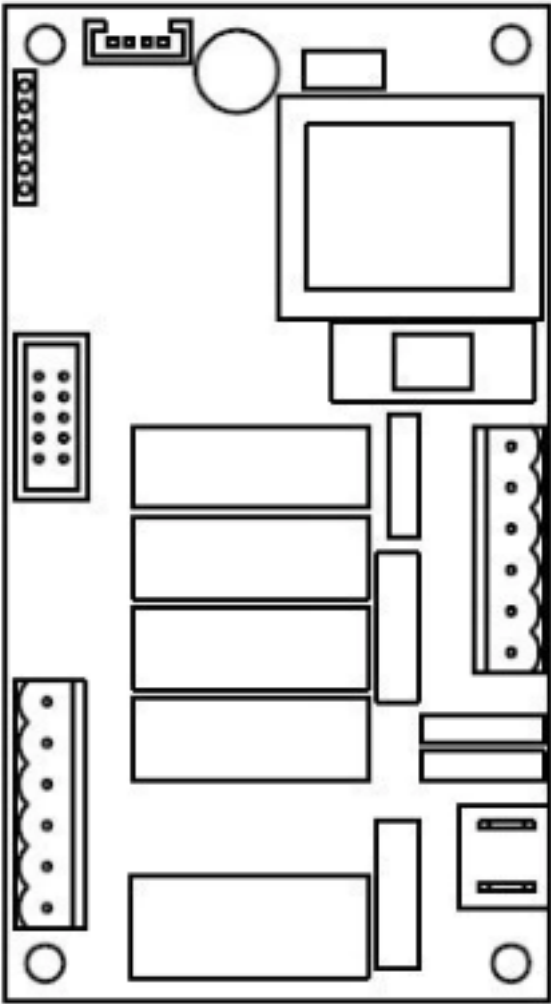


Coffee Machine Control Board

CNS1G

Instruction Manual



PREFACE

Thank you for purchasing our **CNS1G**, Control board for the Coffee machine.

This manual contains instructions for mounting, functions, operations, and notes when operating the **CNS1G**. 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 **CNS1G** 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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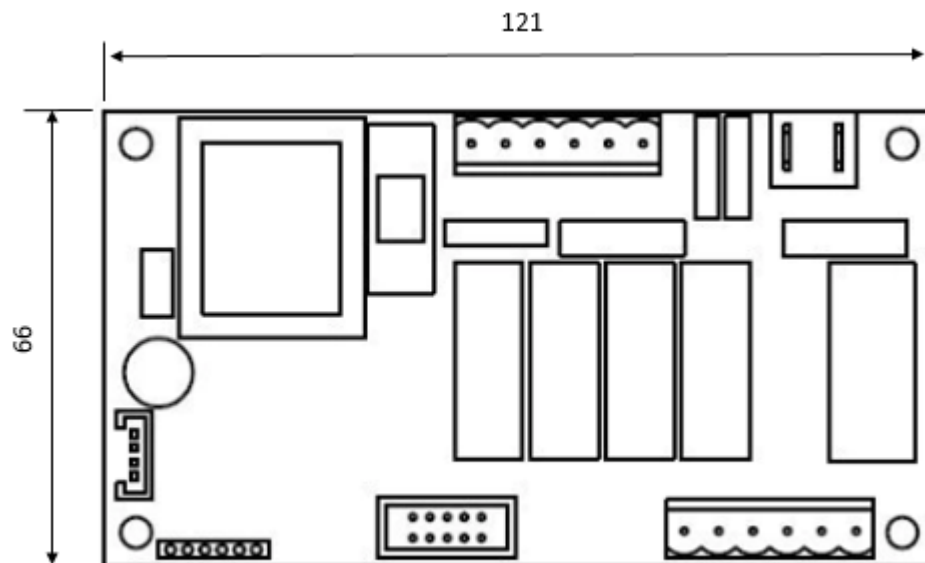
I. GENERAL

