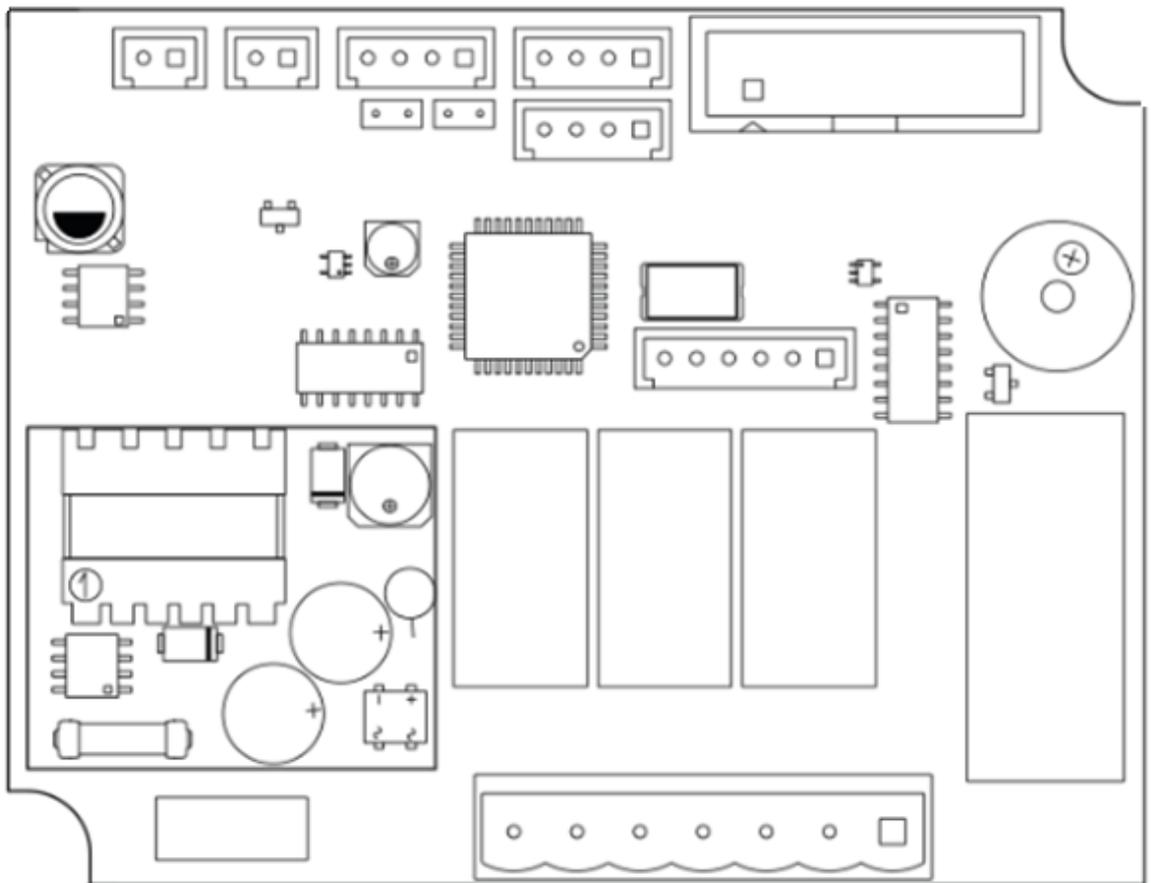


Coffee Machine Control Board

CGSM1G

Instruction Manual



PREFACE

Thank you for purchasing our **CGSM1G**, Control board for the Coffee machine.

This manual contains instructions for the mounting, functions, operations, and notes when operating the **CGSM1G**. To ensure safe and correct use, thoroughly read and understand this manual before using this instrument.

To prevent accidents arising from the misuse of this instrument, please ensure the operator receives this manual.

HAZARD INTENSITY LEVELS

The level of risk and importance of the notification is determined by the following definitions. Always observe the warnings to ensure safety and prevent potential injury and product damage.



Important:

Alerts against unsafe practices. Observe *Important* notifications to prevent possible minor personal injury or damage to the board.



Warning:

Indicates a potentially hazardous situation that, if the *Warning* is ignored, could result in injury or death.



Note:

Gives additional information which may be helpful for the proper operation of the board.

**WARNINGS:**

Note: TIFATECH Co., Ltd declines all responsibility for damage to persons or property resulting from failure to follow the instructions and warning listed below when installing and using this board.

