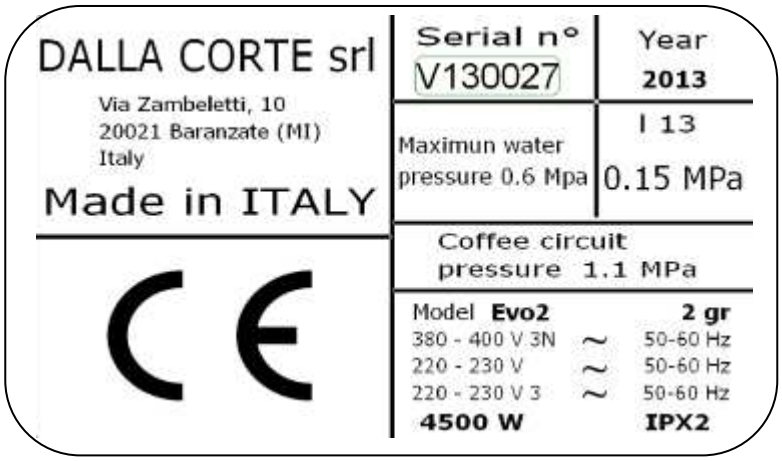
INSTALLER MANUAL

CONTENTS

The manufacturer reserves the right to modify this manual without updating the previous editions.

IDENTIFICATION PLATE



MACHINE ACCESSORIES

- set of complete portafilters + 1 complete 2-dose portafilter
- complete set of flexible water connection hoses
- two sets of filters
- set of group showers
- cleaning brush
- box of cleaning tablets
- tamper
- user and maintenance manual
- blind filter
- rubber tamping station
- cloth for the cleaning of external parts.

This machine must be destined exclusively to the use it has been conceived for. Any other use shall be considered improper and therefore unreasonable. The manufacturer cannot be held responsible for any damages caused by improper, wrong or unreasonable use.

The electric, water, draining systems shall be arranged in a suitable position to allow correct machine installation.
The installer cannot modify the existing systems (see chapter "setting up for installation" in the "USER AND MAINTENANCE MANUAL" attached to each machine).

GENERAL NOTES

The instructions and warnings contained in this manual and in the "USER AND MAINTENANCE MANUAL" shall be read carefully, since they provide important information on machine installation and functioning.

Verify the user has arranged the systems following the instructions contained in the "USER AND MAINTENANCE MANUAL" attached to the machine.

Check the user's electric system power capacity is sufficient for machine maximum power, as indicated in its identification plate.

If power cable needs to be replaced, use the cable that is suggested by the manufacturer.

Machine electric safety is achieved only when the machine is correctly connected to a grounded electric system.

The machine must be connected exclusively to an appropriate cold drinking water source. The maximum incoming water pressure must be of 0.6 Mpa.

Moreover, some basic rules shall be followed when using any electric device:

- Do not use the machine if you have wet hands or feet
- Do not use the machine if you are barefoot
- Do not allow children or untrained people to use the machine
- Do not wash the machine under a water jet
- Do not leave the machine switched on and unattended

INSTALLATION

The installation shall be performed in compliance with laws in force and following these instructions. A wrong installation can damage persons, animals and things. The manufacturer cannot be held responsible for any damage caused by wrong installation.
The machine must not be installed in places where water jets can be used. The machine must be installed only in places where it can be used and maintained by skilled professionals.

After unpacking the machine, check it is undamaged and no parts are missing. If you are in any doubt, do not use it. Packing elements shall never be left within reach of children, since these elements are potentially dangerous.
Place the machine on a surface guaranteeing a secure support and adjust its feet so that it is perfectly horizontal.

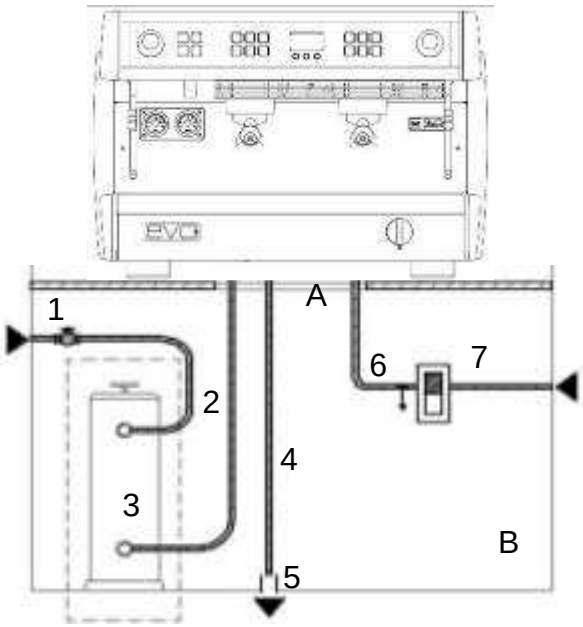
The machine weighs over 30 kg and cannot be lifted by one person alone.

Check that data on the identification plate match with those of the installation place before plugging the machine into the electric system.

LEGEND

1. water tap
2. flexible water hoses
3. water softener (optional)
4. drain hose
5. drain siphon
6. electric supply cable
7. ON/OFF electric supply switch

A. opening on support surface
B. under counter space



Pic. 1

ELECTRICAL INSTALLATION

The machine is equipped with electric supply cable with no plug. Connect it to the electric system with a switch 7-Pic.1 (see “setting up for installation” in the “USER AND MAINTENANCE MANUAL” attached to the machine) ensuring an omnipolar disconnection of the machine from the electric system; ensure the plug is compliant with national laws.
The above mentioned operation can be carried out in two configurations:

- Connection to electric system through direct link to switch 7-Pic.1

- Connection of electric supply cable to electric system through a certified plug that must be accessible once the machine has been installed and is ready to be used.

