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TOUCH SCREEN DISPLAY

with built-in Wi-Fi interface and temperature and humidity sensor.

USER GUIDE

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USER GUIDE

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INTRODUCTION

The **touch screen display** is a user-friendly interface allowing you to use the controller of the system it is installed on. The display has a Wi-Fi interface to connect to the remote management system and a temperature and humidity sensor to manage the zone of the system where it is installed.

The display does not require specific programming as it automatically acquires the configuration of the controller it is connected to.

Once the display has been installed and powered, it shows the Home page. If the Home page remains idle (no button is pressed to enter a menu) for more than 30 seconds, the display goes into standby mode (black screen): to reactivate it, simply press anywhere on the display.

Whereas if you enter one of the menus on the Home page (and then the subsequent submenus), but no other button is pressed for more than 30 seconds, the display goes back to the previous screen. When another 30 seconds have elapsed, it goes back to the previous screen and so on until it reaches the Home page. After a further 30 seconds idle, it returns to standby.

The Home page of the display has various buttons (identified by a black box) and icons. The icons are view-only and do not allow editing, while the buttons allow the user to edit the settings inside of them.

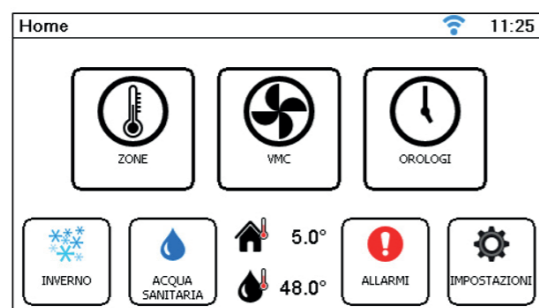


Image 1: "Home" page

- **Home:** at the top left of the screen there is always an indication of the menu that you are operating in;
- **Wi-Fi** and **Time** are indicated at the top right: if the Wi-Fi is not yet connected, the time is acquired directly from the controller that the display is connected to; if the Wi-Fi is connected, the time is acquired directly from the Internet; Daylight Saving Time and Standard Time are updated automatically;
- The **Zone Button** grants access to the list of zones configured in the controller;
- The **MEV Button** grants access to management of the MEVs that the controller can manage; if the controller does not manage any MEV, the button does not appear;
- The **Timer Button** grants access to the list of zone timers (not the one of domestic hot water) that have been enabled in the controller; if the system does not include timers, if the controller does not manage any timer, the button does not appear;
- The **Heat/Cool Button** grants access to the heating and cooling switch menu and to system ON/OFF (except for domestic hot water);
- The **Domestic Hot Water Button** grants access to editing of the temperature set points of hot water and relative timer.
- Two icons can be seen in the middle of the display at the bottom: the **Domestic Hot Water Temperature** (water droplet and thermometer) and the **Outdoor Air Temperature** (home and thermometer), if present;
- The **Alarm button** is only present if there are alarms in progress not yet cleared;
- The **Settings Button** (which can be password-protected) grants access to the Wi-Fi settings and to the advanced settings explained in detail at the end of this document.

NOTE Whether or not all the illustrated buttons and icons are always displayed depends on the type of system. For example:

- If the system does not include domestic hot water production, the relative domestic hot water tank temperature button and icon will not be displayed;
- If the system is made only for heating, the summer season cannot be set;
- If there are no alarms in progress, the alarm button will not appear;
- If the Mechanical Extract Ventilation is not present, the relative button will not appear.



The buttons and icons will be explained in detail below.



CAUTION: The Wi-Fi settings are provided separately in Annex I at the end of this document!

1. ZONES

Clicking the **Zone** button on the "Home" page opens the "Zone List" section where the zones that were programmed in the controller appear:

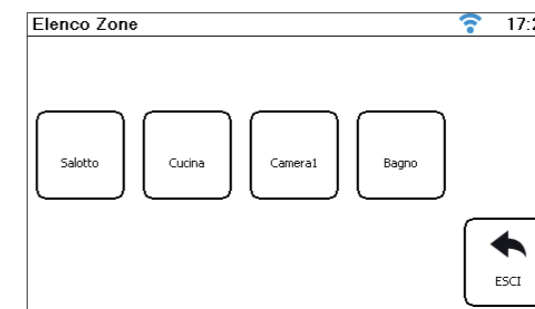


Image 2: "Zone list" screen

The controller can manage as many as 32 zones. If the system has more than 8 zones, they will not all fit on the same page of the touch screen display and therefore other pages will be created in the "Zone List" section:

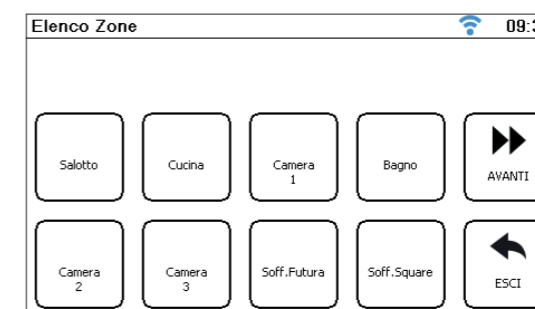


Image 3: "Zone list" screen with more than 8 zones

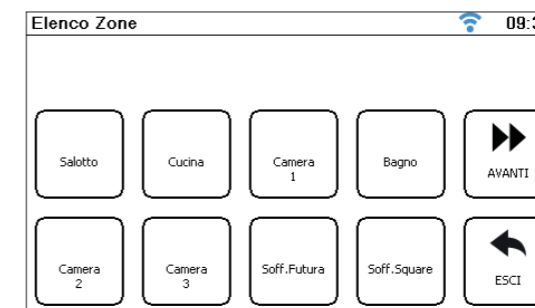


Image 4: "Zone list" screen with more than 8 zones



Clicking any of the zones opens the zone settings screen. The example shows "Zona 1":

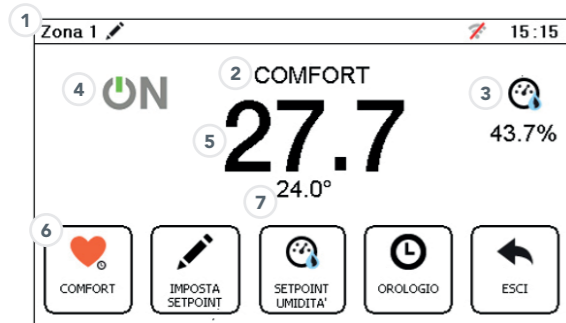


Image 5: Example screen of an ON and active type zone in summer mode

LEGENDA

- 1 Indication of the zone that you are operating in with editable name
- 2 Indication of the work mode
- 3 Indication of humidity %
- 4 Indication that the zone is ON and active
- 5 Indication of the current Ambient temperature
- 6 Indication of the current work mode
- 7 Indication of the Ambient temperature set point

From the screen of the Previous image, it is possible to:

- View whether the zone is off, on, but not active, or on and active (ON) and if on in which work mode (Comfort or Economy). If the zone is ON, it means that the ambient temperature set point has not been reached (Previous image), if the ON icon does not appear, the zone might have reached the ambient set point, therefore is on, but not active (in the following image, in winter the set point 24.0°C is lower than the ambient temperature detected 27.7 °C, therefore the zone is not active);

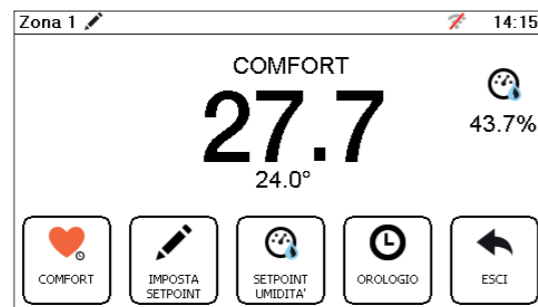


Image 6: Example screen of zone without ON icon because the set point has been reached

If the **ON** icon does not appear and the Off work mode is indicated above the current ambient temperature, the zone might be off because the entire system is off or because the timer associated to the zone is in the time slot whose intended work mode is Off;



Image 7: Example screen of an off type zone

- View the humidity % (if there is a humidity sensor);
- Clicking the **"Adjust set point"** button or else clicking the **current ambient temperature** of the zone once, grants access to the "Set Temperature" screen (Images 8 and 9), where the ambient temperature set point can be set in Comfort mode (Image 8, press the button with the word **Comfort and orange heart**) and/or **Economy** mode (Image 9, press the button with the word Economy and Green leaf) pressing "+" to increase or "-" to decrease the set point. Click the **Confirm** button to go back to the previous screen, saving the entered changes or else press **Undo** to eliminate them;

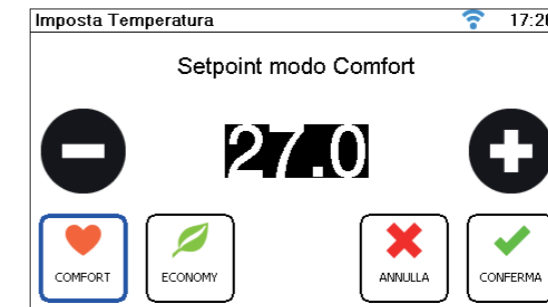


Image 8: "Set temperature" screen in Comfort work mode

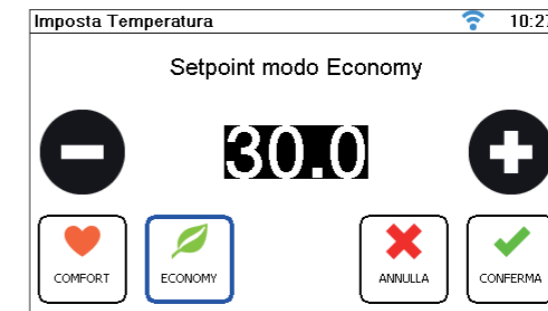


Image 9: "Set temperature" screen in Economy work mode

- From the zone screen (see Image below) click the Work Mode button (at the bottom left) to access the "Set Work Mode" screen.

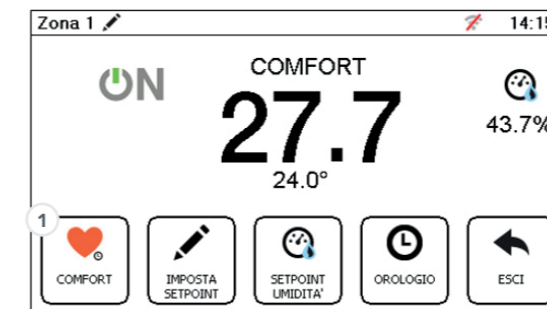


Image 10: "Zone 1" screen in automatic Comfort mode

LEGENDA

- 1 Indication of the current work mode (not forced)



From the screen displayed in the following Image, you may Override the work mode of the zone to Comfort, Economy or Off. By leaving Automatic, the work mode of the zone remains that defined by the timer associated to that zone:

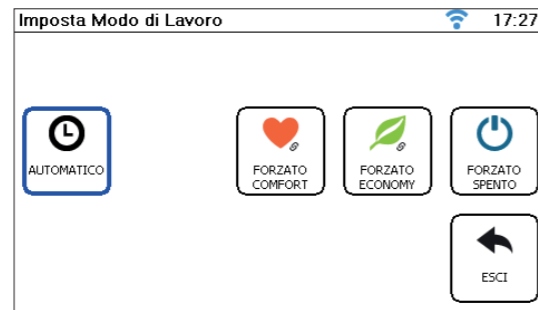


Image 11: "Set Work Mode" screen of the zone where you are operating

When the zone is Overridden, this has priority over overriding the timer (which will be illustrated in chapter 2). Therefore if, as in the example in Image 12, the zone is overridden to Economy, but the timer is overridden to Comfort, overriding to Economy has priority over Comfort. **The zone will remain in Override Economy until the user removes the override.**



Image 12: "Zone 1" screen in Overridden Economy mode

LEGENDA

1 Indication of the current work mode (Force Economy)

- Clicking the **Humidity Set point** button from the screen displayed in Image 12, it is possible to edit the humidity set point by clicking "+" to increase it or "-" to decrease it:

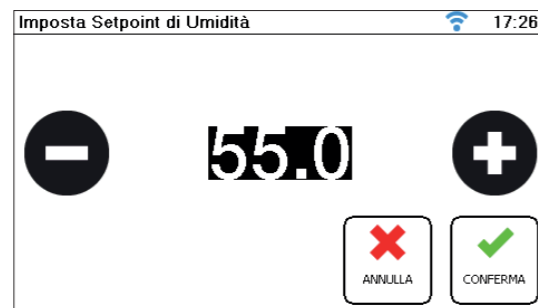


Image 13: "Adjust Humidity Set point" screen

NOTE This button only appears if the zone is associated to a temperature and humidity sensor.

