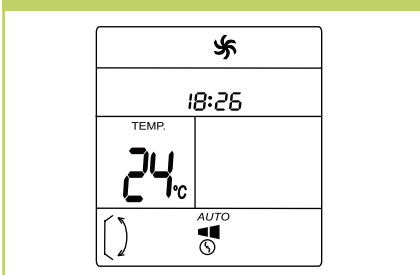
HEATING mode



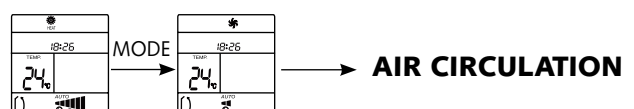
In the heating mode, you can heat the room in spring or fall. The desired room temperature is set with buttons ∇/Δ in 1 °C increments. If the room temperature is 1 °C below the selected nominal temperature, then the interior unit starts to warm up the air in the room. If the adjusted room temperature is exceeded by approx. 0.5 °C, then the regulation turns the heater function off. To protect the compressor, the regulation only turns the heater on again after a waiting period of 3 minutes.



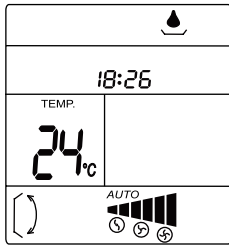
AIR CIRCULATION MODE



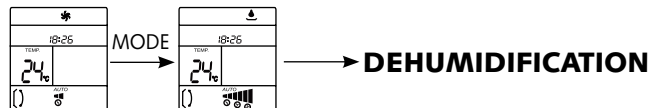
In the air circulation mode, the air in the room is only circulated. The room temperature cannot be changed in this mode. The cooling or heating operation is not activated.



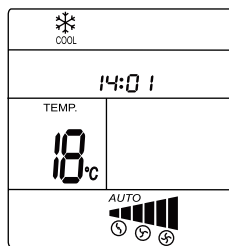
DEHUMIDIFICATION MODE



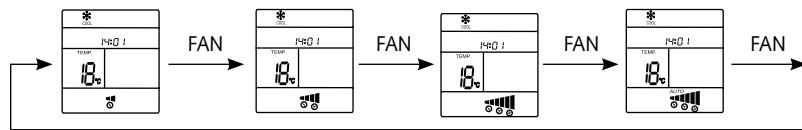
In the dehumidification mode, the room temperature can be adjusted between 18 °C and 30 °C. Due to the low temperature of the refrigerant, the dew point of the air on the condenser is lower. The excess moisture in the air is condensed on the condenser, the room is dehumidified. The fan speed cannot be changed.



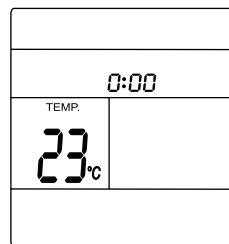
FAN Button



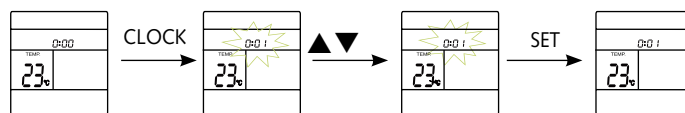
The fan speed can be adjusted with this button. A selection can be made between low, medium, high and automatic fan speed.



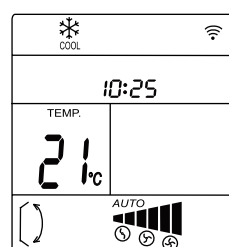
CLOCK Button (covered)



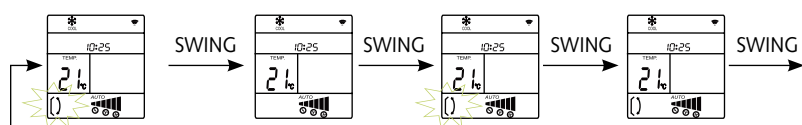
The time can be programmed by pressing the CLOCK button under the cover. The time blinks in the display and the current time can be set via the button ▲ and ▼ under the cover. Programming is completed by pressing the SET button, the display no longer blinks.



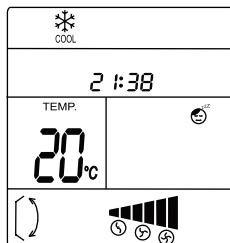
SWING Button (covered)



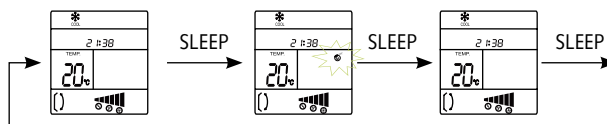
The oscillating function of the air fins can be adjusted with this button. This makes it possible to directly switch between an adjusted position and the oscillating function. The air distribution in the room is improved with the swing function.



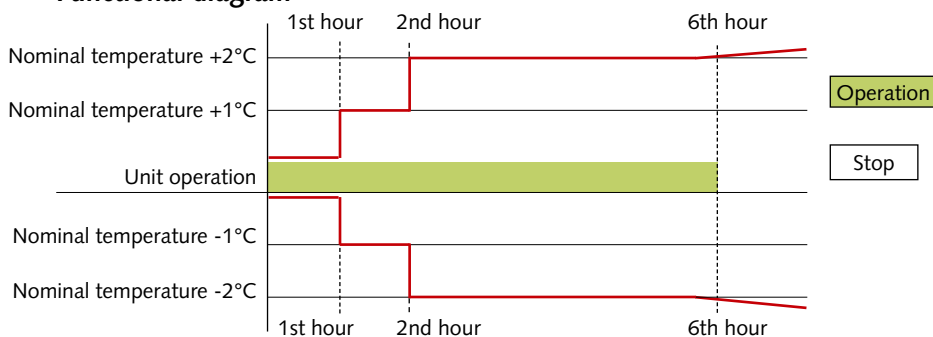
SLEEP button (covered)



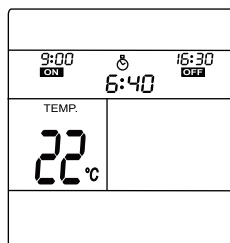
With the button a programming function is activated, which causes the nominal temperature in the cooling mode to increase after one hour by 1 °C and after 2 hours by 2 °C . In the heating mode, the nominal temperature is decreased after one hour by 1 °C and after 2 hours by 2 °C.



Functional diagram

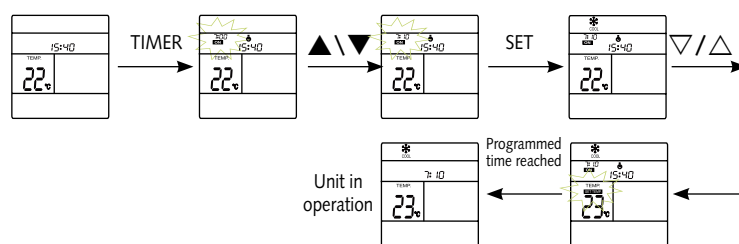
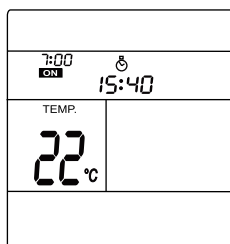


TIMER Button (covered)

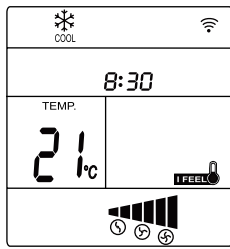


The turn on and turn off time can be programmed with this button. By pressing the TIMER button several times, the turn on, the turn off and the combined turn on and off timer is activated. The turn on or turn off time blinks. The timer display on the interior unit lights up. The desired turn on or turn off time is set by pressing the buttons ▲ and ▼. After completed adjustment, the timer symbol still blinks for approx. 15 seconds. After pressing the SET key, the programming is completed. When the programmed time is reached, the unit turns on or off automatically. When the unit is turned on automatically, then the mode, the temperature and the fan speed of the last settings is reactivated. The prior deletion of the on and off time is made by pressing the corresponding timer button. The timer display on the interior unit turns off.