As concerns the connection of the supply cable to the electric system of the building, each conductor shall be labelled with the same code used for the connection to the machine switch (N= neutral, 1= PHASE-1, 2= PHASE-2, 3= PHASE-3, ground symbol for the green-yellow conductor), so that their order is not changed with subsequent malfunctioning.
Unwind the electric supply cable completely to avoid dangerous overheating.
If the electric supply cable is damaged, it must be replaced by another cable provided by the manufacturer or by a Technical Service authorized by the manufacturer.
If the tension of the installation place does not match with the tension on the identification plate, the connections in machine electric box and on the supply cable must be changed following the wiring diagram in this manual (see connection diagram in the "WIRING DIAGRAM" section).

WATER INSTALLATION

The minimum and maximum pressure of incoming water must be of 0.05 MPa and 0.6 MPa respectively for correct machine functioning.
Connect the flexible hoses as shown in Pic-1. Use solely the supply hoses included in machine equipment, old hoses must not be used again.
Check there are no constrictions or squashing along the flexible hoses.
Screw the flexible hose ring nuts tight.

INSTALLATION WITH WATER SOFTENER

The softener is recommended in places where water supplying the machine exceeds 10 French degrees of overall hardness to avoid scale formation; moreover, the quality of coffee in cup is improved. Water softener must be placed so that it is easily accessible for maintenance and next to the drain siphon (see water softener instructions).
It is recommended that norms on water for human consumption be followed when choosing a water softener.
For further information on water softener and its maintenance, see "USER AND MAINTENANCE MANUAL" attached to the softener.

INSTALLATION WITHOUT WATER SOFTENER

If water softener installation is not necessary, it is indispensable to install a cartridge FILTER immediately under the water tap 1-Pic.1 to avoid damages in machine water pump due to the presence of sediments.

Put the hose from water system and/or softener in a vessel, turn on the water and let it flow for a few minutes to remove any possible residue from the new pipes before connecting the hose to the machine.

DRAINING SYSTEM

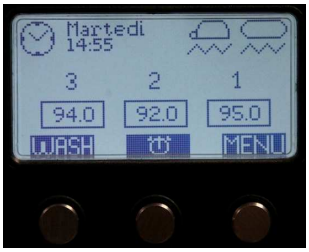
Install the flexible drain hose 4-Pic.1 on the hose holder of the drain drip tray placed under the water collection tray and plug the other end of the hose directly into the drain siphon 5-Pic.1.
Check the drain hose is properly inclined to allow the tray to empty quickly.

STARTING AND HEATING UP THE MACHINE

Follow all the instructions with the help of the controls diagram and description in the “USER AND MAINTENANCE MANUAL”.
Start the machine after checking all connections.
Turn on the water tap 1-Pic.1 and make sure there are no leaking connections in flexible hoses 2-Pic.1.
Turn on the ON/OFF electric supply switch 7-Pic.1 and turn the machine switch clockwise (see “USER AND MAINTENANCE MANUAL”).
Check the display on front control panel turns on and shows:

MAIN SCREEN DISPLAY

The main screen (e.g. in a 3-group) disappears and the values below group and boiler icons start blinking to show the units are heating up.



Immediately afterwards, the ◒ symbol starts blinking to indicate boiler is filling up.
At the end of the filling phase, the ◒ symbol disappears and the values below group and boiler icons start blinking to show the units are heating up.
When all units reach the set temperature, the values below group and boiler icons stop blinking.
Now the coffee machine is ready for use.

FUNCTIONING

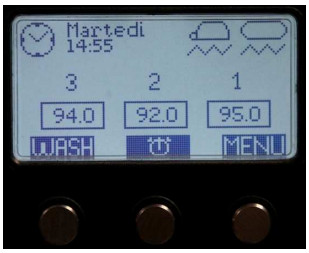
All machine functioning instructions can be found in the “USER AND MAINTENANCE MANUAL” attached to each machine.

ADJUSTING MACHINE SETTINGS

This coffee machine has a whole set of parameters that can be adjusted to optimize its functions, coffee extraction and energy saving.

These adjustments must be carried out exclusively by professionals who have been specifically trained by the manufacturer.

Machine programming can be accessed through the front control panel display and the 3 navigation buttons below the display, which can change their function according to the menu that is displayed.



Starting from the main screen, push the MENU button for 2 seconds. The display will show:

1- PASSWORD MENU
Push ↵ to access this menu. The display will show:

Use ↑ or ↓ buttons to choose the Service password level.
Default passwords: User PW: 0000
Service PW: 11111

To enter the password, push ↑ or ↓ until the desired value is displayed, then push ↵ to confirm it. Once you have entered the last value, if the password is wrong, WRONG PASSWORD will be shown and the main screen will be displayed. If the password is correct, the following menu will be displayed:

Use ↑ or ↓ to choose the menu you want to explore and push ↵ to access it.

2- INFO
See “USER AND MAINTENANCE MANUAL”.

3- STEAM BOILER ENABLING
This menu allows you to enable or disable steam boiler.
Push ↵ to access this menu. The display will show:

Push ↵ again to highlight the value, then use ↑ or ↓ to choose the desired option and push ↵ to confirm it.
Push ESC to go back to previous menu.

4- TIMER SET UP
This menu allows to enable, disable and program the weekly timer for each unit. It is also possible to choose between 2 modes:
- **OFF mode** – the unit is turned off completely at the desired time and will therefore cool off.
- **SAFETY mode** – the unit reaches a safety temperature at the desired time. Since it does not cool off completely, it will heat up more quickly.