- Clicking the **Timer** Button from the screen displayed in Image 12 grants access to the Weekly Program of the timer associated to the Zone. From this screen you may Edit the weekly program by clicking the **Edit Program** Button:

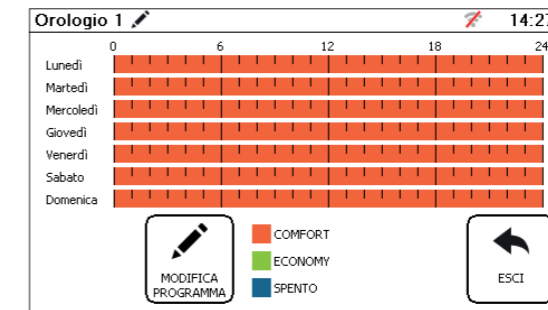


Image 14: "Weekly Program" screen of the timer associated to the zone

See chapter 2 Timers for a detailed explanation of how to program the timer. Furthermore, if no timer was associated to the zone, then the **Timer** Button will not appear in the zone screen:

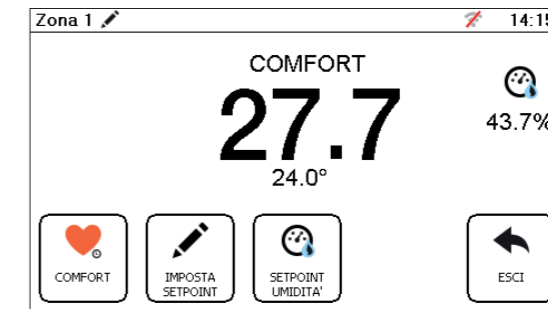


Image 15: "Living room" zone screen without associated timer



CAUTION: Let's imagine having 4 zones (Living Room, Kitchen, Bedroom and Bathroom) where Kitchen and Living Room are paired to timer 1 (Day Zone), while Bedroom and Bathroom are paired to timer 2 (Night zone). Entering the Kitchen Zone and from here in the timer, by making changes in the weekly programming, these changes will also apply to the Living room zone as they are paired to the same Day Zone timer. Therefore, also directly entering the Day zone timer from the Timer button on the Home page, the user will find the same changes that were made inside the Zones.

Lastly, the names of the zones can be edited directly from the display by clicking the **pen** on the right of the words "Zona 1":



Image 16: Screen to edit the name of the zone

The **NUM** button grants access both to numbers and special characters. Once the description has been modified, press the **Button with the green tick** to confirm or the one with the **red X** to undo the changes and exit the menu.



CAUTION: If the name of the zone was selected among the default descriptions and not among the free ones, the name cannot be edited from the display, and therefore the pen to the right of the zone name will not be displayed.

1.1 ZONES WITH AIR-QUALITY SENSOR (VOC)

The system can manage up to eight ambient air quality sensors. If a zone is associated to an air quality sensor, entering the page of the zone will display the following screen:

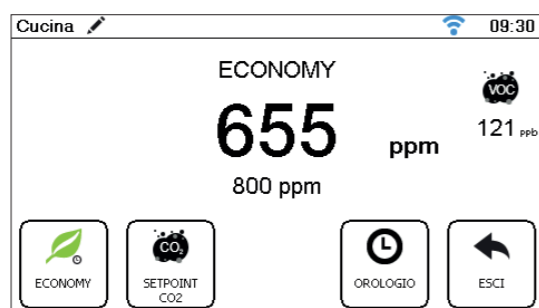


Image 17: Screen with Zone managed by air quality probe

The ppm (parts per million) data are relative to the amount of CO₂ detected by the AQ (Air Quality) probe and the ppb (parts per billion) data are relative to the amount of volatile compounds, called VOC, (alcohol, acids, hydrocarbons, etc.) detected by the AQ (Air Quality) probe. Clicking the **CO₂ set point** button displays the screen where you may adjust the set points regarding CO₂ both in Economy and Comfort mode:

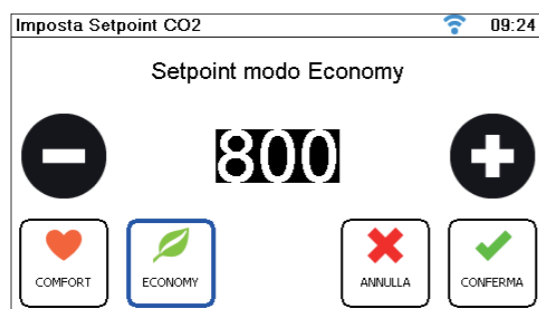


Image 18: Screen with Zone managed by air quality probe

Clicking the **Comfort** Button allows you to adjust the set point to activate the Comfort mode:

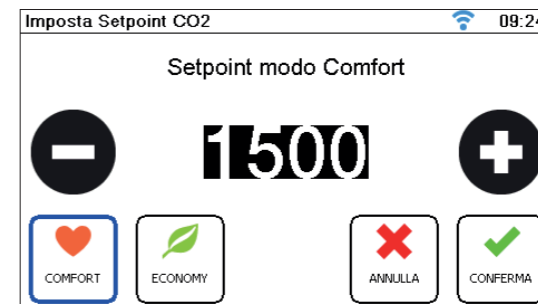


Image 19: Screen with Zone managed by air quality probe

Clicking the **Economy** Button shown in image 17 allows you to modify the work mode of the zone:



Image 20: Setting of zone work mode

For example, clicking **Overridden Comfort** can display the following screen:

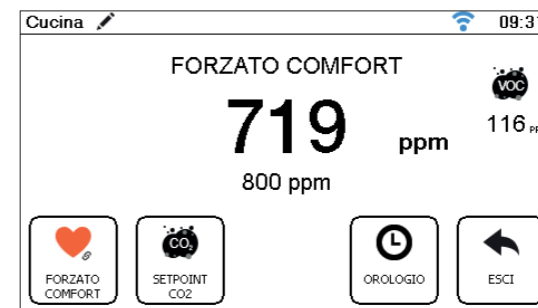


Image 21: Screen with Zone managed by air quality probe in Force Comfort work mode



Since the CO₂ detected is lower than the limit of Economy (800 ppm) the first threshold remains that of Economy mode, whereas if the threshold is exceeded, the limit becomes 1500 ppm, namely that of the Comfort mode.

Lastly, the names of the zones can be edited directly from the display by clicking the **pen** to the right of the word "Cucina":

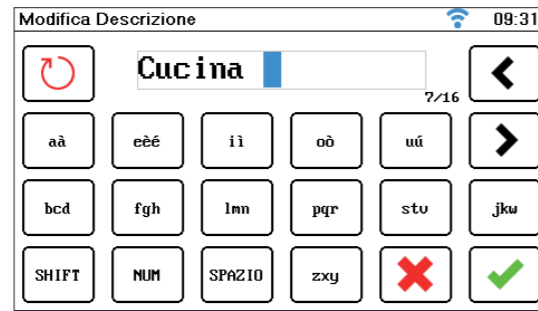


Image 22: Screen to edit the name of the zone

The **NUM** button grants access both to numbers and special characters. Once the description has been modified, press the **Button with the green tick** to confirm or the one with the **red X** to undo the changes and exit the menu.



CAUTION: If the name of the zone was selected among the default descriptions and not among the free ones, the name cannot be edited from the display, and therefore the pen to the right of the zone name will not be displayed.

2. TIMERS

Clicking the **Timer** Button allows you to enter the screen with the List of timers:

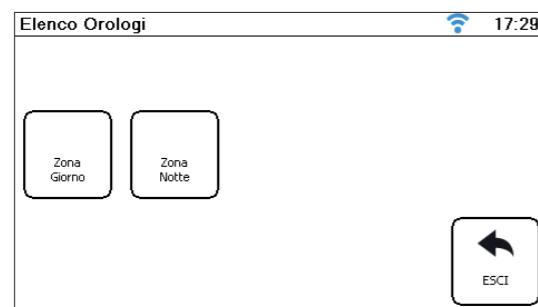


Image 23: "Timers List" screen

Selecting the timer that you want to make changes to opens the screen of the selected timer where different hourly programming can be set for each day or the same programming set from Monday to Friday or from Monday to Sunday:

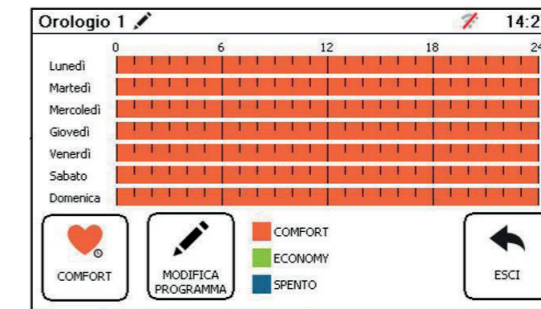


Image 24: "Weekly Program" screen of selected timer

By selecting the **Edit Program** Button, you may make changes to the desired days:

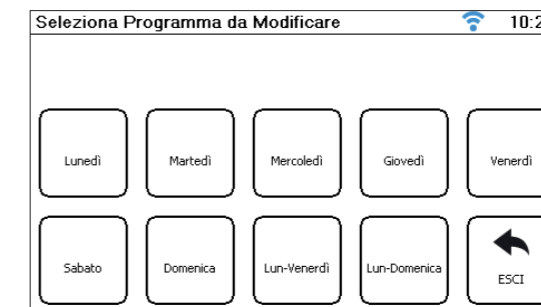


Image 25: Screen to select the days to edit

Six different programs can be set for each day (or group of days), for example:

- 6:00 - Economy program
- 8:00 - Comfort program
- 10:00 - Economy program
- 19:00 - Comfort program
- 21:00 - Economy program
- 23:00 - Off

By entering in the day (or group of days) and selecting the existing programs, you may modify their start time (by pressing "+" or "-"), work mode (by pressing either **Comfort**, **Economy** or **Off**) or delete the program (Image 27). Clicking the **Add Variation** Button (Image below) allows you to add other programs, up to a maximum of 6:

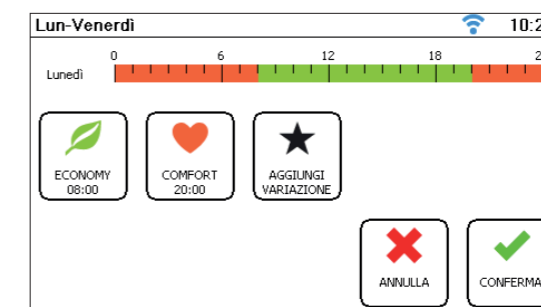


Image 26: Screen inside the group of days [Mon-Friday] to be edited



Once changes have been made in Set Variation, press the **Confirm** Button to go back to the previous screen saving the changes or else press **Undo** to cancel them:



Image 27: "Set Variation" of an existing program screen

LEGENDA

- 1 Indication of the selected work mode
- 2 Increase hour or minutes
- 3 Decrease hour or minutes
- 4 Delete the timer variation
- 5 Select the variation work mode
- 6 Undo the setting you have done
- 7 Confirm the setting you have done

You do not need to enter times in chronological order, therefore if you enter:

- 10:00 - Economy program
- 8:00 - Comfort program
- 6:00 - Economy program
- 19:00 - Comfort program
- 23:00 - Off
- 21:00 - Economy program

The system will put them in order automatically:

- 6:00 - Economy program
- 8:00 - Comfort program
- 10:00 - Economy program
- 19:00 - Comfort program
- 21:00 - Economy program
- 23:00 - Off

If two consecutive times are entered with the same work mode, for example Comfort at 8:00 and Comfort at 10:00, then the second time will automatically be joined to the previous one.

