Programmable touch screen remote controller

TPC V2

User's manual
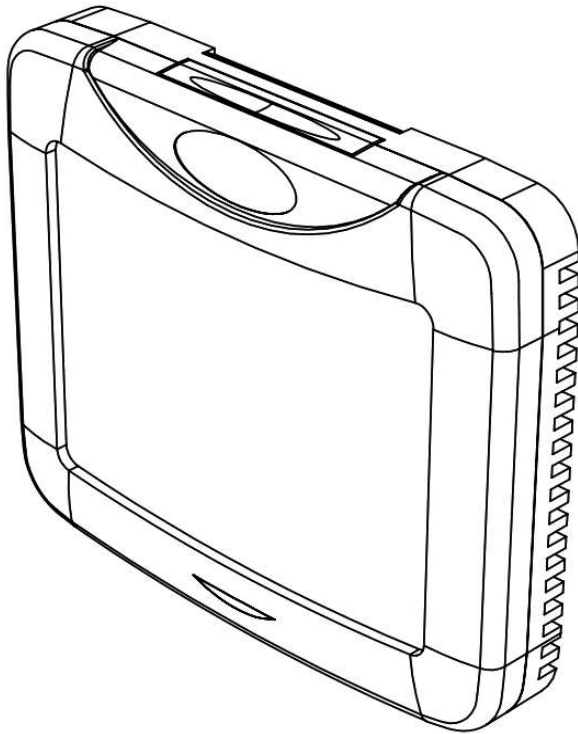
Symbols of TPC panel screen

0-00
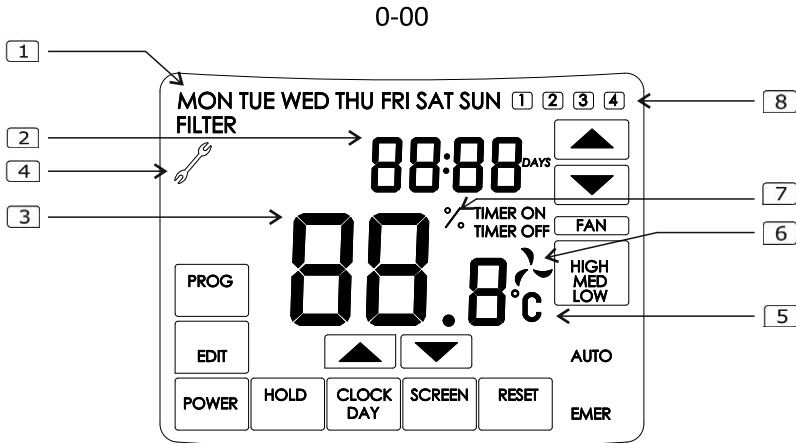
1	Day of the week
2	Date / time
3	Set room inlet air temperature
4	Air handling unit needs service maintenance
5	Temperature indication
6	Fan indication
7	Fan speed set indication
8	Programmed event indication

|	
POWER	Air handling unit switch on / off
EDIT	Press to program event of the day
PROG	Confirm the programmed event
HOLD	Active external stop signal indication
CLOCK DAY	Overview of current date and time
SCREEN	Switching between menu windows
RESET	Cancel the day event programming / reset the filter timer / alarm confirmation / system restart
FAN HIGH MED LOW	Selection of fan rotation speed : LOW - minimum, MED - medium, HIGH - maximum
AUTO	Auto mode indication
▲ ▼ ▲▼	Selection arrows

Caution ⚠️

Control is implemented by touch screen. Appropriate buttons are shown in the different menu windows. Always press buttons using finger tips. Control device can be damaged by sharp objects such as pencil, pen, etc.