Select the menu item and push ↵ to enter.

4-1 Push ↵ again to highlight the mode.
Use ↑ or ↓ to choose YES to enable the timer, then push ↵ to confirm it.
Push ESC to go back to previous menu.

Use ↑ or ↓ to choose the day to be programmed, then push ↵ to access the programming:

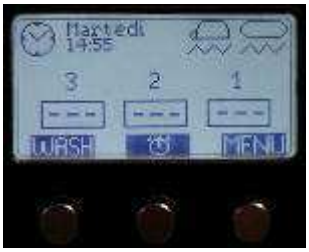
Push ↵ to start timer programming for each unit, starting from steam boiler.
Use ↑ or ↓ to change boiler turn-on time, then push ↵ to confirm.
By confirming, you get to the next value. Use ↑ or ↓ to change it, then push ↵ to confirm it.

Once the programming of all units has been finished, push ↓ until you get to the previous menu to program the other days of the week.

Use ↑ or ↓ to choose “Copy” and then push ↵ to copy the Monday program to the other days of the week. The display will show:

Use ↑ or ↓ to change the day to which values shall be copied, then push ↵ to confirm.
Copy the daily program set to all the other days. Otherwise, enter the day you wish to program differently and follow the above-mentioned steps.
If the ON / OFF values of each unit are set on 00:00 on a specific day, the unit will be off throughout that day.

Once all the days of the week have been programmed, push ESC and then ↓ until you get to main menu.



This picture shows the clock icon and the boxes corresponding to the groups. When 3 hyphens are shown in each box, it means timer is enabled and groups are in stand-by mode.

5- TEMPERATURES SET UP
Push ↵ to access this menu. The display will show:

Use ↑ or ↓ to choose the desired menu, then push ↵ to enter.

5-1 Steam boiler temperature
Push ↵ to access this menu. The display will show:

5-1-1 Steam boiler temperature set up
Push ↵ to access this menu and set up steam boiler temperature (default setting: 120°).

Push ↵ to highlight the set value, then use ↑ or ↓ to change it, push ↵ again to confirm it and then ESC to go back to previous menu.

5-1-2 Boiler Delta T
This value can be changed only after consulting the manufacturer (default setting: 2°C).

Push ↓ to go back to previous menu.

5-2 Group temperatures set up
Push ↵ to access this menu. The display will show:

5-2-1 Group 1 temperature set up
Push ↵ to access this menu and change GROUP 1 temperature set up (default setting: 95C°).

Push ↵ again to highlight the pre-set value, then use ↑ or ↓ to change it, push ↵ again to confirm it and then ESC to go back to previous menu.
Follow the same instructions to change the temperatures of all the other machine groups (5-2-2, 5-2-3, 5-2-4).

Do not

5-3 Group extra set
change this value to avoid jeopardizing group stability (default setting: 2°C).

5-4 MCS steam temperature set up
Push ↵ to access this menu and change the temperature limit the MCS must not exceed (default setting: 55C°).

Push ↵ again to highlight the pre-set value, then use ↑ or ↓ to change it, push ↵ again to confirm it and then ESC to go back to previous menu.
Push ↓ to go back to main menu.

6- MACHINE SET UP
Push ↵ to access this menu.

6-1 Group number
This menu is used to set the number of groups to be managed by electronic control.
This menu is set up by the manufacturer depending on the number of groups the electronic control must manage.
Push ↵ to access this menu.

Push ↵ again to highlight the set value, then use ↑ or ↓ to change it, push ↵ again to confirm it and then ESC to go back to previous menu.

6-2 Steam
This menu is used to enable or disable the MCS.
Push ↵ to access this menu.

Push ↵ again to highlight the pre-set value, then use ↑ or ↓ to change it, push ↵ again to confirm it and then ESC to go back to previous menu.

6-3 Serial number
This menu is used to enter the machine serial number, which is set by the manufacturer.

6-4 Continuous pouring

This menu is used to enable or disable the continuous pouring button on each group.

Push ↵ to access this menu.

Push ↵ again to highlight the pre-set value, then use ↑ or ↓ to change it, push ↵ again to confirm it and then ESC to go back to previous menu.

Note: when the continuous pouring button is disabled, that same button can be used for the 2-second “flash” function.

6-5 Auto-fill time-out

This menu is used to set the auto-fill blocking timer (default time: 4 minutes for the 2-group, 6 minutes for the 3-4-group).

Usually, this operation is carried out by the manufacturer during machine testing.

Push ↵ again to highlight the set value, then use ↑ or ↓ to change it, push ↵ again to confirm it and then ESC to go back to previous menu.

6-6 Steam time-out

This menu is used to adjust the timer blocking the MCS when the MCS temperature probe does not sense milk temperature (default setting: 60 seconds).

Usually, this operation is carried out by the manufacturer during machine testing.

Push ↵ again to highlight the set value, then use ↑ or ↓ to change it, push ↵ again to confirm it and then ESC to go back to previous menu.

6-7 Temperatures display

This menu is used to enable or disable temperatures display in the “info menu”.

Push ↵ to access this menu.

Push ↵ to highlight the set value, then use ↑ or ↓ to change it, push ↵ again to confirm it and then ESC to go back to previous menu.

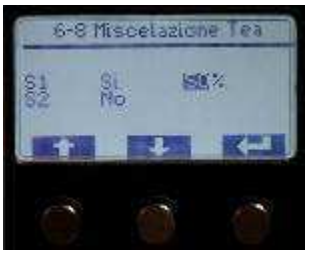
6-8 Water mixing for tea

This menu is used to enable and adjust water mixing with the two hot water buttons.