When the 6 daily programs have been reached, the **Add Variation** Button will disappear:

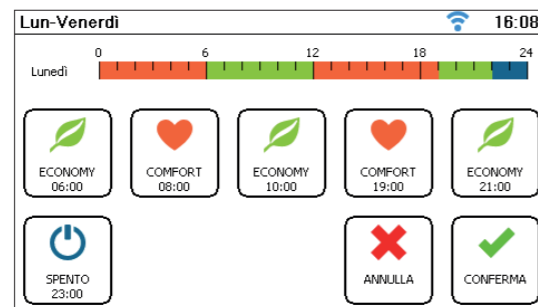


Image 28: Screen with all 6 daily programs set

Press the **Confirm** Button to go back to the Weekly Program screen. Click the **Edit Parameters** Button to separately modify Saturday and Sunday.

Clicking the **Set Work Mode** Button on the left of the **Edit program** Button, opens the Set Work Mode screen of the timer (Image 30) so as to Override the timer in Comfort, Economy or Off mode.

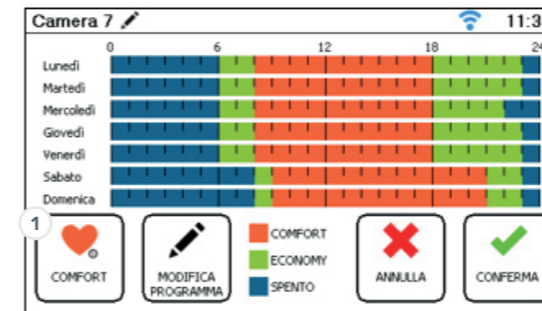


Image 29: "Weekly program" screen of selected timer

LEGENDA

- 1 Indication of the selected work mode



Image 30: "Set Work Mode" screen of selected timer

When the timer is overridden in Economy mode, for example, though the Weekly program is in Comfort mode (at 11:34) the entered mode will be Economy (indicated by the Set Work Mode Button on the left of the Edit Program button in the following Image):

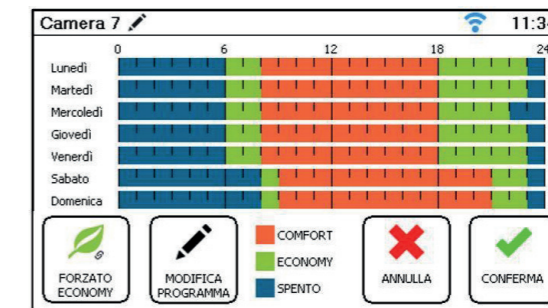


Image 31: Example of timer in Overridden Comfort in Economy time



CAUTION: The timer will remain in Economy until the work mode is restored to Automatic or overridden by the user to work in another mode!

Remember that the override of the timer is secondary with respect to override of the zone. Therefore, if the override of the Zone is Comfort and the override of the timer is Economy, the zone will acquire the set points of the Comfort mode.



Lastly, the names of the timers can be edited directly from the display by clicking the **pen** to the right of the words "Camera 7":



Image 32: Screen to edit the name of the timer

The **NUM** button grants access both to numbers and special characters. Once the description has been modified, press the **Button with the green tick** to confirm or the one with the **red X** to undo the changes and exit the menu.



CAUTION: If the name of the timer was selected among the default descriptions and not among the free ones, the name cannot be edited from the display, and therefore the pen to the right of the timer name will not be displayed.

3. MECHANICAL EXTRACT VENTILATION (MEV)

The **MEV** Button is only displayed if the controller was programmed to manage a Mechanical Extract Ventilation system.

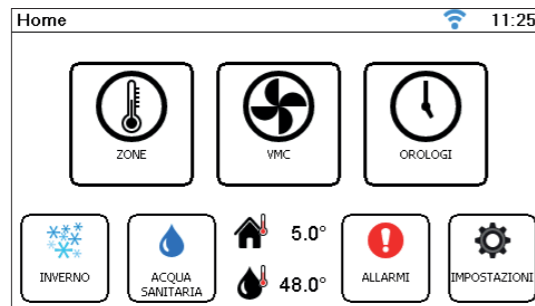


Image 33: Home page with programmed MEV

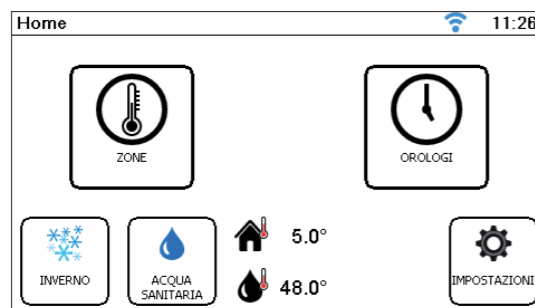


Image 34: Home page without programmed MEV

Clicking the **MEV** Button opens the MEV List screen if the system manages more than one MEV:

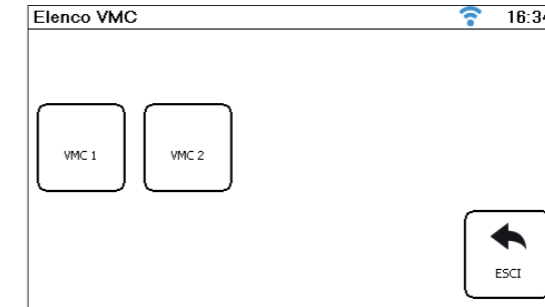


Image 35: "MEV List" screen

Select from the "MEV List" screen the one whose parameters you wish to edit or check. If the system only manages one MEV, then you enter directly into the screen of the only existing MEV:

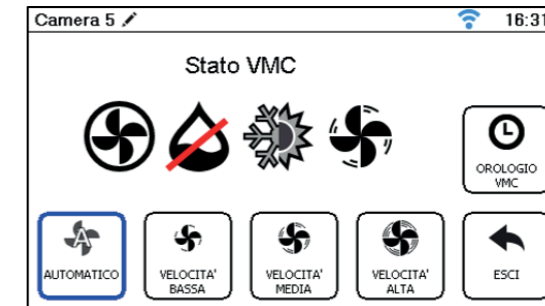


Image 36: Screen of a MEV

In the previous image, the icons in the middle respectively indicate, starting from the left:

- a. MEV active (air renewal active);
- b. Dehumidification in progress, if the MEV is not dehumidifying, the icon with the crossed-out droplet will not appear;
- c. The MEV is integrating the heating or cooling system; the icon disappears if integration is not requested or has not been programmed;
- d. Selected speed: low, medium, high or automatic.

The icons "a", "b" and "c" cannot be edited by the user, but only viewed, while parameter "d" can be edited using the following buttons:



Image 37: Selection of speeds (from left): automatic, low, medium and high



Pressing the **Exit** Button returns to the MEV List screen and then to the Home page.

If by selecting the **MEV** Button the following image is displayed, it means that the main switch to enable the MEV is off or that the timer program associated to the MEV is at off:

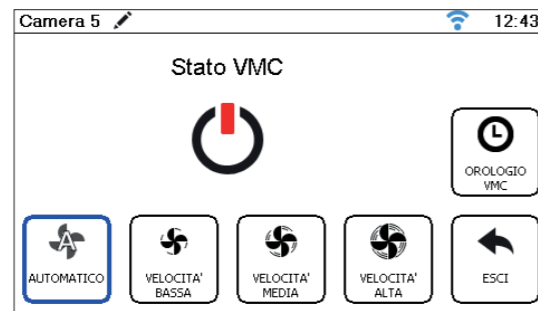


Image 38: "Camera 5" MEV off screen

Clicking the **MEV Timer** Button allows you to enter the Weekly Ventilation Program:

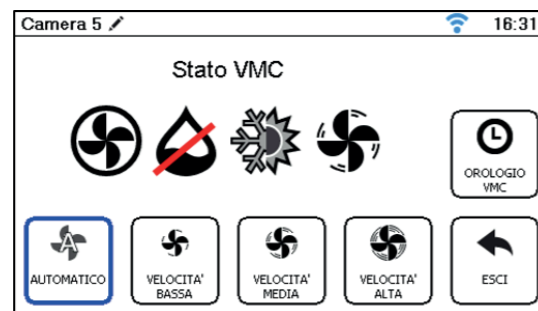


Image 39: "Camera 5" MEV screen

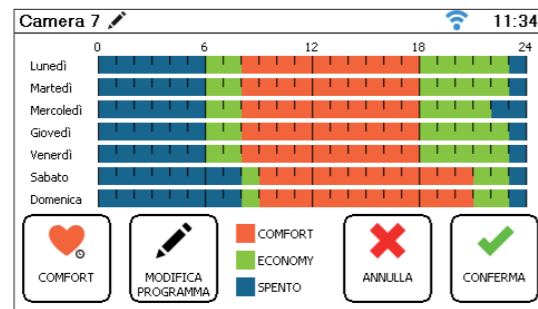


Image 40: Weekly Ventilation Program

For the changes and functions of the timers, see chapter Timers.

Lastly, the names of the MEV itself can be edited directly from the display by clicking the pen to the right of the words "Camera 5":



Image 41: Screen to edit the name of the MEV

The **NUM** button grants access both to numbers and special characters. Once the description has been modified, press the **Button with the green tick** to confirm or the one with the **red X** to undo the changes and exit the menu.



CAUTION: If the name of the MEV was selected among the default descriptions and not among the free ones, the name cannot be edited from the display, and therefore the pen to the right of the MEV name will not be displayed.

4. HEAT/COOL AND ON/OFF SYSTEM SWITCH

4.1 ON/OFF SYSTEM SWITCH

To switch the system **ON** or **OFF**, press the **Button at the bottom left of the Home page** (indicated by the arrow):

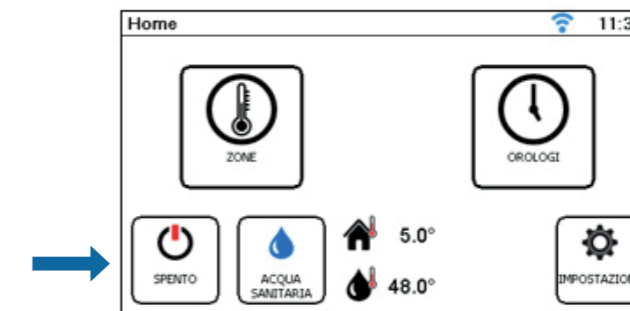


Image 42: Home page with indication of System Off



Within the “System Switch-ON” menu, you may switch on the system by clicking **the selector in the Enable System icon** and setting it at **ON** (Image 43), or else switch off the system by setting the selector at **OFF** (Image 44). When the selection has been made, press the **Exit** Button to go back to the Home page.

