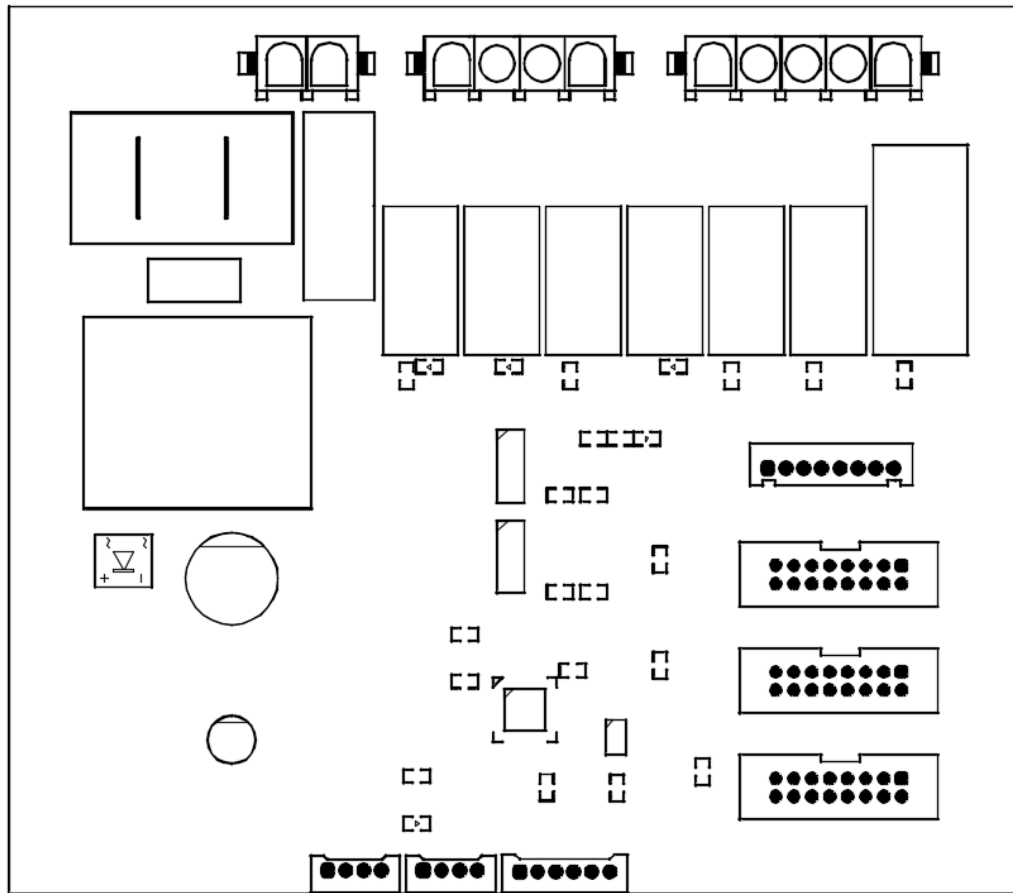


Coffee Machine Control Board

RCO3G

Instruction Manual



PREFACE

Thank you for purchasing our **RCO3G**, Control board for the Coffee machine.