The default settings are: S1=NO S2=NO

Push ↵ to access this menu.

Push ↵ to select S1, then ↵ again to decide whether to enable the function or not, then ↵ again to select the value to be changed. Use ↑ or ↓ to change the value, push ↵ again to confirm it.



To adjust the second selection, use ↑ or ↓ to highlight it, then repeat the above-mentioned steps.

Once water mixing for tea has been programmed, push ↓ repeatedly to go back to main menu.

7-DOSES SET UP

This menu is used to program the coffee doses corresponding to the S1-S2-S3-S4 buttons of each group and the hot water quantity corresponding to S1-S2 buttons.

Push ↵ to access this menu.

7-1 Group 1

Push ↵ to enter the programming of the 4 pre-set dose buttons.

Extract a single coffee by pushing the S1 button of group 1, then push S1 again to stop extraction at desired dose. Repeat this operation on S2 (short double dose), S3 (long single dose), S4 (long double dose).

The new set values will be shown at the end of each programming operation. Once group 1 has been programmed, push ESC to go back to previous menu.

To set up different doses on each group, follow the 7-1 instructions.

7-5 Copy group 1 doses to the other machine groups. Push ↵ to access this menu.

Push ↵ to confirm the group of origin, then ↑ to choose the group of destination and ↵ to confirm duplication.
Repeat the operation on the groups you wish to copy group 1 data to.
At the end of the operation, push ESC to go back to previous screen.

7-4 Dose set up for hot water buttons
Push ↵ to access this menu.

Access this menu, push S1 on the hot water control panel and push it again when the desired dose has been reached to stop and save the setting.
Repeat the same steps on the second hot water button. At the end of the operation, push ESC to go back to previous screen.
Once all doses have been set up, push ↵ repeatedly to go back to main menu.

8-DATA SET UP
This menu is used to set up language, measure, display contrast and clock. These operations are usually carried out by the manufacturer, but it can be necessary to adjust the settings depending on the country the coffee machine is destined to.
Push ↵ to access this menu.

8-1 Language
Push ↵ to access this menu.

Push ↵ again to highlight the language to be changed, then use ↑ or ↓ to choose the desired language, then push ↵ again to confirm it.

At the end of the operation, push ESC to go back to previous screen.

8-2 Temperature system of measurement
Push ↵ to access this menu.

Push ↵ again to highlight the measure to be changed, then use ↑ or ↓ to change it, then push ↵ again to confirm it.
At the end of the operation, push ESC to go back to previous screen.
S.I. = International System, U.S.A = American System

8-3 Display contrast adjustment
Push ↵ to access this menu.

Push ↵ again to highlight the contrast to be adjusted, use ↑ or ↓ to adjust it and push ↵ again to confirm.

At the end of the operation, push ESC to go back to previous screen.

8-4 Day and time adjustment
This operation is usually carried out by the manufacturer during machine testing.
Push ↵ to access this menu.

Push ↵ again to highlight the day to be changed, use ↑ or ↓ to set the actual day and push ↵ again to confirm it.
Once the value has been confirmed, the next value will be automatically displayed.

Use ↑ or ↓ to change day number, then push ↵ again to confirm.
Once the value has been confirmed, the next value will be automatically displayed.
Go on with the same steps to set up month, year, hour and minutes. When the last value is confirmed, the previous menu will be automatically displayed.

8-5 Daylight saving time
This menu is used to enable or disable daylight saving time automatically.

Push ↵ to access this menu.

Use ↑ or ↓ to change the value, then push ↵ again to confirm it.

At the end of the operation, push ESC to go back to previous screen.

8-6 Customer's corporate name entering
Push ↵ to access this menu.
Push ↵ again to highlight the value.
Use ↑ or ↓ to change the value, then push ↵ again to confirm it.
At the end of the operation, push ESC to go back to previous screen.

Push ↵ to enable letter writing.
Use ↑ or ↓ to enter the desired letter, then push ↵ again to confirm it.
And so on, until the desired text has been entered.
At the end of the operation, push ESC to go back to previous screen.

9- GRINDER SET UP
This menu is used to enable and set up the control of DC ONE or DC II coffee grinder (GCS function).
Push ↵ to access this menu.

9-1 Enable
Push ↵ to change set value.

Push ↵ again to highlight the value, then use ↑ or ↓ to change it and push ↵ again to confirm it.

At the end of the operation, push ESC to go back to previous screen.

After enabling the GCS function, it is necessary to specify the type of connecting port that will be used, which depends on the type of grinder in use.

9-2 Grinder type

Push ↵ to access this menu.

Note: With DC ONE grinders, DC1 serial port must be used.

To connect a DC II grinder, on the other hand, it is necessary to install a 485-232 port converter (optional).

Push ↵ again to highlight the type.

Use ↑ or ↓ to change the type, push ↵ again to confirm.

Push ESC to go back to previous menu.

9-3 Correct grind range set up

Push ↵ to access this menu.

Push ↵ again to highlight the value. Use ↑ or ↓ to set the desired percentage, then push ↵ again to confirm.

At the end of the operation, push ESC to go back to previous screen.

Note: 10% is the default setting, suitable in 95% of cases.

9-4 Set up of number of extractions for grind adjustment

Push ↵ to access this menu.

Use ↑ or ↓ to enter the number of extractions after which grind shall be adjusted, then push ↵ again to confirm.

At the end of the operation, push ESC to go back to previous screen.

Note: 5 is the default setting, suitable in 95% of cases.

9-5 Set up of GCS extractions time-out

This menu is used to set up a time-out gap between the pouring of ground coffee from grinder and the extraction of that same coffee on coffee machine. If this time-out is exceeded, the extracted coffee won't be counted in the mean necessary for grinder adjustment. Push ↵ to access this menu.