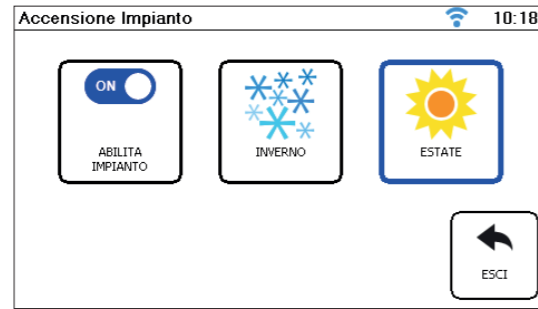


Image 43: “System Switch-on” with Enable System button at ON screen

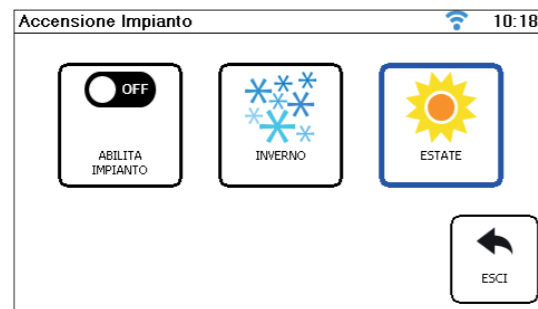


Image 44: “System Switch-on” with Enable System button at OFF screen

NOTE FOR INSTALLER

Switching the system on and off can depend on various factors. Indicate to the end user which one affect switching the system ON/OFF in the specific case:

- Presence of a calendar
- Presence of an external dry contact
- Outdoor temperature
- Setting of the user from the touch screen display

If the following Home and System switch-on screens appear (image 45 and 46) contact your installer for further information.

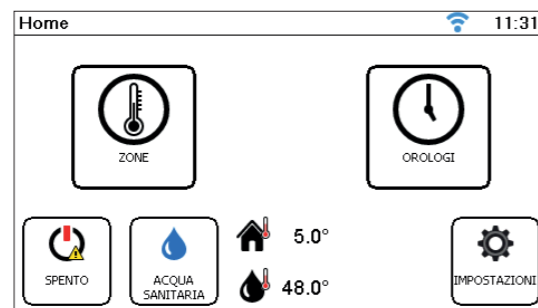


Image 45: Home page with System Off by other causes

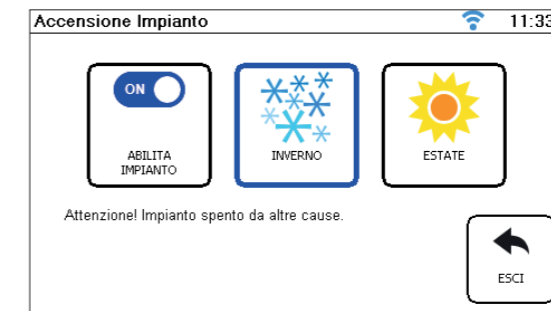


Image 46: System Switch-on Screen with System Off by other causes

4.2 HEAT-COOL SYSTEM SWITCH

Heat/cool switching is only possible if the controller the display is connected to has been programmed to manage both summer and winter. If one of the two seasons is not set, selecting the **Button at the bottom left** of the Home page and entering the “System switch-on” menu, the Summer and Winter icons will not be displayed.

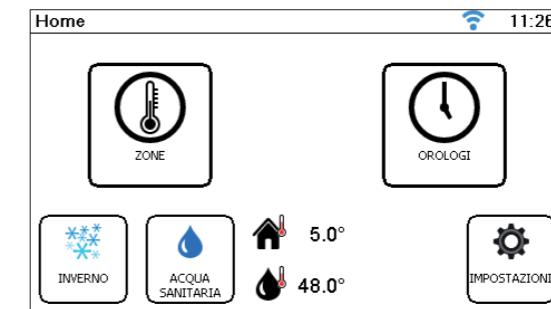


Image 47: “Home” page with system in winter season

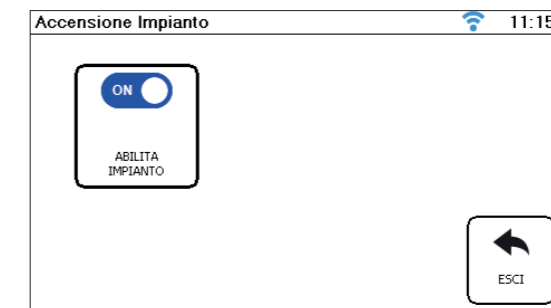


Image 48: “System switch-on” screen of a Winter only or Summer only system (the seasons do not appear as only one is possible)



Only if both seasons can be set will both be displayed in the System Switch-On Menu:

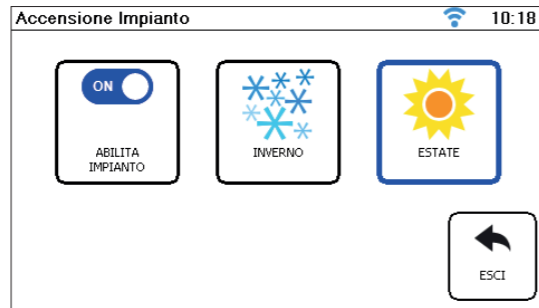


Image 49: "System Switch-on" screen of a Summer and Winter system at ON

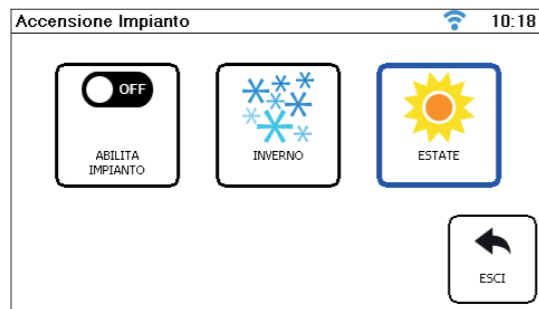


Image 50: "System Switch-on" screen of a Summer and Winter system at OFF

When the required season has been selected, press the **Exit** Button to go back to the Home page. You will notice that the **Button at the bottom left** of the Home page will have switched from Winter (snowflakes) to Summer (sun) or vice versa:

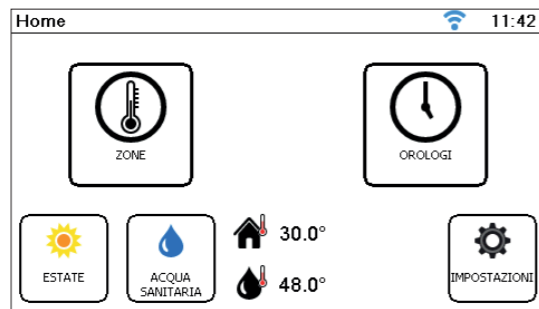


Image 51: Home page of a system in Summer mode

NOTE FOR INSTALLER

Switching the system from Cooling to Heating and vice versa can depend on several factors. Indicate to the end user which one affect switching of the system in the specific case:

- Presence of a calendar
- Presence of an external dry contact
- Outdoor temperature
- Setting of the user from the touch screen display

In fact, the screen in the following image does not only appear when the system is in heating only or cooling only mode, but also if heat/cool is switched by an external dry contact.

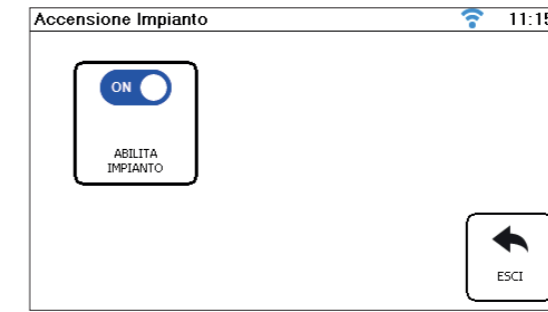


Image 52: System Switch-on Screen

5. DOMESTIC HOT WATER

The **Domestic hot water** button is only displayed if the controller is programmed for its management:

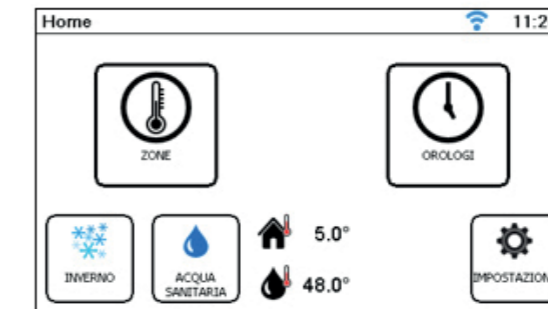


Image 53: Home page with system that manages domestic hot water

Clicking the **Domestic Hot Water** Button on the Home page opens the "Domestic Hot Water Setting" screen:

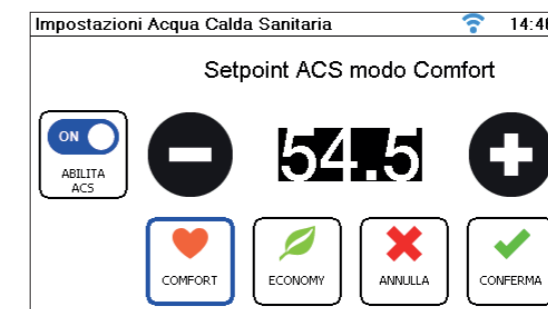


Image 54: "Domestic Hot Water Setting" screen in Comfort Mode without Timer



From this screen you may:

- Press the **DHW Enable** Button selector, enable (**ON**) or disable (**OFF**) production of domestic hot water;
- Select the **Comfort** button and then press the **“+”** and **“-”** buttons, adjust the set point in Comfort work mode (previous image);
- Select the **Economy** button and then press the **“+”** and **“-”** buttons, adjust the set point in Economy work mode (next image).

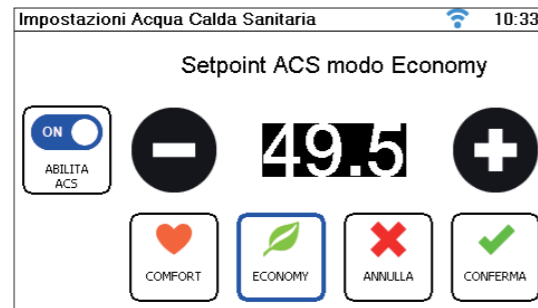


Image 55: “Domestic Hot Water Setting” screen in Economy mode

When you have entered the settings, press the **Confirm** button to save the changes or **Undo** to cancel them. If DHW is at OFF, the Domestic Hot Water Settings screen will be empty except for the **DHW Enable** button:

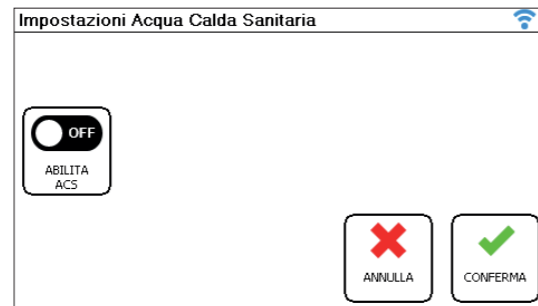


Image 56: “Domestic Hot Water Setting” screen at OFF

And the Home page will display the screen with the following image with an icon of the crossed-out droplet in the **Domestic Hot Water Button**:

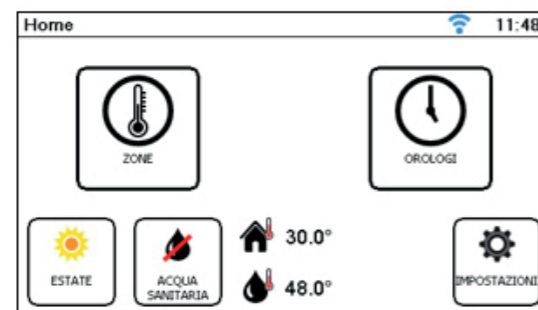


Image 57: Home page with Domestic Hot Water off

If production of domestic hot water was paired to a timer when programming the controller, the **“DHW Timer”** button appears on the left of the **Comfort** Button:

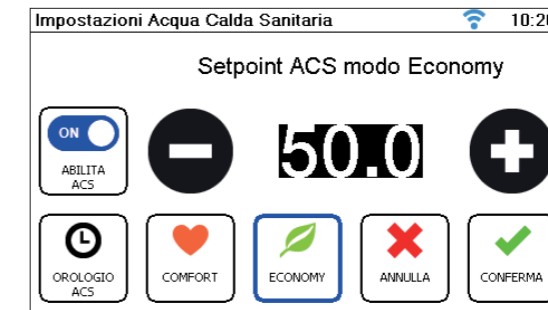


Image 58: “Domestic Hot Water Setting” screen with paired timer

Click the **DHW Timer** to enter the “Weekly Program” screen. From here you can set a different hourly programming for each day or the same programming from Monday to Friday or from Monday to Sunday. Refer to the Timers chapter for instructions on weekly programming.

