

Operating and installation instructions

REMKO Smart-Control Touch

Remote control for heat pumps



Quick guide



Read these operating instructions carefully before commissioning / using this device!

These instructions are an integral part of the system and must always be kept near or on the device.

Subject to modifications; No liability accepted for errors or misprints!

Translation of the original

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REMKO Smart-Control Touch

1 Safety and usage instructions

1.1 General safety notes

Carefully read the operating manual before commissioning the units for the first time. It contains useful tips and notes such as hazard warnings to prevent personal injury and material damage. Failure to follow the directions in this manual not only presents a danger to people, the environment and the system itself, but will void any claims for liability.

Keep this operating manual and the refrigerant data sheet near to the units.

1.2 Identification of notes

This section provides an overview of all important safety aspects for proper protection of people and safe and fault-free operation. The instructions and safety notes contained within this manual must be observed in order to prevent accidents, personal injury and material damage.

Notes attached directly to the units must be observed in their entirety and be kept in a fully legible condition.

Safety notes in this manual are indicated by symbols. Safety notes are introduced with signal words which help to highlight the magnitude of the danger in question.

DANGER!

Contact with live parts poses an immediate danger of death due to electric shock. Damage to the insulation or individual components may pose a danger of death.

DANGER!

This combination of symbol and signal word warns of a situation in which there is immediate danger, which if not avoided may be fatal or cause serious injury.

WARNING!

This combination of symbol and signal word warns of a potentially hazardous situation, which if not avoided may be fatal or cause serious injury.

CAUTION!

This combination of symbol and signal word warns of a potentially hazardous situation, which if not avoided may cause injury or material and environmental damage.

NOTICE!

This combination of symbol and signal word warns of a potentially hazardous situation, which if not avoided may cause material and environmental damage.



This symbol highlights useful tips and recommendations as well as information for efficient and fault-free operation.

1.3 Personnel qualifications

Personnel responsible for commissioning, operation, maintenance, inspection and installation must be able to demonstrate that they hold a qualification which proves their ability to undertake the work.

1.4 Dangers of failure to observe the safety notes

Failure to observe the safety notes may pose a risk to people, the environment and the units. Failure to observe the safety notes may void any claims for damages.

In particular, failure to observe the safety notes may pose the following risks:

- The failure of important unit functions.
- The failure of prescribed methods of maintenance and repair.
- Danger to people on account of electrical and mechanical effects.

1.5 Safety-conscious working

The safety notes contained in this manual, the existing national regulations concerning accident prevention as well as any internal company working, operating and safety regulations must be observed.

1.6 Safety notes for the operator

The operational safety of the units and components is only assured providing they are used as intended and in a fully assembled state.

- The units and components may only be set up, installed and maintained by qualified personnel.
- Protective covers (grille) over moving parts must not be removed from units that are in operation.
- Do not operate units or components with obvious defects or signs of damage.
- Contact with certain unit parts or components may lead to burns or injury.
- The units and components must not be exposed to any mechanical load, extreme levels of humidity or extreme temperature.
- Spaces in which refrigerant can leak sufficient to load and vent. Otherwise there is danger of suffocation.
- All housing parts and device openings, e.g. air inlets and outlets, must be free from foreign objects, fluids or gases.
- The units must be inspected by a service technician at least once annually. Visual inspections and cleaning may be performed by the operator when the units are disconnected from the mains.

1.7 Safety notes for installation, maintenance and inspection

- Appropriate hazard prevention measures must be taken to prevent risks to people when performing installation, repair, maintenance or cleaning work on the units.
- The setup, connection and operation of the units and its components must be undertaken in accordance with the usage and operating conditions stipulated in this manual and comply with all applicable regional regulations.
- Local regulations and laws such as Water Ecology Act must be observed.
- The power supply should be adapted to the requirements of the units.
- Units may only be mounted at the points provided for this purpose at the factory. The units may only be secured or mounted on stable structures, walls or floors.
- Mobile units must be set up securely on suitable surfaces and in an upright position. Stationary units must be permanently installed for operation.
- The units and components should not be operated in areas where there is a heightened risk of damage. Observe the minimum clearances.

- The units and components must be kept at an adequate distance from flammable, explosive, combustible, abrasive and dirty areas or atmospheres.
- Safety devices must not be altered or bypassed.

1.8 Unauthorised modification and changes

Modifications or changes to units and components are not permitted and may cause malfunctions. Safety devices may not be modified or bypassed. Original replacement parts and accessories authorised by the manufacturer ensure safety. The use of other parts may invalidate liability for resulting consequences.

1.9 Intended use

The units are designed depending on the model and equipment exclusively as a control unit for the heat pump and the heating system.

Any different or additional use shall be classed as non-intended use. The manufacturer/supplier assumes no liability for damages arising from such use. The user bears the sole risk in such cases. Intended use also includes working in accordance with the operating and installation instructions and complying with the maintenance requirements.

Under no circumstances should the threshold values specified in the technical data be exceeded.

1.10 Warranty

For warranty claims to be considered, it is essential that the ordering party or its representative complete and return the "certificate of warranty" to REMKO GmbH & Co. KG at the time when the units are purchased and commissioned.

The warranty conditions are detailed in the "General business and delivery conditions". Furthermore, only the parties to a contract can conclude special agreements beyond these conditions. In this case, contact your contractual partner in the first instance.

REMKO Smart-Control Touch

1.11 Transport and packaging

The devices are supplied in a sturdy shipping container or inside the heat pump casing. Please check the equipment immediately upon delivery and note any damage or missing parts on the delivery and inform the shipper and your contractual partner. For later complaints can not be guaranteed.



WARNING!

Plastic films and bags etc. are dangerous toys for children!

Why:

- Leave packaging material are not around.
- Packaging material may not be accessible to children!

1.12 Environmental protection and recycling

Disposal of packaging

All products are packed for transport in environmentally friendly materials. Make a valuable contribution to reducing waste and sustaining raw materials. Only dispose of packaging at approved collection points.



Disposal of equipment and components

Only recyclable materials are used in the manufacture of the devices and components. Help protect the environment by ensuring that the devices or components (for example batteries) are not disposed in household waste, but only in accordance with local regulations and in an environmentally safe manner, e.g. using certified firms and recycling specialists or at collection points.



2 Technical data

| Series | | Smart Control Touch |
|------------------------|-----------------|--------------------------------|
| Operating mode | | Remote control / controller |
| Power supply | V | +12 V DC |
| Enclosure class | IP | 30 |
| Power consumption | mW | < 100 |
| Max. cable length | m | 15 |
| Recommended cable | mm ² | 2 x 0.5 |
| Dimensions | | |
| Height | mm | 150 |
| Width | mm | 80 |
| Depth | mm | 35 |
| Environment | | |
| Ambient temperature | °C | 0-70 |
| Air humidity | % rH | 0-95 (relative) non-condensing |
| Remote control EDP no. | | 248104 |
| WLAN stick EDP no. | | 1121589 |
| Ethernet adapter | | 248108 |

We reserve the right to make technical changes for the purpose of technical advancement.