Push ↵ to highlight the value to be changed.
Use ↑ or ↓ to change the value, then push ↵ again to confirm it.
At the end of the operation, push ESC to go back to previous screen.
Note: 15 secs is the default setting, suitable in 90% of cases.

9-6 Set up of GCS enabled groups.
This menu is used to exclude some groups from the GCS function (necessary, for example, when a group is used with ground coffee from a grinder that is not connected to coffee machine).
Push ↵ to access this menu.

<u>9-6-1/2/3/4</u>
Push ↵ to access this menu.

Push ↵ again to highlight the value to be changed.
Use ↑ or ↓ to enable or disable group 1 for GCS management, then push ↵ again to confirm.
At the end of the operation, push ESC to go back to previous screen.
Note: all machine groups are enabled by default.

10- MAINTENANCE REQUEST MENU
This menu is used to set a maximum number of working cycles on some components (e.g. water pump) after which the display shows a maintenance request warning for the specified component.
When the values of working cycles are set on 0 (default setting), this function is disabled.

10-1 Group 1
Push ↵ to access this menu.

Push ↵ again to highlight the value to be changed.
Use ↑ or ↓ to enter a number of cycles after which a maintenance request warning indicating the group that has completed the pre-set number of cycles will be displayed, then push ↵ to confirm.
At the end of the operation, push ESC to go back to previous screen.
Enter the number of cycles for the other groups following the above-mentioned instructions.

Note: The existing cycle count must be reset before setting a number of cycles and enabling the function.

11-Menu reset
This menu is used to reset partial and total coffee dose counters, etc. from the electronic control memory.
Push ↵ to access this menu.

11-1 Partial coffee dose counters
Push ↵ to access this menu.

11-1-1/2/3/4/5 Partial counters
Push ↵ to access this menu.
Use ↑ or ↓ to highlight YES, then push ↵ to confirm the reset. Once the reset has been completed, the previous screen will be shown automatically. Once the reset of the desired group has been completed, push ↓ to go back to previous screen.

11-2 Total counters
Push ↵ to access this menu.

11-2-1/2/3/4/5 Total counters
Push ↵ to access this menu.
Use ↑ or ↓ to highlight YES, then push ↵ to confirm the reset. Once the reset has been completed, the previous screen will be shown automatically. Once the reset of the desired group has been completed, push ↓ to go back to previous screen.

11-3 Alarms memory
Push ↵ to access this menu.

Push ↵ to access this menu.
Use ↑ or ↓ to highlight YES, then push ↵ to confirm the reset. Once the reset has been completed, the previous screen will be shown automatically. Once the reset of the desired group has been completed, push ↓ to go back to previous screen.

11-4 Cleaning cycles counters
Push ↵ to access this menu.

Use ↑ or ↓ to highlight YES, then push ↵ to confirm the reset. Once the reset has been completed, the previous screen will be shown automatically. Once the reset of the desired group has been completed, push ↓ to go back to previous screen.

11-5 Working cycles counters
Push ↵ to access this menu.

11-5-1/2/3/4/5/6/7/8
Push ↵ to access the menu of the counter you wish to reset.

Push ↵ to access this menu.
Use ↑ or ↓ to highlight YES, then push ↵ to confirm the reset. Once the reset has been completed, the previous screen will be shown automatically. Once the reset of the desired group has been completed, push ↓ to go back to main screen.

ALARM CONTROL

The electronic system of this espresso machine manages all machine functions and controls their correct execution.
In case of anomalies, an alarm is recorded and/or displayed.

An alarm can be triggered also by an improper use of the espresso machine. In this case, it will be sufficient to correct the improper use.

Some alarms are non-influential for the proper functioning of the machine and, more importantly, for the user's safety. These alarms are not stored in the system memory. These alarms will be marked with “A”.
Other alarms are displayed and recorded with their triggering date and time. They can block the anomalously functioning part. These alarms will be marked with “ABP”.
Finally, there are a few alarms that totally block the machine and are marked as “ABT”.

Type “A” alarms

"Gr.1 time-out",
This alarm is triggered when an extraction is made on group 1 through the P5 – “continuous pouring” button for more than 120 seconds.
"Gr.2 time-out",
This alarm is triggered when an extraction is made on group 2 through the P5 – “continuous pouring” button for more than 120 seconds.
"Gr.3 time-out",
This alarm is triggered when an extraction is made on group 3 through the P5 – “continuous pouring” button for more than 120 seconds.
"Gr.4 time-out",
This alarm is triggered when an extraction is made on group 4 through the P5 – “continuous pouring” button for more than 120 seconds.
"Steam time-out",
This alarm is triggered when steam is produced through the MCS but the milk temperature probe does not reach 30°C within 60 seconds.

Type “ABP” alarms

"Steam boiler time-out",
This alarm is triggered when the steam boiler does not reach the temperature of 40°C within 10 minutes of turning on. Push the DEL button on display to delete the alarm.
"Boiler probe interrupted"
This alarm is triggered when boiler temperature probe is out of the range.
"Boiler probe short circuit"
This alarm is triggered when boiler temperature probe is out of the range.
"Boiler high temperature"
This alarm is triggered when boiler temperature probe is out of the range, exceeding 127,5°C.
"Steam probe interrupted"
This alarm is triggered when MCS probe is out of the range.