1. Introduction

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

II. TECHNICAL SPECIFICATIONS

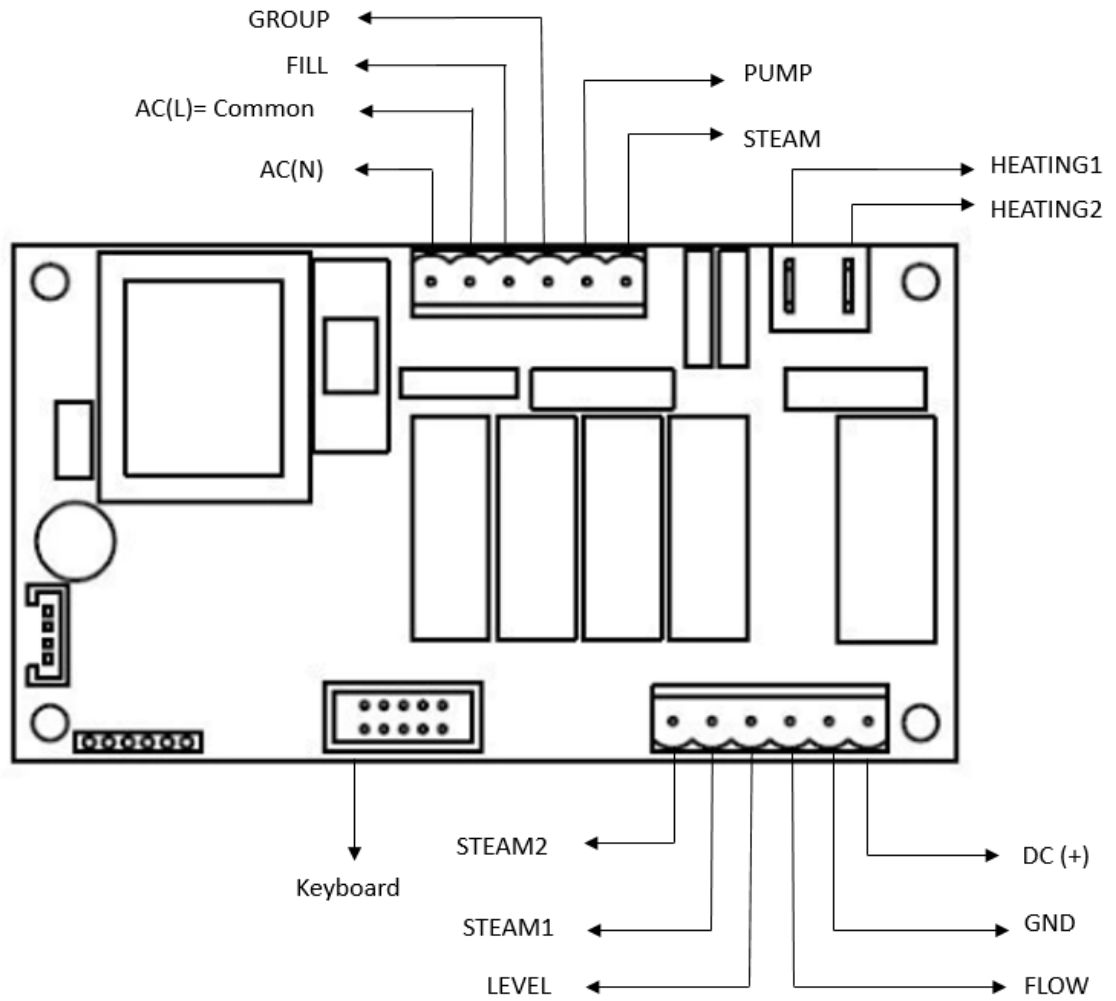
1. Dimensions (mm)



2. Specifications

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

III. WIRING

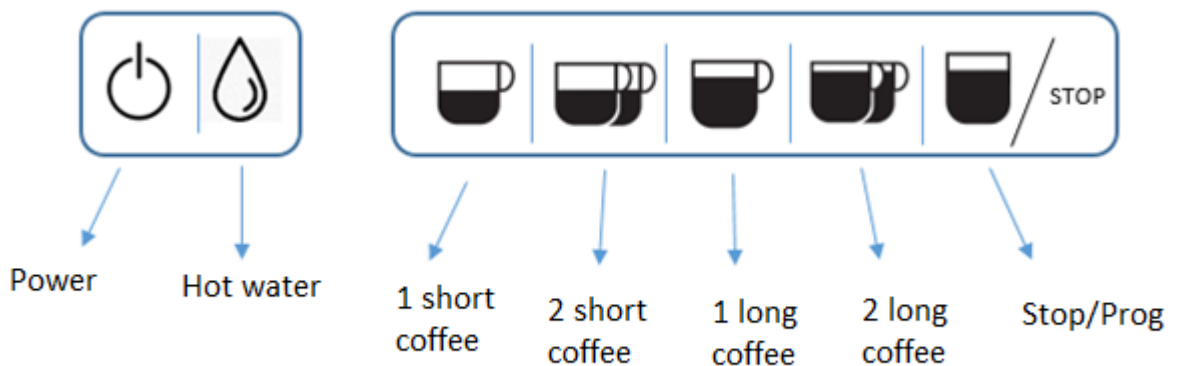


Important: Any mistake in connecting actuators will affect the normal operation of the coffee machine, and even cause damage.