REMKO Smart-Control Touch

3 Product description

Information about assembly and installation can be found on the following pages of the operating manual. Information on operating the REMKO Smart Control Touch remote control can be found in the "REMKO Smart-Control Touch" operating manual. This remote control gives you options for setting and querying the relevant parameters of the REMKO heat pump at the user and expert levels. All setting procedures overwrite the existing settings on the heat pump controller. Either for a defined heating circuit or parameters for the entire system. The specific information for operating the remote control at the "User" level can be found in the "REMKO Smart Control Touch" manual. You will find that operation is intuitive and logical. The parameters relevant to specialists are enabled at the "expert level" and are only intended for specialist personnel. It contains all the information required for installation and commissioning of the remote control by REMKO Service or the installer. The remote control has the same parameters as the regulation system in the heat pump. Assembly should take place in a reference room such as the living room where there is easy access. The REMKO room sensor can be used to determine the current room temperature and air humidity. Since you have full access to all the parameters of the installed heat pump via the remote control, it cannot be used in so-called tenant mode. A WLAN function is available via the installed WLAN stick as standard. This gives you the option of connecting your remote control to the in-house WiFi-enabled router and your smartphone. A description of this function can be found on the following pages.



The following examples for connecting the REMKO remote control require software version 4.26. If the software is not up to date, updating to software version 4.26 or later must be carried out!

4 Electrical wiring and interfaces

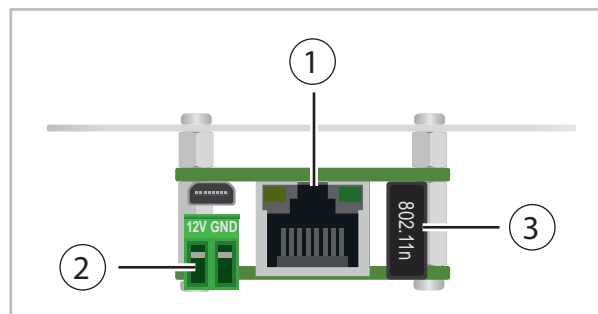


Fig. 1: Electrical wiring and interfaces

- ① **Network cable connection (LAN cable)**
- ② **Power supply connection (12V/GND)**

For the surface-mounted installation, the transformer included in the scope of delivery is used for the power supply (230V~ / 12V $\overline{\text{---}}$). If the unit is flush-mounted, a 12V direct current source must be provided at the installation position.

- ③ **WiFi receiver (WLAN stick)**

The available WiFi receiver is required if a wireless network connection is to be used.

5 WLAN function

Basic schema of the REMKO Smart Control Touch



The power supply (+12V) of the controller can also be established by the customer with an external mains power supply. Refer in this regard to the technical data for the connection.



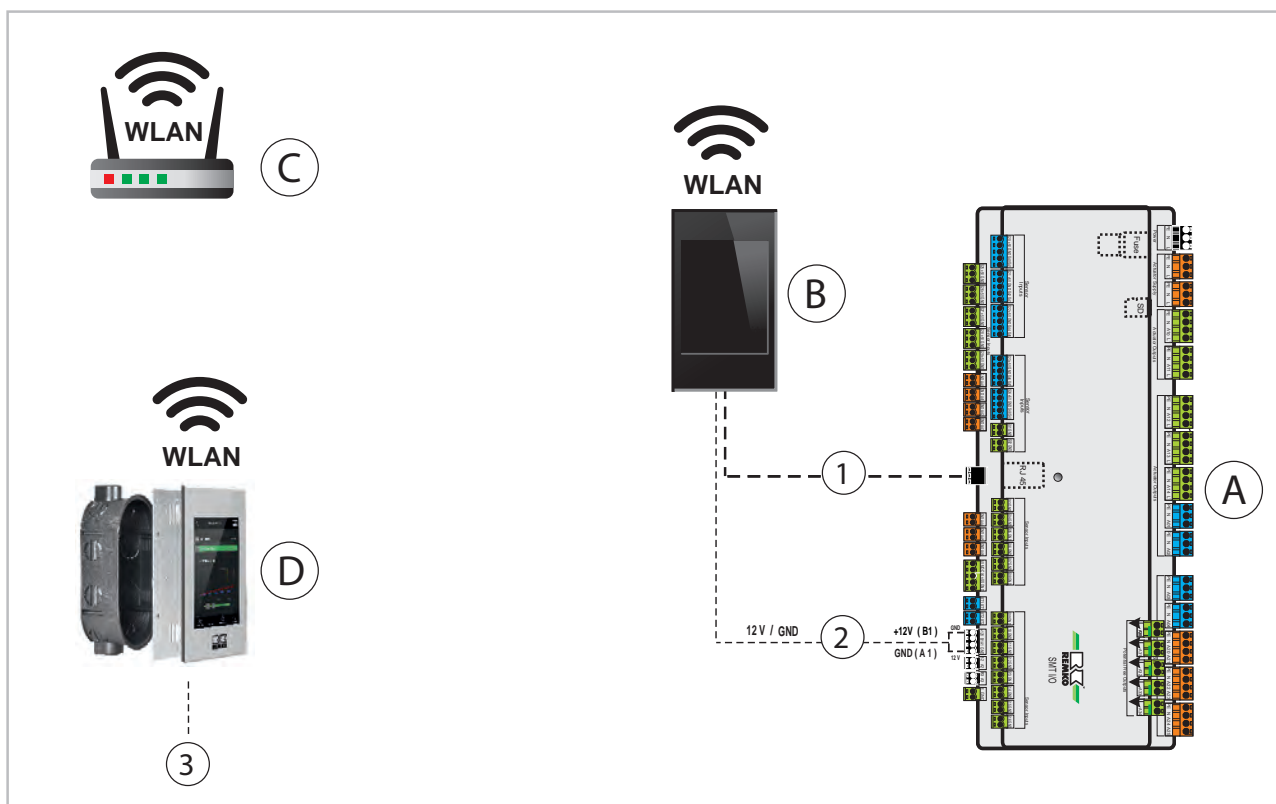
Setting up and installing the WLAN function can be found in the corresponding operating instructions for the Smart-Control Touch controller.



Observe the separate controller instructions for commissioning and programming the REMKO Smart-Control Touch controller.

Basic schema of the Smart Control Touch with WLAN connection and remote control

Functions: Smart Control Touch connection of the heat pump to the customer's WLAN router via WLAN and remote control with WLAN function in the WLAN network of the router.



A: Heat pump I/O module

B: Smart Control Touch heat pump

C: Customer's WLAN router with Internet connection

D: Remote control

1: Ethernet interface/patch cable (LAN cable)

2: Power supply: +12V, terminal B1/A1

3: 12V/GND connection to customer's transformer

Connection of the Smart Control Touch controller to a customer's WLAN router via a WLAN connection using an additional remote control on the same WLAN network.