"Steam probe short circuit"
This alarm is triggered when MCS probe is out of the range.
"Gr.1 probe time-out"
This alarm is triggered when group 1 does not reach the temperature of 50°C within 5 minutes of turning on. Push the DEL button on display to delete the alarm.
"Gr.1 probe interrupted"
This alarm is triggered when group 1 temperature probe is out of the range.
"Gr.1 probe short circuit"
This alarm is triggered when group 1 temperature probe is out of the range.
"Gr.1 high temperature"
This alarm is triggered when group 1 temperature exceeds 120°C.
"Gr.2 probe time-out"
This alarm is triggered when group 2 does not reach the temperature of 50°C within 5 minutes of turning on. Push the DEL button on display to delete the alarm.
"Gr.2 probe interrupted"
This alarm is triggered when group 2 temperature probe is out of the range.
"Gr.2 probe short circuit"
This alarm is triggered when group 2 temperature probe is out of the range.
"Gr.2 high temperature"
This alarm is triggered when group 2 temperature exceeds 120°C.
"Gr.3 probe time-out"
This alarm is triggered when group 3 does not reach the temperature of 50°C within 5 minutes of turning on. Push the DEL button on display to delete the alarm.
"Gr.3 probe interrupted"
This alarm is triggered when group 3 temperature probe is out of the range.
"Gr.3 probe short circuit"
This alarm is triggered when group 3 temperature probe is out of the range.
"Gr.3 high temperature"
This alarm is triggered when group 3 temperature exceeds 120°C.
"Gr.4 probe time-out"
This alarm is triggered when group 4 does not reach the temperature of 50°C within 5 minutes of turning on. Push the DEL button on display to delete the alarm.
"Gr.4 probe interrupted"
This alarm is triggered when group 4 temperature probe is out of the range.
"Gr.4 probe short circuit"
This alarm is triggered when group 4 temperature probe is out of the range.
"Gr.4 high temperature"
This alarm is triggered when group 4 temperature exceeds 120°C.
"Gr.1 volume control failure",
This alarm is triggered when, during an extraction on group 1, the electronic control does not receive impulses from group 1 flow meter.
"Gr.2 volume control failure",
This alarm is triggered when, during an extraction on group 2, the electronic control does not receive impulses from group 2 flow meter.
"Gr.3 volume control failure",
This alarm is triggered when, during an extraction on group 3, the electronic control does not receive impulses from group 3 flow meter.

"Gr.4 volume control failure”,
This alarm is triggered when, during an extraction on group 4, the electronic control does not receive impulses from group 4 flow meter.
"Auto-fill time-out",
This alarm is triggered when the auto-filling mechanism cannot bring water in the boiler back to its working level within the pre-set time.
"Safety level",
This alarm is triggered when level of water in boiler drops under the safety limit.
"CPU serial failure",
This alarm is triggered when the serial transmission between front electronic plate and electronic power card does not work.
"Grinder serial failure",
This alarm is triggered when espresso machine and grinder cannot communicate (GCS function).
"Cash serial failure",
This alarm is triggered when espresso machine and cash system cannot communicate.
"Data loss",
This alarm is triggered when data in the EEPROM are lost, i.e. all data set during the installation are lost and the machine works with its factory settings.
"Clock failure",
This alarm is triggered when the clock internal module does not work. If the timer is enabled, it will be disabled automatically.

