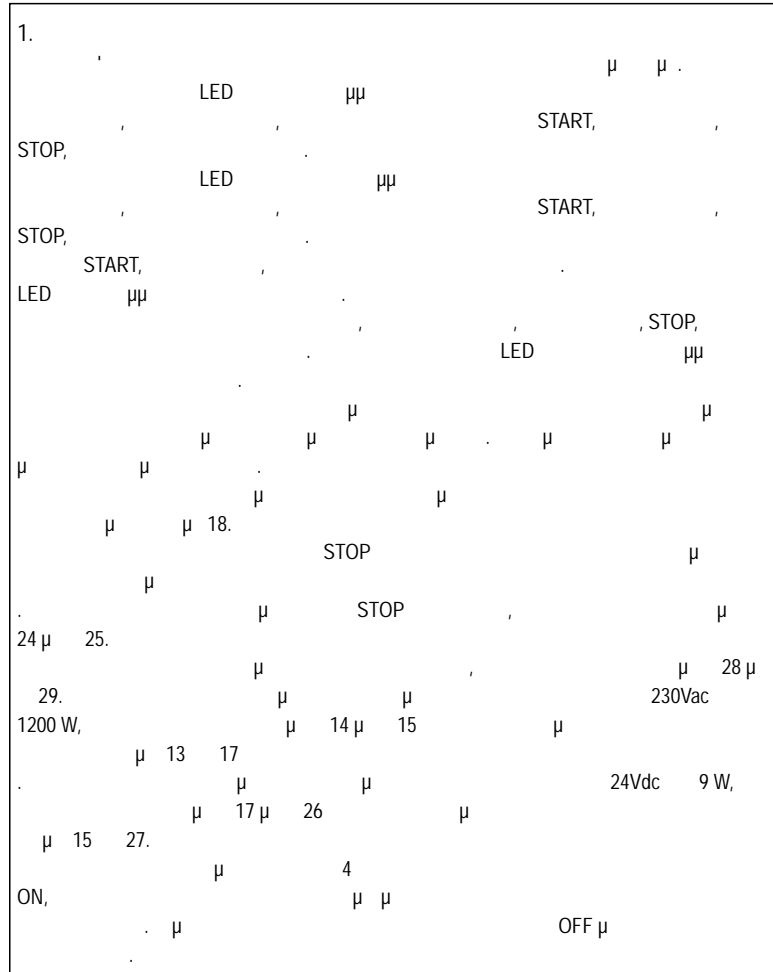
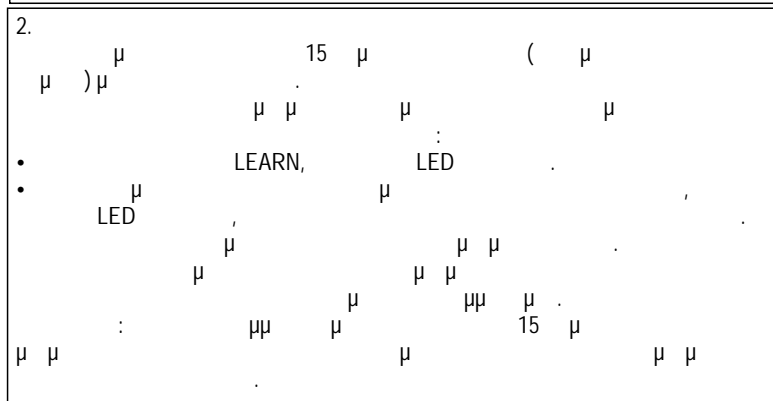