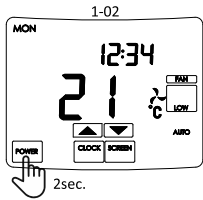# Menu windows

If you want to switch the Menu window, press SCREEN button
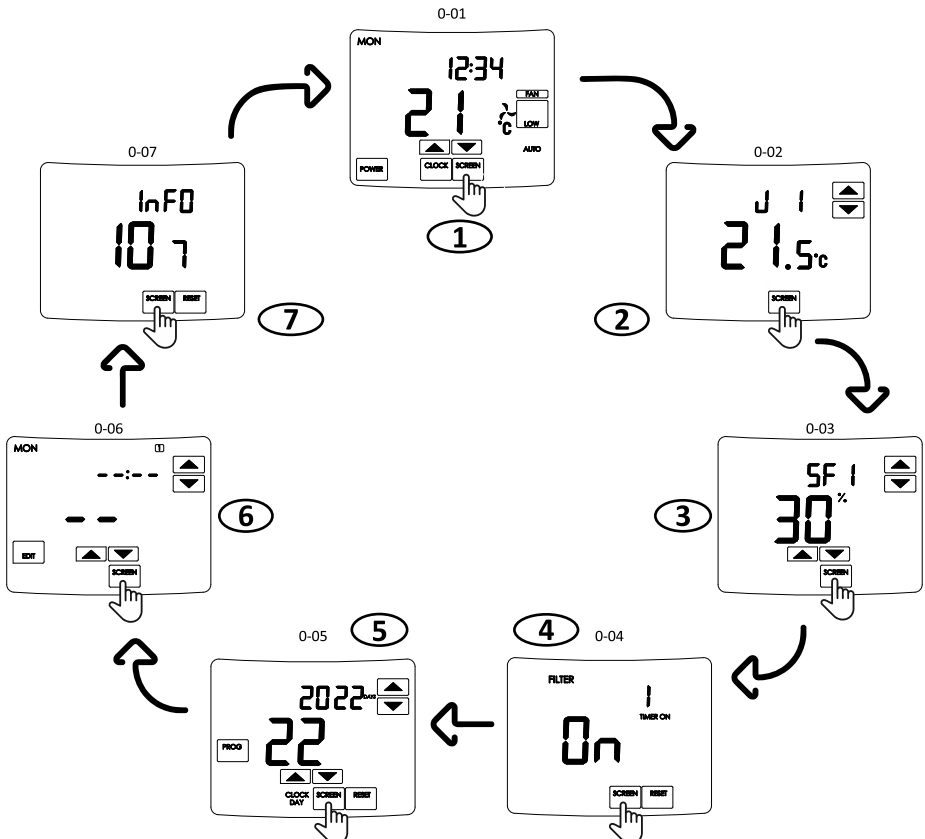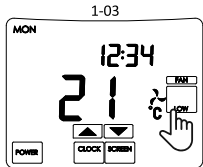
① General window of air handling unit control

1-01
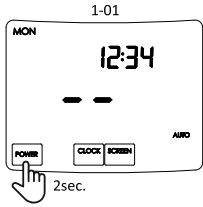
Switching on/off the air handling unit.

Press POWER and hold for 2 sec. to turn the air handling unit on.

2sec.

1-02

Press POWER and hold for 2 sec. to turn the air handling unit off.

2sec.

1-03

Setting fan speed.

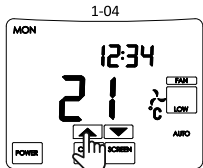Select the rotational speed of fans by repeatedly pressing FAN LOW, FAN MED, or FAN HIGH

If you select FAN speed, air handling unit will be stopped.

1-04
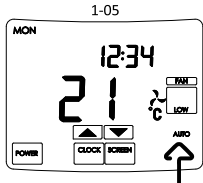
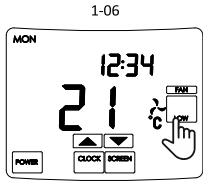**Setting temperature.**

Set room inlet air temperature by pressing ▲ ▼

1-05

AUTO mode indication.