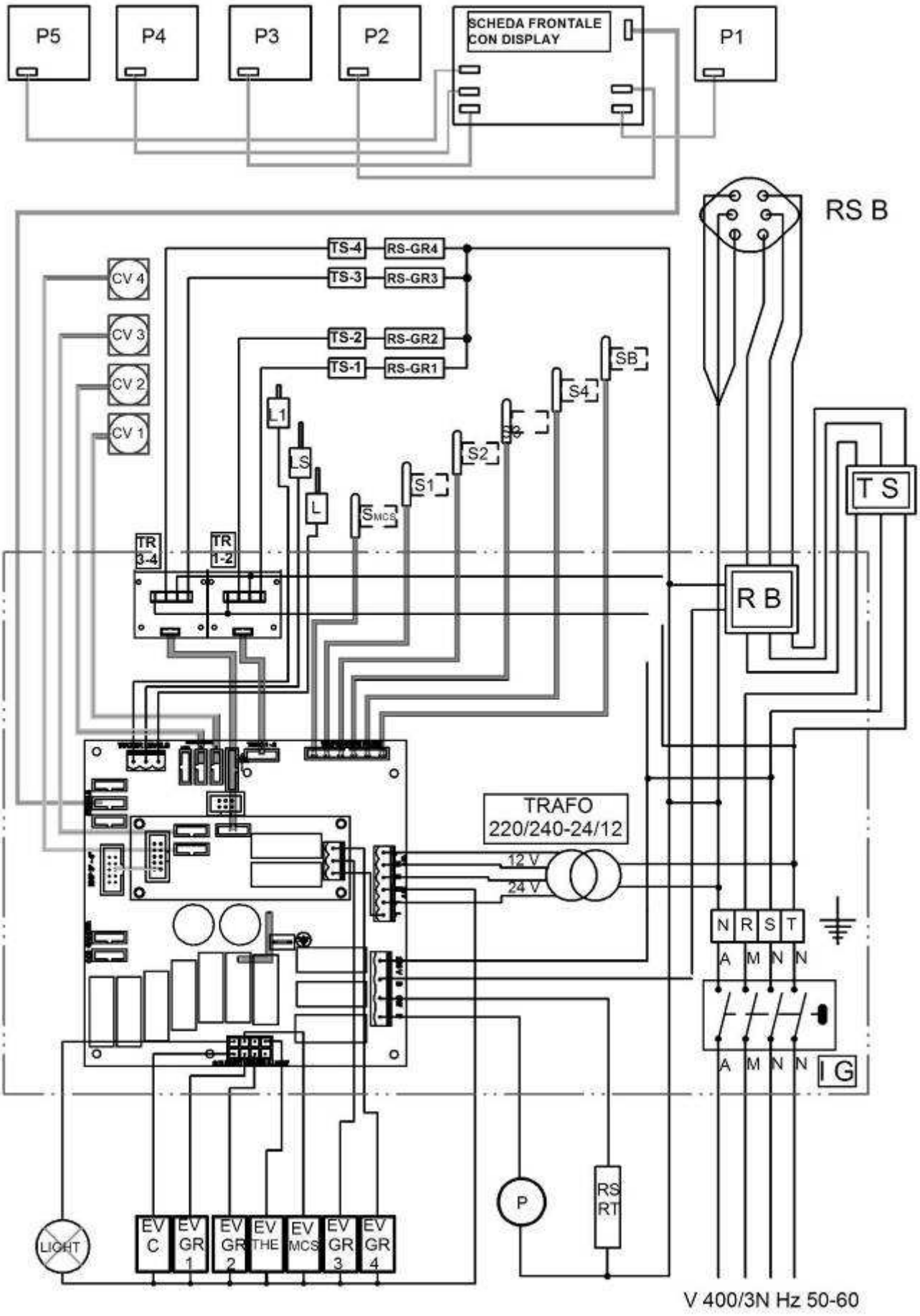
Type “ABT” alarms

"24V alarm",
This alarm is triggered when the 24 volt tension necessary for the functioning of all inner components is missing.