- Ensure every part of the machine including actuators and sensors is working properly before replacing the new control board.
- Ensure that the power supply voltage does not fluctuate by more than 6%.
- Before mounting or removing the control board, disconnect it from the power supply and wait a while for it to cool down.
- Do not remove any original electrical part of the board.
- Repairing, cleaning, or parts replacement should only be performed by **TIFATECH** or other qualified service personnel.
- Children should never be allowed to play with the board.
- This board is intended to only use for the espresso coffee machine control board. Do not use it for any other purpose.

**PRECAUTIONS****❖ Installation precautions**

Read thoroughly the following conditions before installing the **CGSM1G** board to the coffee machine.

The mounting location must be:

- No flammable, explosive gases
- No exposure to water.
- An ambient temperature of 0 to 70°C that does not change rapidly, and no icing.
- An ambient non-condensing humidity of 35 to 85 %RH.

❖ Operation and Maintenance Precautions

- Do not touch live terminals. This may cause an electrical shock or problems in operation.

- Ensure the board surface is completely dry before powering.
- Periodic cleaning will reduce the risk of damaging the board.

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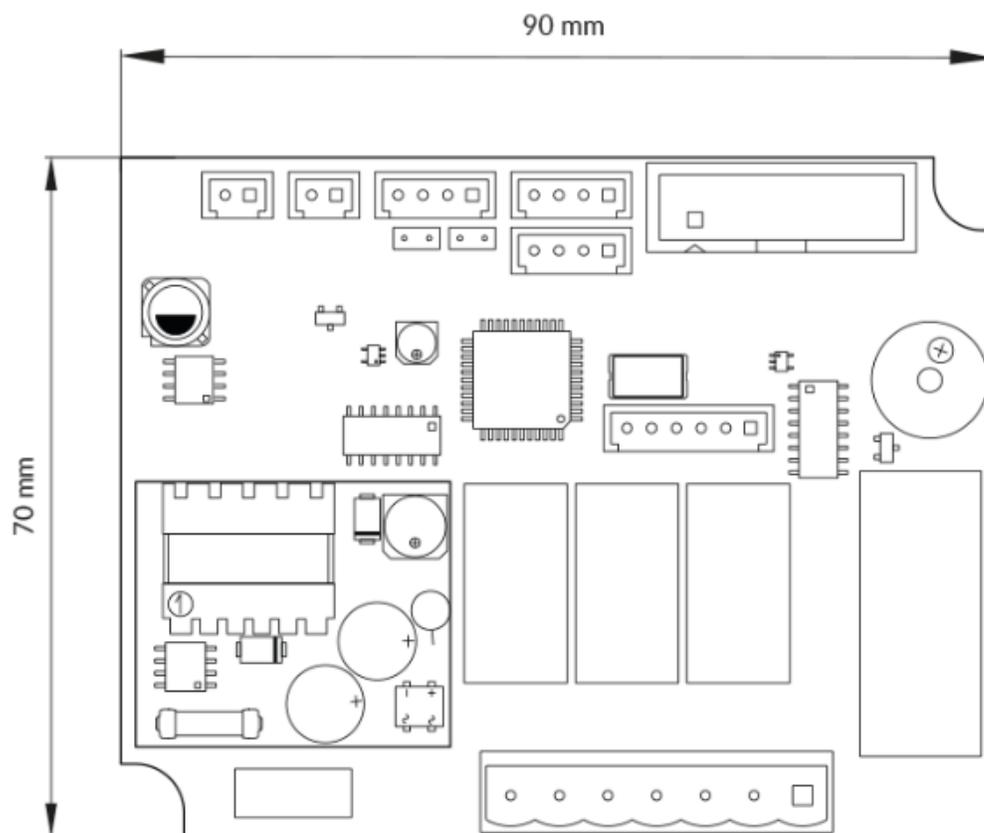
I. GENERAL

1. Introduction

- This manual contains important instructions regarding the safe intended use of the machine.
- If any damaged or loss to this manual, request a copy from the **TIFATECH** manufacturer.