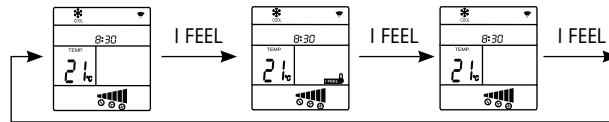
PROGRAMMING TIMER ON



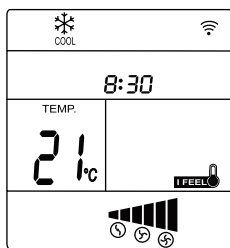
I FEEL button (covered)



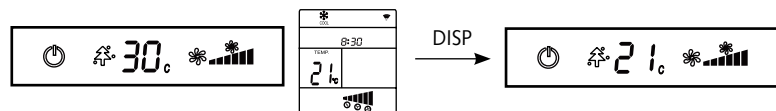
The unit determines the actual temperature inside the wall unit. The temperature near the remote control may deviate from that setting. With the button, the temperature measured on the remote control is transmitted to the wall unit, the nominal temperature does not change. A continuing temperature reconciliation with the actual current temperature of the remote control is made approx. every 5 minutes as long as the function is turned on.



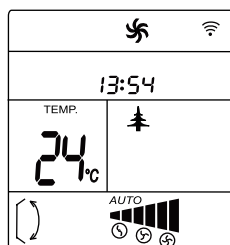
DISP Button (covered)



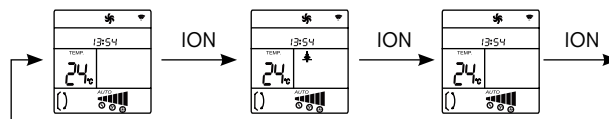
In the I FEEL operating mode, the temperatures between the remote control and the display on the unit may differ. With this button, an immediate reconciliation is transmitted to the unit, the nominal temperature does not change.



ION Button (covered)



The unit is equipped with an ion generator to create negative ions. A high concentration of negative ions is found for example in mountains, near waterfalls and in forests and people perceive this inhaled air as „clean“. Only a slight ion concentration is found in interior rooms. In this case, the ion generator can enhance the ions to the oxygen molecules of the surrounding air and can increase the feeling of well-being. In addition, atmospheric particles and dust particles in the air are bound, naturally cleaning the air. Any dust can settle on smooth surfaced due to the ionization and can be removed manually. Weekly cleaning of the housing and the filter should be observed when using the ionization feature. The function is available in all operating modes.



Taking the unit out of operation

Time-limited shut down

1. Let the interior unit run for 2 to 3 hours in air circulation mode or in cooling operation at maximum temperature setting to remove any residual moisture from the unit.
2. Take the unit out of operation with the remote control.
3. Turn the power supply of the unit off.
4. Check the unit for visible damage and clean it as described in chapter „Care and maintenance“.

Unlimited shut down

The disposal of the units and components must be made according to regionally valid regulations, for example by authorized certified disposal and recycling companies or collection points.

Contact REMKO GmbH & Co. KG or your contract partner for companies near you.

CAUTION

Care and maintenance work may only be carried out if the unit is disconnected.

Care and maintenance

Regular care and maintenance ensure problem-free operation and long service life of the unit.

CAUTION

Before any work on the units, the power supply must be disconnected and secured to prevent it from being turned on again!

Care

- Keep the interior unit and the exterior unit free of dirt, plant covers and other deposits.
- Clean the units only with a damp cloth. Do not use harsh, abrasive or solvent-containing cleaners. Do not use a water jet.
- Before an extended shut down period, clean the fins on the exterior unit and cover the exterior unit with plastic to avoid infiltration of dirt into the unit.

Maintenance

- We recommend placing a maintenance agreement with an annual maintenance interval with an appropriate company.

NOTE

This ensures continuous operating safety of the system!

Cleaning the housing on the interior unit

1. Disconnect the power supply to the unit.
2. Clean the unit with a soft damp cloth.
3. Turn the power supply on again.

Air filter of the interior unit

Clean the air filter at intervals of no more than 2 weeks. Reduce this time in case of very dirty air.

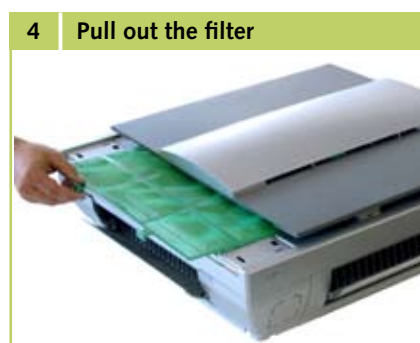
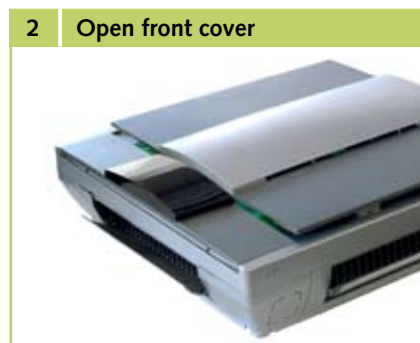
Cleaning the filter on the interior unit

The interior unit is equipped with a filter with antibacterial coating. The filter cleans the air of dust and thereby reduces the distribution of bacteria.

1. Switch the interior unit via the remote control to air circulation (the front cover of the air inlet must be open!) (Fig. 2).

2. Open the lower display cover on the front side of the unit by pressing both latches and carefully fold the cover downward and remove it from the bracket (**Fig. 3**).
3. Push the clips on the filter up and pull it out on the clips (**Fig. 4**).
4. Clean the filter with a commercially available vacuum cleaner. To do so, turn the dirty side upward (**Fig. 5**).
5. Carefully clean off any dirt in lukewarm water and with mild cleaner. To do so, turn the dirty side downward (**Fig. 6**).
6. When using water, allow the filter to air dry completely before reinsertion into the unit.
7. Carefully reinsert the filter. Make sure it is seated correctly.
8. Close the display cover in reverse order as described above.
9. Set the desired operating mode.

Type of work	Start up	Monthly	Semiannually	Annually
Check / maintenance / inspection				
General	•			•
Check voltage and current	•			•
Check function of compressor	•			•
Check function of fan	•			•
Contamination of evaporator fins	•	•		
Check refrigerant quantity	•		•	
Check condensation discharge	•		•	
Check insulation	•			•
Check movable parts	•			•



Cleaning of condensation pump (optional equipment)

An optional integrated or separate condensation pump may be on the interior unit, which pumps out any accumulated condensation into higher positioned drains. Observe the care and maintenance instructions in the separate Operating instructions.