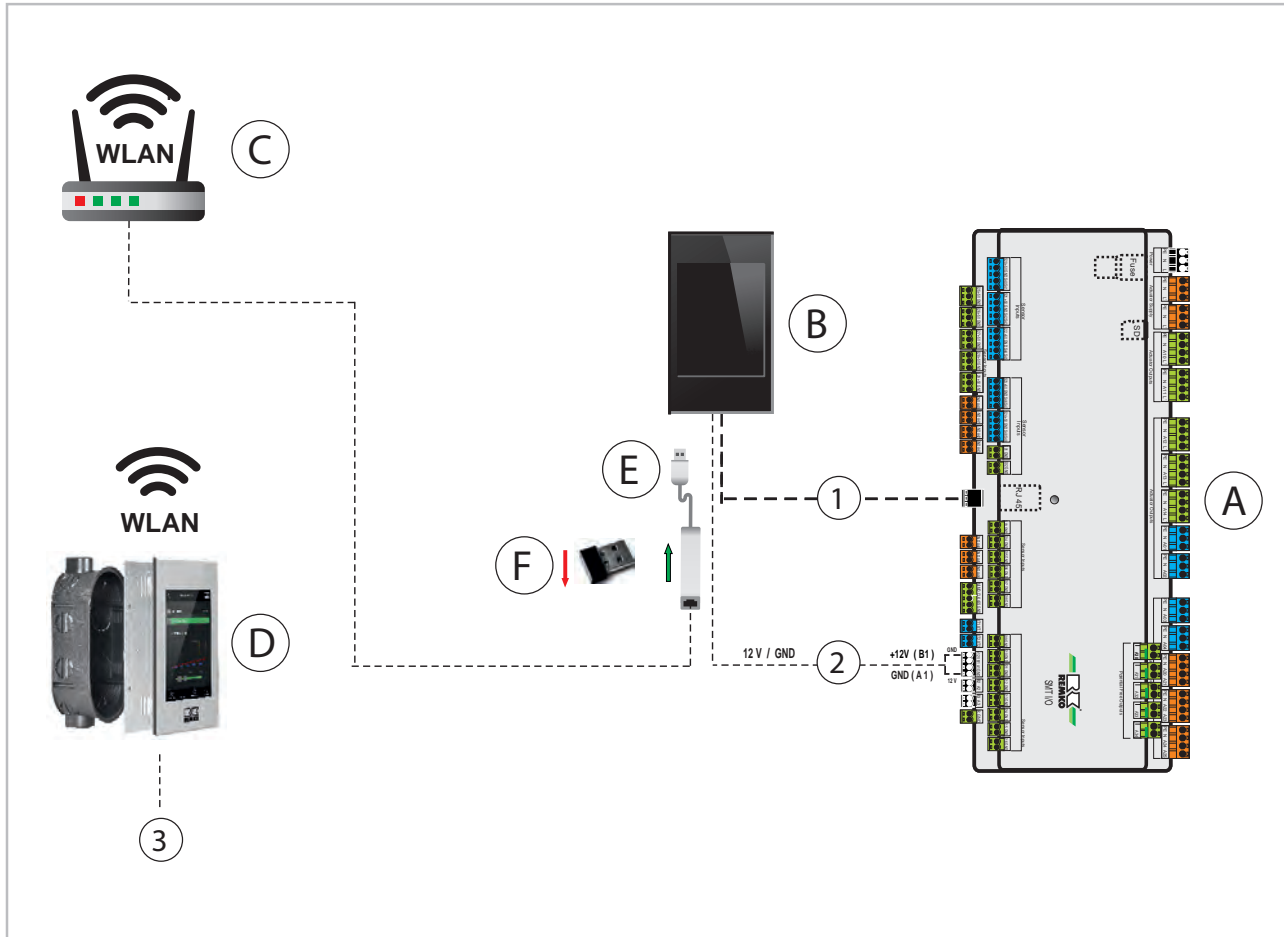
■ The mains voltage (12V) for the remote control must be supplied by the customer!

REMKO Smart-Control Touch

Basic schema of the Smart Control Touch with WLAN connection and remote control

Smart Control regulation system connection via LAN cable (patch cable)

Functions: Smart Control Touch connection of the heat pump to the customer's WLAN router via LAN cable (patch cable) and remote control with WLAN connection in the WLAN network of the router.



- | | |
|--|---|
| A: Heat pump I/O module | E: Ethernet adapter |
| B: Smart Control Touch heat pump | F: WLAN stick (remove) |
| C: Customer's WLAN router with Internet connection | 1: Ethernet interface/patch cable (LAN cable) |
| D: Remote control | 2: Power supply: +12V, terminal B1/A1 |
| | 3: 12V/GND connection to customer's transformer |

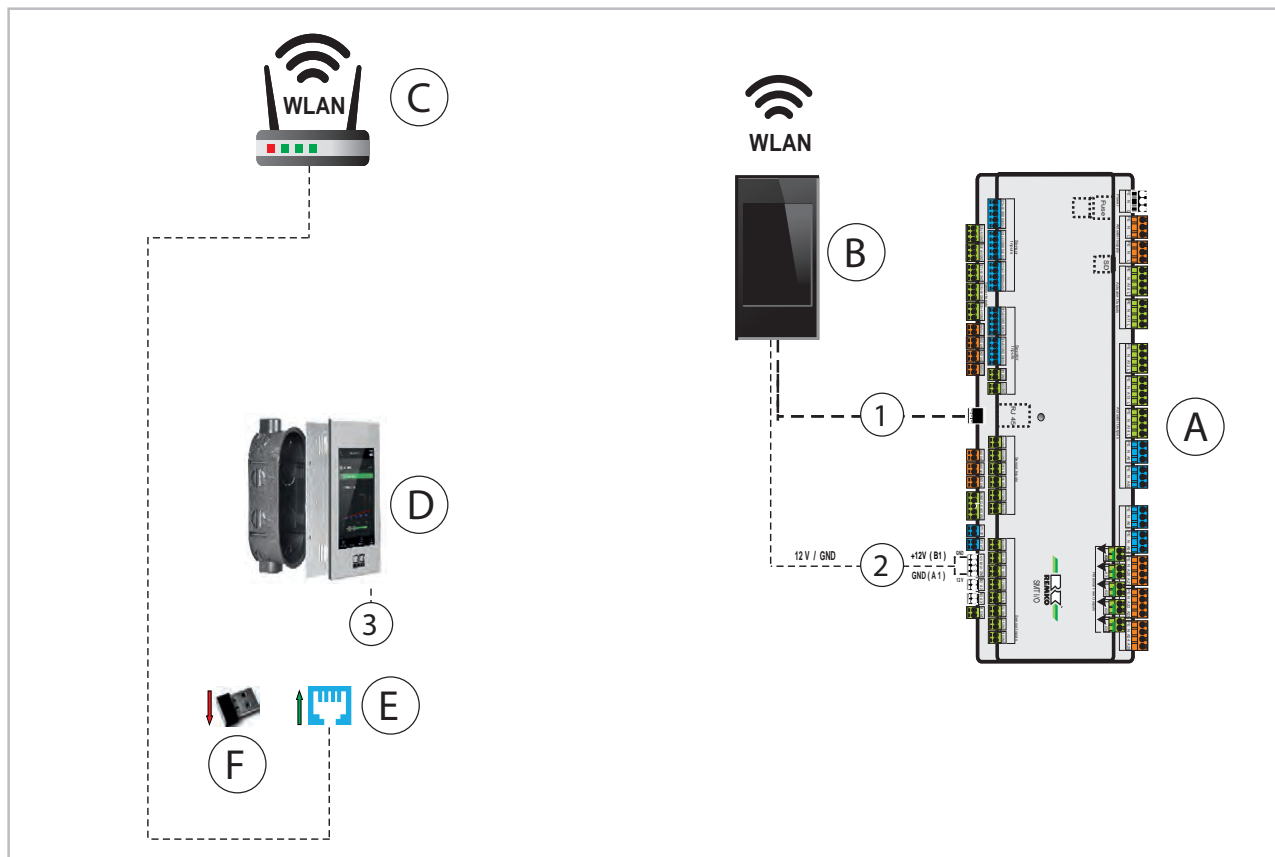
Connection of the Smart Control Touch controller to a customer's WLAN router via a LAN cable (patch cable) is done by connecting the internal WLAN stick.

- An Ethernet adapter is required for the connection.
- The mains voltage (12V) for the remote control must be supplied by the customer!

Basic schema of the Smart Control Touch with LAN cable connection of the remote control

Smart Control regulation system connection via WLAN network of the router

Functions: Smart Control Touch connection of the heat pump to the customer's WLAN router via LAN cable in the network of the router and remote control connection via LAN cable (patch cable).