Sign AUTO indicates that at least one event of weekly scheduler is programmed and air handling unit will work by weekly scheduler program. If you want to switch off AUTO mode, delete all programmed events (read 6th chapter)

1-06

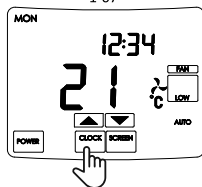**Activation of BOOST functionality.**

Press FAN LOW, FAN MED, or FAN HIGH and hold for 2 sec. to activate BOOST functionality.

Blinking LOW, MED, or HIGH indicates that BOOST is active.
Fans rotational speed depends on settings set SF4 (supply air fan) and EF4 (extract air fan) (Menu window ③)
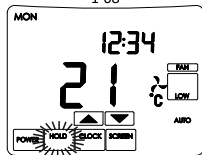To switch off BOOST functionality, press blinking LOW, MED, or HIGH .

2sec.

Overview of clock and date.

You can check current time and date by repeatedly pressing [CLOCK] and [DAY] .
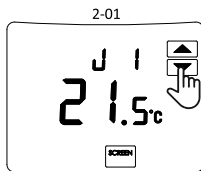
Indication of active external Stop signal.

When external Stop signal is active, blinking [HOLD] symbol appears on the screen.

② Sensor data window

Overview of sensor data.

Quantity of active sensors depends on air handling unit configuration.

Press [▲▼] to display sensor data .

J1	-	Supply air temperature sensor
J2	-	Returning water (from water heater) temperature sensor
J3	-	Outside air temperature sensor
J4	-	Extract air temperature sensor
J5	-	Exhaust air temperature sensor
J6	-	Extract air humidity sensor
J7	-	Extract air humidity sensor (when controller is PRV)
J8	-	Supply air pressure sensor (when controller is MCB)
J9	-	Extract air pressure sensor (when controller is MCB)
J10	-	CO_2 sensor

③ Fan speed setting window

Setting fan speed.

Both supply and extract air fan speed setting for LOW, MED, HIGH and BOOST modes.

Press [▲▼] to select which fan speed you want to set .
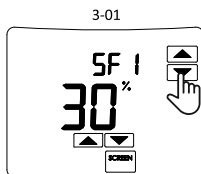
|		
SF1	-	Supply air fan minimum speed (LOW)
SF2	-	Supply air fan medium speed (MED)
SF3	-	Supply air fan maximum speed (HIGH)
SF4	-	Supply air fan high speed (BOOST)
EF1	-	Extract air fan minimum speed (LOW)
EF2	-	Extract air fan medium speed (MED)
EF3	-	Extract air fan maximum speed (HIGH)
EF4	-	Extract air fan high speed (BOOST)

4 Polluted filter timer window

4-01
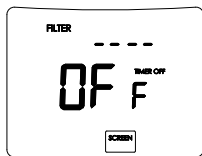
Indication of polluted filter timer.

Depends on software version, polluted filter timer by factory default can be activated or deactiveted. Activation or deactivation of this feature can be done only by authorized service.
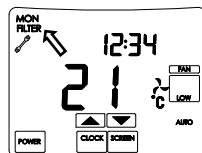
If this function is not activated, screen shows FILTER TIMER OFF.

4-02
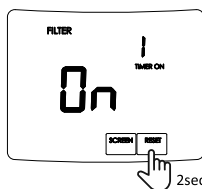
If this function is activated, screen shows FILTER TIMER ON and timer counts air handling unit working hours.

2sec.

4-03

If set setpoint is reached (by default : when controller is PRV - 2160h., when controller is MCB - 90 days) the symbols FILTER and   apear. This means, it is necessary to change the filters
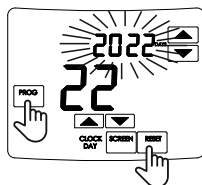
to ensure proper air ventilation work.