This manual contains instructions for the mounting, functions, operations, and notes when operating the **RCO3G**. 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 **RCO3G** 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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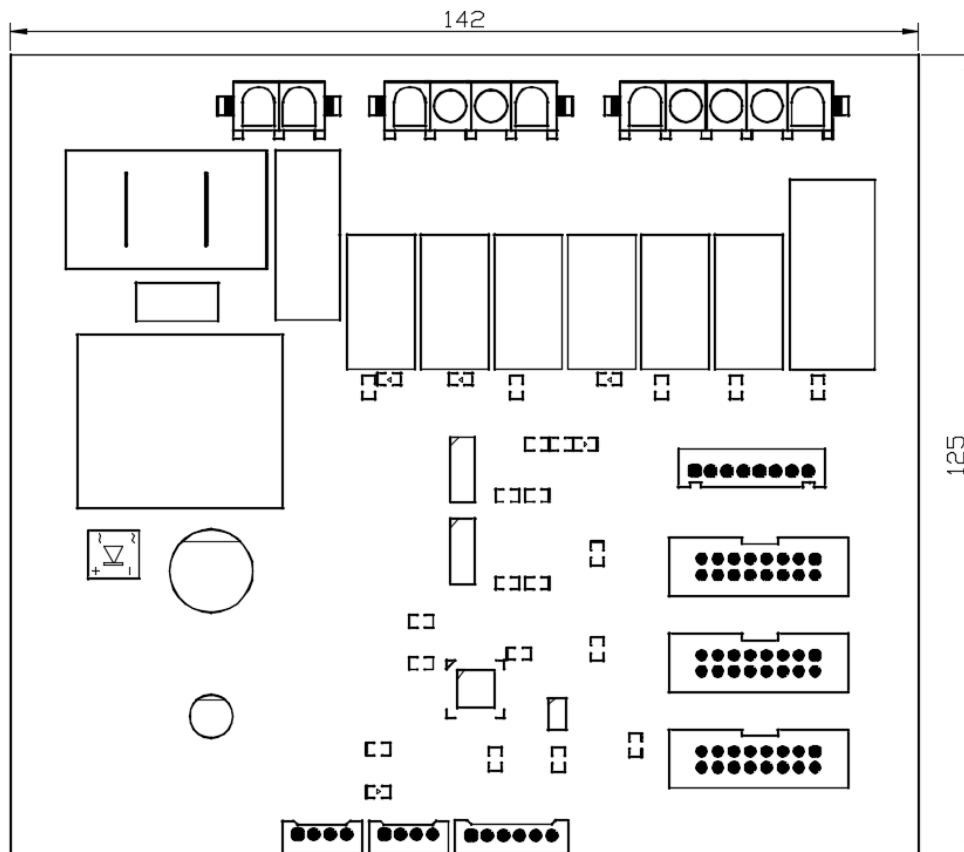
I. GENERAL

