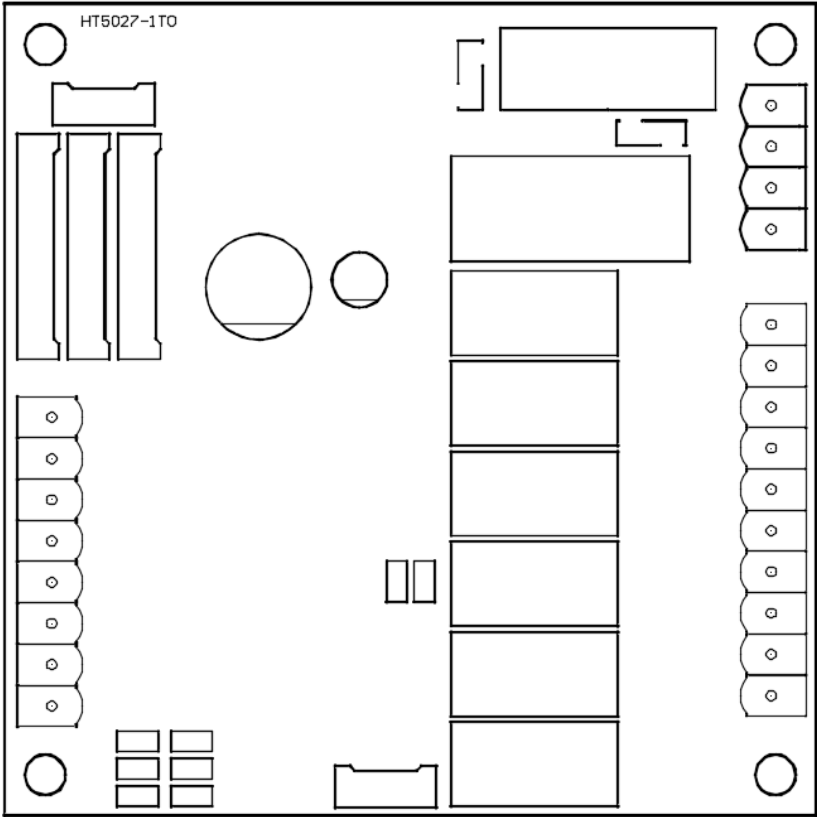


Coffee Machine Control Board

WGA3G

Instruction Manual



## PREFACE

Thank you for purchasing our **WGA3G**, Control board for the Coffee machine.

This manual contains instructions for the mounting, functions, operations, and notes when operating the **WGA3G**. 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 **WGA3G** 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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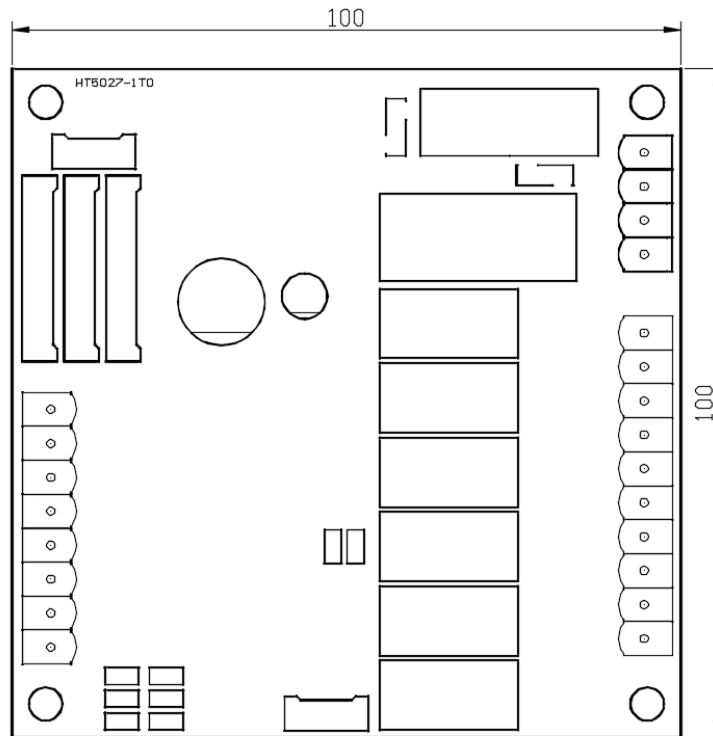
**I. GENERAL**