6. ALARMS

The **Alarms** Button is only displayed if there are alarms that have not been cleared.

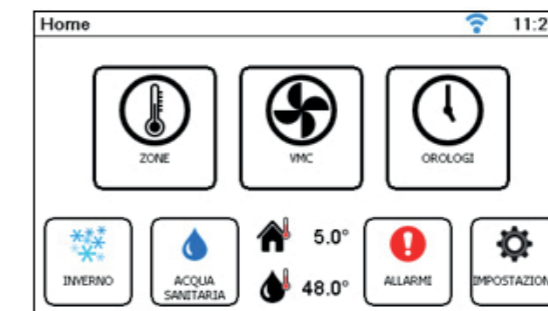


Image 59: “Home” page with alarms in progress

Clicking the **Alarms** Button will list all of the triggered alarms. When they have been cleared, the button will disappear when you go back to the Home page.



Image 60: “Triggered alarms” screen with list of alarms in progress



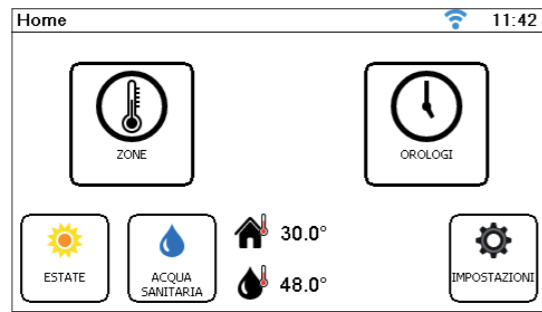


Image 61: "Home" page without alarms in progress



CAUTION: The installer is required to clear the alarms.

7. SETTINGS

Click **Settings** to enter the User Settings screen:

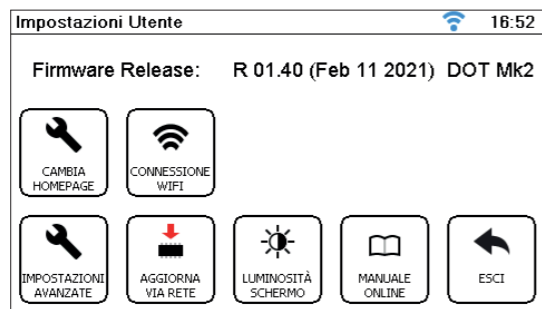


Image 62: User Settings screen

The **Wi-Fi Connection** Button will be dealt with in Annex I at the end of this document, the **Advanced Settings** button in the next Chapter.al Capitolo successivo.

7.1 CHANGE HOMEPAGE

The **Change Homepage** Button allows you to view the Thermal Power Station Home for the installer:

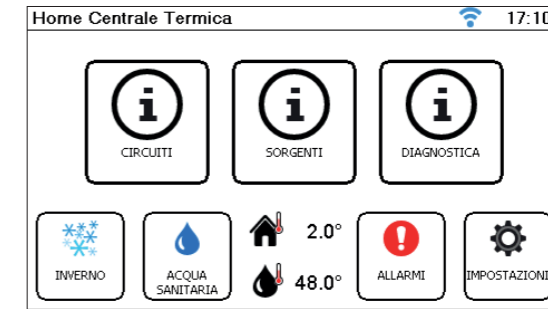


Image 63: Thermal Power Station Home page

If an installer password has been set (System Settings), they will be prompted to continue:

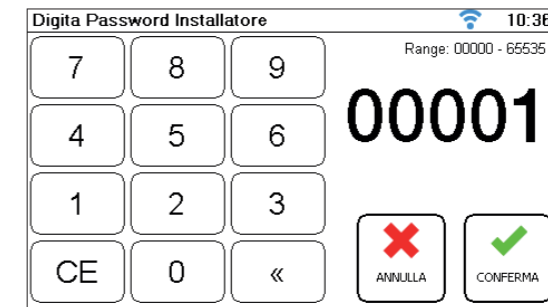


Image 64: Installer password input screen

Once entered, it is not requested for five minutes even if you go back to the Home page and to the Thermal Power Station Home page.

The **System On/Off** (seasonal change), **Domestic Hot Water**, **Alarms** and **Settings** Buttons have the same menus as those seen in the previous chapters.

Clicking the **Circuits** Button displays the screen with the list of configured circuits:

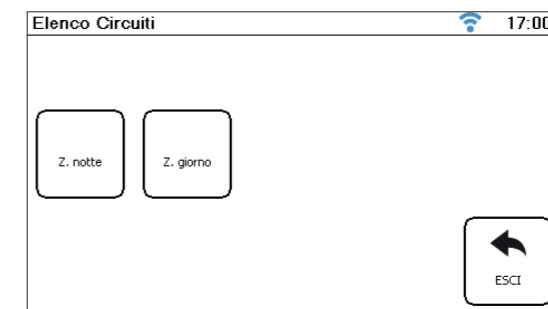


Image 65: Configured Circuits List screen



Clicking the **desired circuit** opens the following screen:

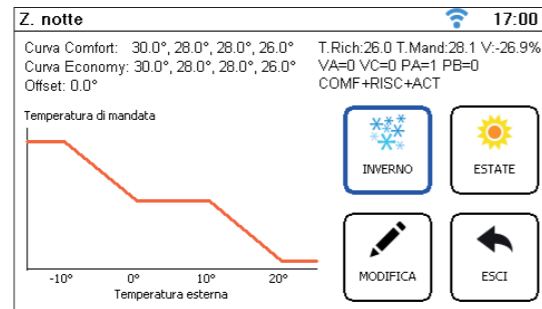


Image 66: Winter Circuit screen

Clicking the **Summer** Button will open:

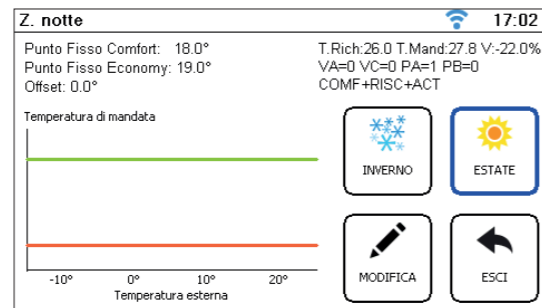


Image 67: Summer Circuit screen

This menu displays some information about the circuit and allows editing the water temperature set points both in winter and in summer. The previous images show that the circuit is managed by a compensation curve in winter, and a direct set point in summer.



CAUTION: From this menu it is not possible to switch from circuit management with compensation curve to management with direct set point and vice versa. This step must be carried out by acting directly on the controller.

The following are displayed at the top starting from the left:

- the set points of the winter curve both in Economy mode and in Comfort mode, respectively at -10 °C, 0 °C, +10 °C and +20 °C and the set points of the direct set point in both Economy and Comfort mode;
- set winter or summer offset, if any (0.0 °C)
- water temperature set point (26.0 °C)
- current water outlet temperature (28.1 °C)
- opening of the mixing valve (V: -26.9% as reference for valves 0/10V; VA=0 and VC=0 as reference for 3-point valves);
- enabling of the water pumps (PA and PB)
- current work mode (COMF+HEAT+ACT)

Curva Comfort: 30.0°, 28.0°, 28.0°, 26.0°	T.Rich:26.0 T.Mand:28.1 V:-26.9%
Curva Economy: 30.0°, 28.0°, 28.0°, 26.0°	VA=0 VC=0 PA=1 PB=0
Offset: 0.0°	COMF+RISC+ACT
Punto Fisso Comfort: 18.0°	T.Rich:26.0 T.Mand:27.8 V:-22.0%
Punto Fisso Economy: 19.0°	VA=0 VC=0 PA=1 PB=0
Offset: 0.0°	COMF+RISC+ACT

Image 68: Circuit screen detail

By clicking the **Edit** Button, if the **Winter** Button is selected, you may only edit the set point of the Economy and Comfort curves:

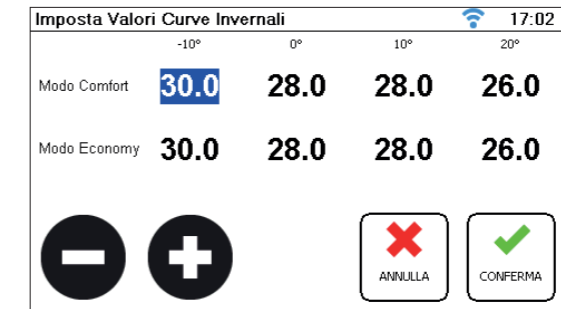


Immagine 69: Impostazione dei valori delle curve invernali

By clicking the **Edit** Button, if the **Summer** Button is selected, you may only edit the set point of the Economy and Comfort direct set point:

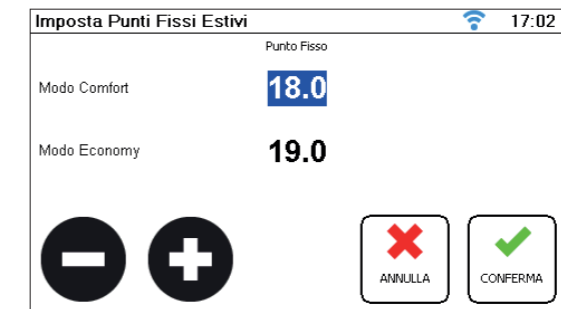


Image 70: Summer direct set point values setting

Press **Confirm** if you want to save the changes made or Undo to cancel them.

Clicking the **Generators** Button displays the screen with the list of generators present in the system:

Stag	Descrizione	Rich	Sonda	Abil	Att	0/10
E+I	PDC	45.0	NC	ON	ON	4.5
OFF						
OFF						
Limiti Esterni		Stato Degradata				
-50/50	-50/50	NO	0s	Inc	Inv/Inc	Est

Image 71: Generators Information screen



It is not possible to edit on this page, but it displays:

- the set point temperature of each generator
- the temperature read by the reference probe of the generator (if installed);
- whether the generator is enabled and/or active;
- THE 0/10V signal sent to set the generator set point (ignore this parameter if it is not used);
- Summer and Winter outdoor temperatures working limits;
- whether the generator has been degraded;
- the timer countdown of the degradation in seconds;
- the type of degradation selected (inclusive or exclusive in summer and in winter).