- | | |
|--|---|
| A: Heat pump I/O module | E: RJ 45 connection |
| B: Smart Control Touch heat pump | F: WLAN stick (remove) |
| C: Customer's WLAN router with Internet connection | 1: Ethernet interface/patch cable (LAN cable) |
| D: Remote control | 2: Power supply: +12V, terminal B1/A1 |
| | 3: 12V/GND connection to customer's transformer |

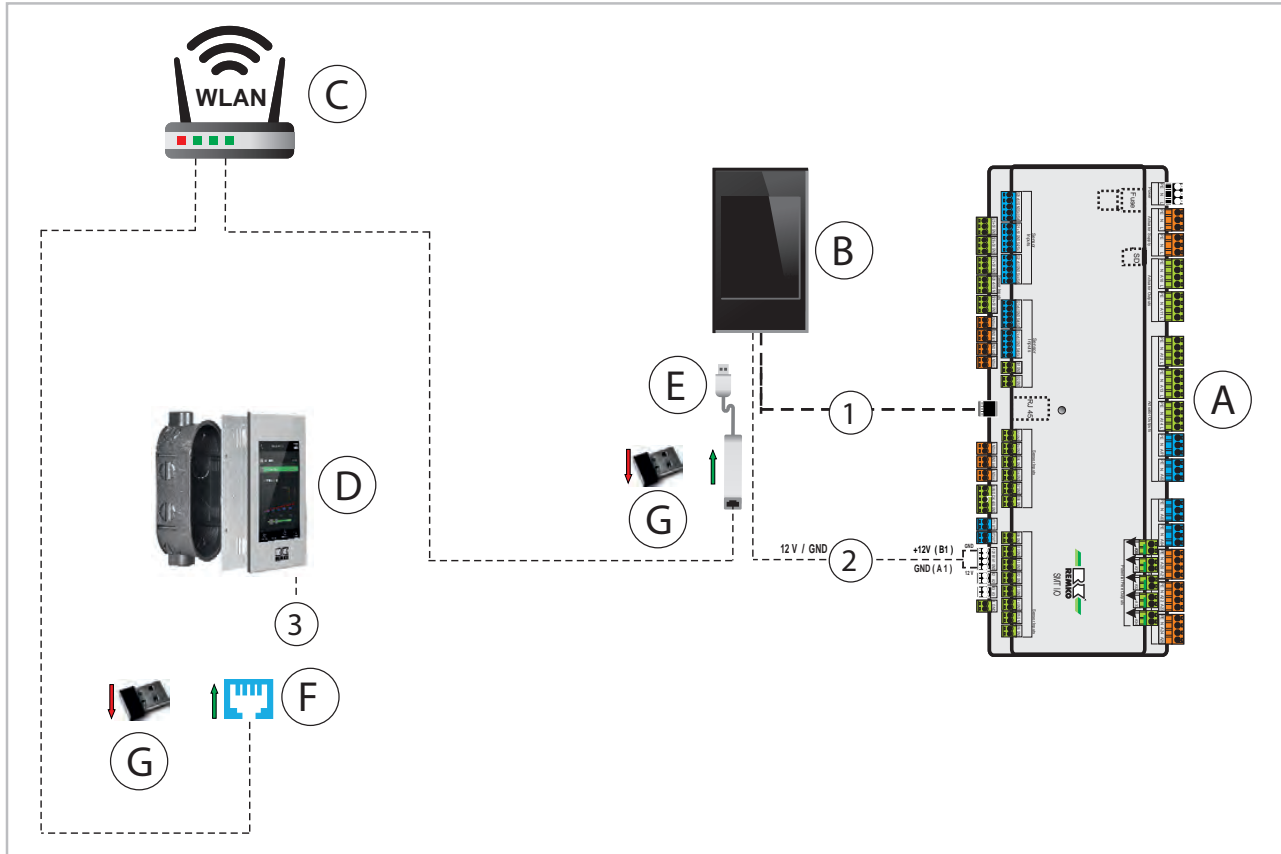
Connection of the Smart Control Touch remote control to a customer's WLAN router via a LAN cable (patch cable) is done via the RJ 45 interface. The WLAN stick must also be removed.

- The mains voltage (12V) for the remote control must be supplied by the customer!

REMKO Smart-Control Touch

Basic schema of the Smart Control regulation system with remote control and connection via LAN cable (patch cable)

Functions: Smart Control Touch connection of the heat pump to the customer's WLAN router via LAN cable (patch cable) and remote control with LAN cable (patch cable) connection.



- | | |
|--|---|
| A: Heat pump I/O module | F: RJ 45 connection |
| B: Smart Control Touch heat pump | G: WLAN stick (remove) |
| C: Customer's WLAN router with Internet connection | 1: Ethernet interface/patch cable (LAN cable) |
| D: Remote control | 2: Power supply: +12V, terminal B1/A1 |
| E: Ethernet adapter | 3: 12V/GND connection to customer's transformer |

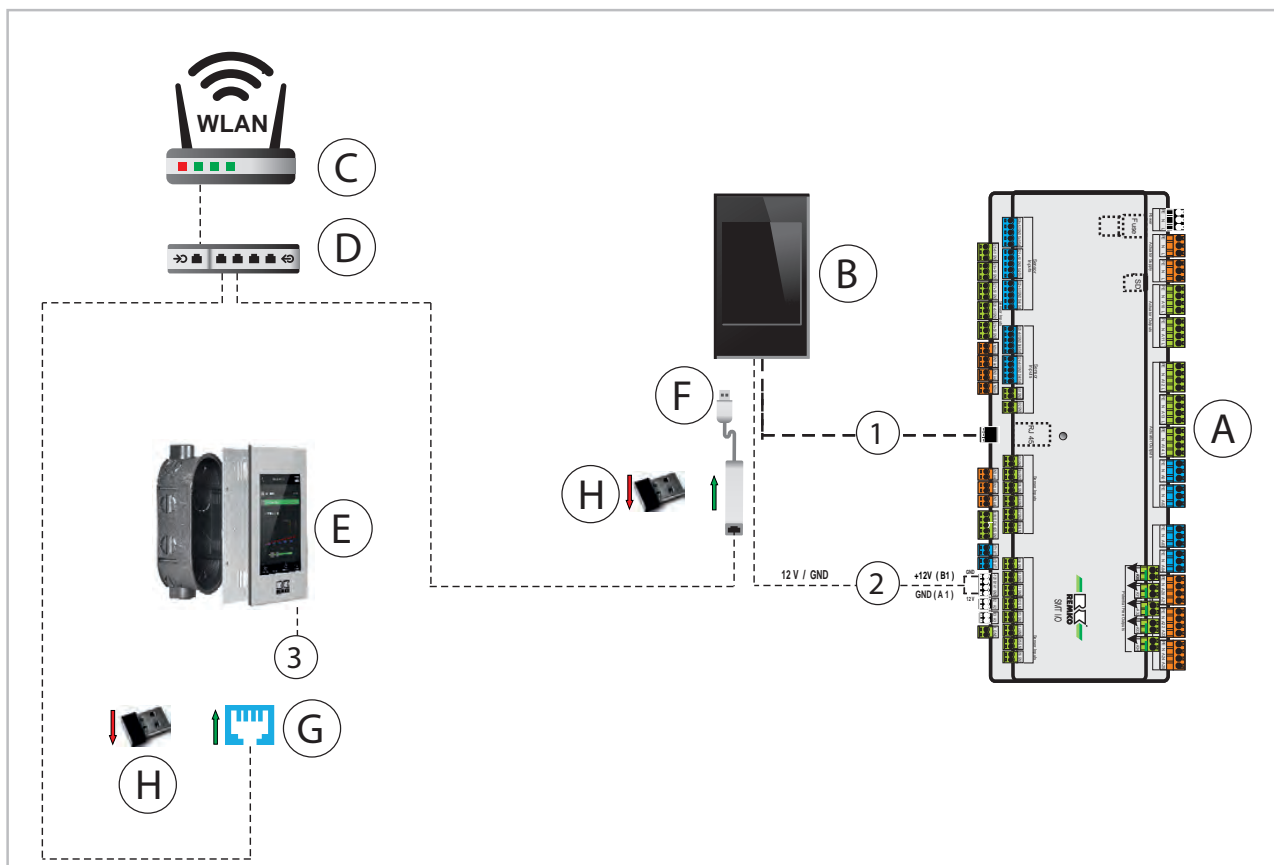
Caution

Connection via the RJ 45 interface of the heat pump's controller is not possible (already occupied).
Use the REMKO Ethernet adapter for this

- An Ethernet adapter is required for the connection
- The mains voltage (12V) for the remote control must be supplied by the customer!