II. TECHNICAL SPECIFICATIONS

1. Dimensions (mm)



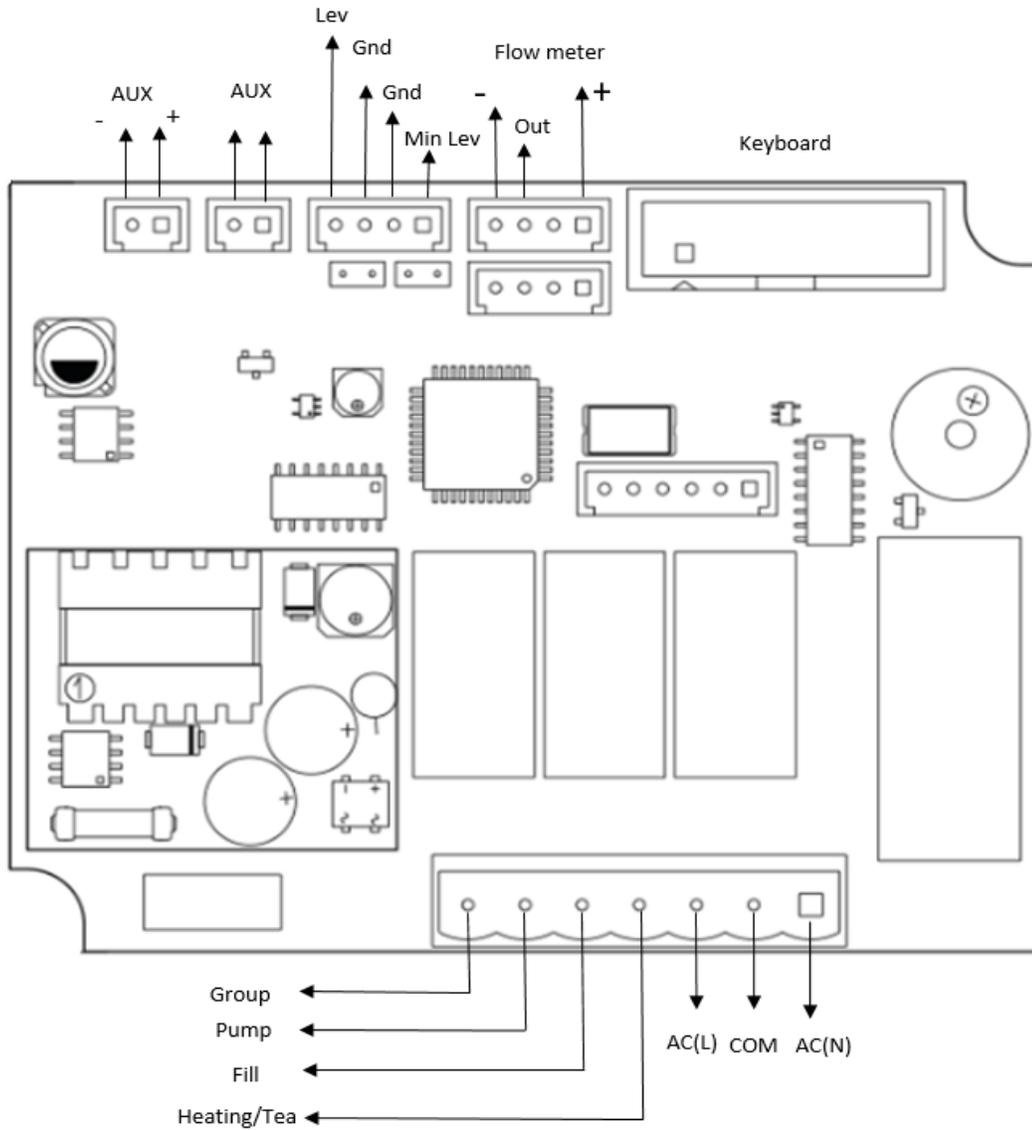
2. Specifications

- ❖ Power supply: 230V AC 50/60Hz
- ❖ Actuator voltage: 230V AC



Note: Please contact us if your country doesn't support the power supply required above.