Clicking the button **Next** the cascade generators will be displayed (gas boilers via Opentherm communication and HPs via Modbus RTU):

Informazioni sui Generatori										12:47
Abil	RAC	Temp	Pot.R	Stato	Mand	Rit	ACS	Pot.	Err	OEM
OFF										
1 1 0		0.0	0.0	128	-0.1	-0.1	-0.1	-0.1	255	255
1 0 0		0.0	0.0	128	-0.1	-0.1	-0.1	-0.1	255	255
OFF										
OFF										
OFF										
OFF										
OFF										
OFF										

Image 72: Cascade genetors informazion screen

It is not possible to edit on this page, but it displays:

- generator enabling: OFF not enabled, 110 enabled in DHW, heating and cooling; 101 enabled only in cooling; 102 enabled in heating only; 010 enabled only in DHW;
- RAC: indicates the current request where R stands for Heating, A for DHW and C for cooling;
- Temp and Pot. R indicate the required temperature and power;
- Status indicates the status of the generator (combination of 8 bits status, refer to the manufacturer’s manual and the implemented firmware);
- Temperatura di mandata, ritorno e ACS lette dal generatore se presenti le relative sonde di temperatura a bordo;
- Water outlet, inlet and DHW temperature read by the generator if the relative temperature probes are present on board;
- Pot. is the power in % or kW delivered or absorbed by the generator (refer to the manufacturer’s manual and the implemented firmware)
- Err indicates the current alarms (combination of 8 alarm bits, refer to the manufacturer’s manual and the implemented firmware);
- OEM indicates the generator specific error, refer to the manufacturer’s manual.

Clicking the **Diagnostics** Button displays the screen with the list of free temperatures and signals present in the system:

Informazioni di Diagnostica						17:09
ChA	Descrizione	Valore	ChD	Descrizione	Valore	
0002	ACS	27.1	0101	Contatto Finestr	OFF	
NC			NC			
NC			NC			
NC			NC			
NC			NC			
NC			NC			
NC			NC			
NC			NC			
ChEr	Descrizione	Valore				
2401	Allarma PdC	OFF				
NC						
NC						
NC						
NC						

Image 73: Diagnostics Information screen

It is not possible to edit on this page, but it displays:

- the values (°C) and the descriptions of the free temperatures detected and the input they are connected to (ChA);
- the values (ON/OFF) and the descriptions of the free alarm signals and the input they are connected to (ChEr);
- the values (ON/OFF) and the descriptions of the free digital signals and the input they are connected to (ChD).

To go back to the Home page, simply press the **Settings** button and then the **Change Homepage** Button from the Thermal Power Station Home page. This operation does not require a password.

7.2 UPDATE VIA NETWORK

The **Update via Network** Button allows you to update the firmware to the most recent version. Before launching the update via Network, the Wi-Fi connection must be connected to the Internet (see Annex I):



Image 74: First Screen after having clicked Update via Network

If the following screen appears, it means that there are no more recent versions available:

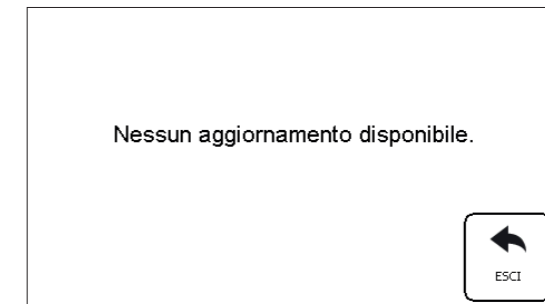


Image 75: No Firmware update available

Whereas if the following screen appears, it means that there are more recent versions: the Firmware Revision number is higher or the date is more recent.



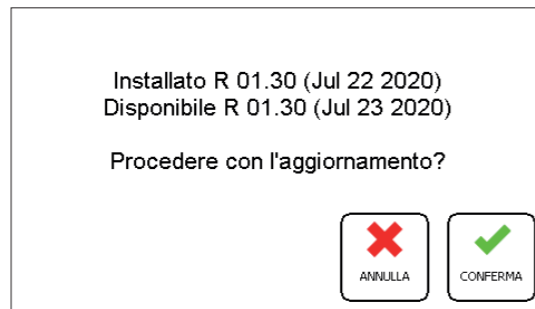


Image 76: Screen showing the latest update available respect to the current/installed version.



Image 77: The firmware is downloaded.

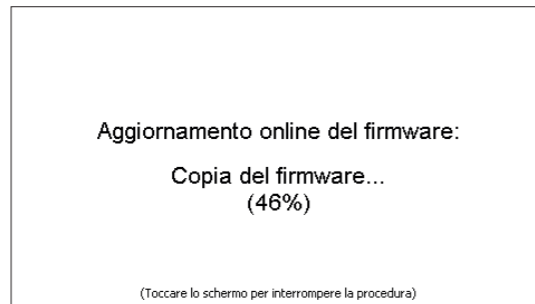


Image 78: The firmware is copied.

If you touch the screen during the download or copy of the firmware, the update is cancelled without consequences:

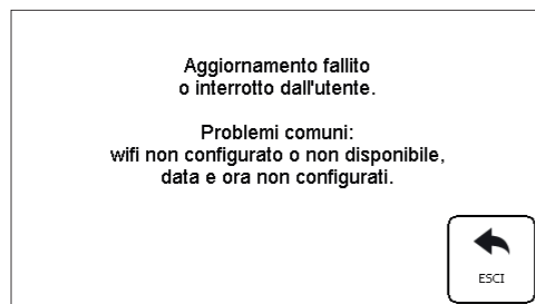


Image 79: Screen that appears if the update fails or is cancelled.

If the update is interrupted while the moon is uploading on the screen (the system is overwriting the new firmware) then the system will have an inconsistent firmware (half updated and half no). Two options will appear: **RETRY?** or **DFU?**

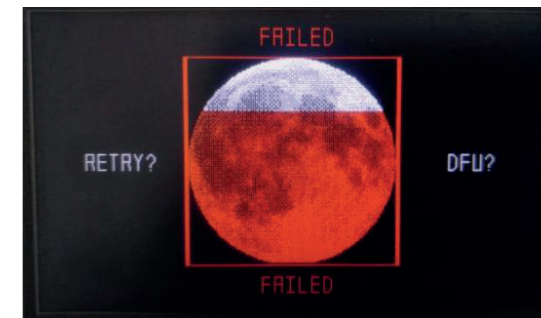


Image 80: Screen that appears if the update is interrupted while overwriting the firmware.

RETRY means to try again to download the update via Wi-Fi, while **DFU** means proceed with the update via USB (operation to be carried out by a specialised technician).

7.3 SCREEN BRIGHTNESS

Clicking **Screen brightness** allows you to increase "+" or decrease brightness "-":

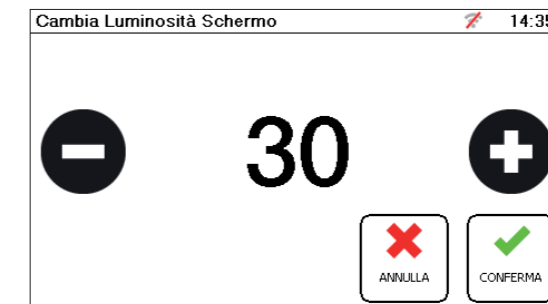


Image 81: Screen for adjusting screen brightness

7.4 ONLINE MANUAL

Clicking the **Online Manual** Button allows you to view this document by scanning the QR code:



Image 82: Manual QR Link



8. ADVANCED SETTINGS



CAUTION: Only access this page if required and guided by a skilled technician. Incorrect settings could cause the system to malfunction.

Before accessing, the Service password is requested (which corresponds to the System Configuration password). If no password was configured, the screen shown in the following image will still be displayed. In this case **the default password is 00000**. Whereas if the Service password has been configured, it must be entered or else it will be impossible to access advanced settings:

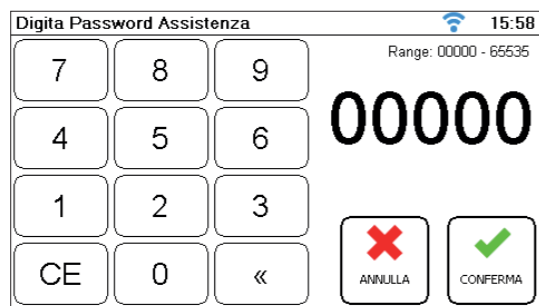


Image 83: Access screen to Advanced Settings

Following access, this screen appears:

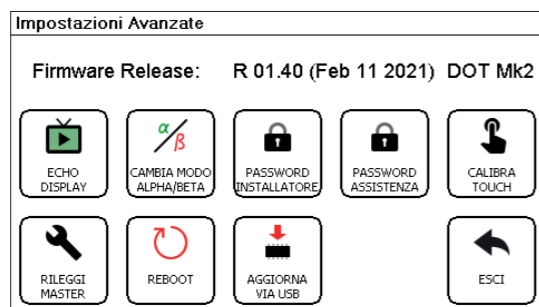


Image 84: Advanced Settings Screen for a touch screen display

The Firmware Release matches the current revision loaded on the touch screen display; in the previous Image, R 01.40 is the Firmware Revision number followed by the date (Feb 11 2021). While DOT Mk2 corresponds to the model of the PCB board of the touch screen display.

The **Calibrate Touch** Button is a function intended for the manufacturer. Changing this menu could jeopardise the correct operation of the touch screen display.

8.1 ECHO DISPLAY

The **Echo Display** Button allows you to virtually interact with the controller by viewing the controller itself on the touch screen and operating the same buttons (+; -; **ESC** and **OK**) as indicated in the following image:

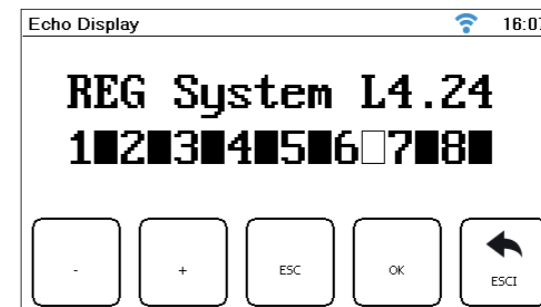


Image 85: "Echo display" screen viewed on the touch screen display.

Entering this menu allows you to edit all the parameters of the controller.