Basic schema of the Smart Control regulation system with remote control and connection via LAN cable (patch cable)

Functions: Smart Control Touch connection of the heat pump to the customer's router via LAN cable (patch cable) and remote control with LAN cable (patch cable) in conjunction with a customer's switch.



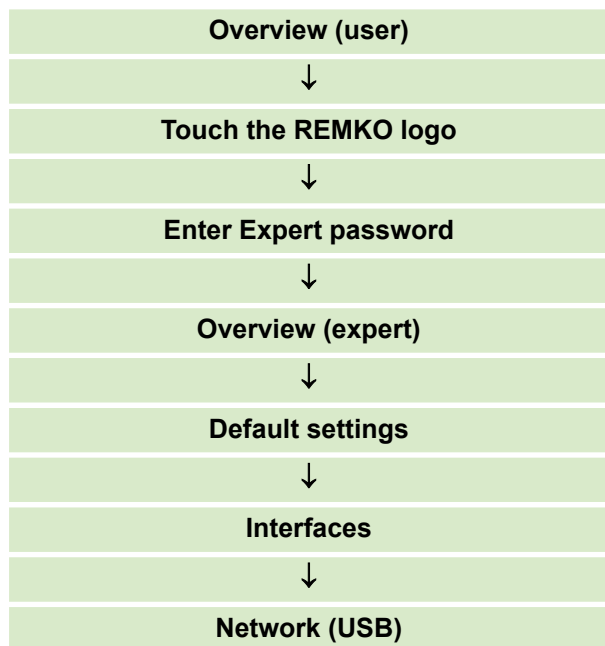
- | | |
|--|---|
| A: Heat pump I/O module | F: Ethernet adapter |
| B: Smart Control Touch heat pump | G: RJ 45 connection |
| C: Customer's WLAN router with Internet connection | H: WLAN stick (remove) |
| D: Customer's switch | 1: Ethernet interface/patch cable (LAN cable) |
| E: Remote control | 2: Power supply: +12V, terminal B1/A1 |
| | 3: 12V/GND connection to customer's transformer |

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Installation on mobile devices

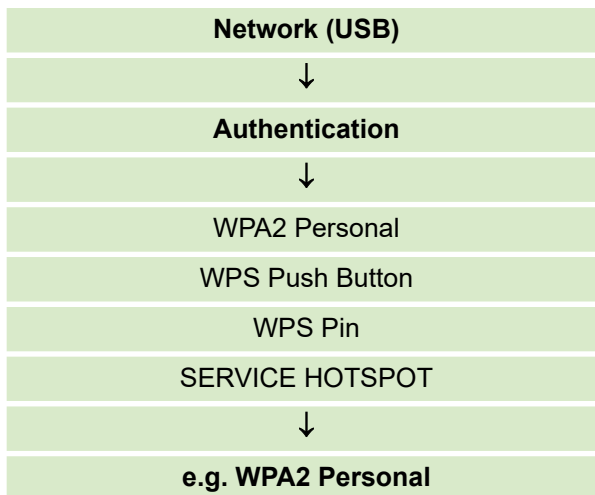
To be able to use the WLAN function of the REMKO heat pump, a connection must be established with the WLAN-capable in-house router. This is only possible at the expert level. To do so, touch the REMKO logo in the upper right corner of the display.

After activating the expert level by touching the corresponding REMKO logo, a password is required. To enter the password at this level, use "+/-" and then proceed to the next item with "Next". Once you have finished entering the REMKO default password "0321", confirm the input with "OK".



Setting up the network

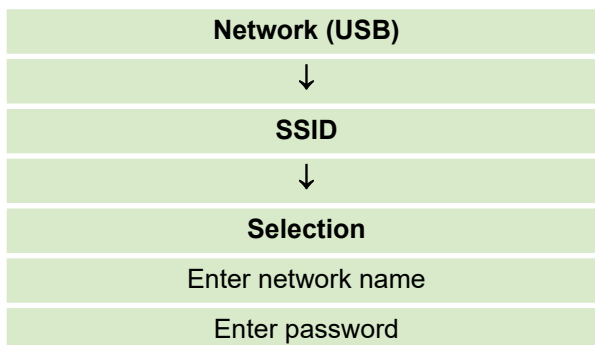
In the authentication parameter, now select the appropriate parameter for your WLAN network. Note that the REMKO Smart-Control Touch only supports the WPA 2 encryption/security standard. For this purpose you must know the name of your WLAN network and the corresponding password. Once you have selected, for example "WPA2 personnel", you must then enter the SSID (name of the WLAN network).



For authentication via the "WPS Push Button" the internal house router must have a push button function.

To select the "SSID" parameter, scroll down the screen in the "Network" level.

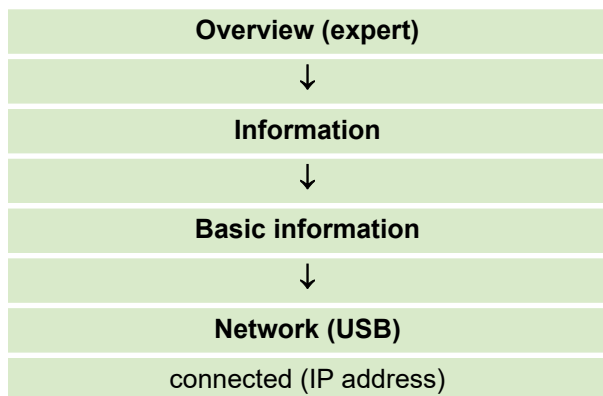
Then enter the name of your network and the password. When doing so you can choose between upper and lower case letters, numbers or special characters such as ?/&/%. To do so, press the "Selection" icon multiple times. Select "Next" to proceed to the next letter or number for entry. The "Delete" icon removes incorrectly stored entries.



Once you have entered the network name or password correctly, confirm the input with the "OK" icon.

Touching the "Cancel" icon completely cancels the entry.

Once all parameters for your WLAN network have been correctly saved, the heat pump will connect with your network. You can check this via the "Network USB" parameter. "Connect" must be displayed here (if all data is correct). To view the heat pump data on a smartphone, tablet or laptop, make a note of the IP address that comes after the identifier "connected".



WLAN function

After the parameters described above have been set, activation is complete. To return to the basic display, exit the parameter level via the arrow at the top left or touch the "Overview" symbol.



To connect the REMKO Smart-Control Touch with your router, the WLAN network must be received by the controller with sufficient signal strength!

When you enter the IP address provided in your web browser, you access the basic display of your heat pump controller. You now have the option of controlling the relevant operating parameters for the user and expert level of your REMKO heat pump via a PC, laptop or smartphone.