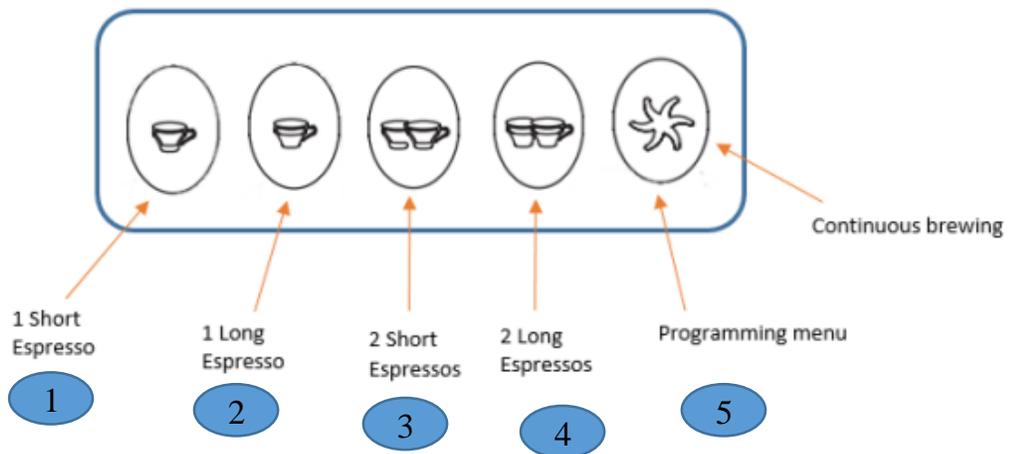
III. WIRING



Important: Any mistake in connecting actuators will affect the normal operation of the coffee machine, and even cause damage.

Terminal	Description
AUX	Temperature probe
AUX+-	Solid state relay (SSR) for heating control
Lev	Level probe for boiler
Min Lev	Level probe for tank
Gnd	Ground
Flow meter	Water flow meter signal input
Keyboard	Keyboard input
Group	Solenoid valve of group
Pump	Pump input
Fill	Solenoid valve of filling
Heating/Tea	Solenoid valve of hot water
COM	Load common
AC(L), AC(N)	Power supply AC 220V

IV. PROGRAMMING AND USE



1. Programming standard dose

Keys will be identified by a number between 1 and 5 like the image above.

To program coffee doses dispensed automatically by each drink button, follow the steps below:

Step 1: Press and hold the  key for 5 seconds to enter the setting mode. This button light starts to blink at 1 second period.

Step 2: Press the dispensing option that you wish to program. The selected button light will be on along with the fifth button.

Step 3: After reaching the desired dose, press the concerned button to save its dose. The programmed button light will be off while the others will be on.

Step 4: Repeat the steps above to program for other options. Otherwise, move to the next step.

Step 5: Wait for 3 seconds until all lights turn on to finish the setting process.

2. Coffee dispensing

- Press any drink button between 1 and 4 to start to dispense coffee. The light on pressed button is on and the rests are off.

- Press the  key to stop dispensing immediately or it will stop automatically when reaching the programmed dosage. All lights return to on state.

3. Control boiler temperature (*Contact us if your need this function*)

Switch off the machine, press button 1 and 5 at the same time then turn it on again

Button 1, 2, 3 will represent hundreds, tens and units of temperature setting, accordingly.

Example:

- Button 1 flashes once
- Button 2 flashes twice
- Button 3 flashes four times

⇒ The temperature is set at 124.

To make changes on it, press button 4 (decrease) or 5 (increase).

The default setting is 123.

Adjustment range: 120 – 128 °C.

4. Pre-infusion

Power up the machine and make it ready to use.

Switch the machine off while press and hold down button  for activating or button  for deactivating, then turn the machine on again.

5. Automatic group cleaning

- Press button 1 and 5 simultaneously to perform auto-cleaning on the group. These buttons' lights blink at 1 second period.
- The pump and group valve will begin to turn on in 5 seconds then turn off in the next 5 seconds. This process repeats 10 times before finishing.
- Press button 5 twice to stop the cleaning process immediately. All lights are on.

6. Sleep mode

When the machine is turned on, press button 3 while keep pressing button 5, all lights turn off except for button 5 flashes each 1 seconds.

Press any drink button to exit from this mode.

7. Reset to the factory default

Turn the machine off, press and hold down button 1, 3, 5 then turn it on again. Release if the setting button light begin to flash at the 2s period.

Switch off then on again to restart the machine.

V. Filling

When the machine detects the boiler level falling below the low limit, the pump and filling solenoid valvel will be opened for filling the boiler up.

VI. Heating control

In addition to Heating relay, SSR can also be used for controlling the heating element.

If the machine is being in the filling process or encountering one of the malfunction mentioned below (see *VII.*), it will stop to heat until these states end.

VII. ERROR DETECTION AND TROUBLESHOOTING

1. Filling time-out

If the filling time is longer than 120s but the boiler's level is still under the minimum, the siren will start to sound while all lights blink. The heating element will also be shut down.

⇒ Tried restarting the machine and check for the level sensor, filling solenoid valve or the water supply source if the situation continue.

2. Tank level is low

- If the tank level falls below the minimal threshold, a siren will sound and all lights will flash.
- When being in this condition, the heating element will continue to work unless the boiler also runs out of water.

- All relevant alarms will also temporarily stop if any dispensing process occurs.

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