8.2 CHANGE ALPHA/BETA MODE

From version 1.4, you may connect two displays on the same system by pressing the **Change Alpha/Beta Mode** Button. By default, all the displays produced are programmed to be display 1. Clicking the Button displays the following screen:

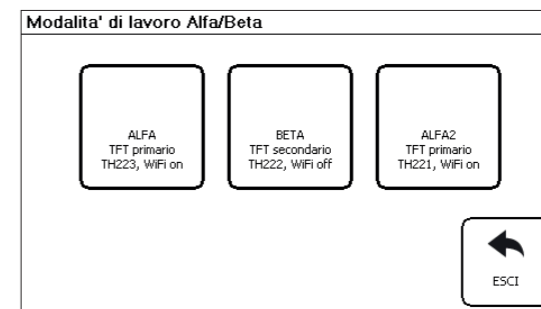


Image 86: Alpha 1 or 2/Beta work mode

It is always possible to connect to each master controller two and only 2 displays, but as display 1 it is possible to select ALFA or ALFA 2. In both cases the Wi-Fi will be active, but the reference sensor inside the display will be TH 223 if ALFA is selected, TH221 if ALFA 2 is selected. If BETA is selected the operation has success only if on the controller display 2 is enable. The Wi-Fi is deactivated on the Beta display as only the first display will be online and is characterised by the Greek letter "β" in red at the top right in place of the Wi-Fi icon which on the other hand characterises display 1 (Alpha):



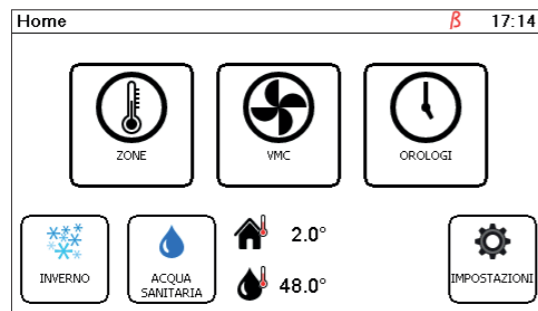


Image 87: Home page from display 2

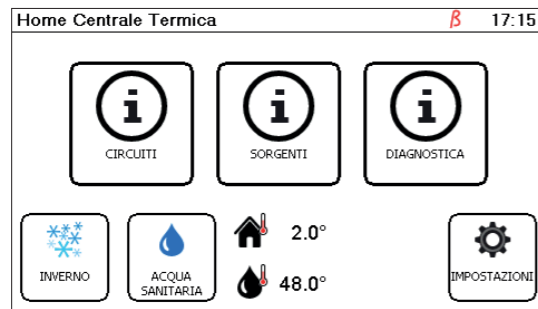


Image 88: Thermal Power Station Home page from display 2

Accordingly, if there are two displays in a system, the Home page can be viewed in both (one will have the Wi-Fi icon and the other the letter “β”) or in the Alpha display (or Alpha 2), the Home page (Wi-Fi icon) and in the Beta display the Thermal Power Station Home page (letter “β”). All the menus remain unchanged for the Beta display.

The word TH222 in image 86 means that, if you want to use the sensor on the touch screen display which acts as the Beta display to manage a zone, the temperature and humidity sensor TH222 must be paired to that zone.

The display can be restored as number 1 (Alpha or Alpha 2) by simply clicking the **Alpha/Beta mode Change** button again:

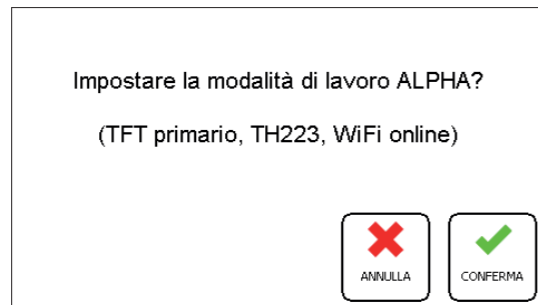


Image 89: Alpha work mode

Here again the operation is successful if display 1 is enabled on the controller. The word TH223 in the previous image means that, if you want to use the sensor on the touch screen display which acts as the Alpha display to manage a zone, the temperature and humidity sensor TH223 must be paired to that zone.

CAUTION: If Beta mode is set unintentionally without having enabled display 2 on the controller, if you go on Advanced setting is it possible to restore the display as display 1 (ALFA or ALFA 2).



8.3 REREAD MASTER

The **Reread Master** Button allows you to reread the settings on the controller board which the display is connected to and if different, changes will also be made immediately to the touch screen display:

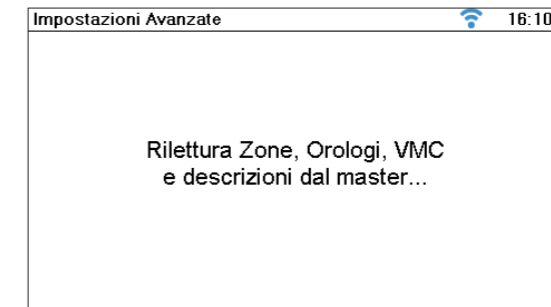


Image 90: Screen displayed during rereading of the board

8.4 REBOOT

The **Reboot** Button allows you to switch the display off and back on (like when switching electricity on and off). When switched back on, the following screen appears:

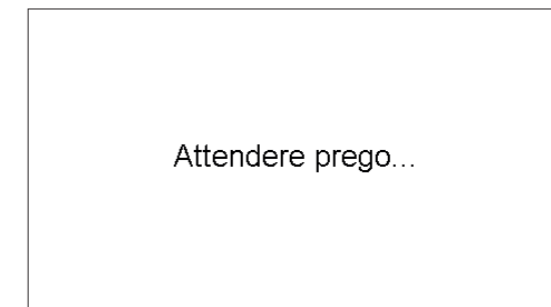


Image 91: Display reboot screen

8.5 UPDATE VIA USB

The **Update via USB** Button allows you to update the firmware to the most recent version by physically connecting to the touch screen display (operation to be carried out by a specialised technician):



Image 92: Screen that appears by clicking the Update Via USB Button



8.6 INSTALLER PASSWORD

Clicking the **Installer Password** Button allows you to set the new Installer password (which corresponds to the System Settings password) in order to limit access to the Thermal Power Station Home page:

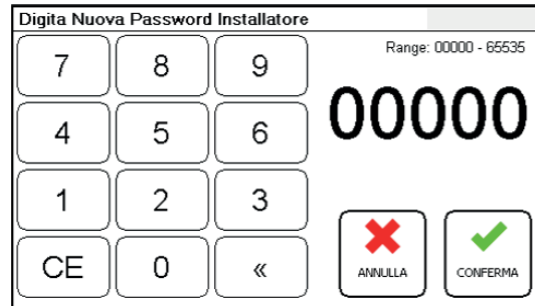


Image 93: Screen to set installer password

Entering password **00000** opens the following screen:

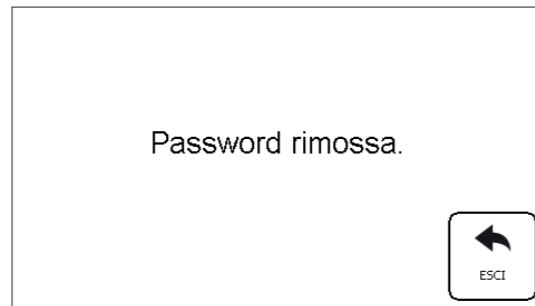


Image 94: Password removed

8.7 SERVICE PASSWORD

The **Service Password** button allows you to edit the password to enter the Advanced settings menu (System Configuration):

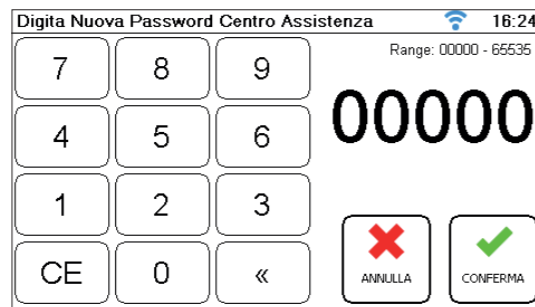


Image 95: Screen to set service password

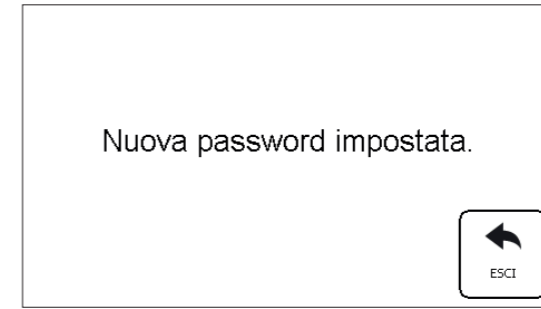


Image 96: New password set

Even entering password **00000**, you will still be prompted to enter the Advanced settings menu.

ANNEX I – WI-FI CONNECTION

Inside the User Settings screen accessed from the Home page:

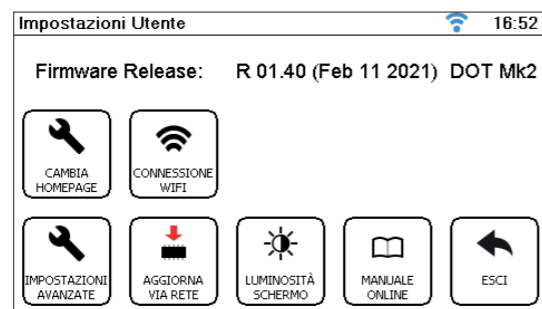


Image I: User Settings screen

Selecting the **Wi-Fi Connection** Button grants access to the Wi-Fi Connection Management screen:



Image II: Wi-Fi Connection Management screen

In the image above the parameters "System Code" and "System Password" are requested when registering the system on the remote management system (see relative manual).

1. WI-FI CONNECTION WIZARD

Clicking the **Select Wi-Fi** Button:

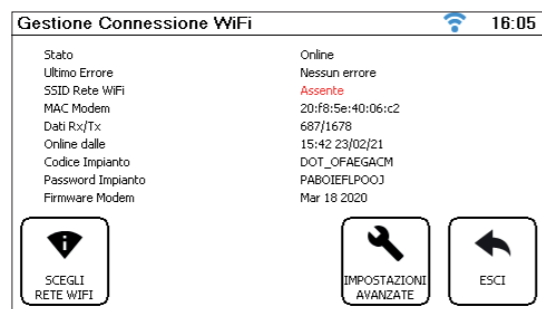


Image III: "Wi-Fi connection management" screen

the display scans the available networks:

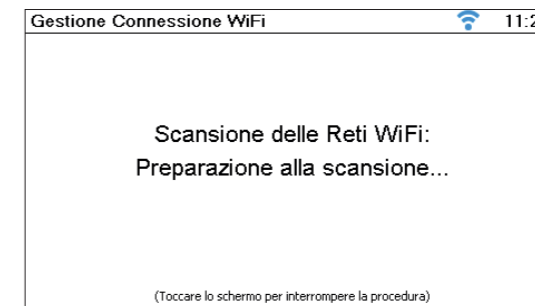


Image IV: Scanning of available Wi-Fi networks

Once the Select Wi-Fi Network screen has been displayed, by pressing the **"UP"** and **"DOWN"** buttons, select the network you want to connect the display to and press **"SELECT"** or **"QUIT"** to go back to the previous screen:

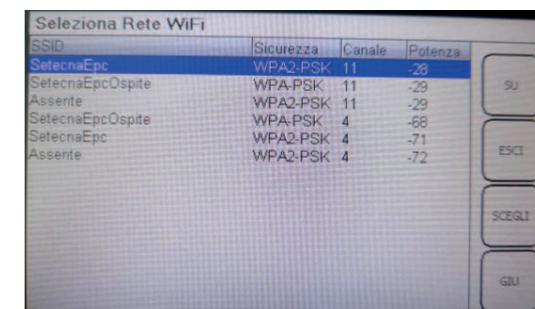


Image V: Screen showing available Wi-Fi networks

If you click the **Select** Button, the following Wi-Fi password request of the selected network will appear. Clicking the Buttons in the Image below several times will scroll the various lowercase letters, while pressing **SHIFT** you may select the uppercase letters. Whereas for special characters and numbers you must press the **"NUM"** button. Press **OK** after having entered the password to confirm, use the Buttons **"<"** and **">"** to move to the right or to the left in the Password input bar or **ESC** to cancel the operation:

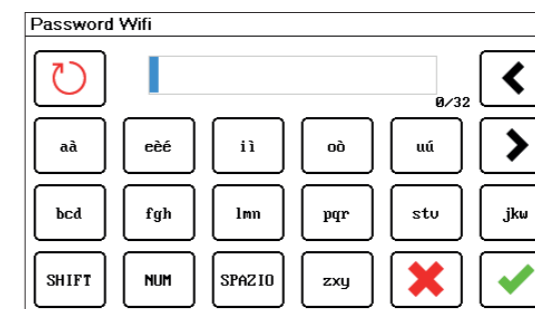


Image VI: Screen to enter the Wi-Fi password



When you click **"OK"** (if the password is correct) the display will again show the Wi-Fi Connection Management screen. Various texts will appear in the Status parameter:

- **WIFI OFF [Online]:** means that the objective is to go Online (because the interface of the touch screen display is set by default at Online), while the initial status is WIFI OFF;
- **WIFI OFF -> Disc [Online]:** means that the interface of the display has switched from OFF to ON status but disconnected from the network access point. The final objective is always Online.
- **Wi-Fi Network conn. attempt [Online]:** means that the interface is trying to connect to the network access point. The final objective is always to go Online:

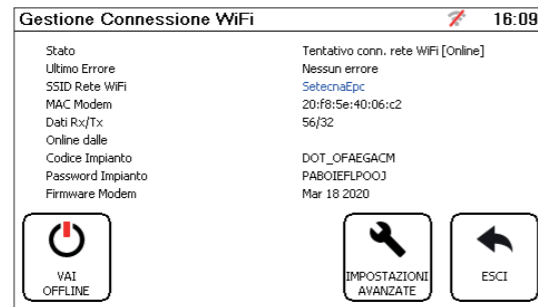


Image VII: Wi-Fi Connection Management screen trying to connect to the selected network

- **Online:** means that the interface is connected to the network and to the remote management system.