Troubleshooting and Customer service

The units and components are manufactured with the most up-to-date manufacturing methods and are checked several times for proper function. However, should a functional problems occur, please check the function according to the chart below. When all functional checks have been completed and the unit still does not work properly, please contact your dealer!

Functional problem

Problem	Possible cause	Check	Remedy
The unit does not start or does not turn off by itself.	Power failure, low voltage, main fuse defective / main switch turned off.	Are all other electrical devices working?	Check voltage, possible wait until turned on again.
	Power line damaged.	Are all other electrical devices working?	Repair by certified service center.
	Waiting time after turn on too short.	Have 5 minutes passed after restart?	Plan for longer waiting period.
	Operating temperature fallen below / exceeded.	Do the fans on interior unit and exterior unit work?	Observe temperature ranges of interior unit and exterior unit.
	Power surge due to thunderstorm.	Were there any lightning strikes nearby lately?	Shut off main fuse and turn on again. Inspection by certified service center.
	Problem of external condensation pump.	Did the pump turn off due to a problem?	Check or clean the pump, if necessary.
The unit does not react to remote control.	Transmission distance too large / receiving problem.	Is there a signal sound on the interior unit when pressing the button?	Reduce the distance to less than 6 m and change location.
	Remote control is defective.	Is the unit working in manual operation?	Replace remote control.
	Receiver and transmitter are exposed to too much sun exposure.	Is it working in shade?	Shade the transmitter and receiver.
	Electromagnetic fields disrupt the transmission.	Is it working after turning any possible interfering sources off?	No signal transfer at simultaneous operation of interfering sources.
	Button of remote control stuck / dual button control.	Does the "Send" symbol appear in the display?	Release the button / press only one button.
	Batteries of remote control are discharged.	Have new batteries been inserted? Is the display incomplete?	Insert new batteries.
The unit works at reduced or no cooling output.	Filter is dirty / air inlet / outlet opening is blocked by debris.	Have the filters been cleaned?	Clean filters.
	Windows and doors are open. Heating or cooling load has increased.	Have there been any constructional / user changes?	Close windows and doors / install additional systems.
	No cooling operation is set.	Is the cooling symbol in the display activated?	Correct the adjustment of the unit.
	Fins of the exterior unit are blocked by foreign matter.	Does the fan of the exterior unit work? Are the evaporator fins clear?	Check fan or winter regulation, reduce air resistance.
	Leaks in refrigerant circuit.	Is frost formation visible on connections of the exterior unit?	Repair by certified service center.
Condensation discharge on unit.	Drain pipe of collector reservoir plugged / damaged.	Is unrestricted condensation discharge ensured?	Cleaning of drain pipe and collector reservoir.
	External condensation pump or floater defective.	Is the catch pan full of water and the pump is not working?	Have pump replaced by certified service center.
	Non-discharged condensation is in the condensation line.	Is the condensation line routed downward or not plugged?	Route the condensation line downward or clean it.
	Condensation cannot be discharged.	Are the condensation lines clear and routed downward? Does the condensation pump and the floater switch work?	Route the condensation line downward or clean it. If the floater switch or the condensation pump is defective, have them replaced.

Problem display by blinker code

Display	Cause	What to do ?
88 blinks	Loss of power for 3 minutes	Turn off and on again
E1 blinks	Communication error Display regulation	Contact dealer
E2 blinks	Air circulation sensor on interior unit is defective / triggered	Contact dealer
E3 blinks	Antifreeze sensor interior unit defective / triggered	Contact dealer
E4 blinks	Evaporator fan motor speed too low / defective	Contact dealer
E5 blinks	No cooling / heating output after approx. 30 min.	Contact dealer
E6 blinks	Low voltage fuse triggered	Contact dealer
E7 blinks	Communication error	Contact dealer

Installation instructions for technicians

Important notes before installation



NOTE

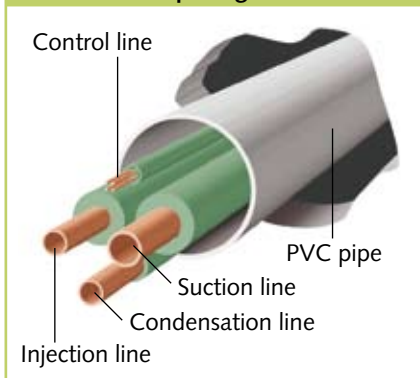
The assembly and installation of the units and components may only be carried out by especially trained technicians.

- Locate the unit in original packaging as close as possible to the installation point to avoid transport damage.
- Check the contents of the packaging for completeness and check the unit for visible transport damage. Report any damage immediately to your contracting party and the shipping company.
- Lift the unit on the corners and not on the refrigerant or condensation connections.
- The refrigerant lines (injection and suction line), valves and connections must be insulated impervious to vapor diffusion. If necessary, insulate the condensation line also.
- Select the installation location to ensure clear air input and output. (See section „Minimum clearances“).
- Do not install the unit in the immediate vicinity of devices with intensive thermal radiation. Installation near thermal radiation reduces the unit output.
- Open the blocking valves of the refrigerant lines only after the installation is complete.
- Seal off open refrigerant lines with suitable caps or adhesive strips to avoid infiltration of moisture and never kink or compress the refrigerant lines.
- Avoid unnecessary bends. You thereby minimize loss of pressure in the refrigerant lines and ensure clear return flow of the compressor oil.
- Make special preparations regarding the oil return when the exterior unit is located above the inner unit. (See section „Oil return flow measures“).
- If the single length of the refrigerant lines exceeds 5 meters, then refrigerant has to be added. For the quantity of additional refrigerant, refer to chapter „Add refrigerant“.
- Only use the union nuts for the refrigerant lines provided in the delivery scope, and remove them just shortly before connecting them with the refrigerant lines.
- Make all electrical connections according to valid DIN and DE regulations.
- Always attach electrical lines properly in electrical clamps. Otherwise a fire could result.

Wall openings

- A wall opening of at least 70 mm diameter and 10 mm slope from the inside to the outside must be made for each interior unit.
- We recommend to pad the hole inside or to cover it for example with a PVC pipe to avoid damage to the lines.
- After installation, the wall opening should be closed off on the building side with a suitable sealant. Do not use cement or lime containing substances!

Lines in wall opening



Installation material

The interior unit is attached with 4 screws on the building side, through the back wall of the unit.

The exterior unit is attached with 4 screws via a wall bracket on the wall or a floor bracket on the ground.



NOTE

Install the exterior unit with appropriate anchors, depending on the type of wall.

Selection of the installation location

The interior unit is designed for horizontal wall installation in the upper wall area (at least 1.75 m from the upper edge - floor). However, it can also be used in the upper wall area above doors.

The exterior unit is designed for horizontal base installation externally. The placement location of the unit must be horizontal, level and firm. In addition, the unit must be secured to prevent it from tipping over. The exterior unit can be set up outside as well as inside a building. For external installation, please observe the following notes to protect the unit from atmospheric conditions.

Rain

For attic or roof set up, the unit should be installed with at least 10 cm ground clearance. A floor bracket is available as optional equipment.