Once the filters are changed, press RESET   (see pic. 4-02) and hold for 2 sec. to reset the timer.*
*If controller is PRV, timer counts air handling unit working hours from 0 to setpoint. If controller is MCB, timer counts air handling unit working days from setpoint to 0.
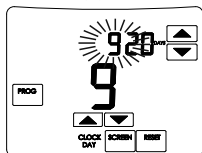
5 Date (YYYY,MM,DD) and time (hh:mm) setting window

5-01

Date and time setting.

Select year with   and set with   .

If you want to confirm, press PROG , if you want to cancel, press RESET .
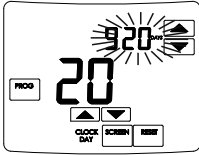
5-02

Select month with   and set with   .

If you want to confirm, press PROG , if you want to cancel, press RESET .
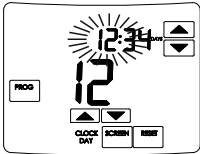
5-03

Select day with ⬍ and set with ▲▼

If you want to confirm, press PROG , if you want to cancel, press RESET .

5-04

Select hour with ⬍ and set with ▲▼

If you want to confirm, press PROG , if you want to cancel, press RESET .

5-05
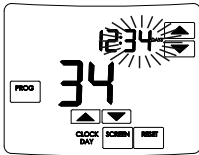
Select minutes with ⬍ and set with ▲▼

If you want to confirm, press PROG , if you want to cancel, press RESET .

6 Auto mode weekly scheduler programing window

Auto mode weekly scheduler programming.

Up to 4 separately programmed events for every day of the week can be stored in memory of the TPC remote. Exact start time, fan rotation speed and preferred inlet air temperature setting for every event of the day can be programmed.
Stored event lasts till the next programmed event's start .

If you want to start programming your weekly scheduler, first of all select weekday of the event with ▲▼

6-01

6-02
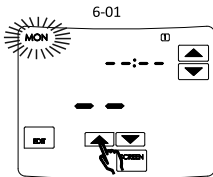
than go to event selection with ⬍ ,

select one of four events of this day with ▲▼ and press EDIT .

6-03
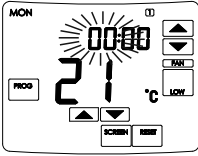
Select event start hour with ⬍ and set with ▲ ▼

6-04
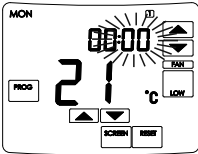
Select event start minutes with ⬍ and set with ▲ ▼ .

6-05
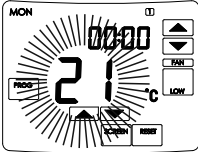
Select event inlet air temperature with ⬍ and set with ▲ ▼ .

6-06
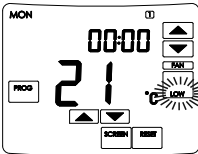
Select event fan speed by repeatedly pressing FAN / FAN LOW / FAN MED or FAN HIGH .
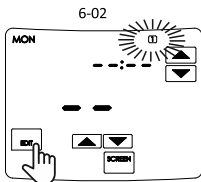
If you select FAN "zero" speed, air handling unit will be stopped.

6-07
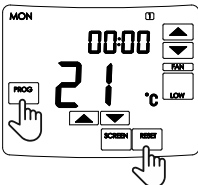
Once you did event selections, press PROG to confirm, or

if you want to cancel, press RESET .

If you wish to continue programming of events, repeat steps from 6-01 to 6-07 .

6-08
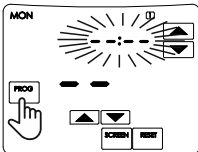
If you wish to delete the event, select --:-- in the hour selection step (pic. 6-03)

and press PROG to confirm .

⑦ Software version window

7-01
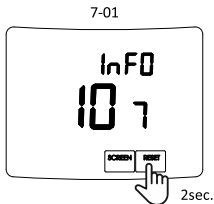
Software version.

Software version is displied in this window.