**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)**



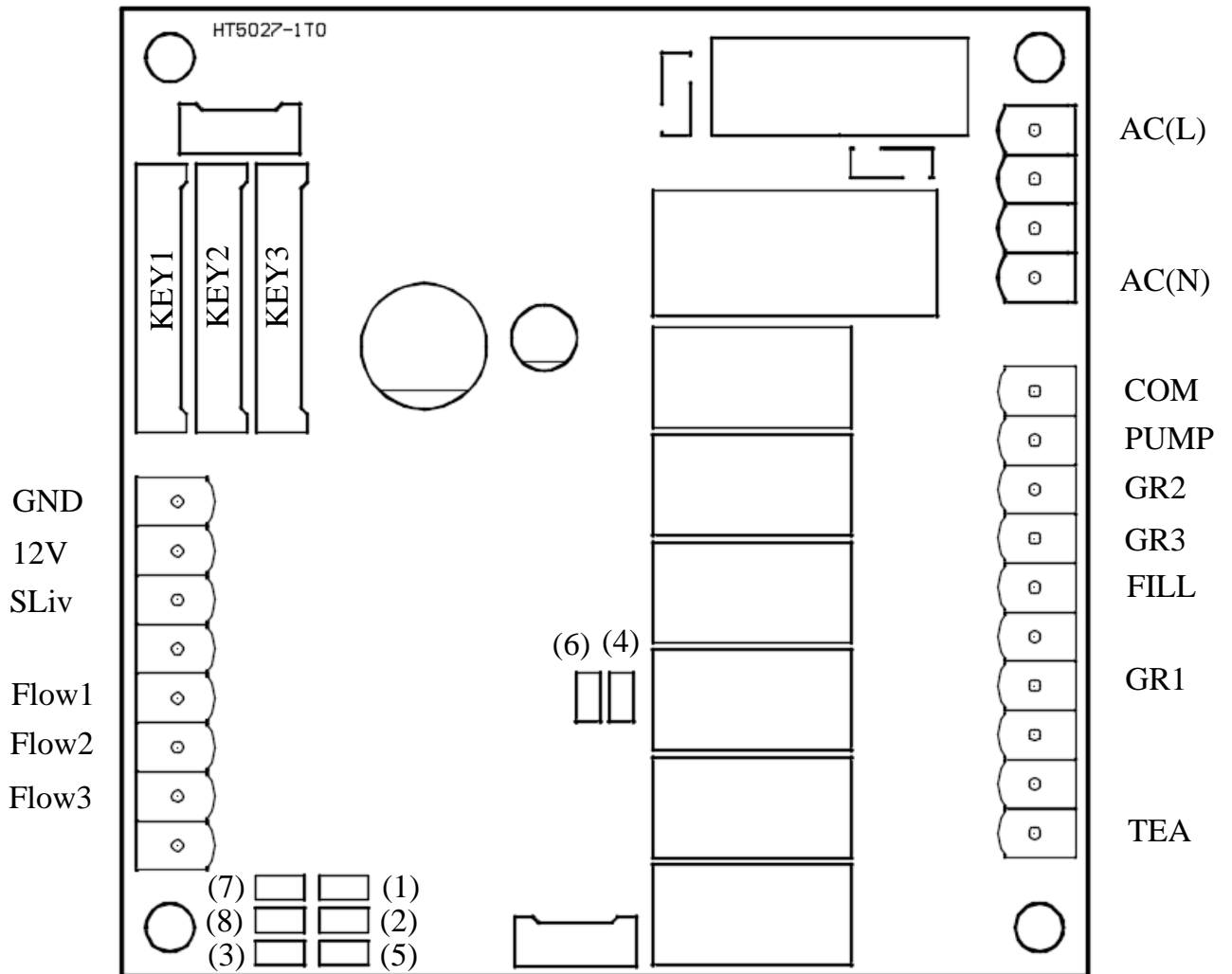
**2. Specifications**

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



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

III. WIRING



(7): Continuous key

(1): Not use

(4): Filling +Pump

(8): LED level

(2): Pre-infusion

(6): Tea+Pump

(3): Programming

(5): Tea key



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

Terminal	Description
KEY3	Key + LED input of Group 3
KEY2	Key + LED input of Group 2
KEY1	Key + LED input of Group 1
AC(L), AC(N)	Power supply AC 220V
PUMP	Pump input
GR1	Solenoid valve of group1
GR2	Solenoid valve of group2
GR3	Solenoid valve of group3
FILL	Solenoid valve of filling
TEA	Solenoid valve of hot water
GND	Ground
V12	12V output
SLiv	Water level probe in boiler
Flow1	Water flow meter input of Group1
Flow2	Water flow meter input of Group2
Flow3	Water flow meter input of Group3
Continuous key	Enable/Disable continuous dispensing on key 5
Programming	Enable/Disable doses programming
Pre-infusion	Enable/Disable pre-infusion
Tea key	Enable/Disable tea key
Filling+Pump	Enable pump while filling
Tea+Pump	Enable pump while delivering hot water



## IV. PROGRAMMING AND USE



### 1. Configuring LED Lighting mode

Press and hold buttons 1, 2, 3, and 4 simultaneously to switch the keyboard LED lighting mode.

- LED Off Mode (Default): In the normal state, all LEDs are off. During brewing, only the LED on the active brew button is on, and the other LEDs are off.
- LED On Mode: In the normal state, all LEDs are on. During brewing, only the LED on the active brew button is on, and the other LEDs are off.

### 2. Programming the coffee dosage

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


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

**Step 2:** Press the dispensing option that you wish to program. The lights are on at the pressed button and the Stop button. The group will start to dispense coffee.

**Step 3:** When the desired volume is reached, press the selected button again. This volume setting will be saved.

**Step 4:** Repeat the steps above to program for other dispensing options or go to the next step if you want to exit the setting mode.

**Step 5:** Wait for 5 seconds to finish the setting process. All lights are off.

 *Note:* The dispensing options that are not programmed will be kept as the default setting. The new coffee doses will be valid just on the setting group, the others will be retained as before.


### 3. Coffee dispensing

- Press any drink button to start to dispense coffee.