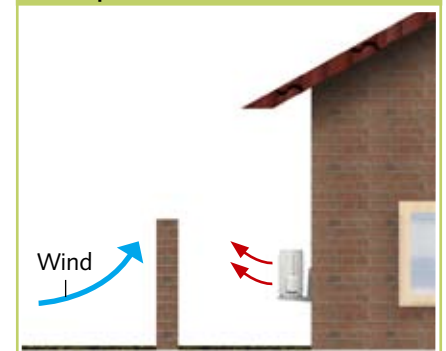
Sun

The evaporator fins of the exterior unit are the heat discharge components in cooling operation. Sun exposure increases the temperatures of the fins and therefore reduces the heat discharge for the evaporator fins. The exterior unit should be set up on the north side of the building, if possible. If necessary, a shade should be installed on the side of the building. This can be something like a small roof. However, the discharging warm air flow may not be affected by the measures.

Wind

If the unit is installed in windy areas, then it should be ensured that the building discharged warm air flow is carried away with the main wind direction. If this is not possible, wind protection should be installed on the building site. Make sure that the wind protection does not affect the air supply to the unit.

Wind protection

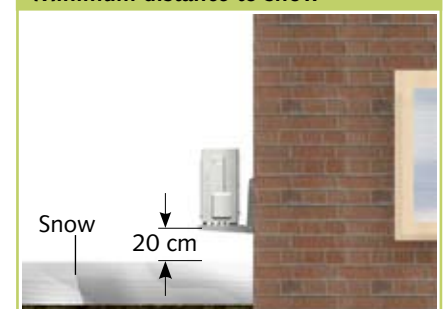


Snow

In areas with heavy snowfall, you should install the unit on a wall.

The installation should be at least 20 cm above expected snow levels to avoid infiltration of snow into the exterior unit. A wall bracket is available as optional equipment.

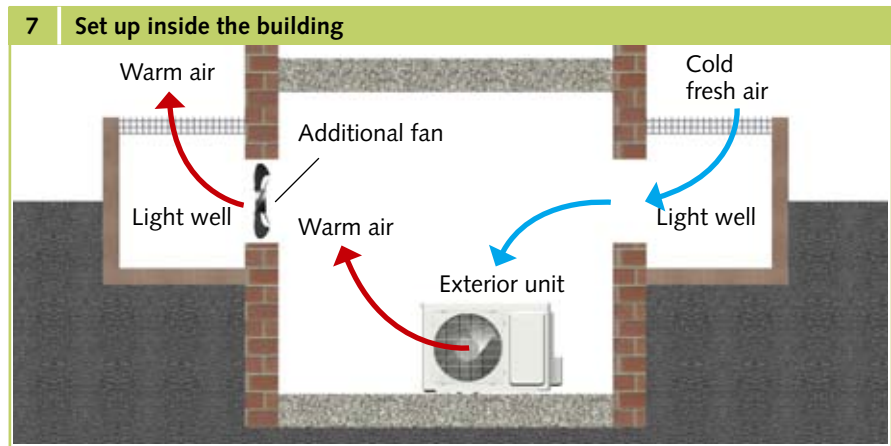
Minimum distance to snow



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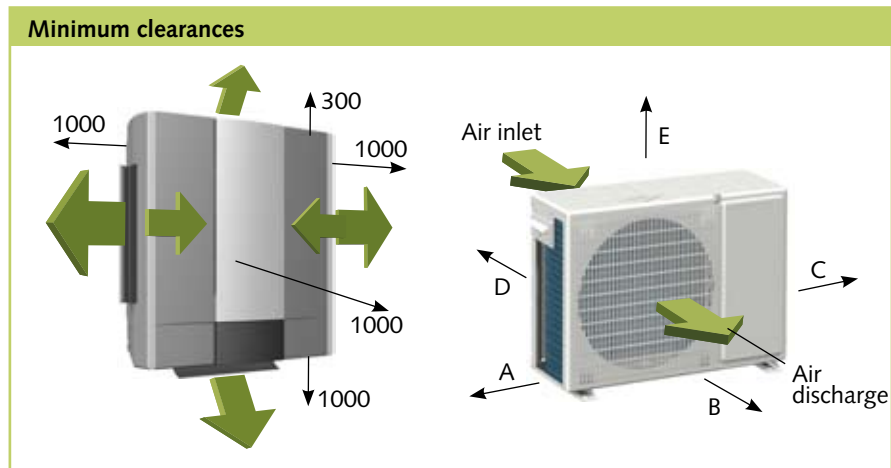
Set up inside a building

- Make sure there is sufficient heat discharge, if the exterior unit is set up in the basement, the attic, in secondary rooms or hallways (Fig. 7).
- Install an additional fan with the same air volume flow as the exterior unit installed in the room, which can compensate for any possible additional pressure losses through air channels (Fig. 7).
- Ensure a continuing unimpaired air supply from outside, if possible through opposite, sufficiently large air openings (Fig. 7).
- Observe the static and other construction technical regulations and conditions regarding the building and, if necessary, provide sound insulation.



Minimum clearances

The minimum clearances are to be provided for maintenance and repair work and for optimum air distribution.

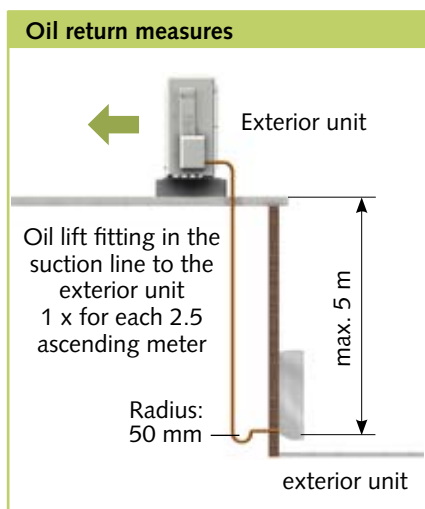


	ATY 260 AT	ATY 350 AT
A	100 mm	100 mm
B	700 mm	700 mm
C	400 mm	400 mm
D	100 mm	100 mm
E	300 mm	300 mm

Installation

Oil return measures

If the exterior unit is located at a higher level than the interior unit, then suitable oil return measures must be made. This is usually done by fabricating an oil lift fitting, which is to be installed for each 2.5 ascending meter.



Connection variations of inner unit



Installation of the interior unit

The wall bracket for the unit must be attached with suitable screws and anchors.

NOTE

The installation may only be made by authorized technicians.

Unit installation

When attaching the interior unit, pay attention to the lower, upper and side area air discharge.

1. Mark the mounting points on the statically admissible building sections, according to the dimensions of the unit.
2. Open the display cover (**Fig. 8**) and remove the two screws underneath the filter (**Fig. 9**).
3. Remove the front of the unit by lifting the front in the lower area from the body approx. 10 cm and folding it upward (**Fig. 10**).
4. Pull the plugs of the front cover from the circuit board (**Fig. 11**).
5. If necessary, remove the break out opening of the housing.
6. Install the unit on the wall.
7. Connect the refrigerant, electrical and condensation line to the interior unit, as described below.
8. Recheck the horizontal alignment of the unit.
9. Reassemble the unit.

8 Open display cover



9 Remove screws



10 Release the unit front



11 Pull off the plug



Connection of refrigerant lines

The on site connection of the refrigerant lines is made inside the unit.

If necessary, a reducer or expansion fitting must be installed on the interior units. These fittings are part of the accessory kit provided with the interior unit. After assembly, the connections must be insulated impervious to vapor diffusion.

CAUTION

The units have been filled at the factory with dry nitrogen to check for leaks. The pressurized nitrogen will be released when the union nuts are loosened.