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

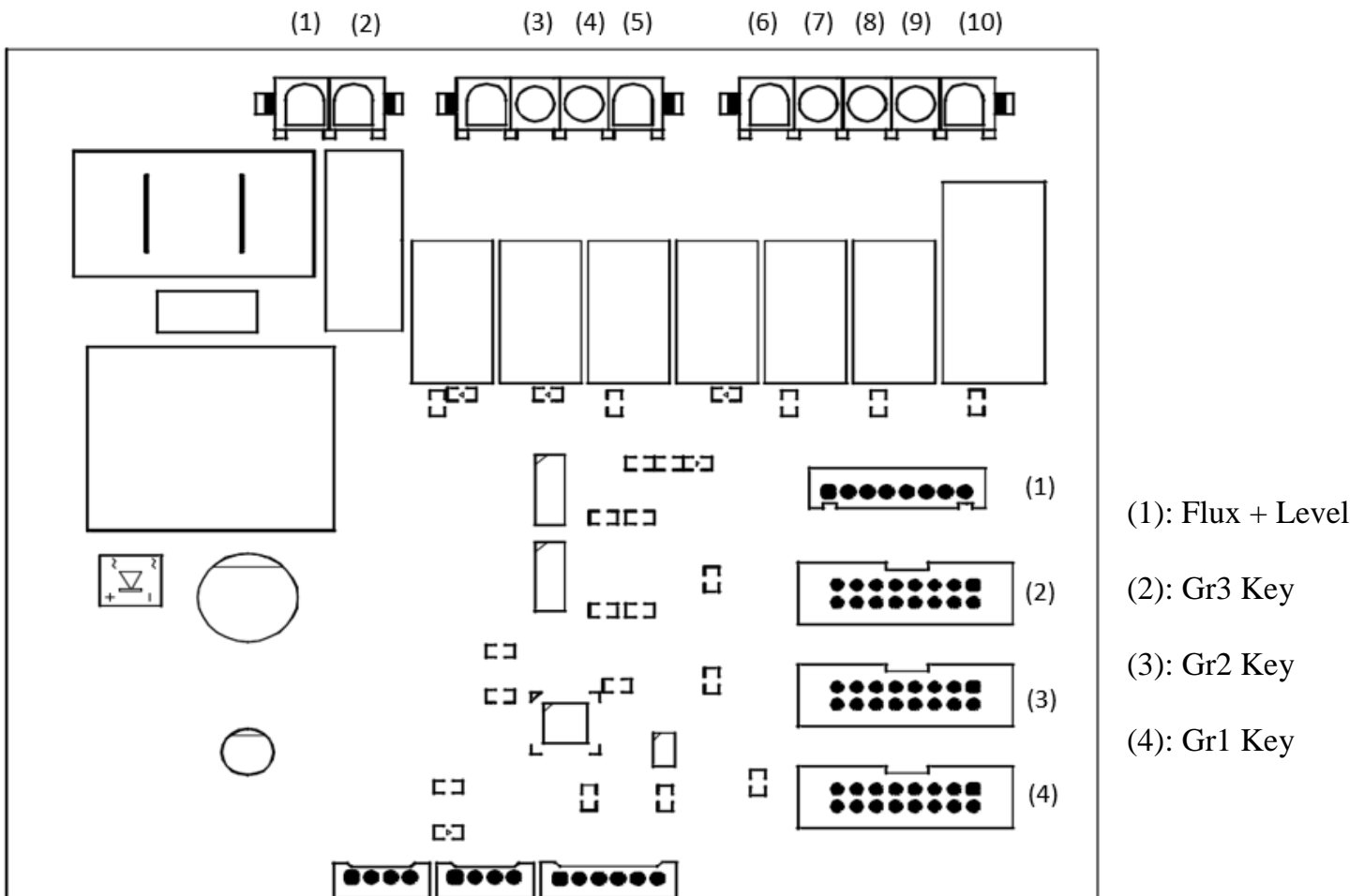
- ❖ Power supply: 230V AC 50/60Hz
- ❖ Actuator voltage: 230V AC



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

III. WIRING

- | | | | |
|------------|------------|-----------|------------|
| (1): ACN | (4): EVGR2 | (7): FILL | (10): PUMP |
| (2): ACL | (5): EVGR1 | (8): TEA | |
| (3): EVGR3 | (6): ACN | (9): HEAT | |





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

Terminal	Description
AC(L), AC(N)	Power supply AC 220V
EVGR3	Solenoid valve of group3
EVGR2	Solenoid valve of group2
EVGR1	Solenoid valve of group1
FILL	Solenoid valve of filling
TEA	Solenoid valve of hot water
HEAT	Heating element input
PUMP	Pump input
Flux + Level	Water flow meter and level probe input
Key Gr3	Key + LED input of group3
Key Gr2	Key + LED input of group2
Key Gr1	Key + LED input of group1

IV. PROGRAMMING AND USE



1. Programming standard dose

Buttons 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 button 5 for 10 seconds to enter the setting mode.

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.

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

Step 5: Press the fifth button or wait for 10 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 fifth button to stop dispensing immediately or it will stop automatically when reaching the programmed dosage. All lights return to on state.

3. Pre-infusion

Press and hold buttons 1, 3 and 5 simultaneously when turning on the machine to switch the current state of pre-infusion mode.

4. Automatic group cleaning

- Keep pressing button 3 for 5 seconds to perform auto-cleaning on the group.
- 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 button 5 to stop the cleaning process immediately. All lights are on.

5. Continuous dispensing

Press and hold button 1 while switching the machine on will disable or enable continuous dispensing at button 5.

6. Dose programming

Press and hold button 2 when switching the machine on will disable or enable dose programming.

7. Reset to the factory

Press and hold button 4 when switching on the machine will reset all parameters to the factory setting.

V. Filling

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

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. Filling time-out

If the filling time is longer than 120s but the boiler's level is still under the minimum, all lights start to 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.

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