System restart.

If you want to restart the system,press [RESET] and hold for 2 sec.

2sec.
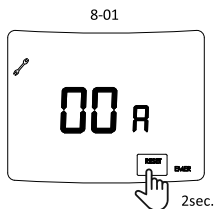
Active fault window

8-01

Blinking screen indicates fault of air handling unit. Fault code describes the reason of the fault. Disconnect air handling unit from electrical network (if needed) and remove the fault or it's reason.
Once the fault is removed, press [RESET] and hold for 2 sec.

Possible fault codes and definitions, when controller is PRV :

2sec.

- 00 - External emergency fire alarm signal
- 01 - Supply air temperature sensor fault
- 02 - Extract air temperature sensor fault
- 03 - Exhaust air temperature sensor fault
- 04 - Outside air temperature sensor fault
- 05 - Extract air humidity sensor fault
- 06 - Filter polution signal
- 07 - Supply or extract air fan fault
- 08 - Electrical heater's overheating signal
- 09 - Plate heat exchanger's freezing signal
- 10 - Water heater's anti freeze protection
- 11 - Rotor heat exchanger fault
- nC - No connection between remote and air handling unit

Possible fault codes and definitions, when controller is MCB :

- 01 - Broken rotor belt
- 02 - Fire place protection is activated
- 03 - Dryness protection activated
- 04 - Anti-frost protection of plate heat exchanger is activated
- 05 - Anti-frost protection of plate heat exchanger. The system is off.
- 06 - Anti-frost protection of plate heat exchanger (pressure relay)
- 07 - Anti-frost protection of water heater. The system is off.
- 08 - Supply air temperature is too low
- 09 - Supply air temperature is too high
- 10 - Supply air temperature is too low. The system is off.
- 11 - Supply air temperature is too high. The system is off.
- 12 - Please change the supply air filter (pressure relay).
- 13 - Please change the extract air filter (pressure relay).

14 - Please change the extract and supply air filters.
15 - Power supply failure. Check F1 fuse.
16 - Supply air temperature sensor failure. Emergency mode
17 - Extract air temperature sensor failure. Emergency mode
18 - Exhaust air temperature sensor failure. Emergency mode
19 - Fresh air temperature sensor failure. Emergency mode
20 - Hydronic heater water temperature sensor failure. Emergency mode
21 - Hydronic pre-heater water temperature sensor failure. Emergency mode
22 - Hydronic cooler water temperature sensor failure. Emergency mode
23 - Control box temperature sensor failure. Emergency mode
24 - Supply air temperature sensor failure. The system is off.
25 - Extract air temperature sensor failure. The system is off.
26 - Exhaust air temperature sensor failure. The system is off.
27 - Fresh air temperature sensor failure. The system is off.
28 - Hydronic heater water temperature sensor failure. The system is off.
29 - Hydronic pre-heater water temperature sensor failure. The system is off.
30 - Hydronic cooler water temperature sensor failure. The system is off.
31 - Control box temperature sensor failure. The system is off.
32 - Fire protection damper test is successful
33 - Fire protection damper test is unsuccessful
34 - Heater manual protection. The system is off
35 - Heater automatic protection
36 - Pre-heater manual protection. The system is off.
37 - Pre-heater automatic protection
38 - Supply air fan protection
39 - Extract air fan protection
40 - DX cooler protection
41 - Fire protection
42 - Supply air pressure protection. The system is off.
43 - Extract air fan pressure protection. The system is off.
44 - Incorrect configuration
45 - Intensive heater cooling by activation of manual protection
46 - Intensive pre-heater cooling by activation of manual protection
47 - Internal communication error
48 - DX cooler defrosting
49 - Too high relative humidity in extract air during 3 days. Increased air flow
50 - Too high relative humidity in extract air. Increased air flow
51 - Broken rotor belt. The system is off
52 - Gas heater failure
53 - Gas pre-heater failure
54 - Too high condensation level
55 - Supply fan failure. Emergency run
56 - Extract fan failure. Emergency run
57 - Too low supply air flow for DX cooler
58 - Alarm! Bypass damper failure. System stopped.
59 - Alarm! Hydronic heater/pre-heater circ. pump failute. System stopped.
60 - Warning! Hydronic heater/pre-heater circ. pump failure.