The following instructions describe the installation of the refrigerant circuit and the assembly of the interior unit and the exterior unit.

1. Check the „Technical Data“ chart for the required pipe diameters and connect the refrigerant line.
2. To bend the copper tubing, use the appropriate bending tool to prevent kinks in the tubing.
3. At installation, check the bending radii of the refrigerant lines and never bend a pipe twice at the same location. This could result in brittleness and danger of cracks.
4. Route the refrigerant lines from the interior unit to the exterior unit. Make sure they are sufficiently attached and take measures for the oil return, if necessary!
5. Install the exterior unit with the wall or floor bracket to statically admissible building sections (pay attention to the installation instructions for the brackets).
6. Make sure that no body vibration is transferred to part of the building. Body vibration transfers are reduced by vibration dampers!
7. Remove the factory installed protective caps as well as the union nuts on the blocking valve connections and use them for further installation.
8. Before flanging the refrigerant lines, make sure, that the union nut is on the pipe.
9. Prepare the routed refrigerant lines as shown below **(Fig. 12+13, page 23)**.
10. Check if the flange has the correct shape **(Fig. 14, page 23)**.
11. Connect the refrigerant lines with the blocking valves first by hand, to ensure proper seating.
12. Then tighten the fittings with 2 properly sized open-ended wrenches. In any case, while tightening, counter with one open-ended wrench **(Fig. 15, page 23)**.
13. Apply appropriate heat insulation to both installed refrigerant lines, including connector.
14. Only use insulating hoses suitable and diffusion-safe or the temperature range.

NOTE

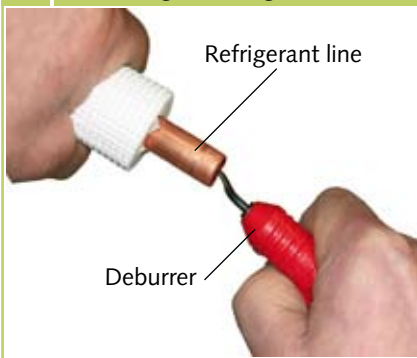
Use only tools which are approved for use in an HVAC environment. Pipe cutter, deburrer, bending pliers and flanging tool.

Additional notes for installation

- For the combination of the exterior unit with some interior units, the connection of the refrigerant lines may differ. In that case, install the provided reducer or expansion fittings to the interior unit.
- If the length of the connector line is longer than 5 m, then refrigerant must be added for initial operation. (See chapter „Add refrigerant“).

Leakage test

12 Deburring the refrigerant line



When all connections are made, the pressure gauge station is connected to the corresponding Schrader valve connections, if present:

red = small valve
= Injection pressure

blue = large valve
= Suction pressure

The duration of the vacuum creation depends on the pipe line volume of the interior unit and the length of the refrigerant lines, however, the procedure takes at least **60 minutes**.

When foreign gases and moisture have been completely removed from the system, the valves on the pressure gauge station are closed and the valves of the exterior unit as opened, as described in chapter „Start up“.

13 Flanging the refrigerant line



After completed connection, the leakage test is carried out with dry nitrogen.

⚠ CAUTION

Before the leakage test, the pipe connections must be checked.

For the leakage test, the established connections are sprayed with leak detection spray. If air bubbles are visible, then the connection has not been made properly. Retighten the fitting or, if necessary, make a new flange.

14 Correct flange shape



After successful leakage test, the excess pressure in the refrigerant lines is removed and a vacuum pump with the absolute final partial pressure of min. 0,01 mbar is used to remove all the air and empty the lines. In addition, any existing moisture is also removed from the lines.

15 Tighten fittings



💡 NOTE

A vacuum of min. 0.05 mbar must be created!

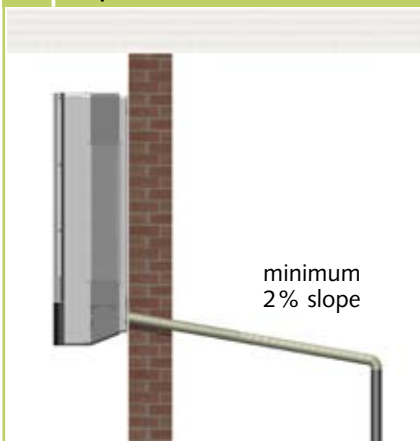
Condensation connection

Due to the dew point shortfall on the evaporator, condensation is created on the interior unit during the cooling operation and on the exterior unit during the heating operation.

Below the evaporator is a catch pan, which must be connected with a drain.

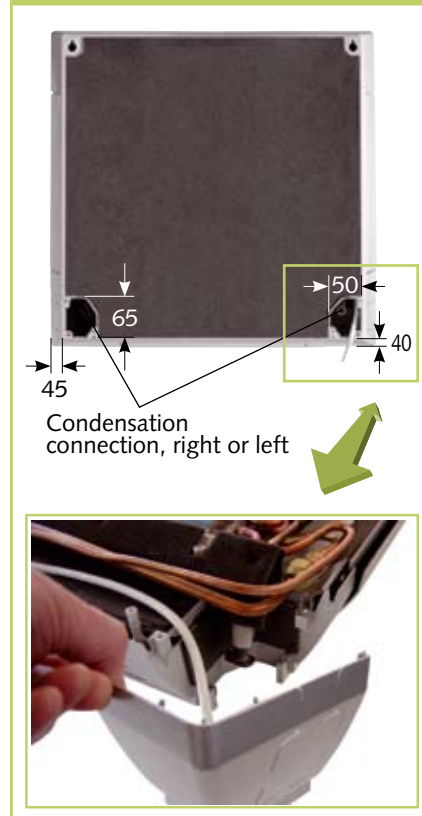
- The building side condensation line must be routed at a down slope of min. 2 % (**Fig. 11**). If necessary, prepare a vapor proof insulation.
- Route the condensation line of the unit freely into the drain line. If the condensation is routed into a wastewater disposal line, provide an anti-siphon trap.
- When operating the unit at ambient temperatures below 0 °C , make sure to route the condensation line freeze proof. If necessary, provide a pipe heating system.
- After completed routing, check for unobstructed condensation discharge and ensure that a permanent seal is provided.

11 Slope of condensation line

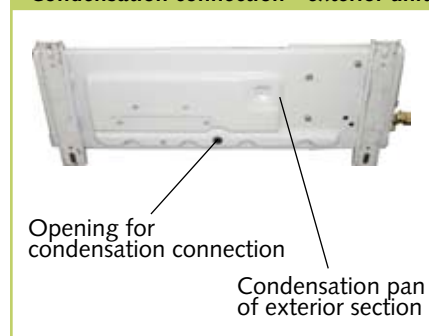


The condensation hose is designed to be installed on the right and the left side (view from front). Remove the plug at the corresponding connection.

Condensation connection-Interior unit



Condensation connection - exterior unit



NOTE

A condensation pump cannot be installed within the units.

Electrical connection

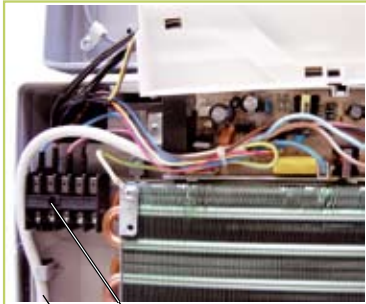
A power line must be installed as power supply to the interior unit and a control line to the exterior unit, with appropriate safeguards.