Connections

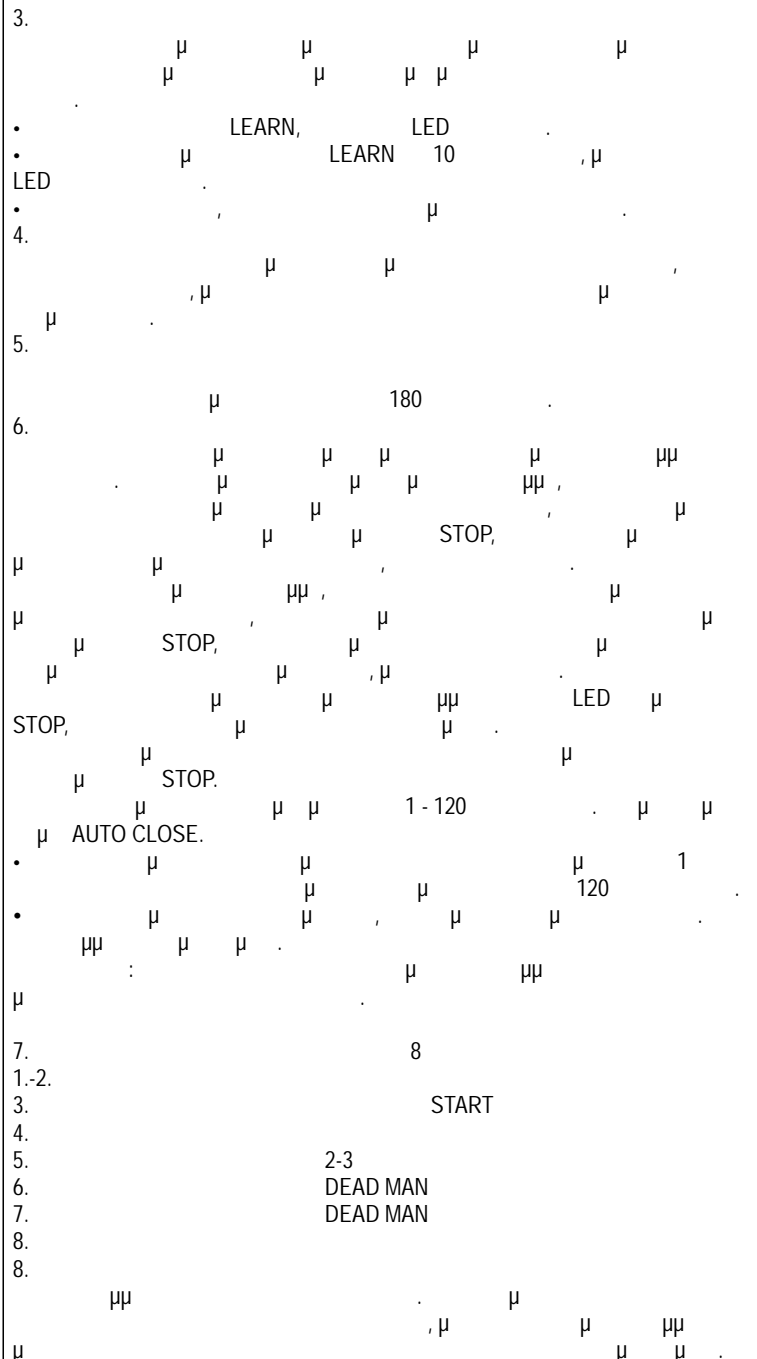
Outputs for the Motor (380 Vac)	
1,2,3	Motor power supply (380 Vac, three phases)
4	Motor neutral
5	Motor ground
Power Network Inputs (380 Vac)	
6,7,8	Supply from the network (380 Vac, three phases)
9	Neutral
10	Ground
230 Vac Output through a 6,3 A fuse	
13	Neutral
14	230 Vac phase
Relay Output	
15	Open relay contact
16	Closed relay contact
17	Main relay
Motor's terminal-switches outputs	
18	24 Vac Output
18,19	Safety terminal (closed contact)
18,20	Opening terminal (closed contact)
18,21	Closing terminal (closed contact)
18,22	Pneumatic edge device backup terminal (closed contact)
18,23	Backup terminal (closed contact)
Commands Outputs	
24,25	Safety STOP command (closed contact)
26,27	Supply output 24 Vac (for photocells etc.)
28,29	Pneumatic edge device command (closed contact)
28,30	Photocell command (closed contact)
31,32	START command (open contact)
33,36	OPEN command (open contact)
34,36	STOP command (closed contact)
35,36	CLOSE command (open contact)
36	Antenna's ground
37	Antenna