<u>Installation</u>

1. Install cable between device and panel. Note that blue connector is for panel and modular connector is for device.
2. Open the panel (Fig. A), pass cable through the bottom of panel (Fig. B)
3. Mount the bottom of panel to wall (Fig. C)
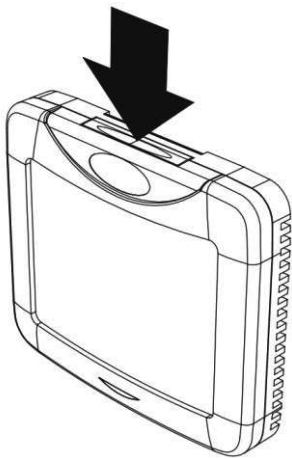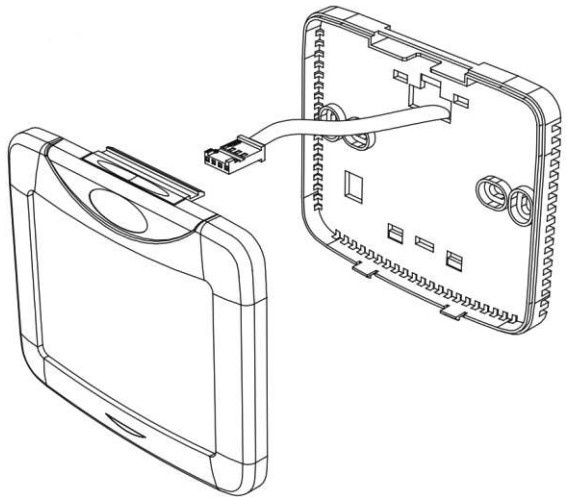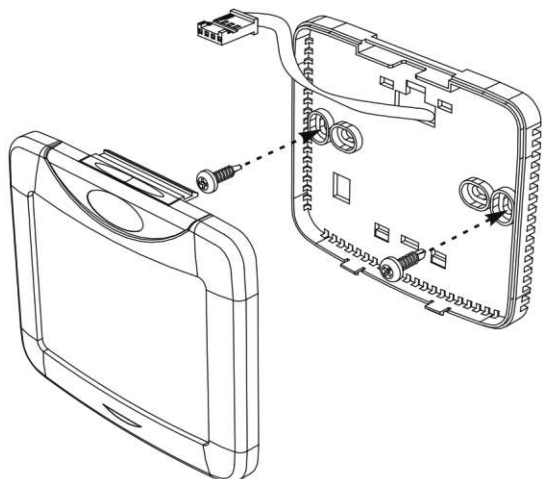4. Connect cable to panel.
5. Close and lock the panel.

Fig. A

Fig. B

Fig. C

Technical data

Supply voltage [VDC]	15...30
Data transfer	RS485
Dimensions (WxHxD) [mm]	104x93x17,5
Protection class	IP30
Ambient temperature [°C]	0... +30
Ambient humidity [%]	max. 90

Package content

Remote controller TPC	1pcs.
Control cable with tips (5m)	2pcs.
Battery CR2032, 3V	1pcs.
User's manual	1pcs.

Transportation and storage

All products are packed in the factoy for normal transportation conditions.
Do not take power supply-communication cable to lift the product. Store products in a dry place, where humidity does not exceed 70% (20°C) and ambient temperature is 5-40°C . Storage place must by secured from the water and dirt. Avoid of long term storage. It is not recomended to store longer than 1 year.

Company keeps the right to change technical parameters