- We recommend to install a main / repair switch on the building near the interior unit.
- The power supply is made to the interior unit, the exterior unit is supplied via a control line from the interior unit to the exterior unit.
- The strip terminals for the connections are behind the cover of the exterior unit.
- If an optionally available condensation pump is used on the unit, then - for the shut off contact of the pump - an additional relay to increase the switching power to shut off the compressor might be needed.
- If the lines are routed in areas with strong magnetic fields, then the control lines should be shielded.
- The electrical safeguard of the system is made according to the Technical data.

CAUTION

All electrical installations must be made by certified electrical companies. The installation of the electrical connections must be made voltage-free.

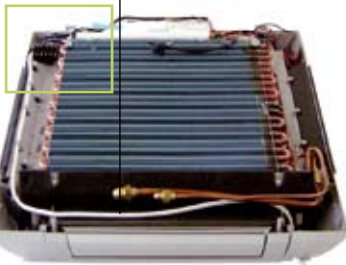
Connection of interior unit



Terminal bar / control bar



Power supply line



Connection of the exterior unit

To connect the line, proceed as follows:

1. Remove the unit cover.
2. Remove the side wall at the connection.
3. Guide the line through the edge protection ring of the fixed connection plate.
4. Connect the line according to the wiring schematic.
5. Anchor the line in the pull relief and reassemble the unit.

Connection of interior unit

Make the connection as follows:

1. Remove the front of the unit, as described in chapter „Device installation“.
2. Select the diameter of the connection line according to regulations.
3. Connect the unit with the power supply line and the control line to the exterior unit (see electrical wiring schematic).
4. Reassemble the unit.

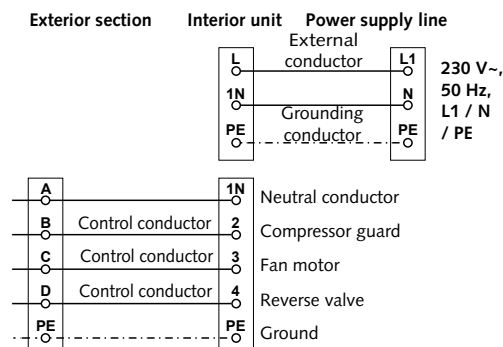


NOTE

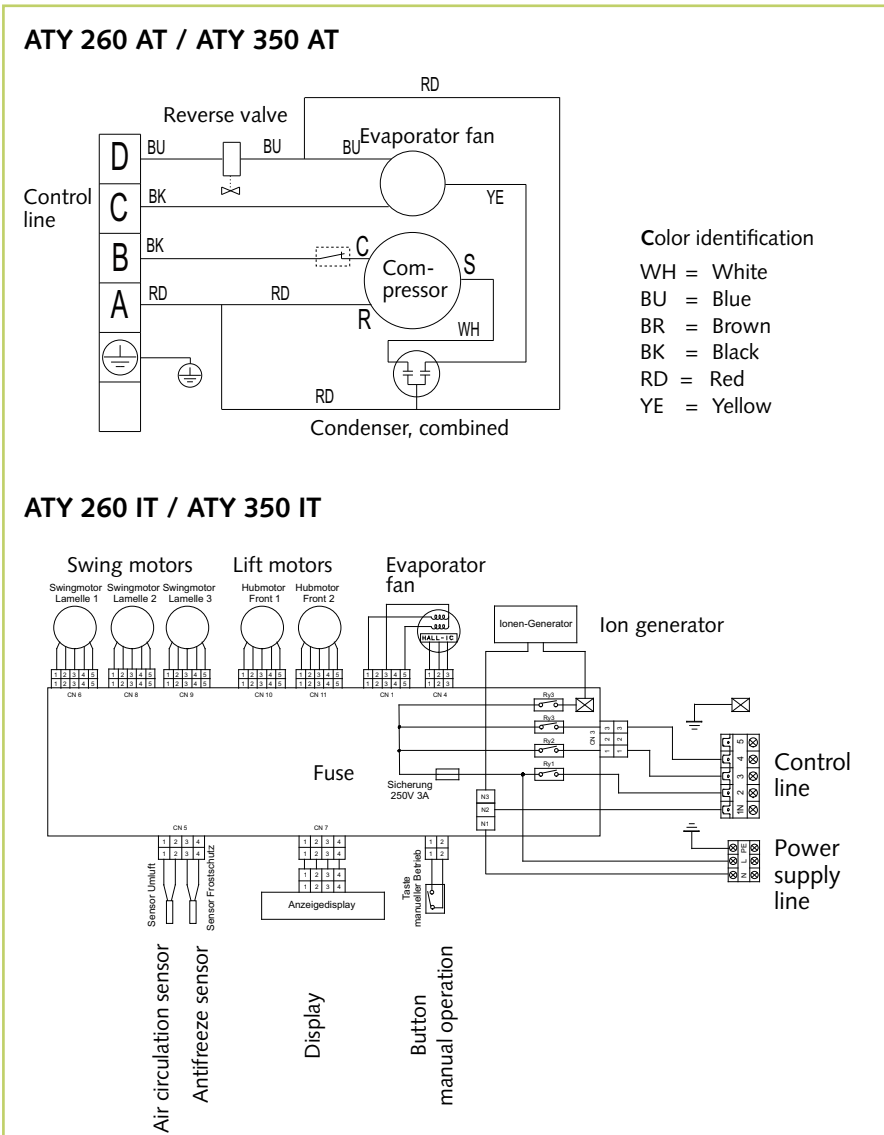
Check all electrical plug and terminal connections for tight and permanent seating, retighten, if necessary.

Electrical wiring schematic

ATY 260 / ATY 350



Electrical wiring schematic



- Check the refrigerant lines and insulation for damage.
- Check the electrical connection between the interior unit and the exterior unit for correct polarity.
- Check all mountings, suspensions etc. for proper support and correct level.

Add refrigerant

CAUTION

When handling refrigerant, always wear appropriate protective clothing.

The units have a base antifreeze filling. In addition, for refrigerant line length of more than 5 meters per circuit, an additional amount of refrigerant must be added, according to the following chart:

	ATY 260	ATY 350
Single line length	Additional quantity	
Up to and including 5 m	0 g/m	
5 m to max. 15 m	10 g/m	

NOTE

Make sure that the refrigerant in use is always supplemented in liquid form!

Before start up

After successful leakage test, the vacuum pump must be connected with the pressure gauge station to the valve connections of the exterior unit (see chapter „Leakage test“) to create a vacuum.

Before initial start up of the units and after entry into the refrigerant circuit, the following tests must be

made and documented in the start up protocol:

- Check all refrigerant lines and valves with leak detection spray or soapy water for leaks and for inadvertent mix up of suction and injection line. With the unit at a standstill.

Start up



NOTE

The start up may only be made by especially trained technicians and must be documented accordingly.

After all components are connected and tested, the system can be put into operation. To ensure proper function, a function test should be made to recognize any irregularities during operation of the units before transfer to the client.

Function test and test run

Check the following points.

- Leak tightness of refrigerant lines.
- Even run of compressor and fan.
- Discharge of cold air on the interior unit and heated air on the exterior unit during cooling operation.
- Function test of the interior unit and all program runs.
- Check of the surface temperature of the suction line and determination of evaporator overheating. To measure the temperature, hold the thermometer to the suction line and subtract the boiling point temperature reading on the pressure gauge from the measured temperature.
- Documentation of the measured temperatures in the start up protocol.