1. Programming
All necessary wiring has to be carried out before connecting the system to the power supply. The green LEDs that are lit indicate that the contacts of the LIMIT SWITCHES, the PHOTOCCELL, the PNEUMATIC EDGE DEVICE and those of the START, OPEN, STOP and CLOSE commands are closed. The green LEDs that are NOT lit indicate that the contacts of the LIMIT SWITCHES, the PHOTOCCELL, the PNEUMATIC EDGE DEVICE and those of the START, OPEN, STOP and CLOSE commands are open. The START, OPEN and CLOSE commands are open contacts. The green LED is turned on for the time of the command duration. The commands of the LIMIT SWITCHES, PHOTOCCELL, PNEUMATIC EDGE DEVICE and STOP, are closed contacts. The indicative LED is always ON and turns OFF for the duration of the command. In case the safety switch activates, the motor does not accept any commands until the problem in the terminal is resolved. The resolution of the terminal can be done manually. In case we have not connected a limit switch, the contact must be connected to clamp # 18. In case the 'SAFETY STOP' is activated, the motor does not accept any commands from the board until this command is deactivated. In case we have NOT connected the 'SAFETY STOP', we have to connect clamp #24 to #25. In case we have NOT connected a PNEUMATIC EDGE, we have to connect clamp #28 to #29. In case we want to connect a 'WARNING LIGHT' 230Vac up to 1200W, we have to connect clamp #14 to #15 and connect the WARNING LIGHT to clamps #13, 17. In case we want to connect a 'WARNING LIGHT' 24Vdc up to 9W, we have to connect clamp #17 to #26 and connect the WARNING LIGHT to clamps #15, 27. During installation of the system, deep switch #4 of the phase supervisor must be placed in the ON position so that the board can store the phase sequence of the power network. The deep switch must be turned back to the OFF position after installation is finished.



2. Storing remote controls in the board memory
The board can accept up to 15 remote controls of the same type (both with and without security codes) with different codes/channels. To store remote controls with desirable codes in the board memory, follow carefully the following instructions:
• Press the LEARN button – the green LED turns ON.
• Press once the key on the remote control you want to store. The green LED will turn OFF and the board will give the first instruction to the motor. The code of the remote control is now stored in memory and the procedure is finished. To store more remote controls in memory, repeat steps 1 and 2.
NOTE: When we try storing more than 15 remote controls on the same board, the oldest control code will be replaced by the new one.



ON	OFF	
	1.-2.	O
1.	2.	O 60
2.	1.	O 90
1.-2.		O

9. START

ON	OFF	START
	3.	START
3.		START

3. Removing all remote control codes stored in the board memory
 It is possible to cancel all codes of the remote controls stored in the board memory

- Press the LEARN button – the green LED turns ON.
- Keep the LEARN button pressed for 10 seconds, until the green LED starts flashing
- Release the button and all of the remote control codes have been erased from memory

4. Automatic detection of the motor's limit switches.
 The board automatically detects the motor's limit switches. When they close, the...

5. Motor Operation Time
 The system has an internal timer for safety reasons in case one of the motors does not turn off after 180 seconds.