Terminal	Description
DC (+)	Positive DC output
GND	Ground
FLOW	Flow meter
LEVEL	Level probe input
STEAM1, STEAM2	Steam sensor input
HEATING1, HEATING2	Heating element input
STEAM	Steam solenoid valve
PUMP	Pump
GROUP	Group solenoid valve
FILL	Filling solenoid valve
AC(L)=Common	AC and Load common
AC(N)	AC neutral wire


IV. USING

Ensure that the power supply is plugged in and the power switch is turned on before use.




1. Start the machine


Once the power is supplied, just the power button  led blinks at 1 second period, and the rest lights are off.

To start to use, press and hold down the  button for 5s, all lights turn on and just the tea button light turns off after 3 seconds.

2. Turn off the machine

Press the power button  for 5s until the other lights turn off and its light turn to the blink state.

3. Coffee dispensing

Press  / STOP to proceed to dispense coffee continuously until the user presses it again.

Press one of 4 standard dose drinks for automatically dispensing. (V.1).


4. Steam dispensing

To start to use the steam delivery function, immerse the steam nozzle in the container then pull or push the provided lever to adjust the amount of steam give way.



This can also be done automatically if your machine model integrates the temperature controller for steam delivery.

5. Hot water selection

Hot water is delivered through a hot water nozzle.



Press the hot water button  to start delivery within the time specified (V.2).

6. Pre-infusion mode

Press and hold the  key and  key simultaneously for 3 seconds until all lights begin to flash to enable pre-infusion mode on the machine.

Do the same procedure for disabling this mode.

7. Automatic group cleaning


Press the  key and  key for at least 3 seconds to enter the automatic cleaning mode.


This process will repeat 5 times before finishing with each time will start by 5 seconds for on-state and 5 seconds for off-state on both the pump and group solenoid valve.

V. PROGRAMMING


1. Programming doses


To set the dose for any dispensing button, you will have to enter the setting mode and program for that key by the steps below.

 *Note:* The procedure can just be implemented when the machine is on.

Step 1: Press the  key and hold it down for 5 seconds until all keys begin to flash.

Step 2: Press once a delivery key to program for it. The machine starts to dispense coffee. Just the selected dose key and Continuous key lights are on.


Step 3: Press the continued  key when reaching the desired dose on the selected delivery key. The machine stops brewing coffee, and the key's light switches off (the others in the group continue to flash).


Step 4: Repeat steps 2 and 3 to program for another delivery key or press the key  / STOP to exit the setting mode. All key lights return to their normal state (All lights are on).

2. Programming hot water


Step 1: Do a similar procedure to enter the programming function.

Step 2: Press the hot water key  to program for hot water volume.

Step 3: When reaching the required amount of hot water and then press the hot water key  again to stop delivering hot water.


Step 4: Press the  / STOP key to exit the programming mode.


3. AutoSteam(*Contact us if you need this function*)

 *Note:* This function just applies to the supported model. In this version, the hot water position will be replaced by the steam wand.

Do the same procedure to enter the programming mode.

Step 1: Press the hot water  button to proceed delivery of steam.

Step 2: When your drink reaches the desired temperature, press the  again to stop delivering.

 *Note:* If your setting temperature exceeds the allowable level, it will get that maximum value.

VI. ERROR DETECTION AND TROUBLESHOOTING**1. Water flow meter error****a. Error symptom**

- The programming process will start normally but the coffee amount on the error group won't be saved afterward. The key which is programmed in error condition will be locked after that.
- If the flow meter signal is lost during the dispensing process, the machine will automatically stop after 120 seconds.

b. Solution

Check if the connection to the water flow meter is correct and stable.

2. Autofill problem**a. Error symptom**

If this process lasts longer than 120 seconds, it will stop immediately and all lights start to flash continuously until restart the machine.

b. Solution

- Water level probe: Removing the level probe and checking for continuity, replace the new one if necessary.
- Autofill solenoid: If the pump is running and the machine is trying to fill but not making any progress, the solenoid may be stuck shut, not allowing water to fill the boiler. Correct or replace if needed.

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