Function test of Cooling operating mode

1. Remove the caps on the valves.
2. Start operation by opening the blocking valves of the exterior unit momentarily until the pressure gauge shows a pressure of approx. 2 bar. .
3. Check all connections for leaks with leak detection spray and suitable leak detectors.
4. If not leaks are found, open the blocking valves by turning them in counterclockwise direction with a hexagon wrench to the stop. If leaks were found, draw off the refrigerant and rework the defective connection. In this case, a new vacuum and drying procedure is imperatively required!
5. Turn the main switch on the building or the fuse on.
6. Turn the unit on via the remote control and select the cooling mode, maximum fan speed and lowest nominal temperature.
7. Measure all required values, record them in the start up protocol and check the safety functions.
8. Check the unit control with the functions described in chapter „Operation“. Timer, temperature setting, fan speed and change between air circulation or dehumidification mode.

9. Check the function of the condensation line by pouring distilled water into the condensation pan. To do so, use a spout to guide the water into the condensation pan.
10. Switch the interior unit to cooling mode.



NOTE

Due to the turn on delay, the compressor will start up a few minutes later.

11. Check all regulating, control and safety devices for function and correct adjustment during the test run.
12. Check the control of the interior unit with the functions described in the operating instructions (Timer, temperature adjustments and all mode settings).
13. Measure the overheating, external, internal, discharge and evaporator temperatures and record the test data in the start up protocol.
14. Remove the pressure gauge and install the caps.



NOTE

Then check the blocking valves for leaks.

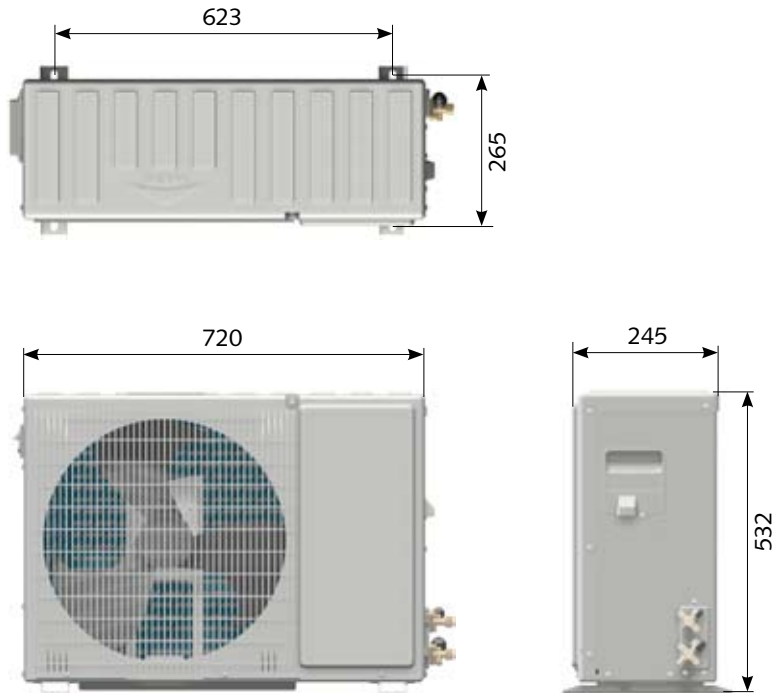
Final tasks

- Reinstall all parts which were removed.
- Familiarize the operator with the system.

REMKO ATY

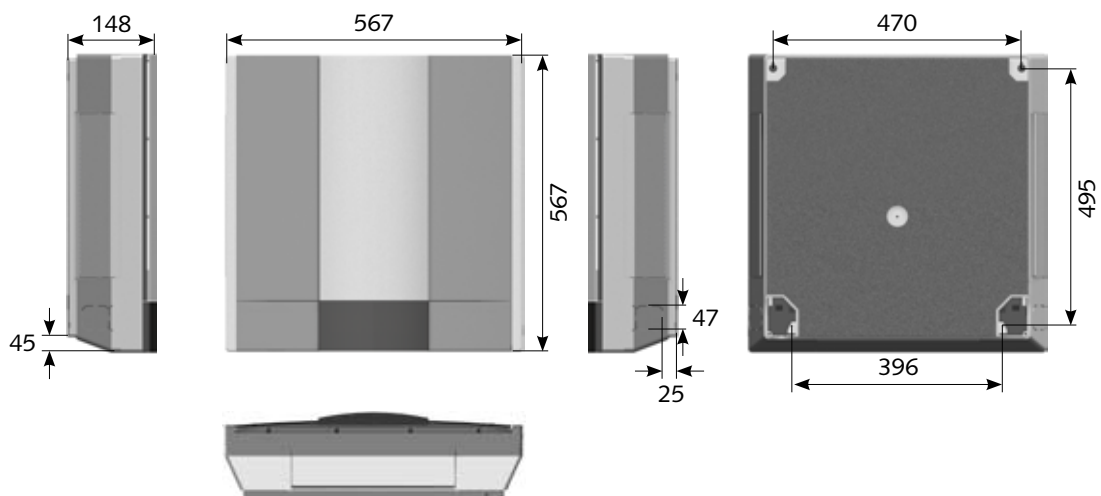
Unit dimensions

ATY 260 AT / ATY 350 AT



All measurements in mm

ATY 260 IT / ATY 350 IT



All measurements in mm

Dimensional and design changes to advance technical progress are reserved.

Technical data

Series		ATY 260	ATY 350
Operating mode		Wall / room air conditioner combination for cooling and heating	
Nominal cooling output ¹⁾	kW	2,69	3,56
Nominal heat capacity ²⁾	kW	3,05	3,99
Energy efficiency class Cooling EER ¹⁾		B	B
Energy efficiency class Heating COP ²⁾		B	B
Energy efficiency size EER ¹⁾		3,02	3,04
Energy efficiency size COP ²⁾		3,43	3,41
Operating range (room volume), approx.	m ³	80	110
Refrigerant		R 410A	R 410A
Operating pressure, max. per cooling circuit	kPa	3800/1200	3800/1200
Power supply	V/Hz	230/1~/50	230/1~/50
Electr. nominal power consumption Cooling ¹⁾	kW	0,89	1,17
Electr. nominal power consumption Heating ²⁾	kW	0,89	1,17
Electr. nominal current consumption Cooling ¹⁾	A	4,10	5,60
Electr. nominal current consumption Heating ²⁾	A	4,00	5,40
Electr. starting current, max.	A	20	25
Refrigerant connection - injection line	Inch (mm)	1/4 (6,35)	1/4 (6,35)
Refrigerant connection - suction line	Inch (mm)	3/8 (9,52)	1/2 (12,7)
Associated interior unit		ATY 260 IT	ATY 350 IT
Operating range	°C	+16 to +32	+16 to +32
Adjustment range - Cooling	°C	+18 to +30	+18 to +30
Adjustment range - Heating	°C	+16 to +28	+16 to +28
Air volume per stage	m ³ /h	360/390/420	380/410/440
Protection type	IP	X0	X0
Sound pressure level per stage ³⁾	dB(A)	33/36/40	35/37/41
Dimensions Height	mm	567	567
Width	mm	567	567
Depth	mm	148	148
Weight	kg	12,0	12,0
Associated exterior unit		ATY 260 AT	ATY 350 AT
Operating range - Cooling	°C	+21 to +45	+21 to +45
Operating range - Heating	°C	-7 to +21	-7 to +21
Air volume, max.	m ³ /h	1340	1890
Protection type	IP	X4	X4
Sound pressure level, max. ³⁾	dB(A)	45	49
Refrigerant, base quantity	kg	0,63	0,83
Refrigerant, additional quantity > 5 m	g/m	10	10
Refrigerant line, length max.	m	15	15
Refrigerant line, height max.	m	5	5
Dimensions Height	mm	532	532
Width	mm	720	720
Depth	mm	245	245
Weight	kg	28,0	32,0
Serial number		740...	741...
EDV-No.		1619260	1619350