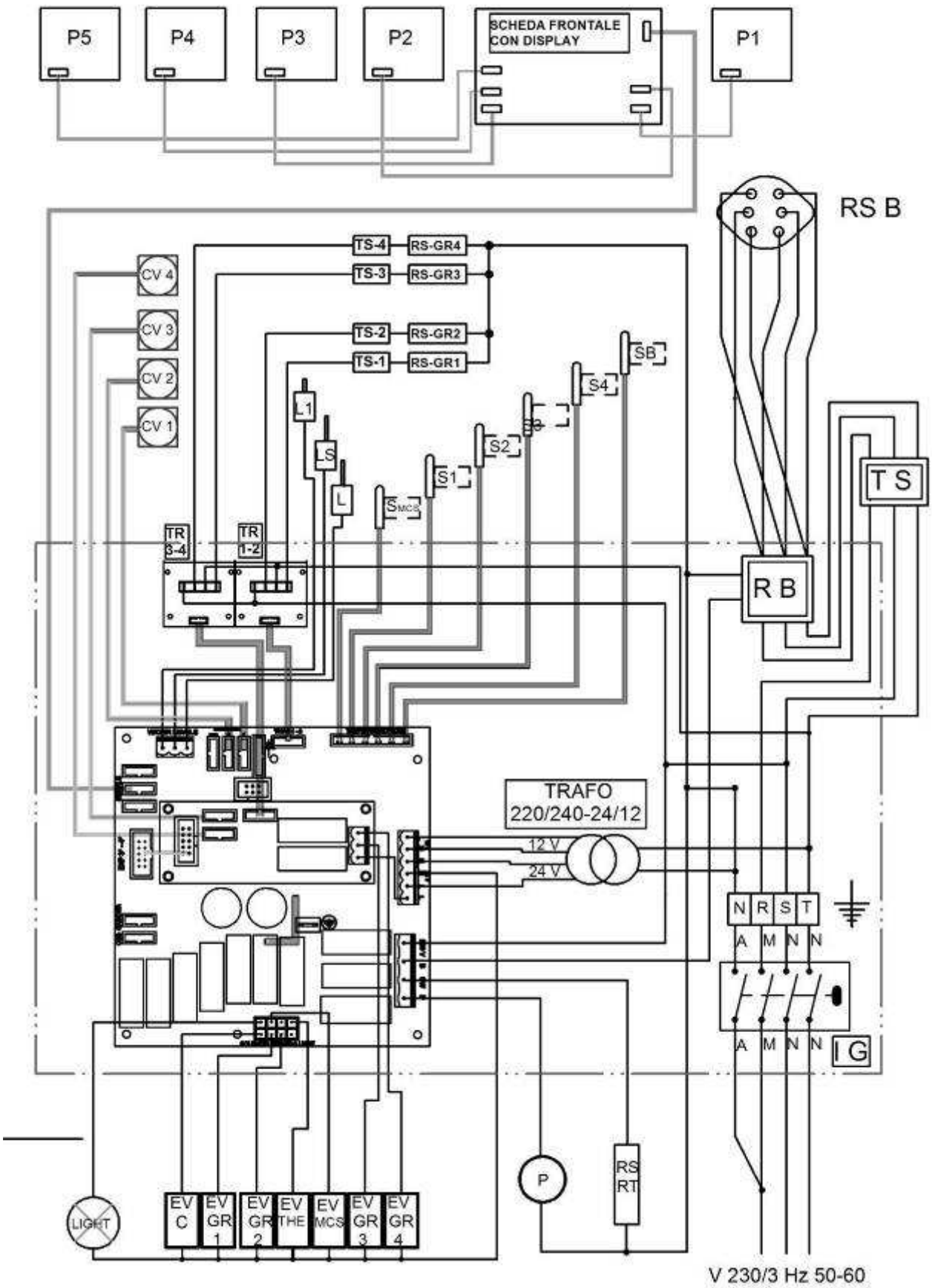
WIRING DIAGRAM LEGEND

P1-	Group 1 push buttons panel (first on the right)
P2-	Group 2 push buttons panel
P3-	Group 3 push buttons panel
P4-	Group 4 push buttons panel
P5-	Service push buttons panel
RSB-	Steam boiler resistance
TS-	Steam boiler safety thermostat
RB-	Steam boiler 3-phase relay
IG-	Machine main switch
TRAFO-	24V transformer for electrovalves and electronic control
RS-	Cup warmer resistance
P-	Motor pump
EVC-	Steam boiler electrovalve
EV gr1-	Group 1 electrovalve
EV gr2-	Group 2 electrovalve
EV gr3-	Group 3 electrovalve
EV gr4-	Group 4 electrovalve
EV the-	Hot water jet electrovalve
EV mcs-	MCS electrovalve (optional)
TR 1-2-	Group 1-2 triac
TR 3-4-	Group 3-4 triac
TS 1-	Group 1 safety thermostat
TS 2-	Group 2 safety thermostat
TS 3-	Group 3 safety thermostat
TS 4-	Group 4 safety thermostat
RS gr1-	Group 1 heating resistance
RS gr2-	Group 2 heating resistance
RS gr3-	Group 3 heating resistance
RS gr4-	Group 4 heating resistance
CV 1-	Group 1 flow meter
CV 2-	Group 2 flow meter
CV 3-	Group 3 flow meter
CV 4-	Group 4 flow meter
L 1-	Auto-fill probe
L S-	Safety level probe
L -	Ground reference probe for L1 – LS level probes
S mcs-	MCS temperature sensor
S 1-	Group 1 temperature sensor
S 2-	Group 2 temperature sensor
S 3-	Group 3 temperature sensor
S 4-	Group 4 temperature sensor
S B-	Steam boiler temperature sensor
Light-	Front lighting

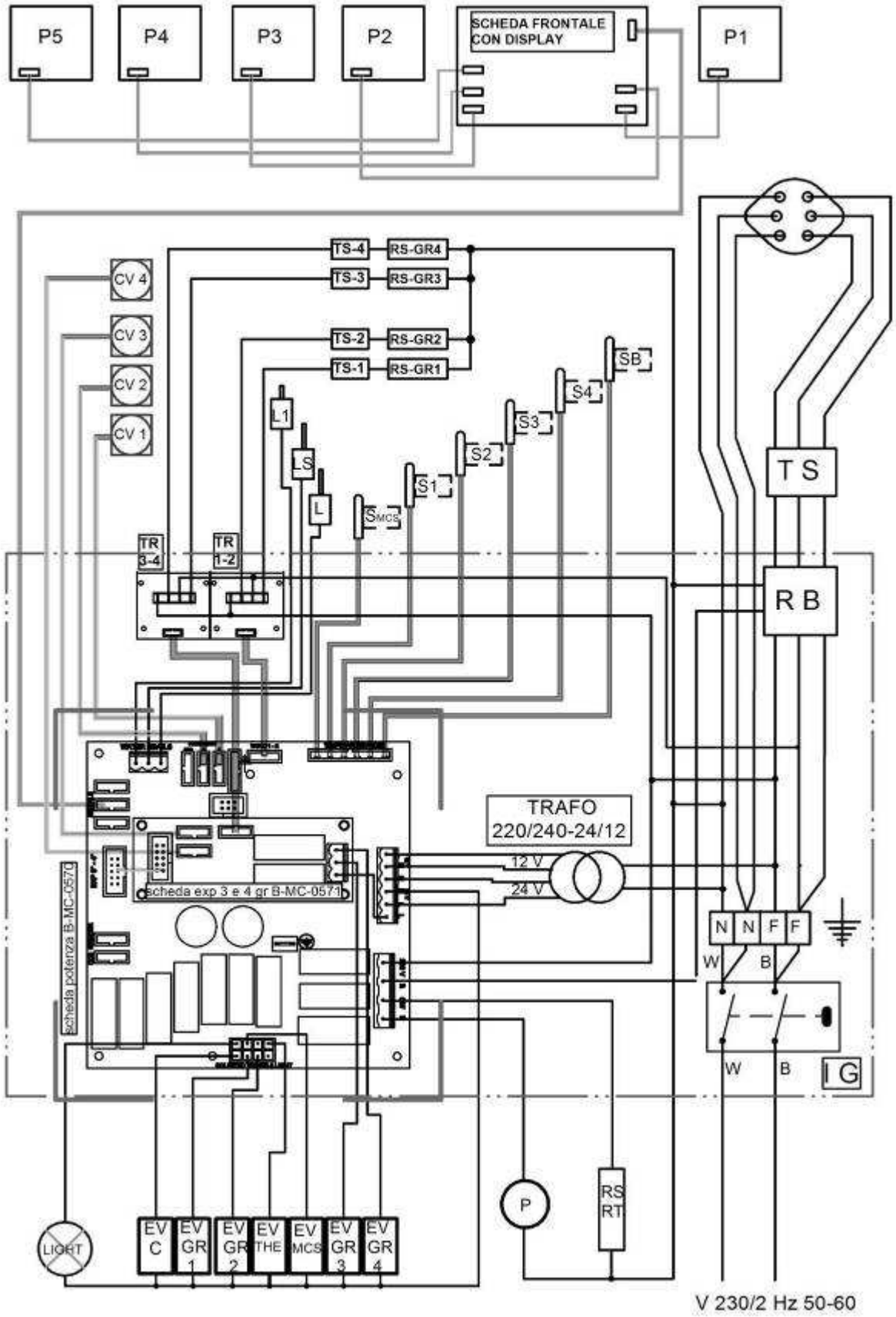
SCHEMA ELETTRICO V 400/3N Hz 50-60



SCHEMA ELETTRICO V 230/3 Hz 50-60



SCHEMA ELETTRICO V 230/2 Hz 50-60



MOTHER-BOARD