6. Automatic Closing
 There is an option between semi-automatic and fully-automatic closing function. When the semi-automatic function is selected, the OPEN command (from either a remote control or a switch) opens the door. When the door is completely open or a STOP command is given during the opening operation, the door will remain still until it receives a CLOSE command.
 When the fully-automatic function is selected, the OPEN command (from either a remote control or a switch) opens the door. When the door is completely open or a STOP command is given during the opening operation, the door remains still and a pre-set countdown timer (waiting time) initiates, after which the door closes. When the fully-automatic function is selected, the red STOP LED flashes for the duration of the waiting timer.
 The waiting time does not reset if we give a STOP command while the door is closing. The waiting time is variable from 1 – 120 seconds. It can be adjusted by the 'AUTO CLOSE' trimmer.

- When the trimmer is placed in the left-most position, the waiting time is 1 second and as we turn it to the right it increases up to 120 seconds.
 - When the trimmer is placed at the right-most position, the fully automatic function is disabled. (Semi-automatic function is enabled)
- IMPORTANT: For safety reasons, the fully-automatic function must be used along (in conjunction with) a photocell or a pneumatic edge.

7. Deep switch functions (8 switches)
- | switch | function |
|--------|------------------------------|
| 1-2 | Warning light operation |
| 3 | START button operation |
| 4 | Pneumatic edge operation |
| 5 | Double/Trippl button control |
| 6 | 'Dead Man' opening operation |
| 7 | 'Dead Man' closing operation |
| 8 | Photocell operation |
8. Warning light operation

A warning light can be included in the system. The light can either turn on or flash during the operation of the door and can remain on for as long as we have set it for, after the completion of the door operation.

ON Position	OFF Position	Function
	1.-2.	The warning light remains ON for as long as the motor is working
1.	2.	The warning light remains on for 60 seconds after the motor stops working
2.	1.	The warning light remains on for 90 seconds after the motor stops working
1.-2.		The warning light flashes for as long as the motor works

9. Start button operation
 This switch allows us to choose the START command functions.

ON Position	OFF Position	Function
	3.	When put in this position and the START button is pressed, the system follows this sequence of operations: OPEN – STOP – CLOSE – STOP - ...
3.		In this position, the START button (command) OPENS the door. The CLOSE command is accomplished by a) automatic closing, b) the CLOSE button or c) the remote control. We use this setting when using a time-switch

10. Pneumatic edge operation
 This switch enables us to choose the functions of the pneumatic edge device. The device's contact is used as a N.C. (normal close) contact for connecting a safety hose. A safety hose (closed contact) is an active safety device used when the door is closing (when it comes across an obstacle). When the door is opening, an obstacle interference does not effect the door's operation.

ON Position	OFF Position	Function
	4.	If the door comes across an obstacle while closing, it STOPS and is operation is reversed (i.e. it OPENS)
4.		If the door comes across an obstacle while closing, it STOPS and the board awaits for the next command.

11. Double/Tripplle button control
 This switch enables us to select to use a controller with two or three buttons. An external buttons may also be connected to the clamps # 33, 34, 35, 36.

ON Position	OFF Position	Function
	5.	Three buttoned controller 33, 36 OPEN command 34, 36 STOP command 35, 36 CLOSE command
5.		Two buttoned controller 33, 36 OPEN command 35, 36 CLOSE command The STOP command is accomplished when pressing any of the two buttons while the door is moving

12. 'Dead Man' OPEN operation
 This switch enables us to select whether the OPEN command will open the door after pressing the button once or whether we have to hold the button suppressed during the whole opening operation

ON Position	OFF Position	Function
	6.	The systems instructs an OPEN command after pressing the controller button once.
6.		The system instructs an OPEN command while the controller button is suppressed.

13. 'Dead Man' CLOSE operation
 This switch enables us to select whether the CLOSE command will close the door after pressing the button once or whether we have to hold the button pressed during the whole operation

ON Position	OFF Position	Function
	7.	The systems instructs a CLOSE command after pressing the controller button once.
7.		The system instructs a CLOSE command while the controller button is suppressed.

14. Photocell operation
 The photocell is an active safety device used when the door is closing. An obstacle detection by the photocell will cause the door to stop while it is closing and reverse its operation. When the door is closed, the photocell is inactive. After the obstacle is resolved, the AUTOMATIC CLOSING TIME is reset.