Image VIII: "Wi-Fi connection management" screen with interface connected.

The **"Go OFF line"** Button in the previous Image allows you to switch from Online to Off-line.

There is a summarised table of possible errors that can occur during the Wi-Fi connection stage at the end of Annex I.

2. ADVANCED SETTINGS

Clicking **Advanced Settings** displays two more Buttons: **"Addresses Setting"** and **"Interface management"**.

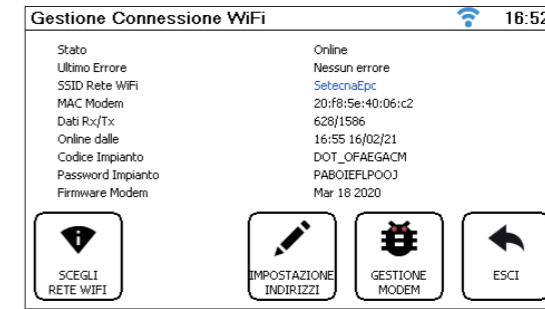


Image IX: Screen that appears after having clicked Advanced settings from the screen indicated in Image VIII.

NOTE If these settings need to be edited, you should contact your IT technician and/or system installer.

In Addresses Setting, you will find by default the DHCP active at 1, this means that the IP address, NetMask and Gateway are acquired automatically by the router, while for DNS1 and DNS2 those entered by default remain valid, as indicated in the following image:

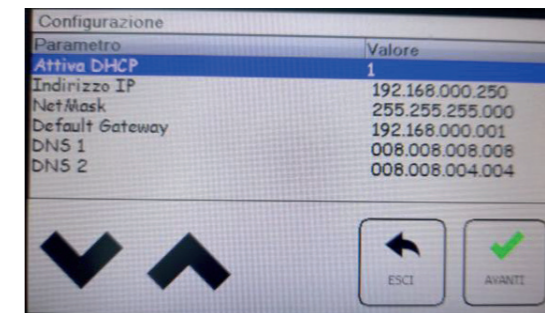


Image X: Configuration screen of IP address, NetMask, Gateway and DNS

It is advisable not to edit the setting of DHCP unless the network you want to connect the display interface to is corporate or private with high security levels:

- Setting DHCP active at 2 (Full DHCP) all the parameters (IP, NetMask, Gateway, DNS1 and DNS2) are acquired by the company or private router. This mode is also useful if repeated DNS errors occur during connection attempts since the DNS parameters set by default might not be accessible for the network that you want to connect the display interface to;
- Setting DHCP at 0, all the parameters (IP, NetMask, Gateway, DNS1 and DNS2) must be set manually, if incorrect the display might not connect to the network.

Whereas in Interface management, the status of the interface of the touch screen display can be set manually:



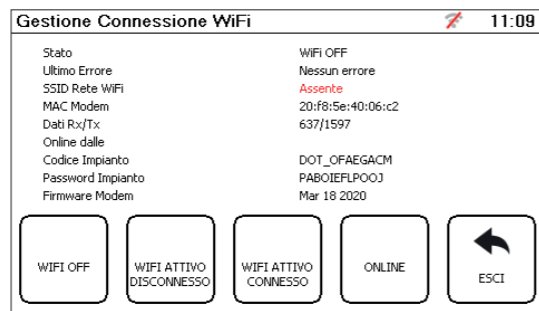


Image XI: Interface Management Screen

It has the following buttons:

- **WIFI OFF:** means that the display interface is off;
- **WIFI ACTIVE DISCONNECTED:** means that the display interface is on, but it doesn't look for the network access point;
- **WIFI ACTIVE CONNECTED:** means that the display interface is on and has found the network access point;
- **ONLINE:** means that the display interface is on, has found the network access point and is communicating with the remote management system.

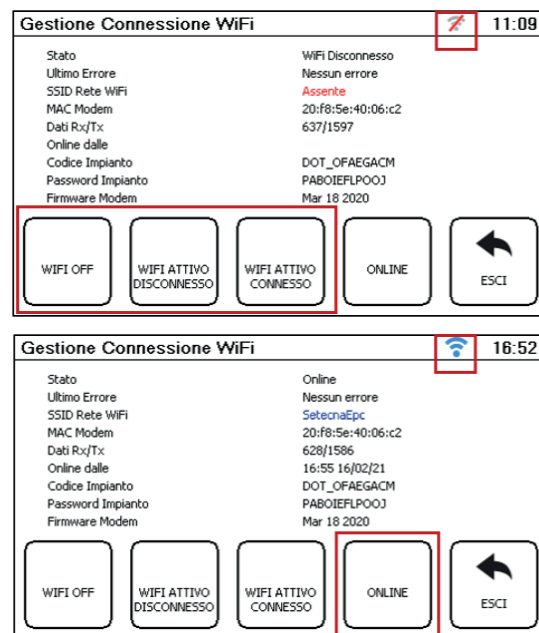


Image XII: Indication of the status of the connection icon based on the selected button

As indicated in the previous image, if you click **WIFI OFF**, **WIFI ACTIVE DISCONNECTED** or **WIFI ACTIVE CONNECTED**, the Wi-Fi icon will still be crossed out even if the Wi-Fi network was set. If you click **ONLINE**, the Wi-Fi icon will turn light blue without a bar only if the display interface is able to communicate with the remote management system.

By default, the interface within the display is configured at Online (if the network was not yet selected, the display still cannot connect to the system). Therefore the Interface Management menu can be ignored if there are no problems in the connection of the display interface to the network and to the system.

Furthermore, if the setting of the Interface management menu (Image XII) is other than Online, the status item of the Wi-Fi Connection Management screen will stop at WIFI OFF, Wi-Fi Disconnected or Wi-Fi connected based on that selected.

When you want to change network, do the following in order:

- Enter the Advanced settings;
- Enter Interface management;
- Click **WIFI OFF**;
- Exit and go back to Wi-Fi Connection Management;
- The **Go OFF line** button has gone back to Select Wi-Fi network (Image III);
- You may repeat the new network selection procedure as indicated in point 1 of Annex I.

3. WI-FI CONNECTION OF BETA DISPLAY

If you enter the Wi-Fi Connection from a Beta display (second display of the system), the following screen will appear:

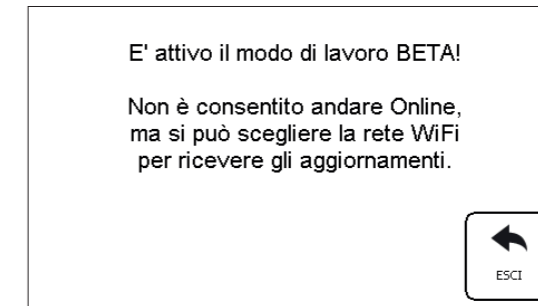


Image XIII: Interface Management Screen

By clicking **Exit**, the following screen will appear from where you can select the Wi-Fi network to be able to download the firmware updates of the touch screen display:

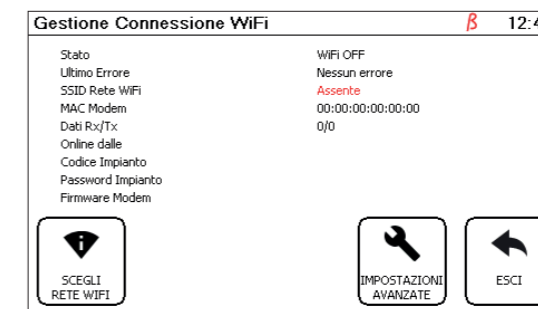


Image XIV: Interface Management Screen



SUMMARISED TABLE OF ERRORS

Last Error	Description	Solution
No error	-	-
Connection timeout	There will be no connection with the network for 40 seconds	Check the network signal
Incorrect password	The entered password is not correct	Enter the correct password
Network not recognised	SSID network does not exist	Check SSID network
Failed conn. attempt	The network exists, but there are problems to set up the connection	Check DHCP and IP settings
Unknown error	-	Contact service
Disconnected from AP	Temporary error, the network interrupted the connection	Wait for the next connection attempt
No Comm WiFi module	The Wi-Fi interface of the touch screen display does not respond to commands	Contact service
Base config. error	The commands sent to the interface of the touch screen display are not successful	Contact service
DNS config. error	Error in the configuration of the DNS 1 or DNS 2 parameters	Check the DNS parameters
Network scanning timeout	If the touch screen display interface does not complete scanning of the networks in 10 seconds	Retry
Server conn. timeout	If the touch screen display interface does not complete the connection to the remote management system in 40 seconds	Wait for the next connection attempt
TCP error	Generic error during connection to the remote management system	Contact service (if fixed)
Connection lost	The connection to the remote management system has been lost (disconnection by Access Point or by the network itself)	Check the status of the network
DNS lookup error	Error in recovering the IP address of the remote management system due to DNS	Contact service
DHCP request error	If DHCP is 1 or 2, the interface of the touch screen display receives incorrect settings from the network Access Point	Check the network settings
HTTP config. error	Preparation of the update of the Firmware of the touch screen display via Network has failed	Contact service
HTTP request timeout	The download of the Firmware of the touch screen display has been interrupted because the waiting time has expired	Retry
HTTP request failed	The download of the Firmware of the touch screen display has been interrupted because of errors	Retry
Station absent on server	The touch screen display is not present on the remote management system	Contact service

ANNEX II – FAILED COMMUNICATION

If the following screen is displayed:

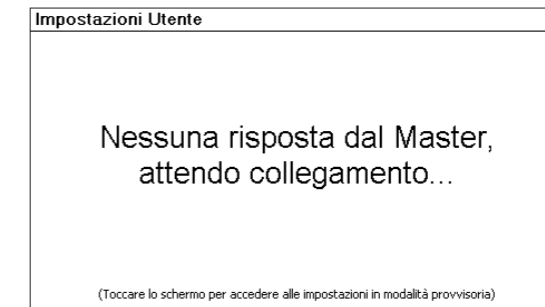


Image I: No response from Master

it means that communication between the display and its controller has been interrupted. There can be a variety of causes, contact your installer.

By clicking **any point on the screen** you may access all of the buttons of the display that do not need information from the controller to work:



Image II: User settings without communication with the controller

Clicking the **Advanced Settings** button opens the following screen:



Image III: User settings without communication with the controller



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