- Press the Stop button to stop dispensing immediately or the dispensing process will stop automatically when reaching the button's programmed dosage. All lights are on.

### 4. Switch to teapresso mode

Switch the machine off, press and hold down the Stop key then turn the machine on again. Release the pressed button when all light flashes.

### 5. Tea brewing time programming

 *Note:* Please switch to tea brewing mode (*refer to section 4*) before proceeding with the setup.

**Step 1:** Press and hold the Stop key for 5 seconds until all lights on the selected group flash to enter the setup mode.

**Step 2:** Press a delivery key to start setting its brewing time.

- Upon the first press, the machine will activate both the pump and group head to start brewing. When the desired brewing time is reached, press again to start the infusion process; the pump and group head will turn off.
- Repeat this cycle for subsequent brew/infusion cycles. You can set up to 8 brew/infusion cycles.
- During brewing, the corresponding button light will be solid; during infusion, it will blink.

**Step 3:** Press and hold the Stop key for 3 seconds to save the brewing time on the selected button. Return to step 2 to set other buttons or proceed to step 4 to finish.

**Step 4:** Press the Stop key to end the setup process. The lights will return to normal.

## 6. Automatic group cleaning

- Press Stop button and button 1 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 5 times before finishing.
- Press Stop button of the selected group to stop the cleaning process immediately.

## V. ERROR DETECTION AND TROUBLESHOOTING

### 1. Water flow meter error

#### a. Error symptom

##### ❖ *When programming:*

The programming process will also 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.

##### ❖ *When dispensing:*

- When dispensing, if it has malfunction at the water flow meter, the process won't stop automatically.

#### b. Solution

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

Ensure the water flow meter still works properly on another group. Otherwise, you need to replace it with the new one.

## **2. Autofill problem**

### **a. Error symptom**

- The boiler is overfull of water.
- The boiler is underfull of water.



Warning: Any error above need to be handled instantaneously. Otherwise, it will interrupt your machine's operation, and even cause damage to the pump.

### **b. Solution**

- Water level probe: Removing the level probe and checking for continuity, replace the new one if needed.
- Autofill solenoid: If the water 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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