This function is available to you constantly whilst connected to the WLAN network of your own router. Outside of your network, you have no further access to the parameters of your controller.

If you require the option of accessing the parameters of your controller outside of the actual WLAN network, this is only possible with the REMKO Smart-Web function.

This supplementary software can be additionally ordered and installed on the Smart-Control Touch controller.

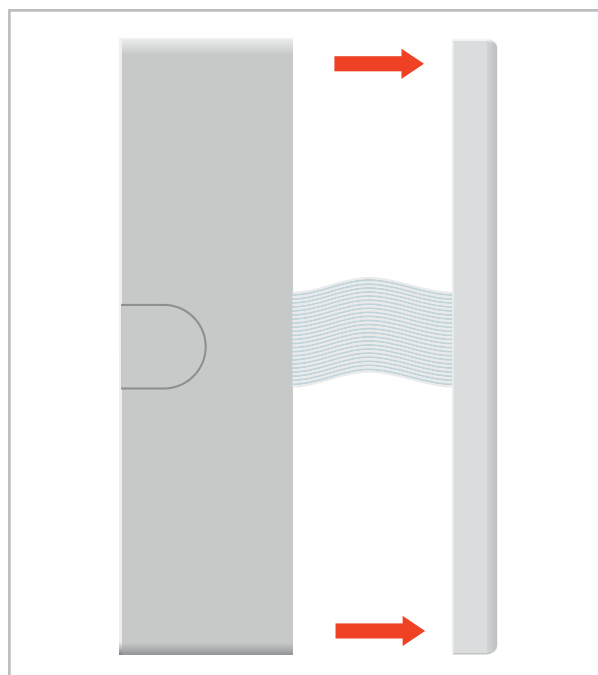
Please observe the separate operating instructions for the REMKO Smart-Web function in this regard.

6 Assembly and installation

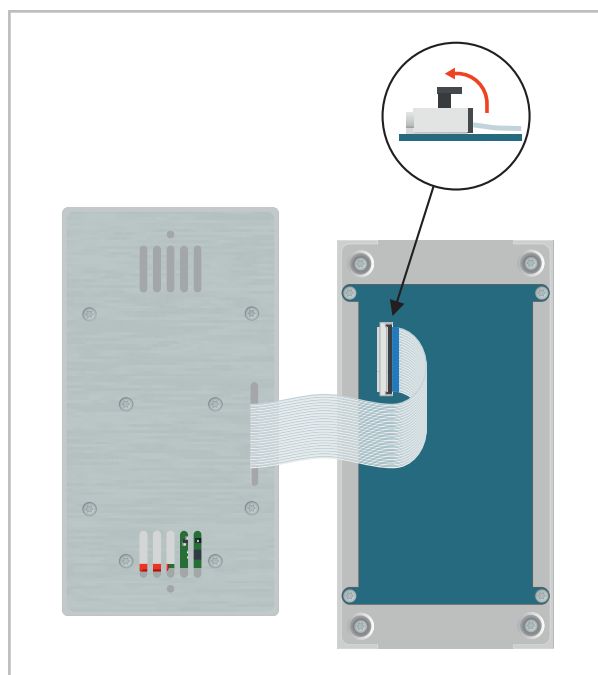
Surface-mounted installation

The surface-mounted installation can be carried out as follows:

1. Pull through the aluminium frame fixed by magnets and remove from the housing.

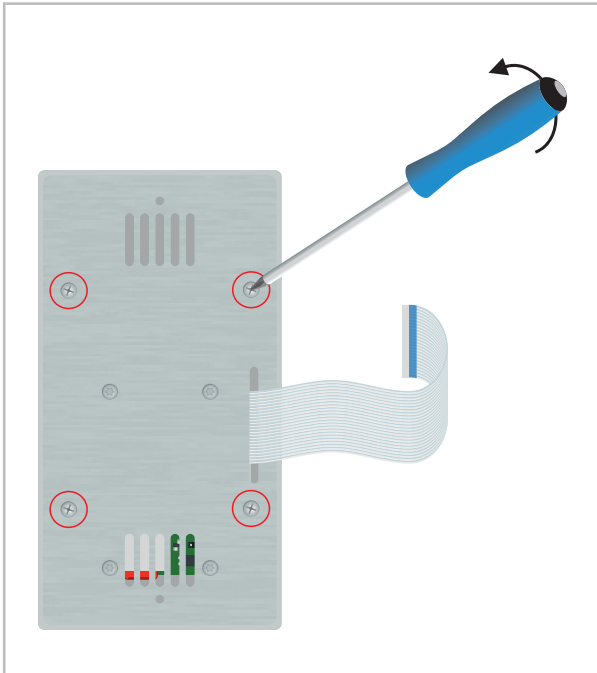


2. Release the grey lever of the terminal block at the back of the touch display by pulling it up and remove the ribbon cable.

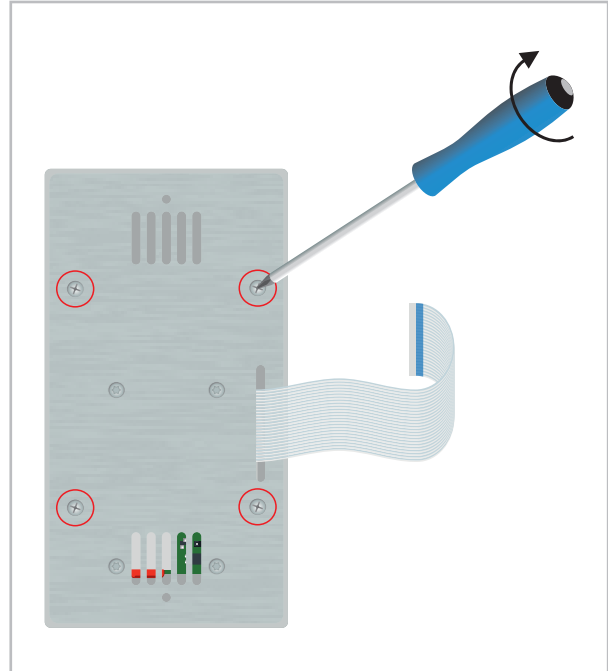


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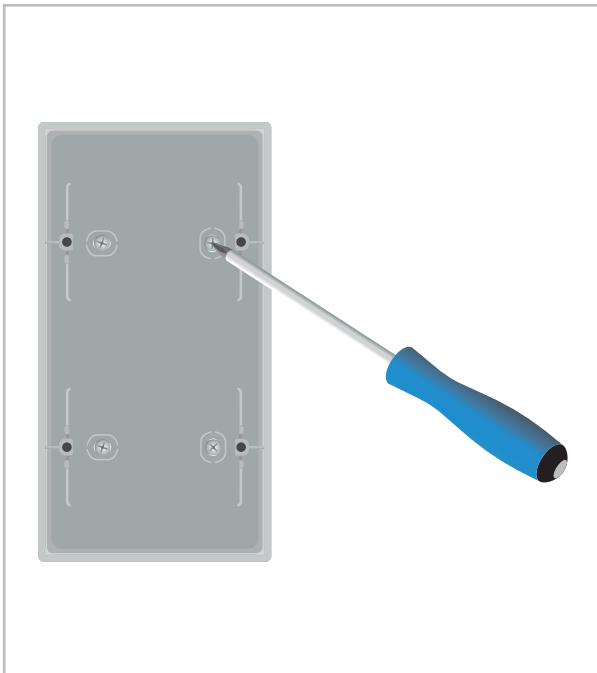
3. ➤ Remove the four marked Phillips screws and then pull the mounting plate together with the electronics out of the surface-mounted housing.