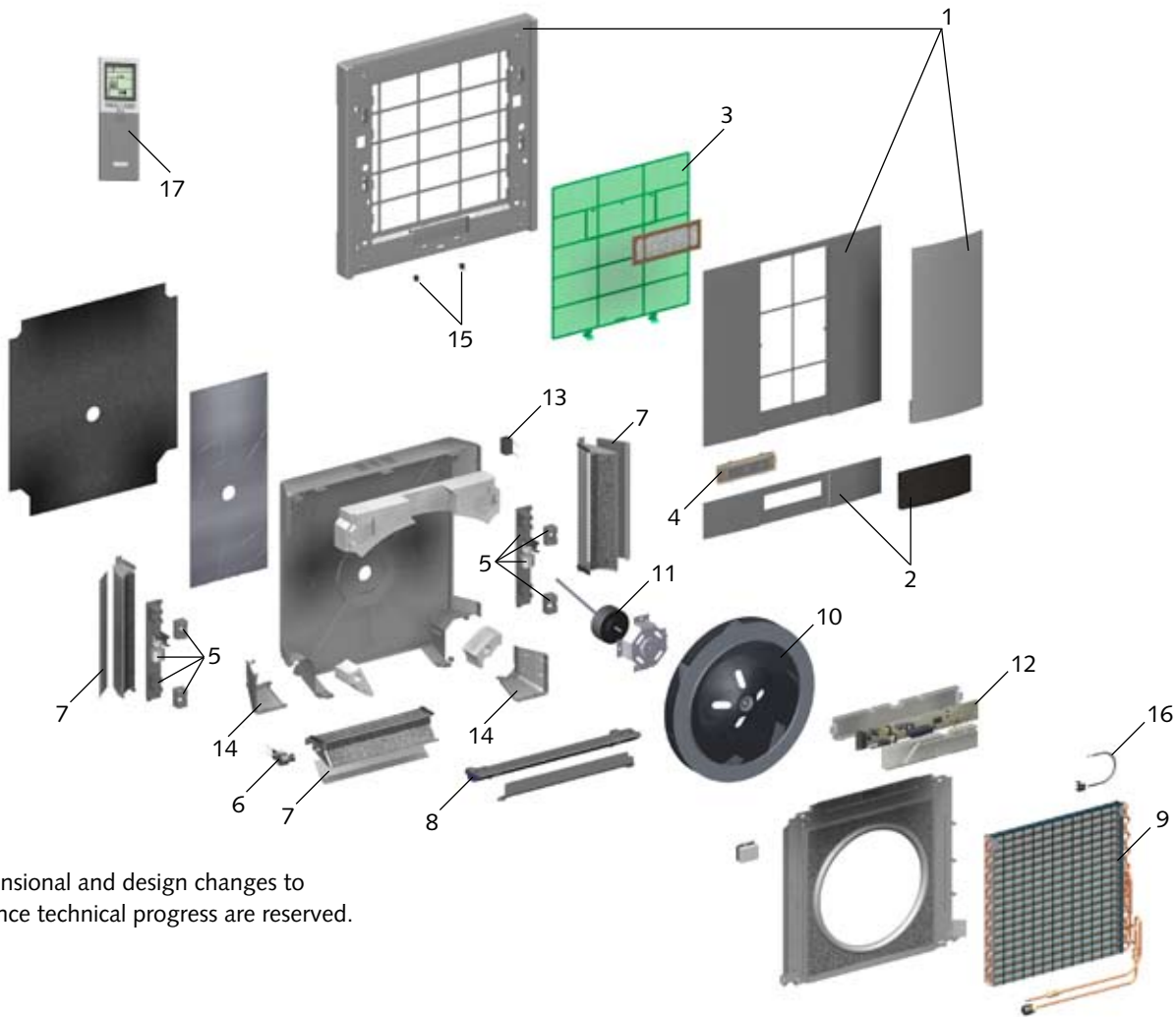
1) Air inlet temperature TK 27°C / FK 19°C, outside temperature TK 35 °C, FK 24 °C, max. air volume flow

2) Air inlet temperature TK20, outside temperature TK 7 °C / FK 6 °C, max. air volume flow

3) Distance 1 m clear field

REMKO ATY

Unit illustration ATY 260 IT / ATY 350 IT



Dimensional and design changes to advance technical progress are reserved.

Spare parts list

No.	Description	ATY 260 IT	ATY 350 IT
1	Cover - air inlet	1107400	1107400
2	Cover - display	1107401	1107401
3	Air filter	1107402	1107402
4	Display circuit board	1107403	1107403
5	Lift motor, set	1107404	1107404
6	Swing motor	1107405	1107405
7	Air outlet fins, set	1107406	1107406
8	Condensation pan	1107439	1107439
9	Fin evaporator	1107408	1107409
10	Fan wheel, evaporator	1107410	1107410
11	Fan motor, evaporator	1107442	1107443
12	Control circuit board	1107440	1107441
13	Ion generator	1107415	1107415
14	Housing angle, set (right & left)	1107416	1107416
15	Mounting clip - cover, set	1107417	1107417
16	Antifreeze sensor / air circulation sensor	1107418	1107418
17	IR remote control	1107419	1107419

For spare parts orders, please also provide the unit serial no. and unit type (see data tag) in addition to the EDV-No!

Product illustration ATY 260 AT / ATY 350 AT



Dimension and design changes to advance technical progress are reserved.

Spare parts list

No.	Description	ATY 260 AT	ATY 350 AT
1	Front wall	1107421	1107421
2	Fan blade, evaporator	1107422	1107422
3	Fan motor, evaporator	1107423	1107424
4	Evaporator fin	1107425	1107426
5	Side section, right	1107427	1107427
6	Compressor, cpl.	1107428	1107429
7	Condenser, compressor, evaporator fan	1107430	1107431
8	Blocking valve, suction line	1107434	1107435
9	Blocking valve, injection line	1107436	1107436
10	Reverse valve	1107437	1107437
11	Side section, left	1107438	1107438

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We constantly keep the expert knowledge of our consultants up-to-date through intensive training. This has earned the reputation that we are more than only a good, reliable supplier: REMKO, a partner who finds a solution to any problem.

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REMKO provides not only a well-established distribution network at home and abroad, but also an exceptionally highly qualified sales staff. REMKO staff members in the field are more than just sales people: Above anything, they are able to advise our customers about cooling and heating technology.

Customer service

Our units operate precisely and reliably. However, should a problem occur, then REMKO's Customer service is quickly on site. Our extensive network of experienced dealers guarantees quick and reliable service at all times.

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