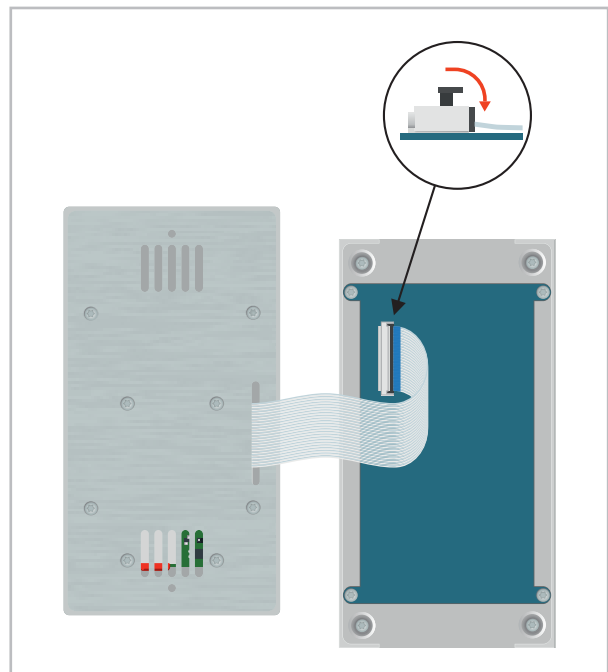
5. ➤ Place the mounting plate together with the electronics in the surface-mounted housing and then screw it to the surface-mounted housing using the four marked Phillips screws.



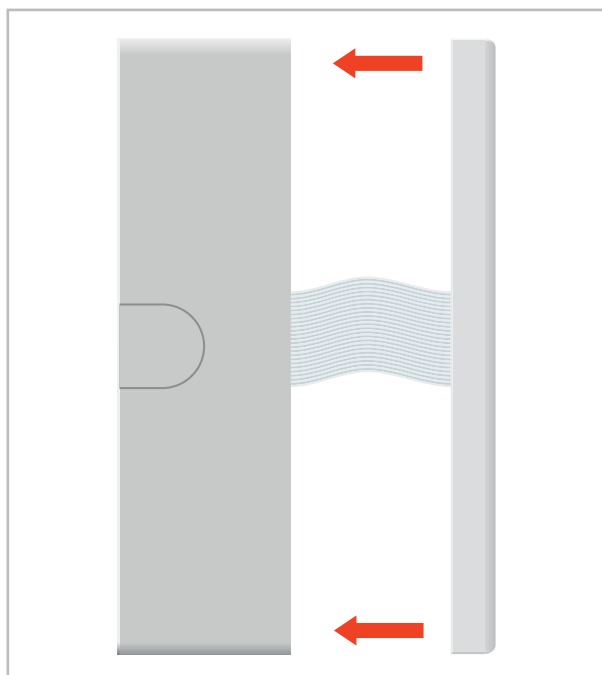
4. ➤ The surface-mounted housing can now be mounted on a suitable surface with the aid of the oblong holes provided. Then establish the electrical wiring connection as described in the chapter "Electrical connection".



6. ➤ Plug the ribbon cable with the blue marking upwards into the terminal block at the back of the display and fix it with the grey lever.



7. ➔ Place the aluminium frame in front of the mounting plate using the magnets.



Flush-mounted installation

For the flush-mounted installation, a double socket with the following dimensions must be provided at the desired installation position.

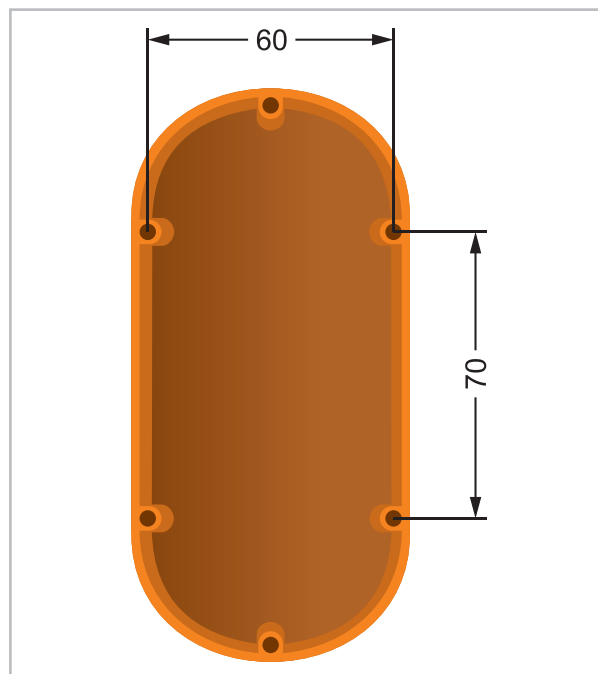


Fig. 2: Double socket

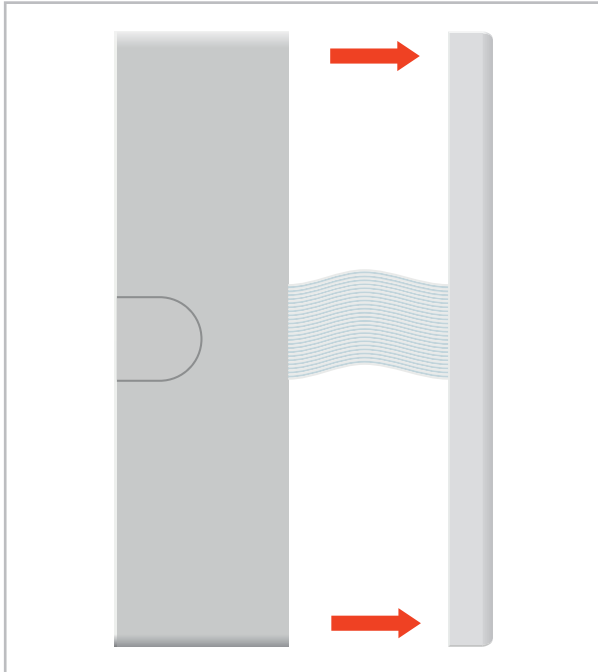


A 12V direct current source is required for the flush-mounted installation. A flush-mounted power supply unit is available under article number 1613262.

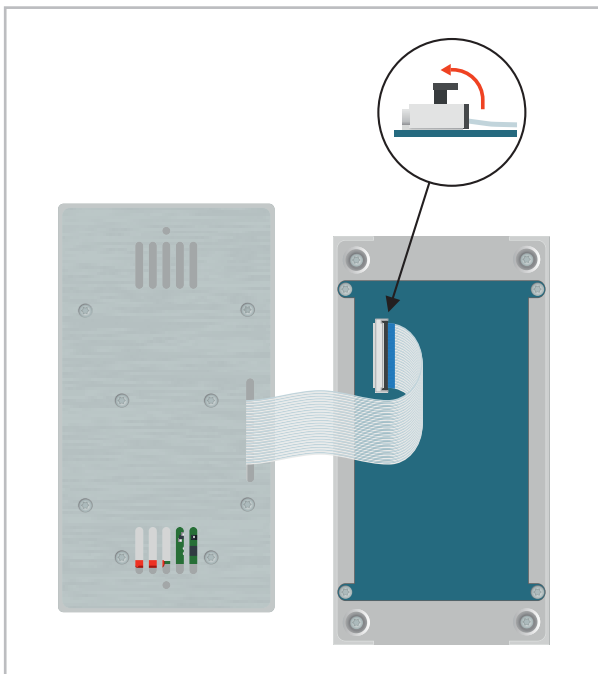
REMKO Smart-Control Touch

The flush-mounted installation can be carried out as follows:

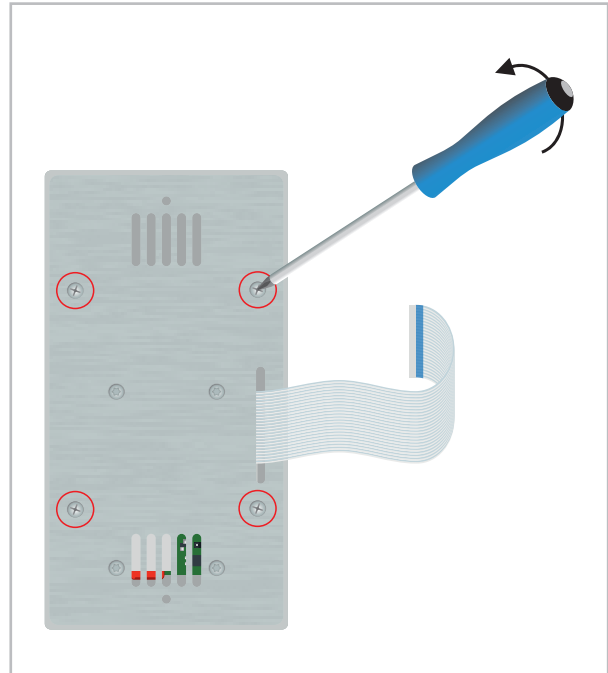
1. ➤ Pull through the aluminium frame fixed by magnets and remove from the housing.



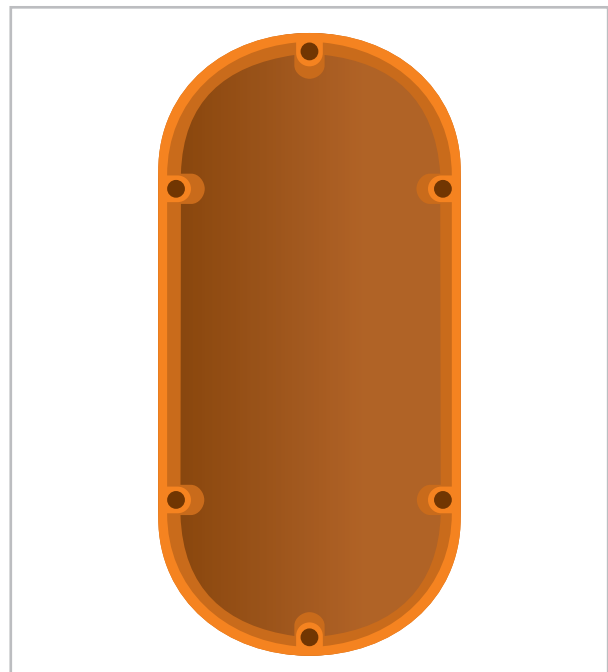
2. ➤ Release the grey lever of the terminal block at the back of the touch display by pulling it up and remove the ribbon cable.



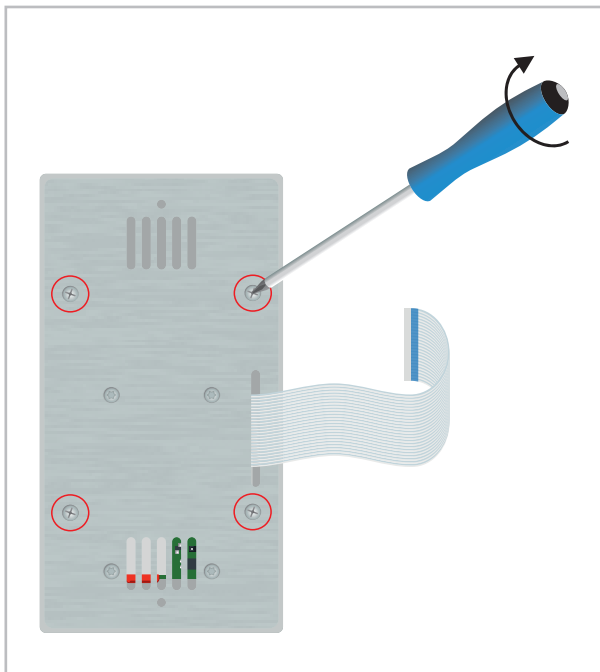
3. ➤ Remove the four marked Phillips screws and then pull the mounting plate together with the electronics out of the surface-mounted housing.



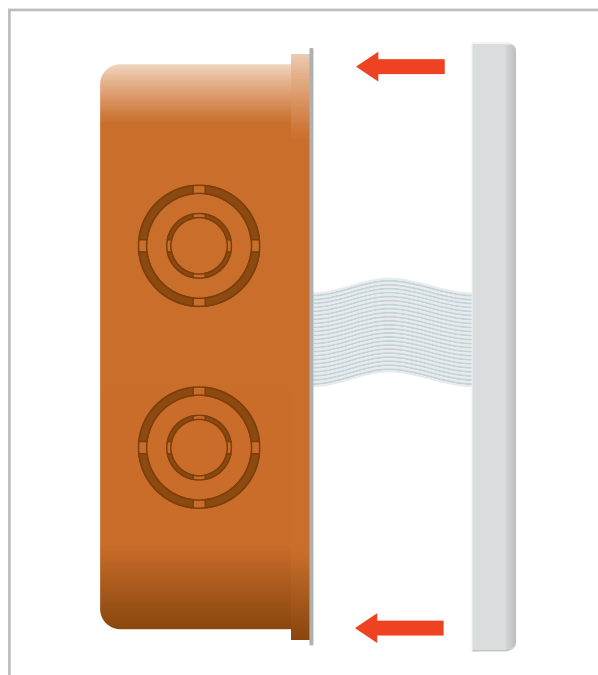
4. ➤ The flush-mounted casing can now be attached to the intended installation position. Then connect the electrical wiring as described in the chapter "Electrical connection".



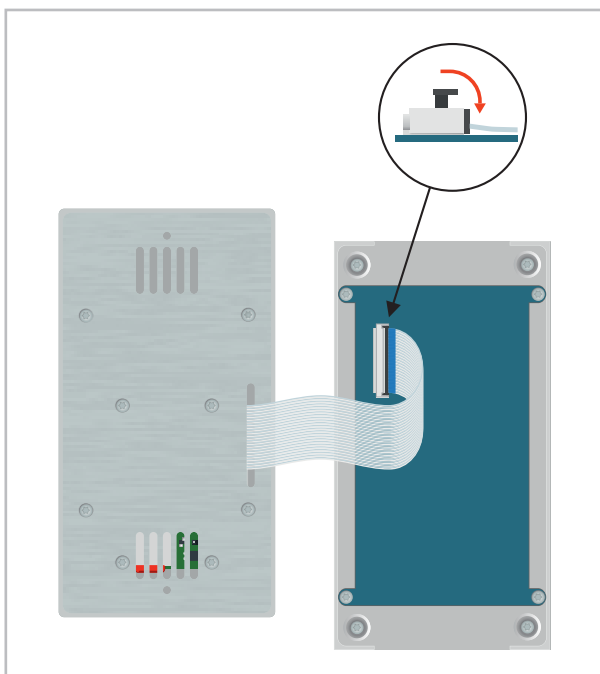
5. → Place the mounting plate together with the electronics in the surface-mounted housing and then screw it to the surface-mounted housing using the four marked Phillips screws.



7. → Place the aluminium frame in front of the mounting plate using the magnets.



6. → Plug the ribbon cable with the blue marking upwards into the terminal block at the back of the display and fix it with the grey lever.



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REMKO QUALITY WITH SYSTEMS

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