ON Position	OFF Position	Function
	8.	Photocell operation with a N.O. (normal open) contact.
8.		Photocell operation with a N.C. (normal close) contact.

10. Pneumatic edge operation
 This switch enables us to choose the functions of the pneumatic edge device. The device's contact is used as a N.C. (normal close) contact for connecting a safety hose. A safety hose (closed contact) is an active safety device used when the door is closing (when it comes across an obstacle). When the door is opening, an obstacle interference does not effect the door's operation.

ON Position	OFF Position	Function
	4.	If the door comes across an obstacle while closing, it STOPS and is operation is reversed (i.e. it OPENS)
4.		If the door comes across an obstacle while closing, it STOPS and the board awaits for the next command.

11. Double/Tripplle button control
 This switch enables us to select to use a controller with two or three buttons. An external buttons may also be connected to the clamps # 33, 34, 35, 36.

ON Position	OFF Position	Function
	5.	Three buttoned controller 33, 36 OPEN command 34, 36 STOP command 35, 36 CLOSE command
5.		Two buttoned controller 33, 36 OPEN command 35, 36 CLOSE command The STOP command is accomplished when pressing any of the two buttons while the door is moving

12. 'Dead Man' OPEN operation
 This switch enables us to select whether the OPEN command will open the door after pressing the button once or whether we have to hold the button suppressed during the whole opening operation

ON Position	OFF Position	Function
	6.	The systems instructs an OPEN command after pressing the controller button once.
6.		The system instructs an OPEN command while the controller button is suppressed.

13. 'Dead Man' CLOSE operation
 This switch enables us to select whether the CLOSE command will close the door after pressing the button once or whether we have to hold the button pressed during the whole operation

ON Position	OFF Position	Function
	7.	The systems instructs a CLOSE command after pressing the controller button once.
7.		The system instructs a CLOSE command while the controller button is suppressed.

14. Photocell operation
 The photocell is an active safety device used when the door is closing. An obstacle detection by the photocell will cause the door to stop while it is closing and reverse its operation. When the door is closed, the photocell is inactive. After the obstacle is resolved, the AUTOMATIC CLOSING TIME is reset.

ON Position	OFF Position	Function
	8.	Photocell operation with a N.O. (normal open) contact.
8.		Photocell operation with a N.C. (normal close) contact.

DECLARATION OF CONFORMITY

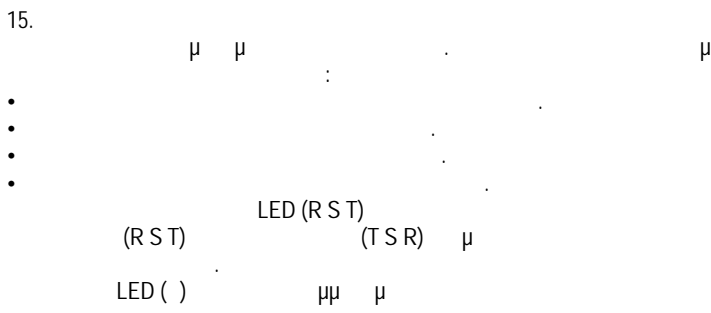
AUTOTECH - G .KAPSALIS
 8, Archimideous str. 12134 Peristeri Athens,
 Greece, Tel. +302105780019, Fax: +302105785112
In accordance with the following directives:

• Radio & Telecommunications Terminal Equipment directive 1999/5/EC • EN60950-1 • EN301489-1 • EN301489-3 • EN300220-3	CE
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hereby declare that:
 Product : CLEMES
 Model : F39000
 is in conformity with the applicable requirements of the following documents.

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specifications. The unit complies with all the applicable essential requirements of the directives mentioned.

Name: Apergis Antonios
 Position: Technical Director
 Peristeri, 28 November 2013

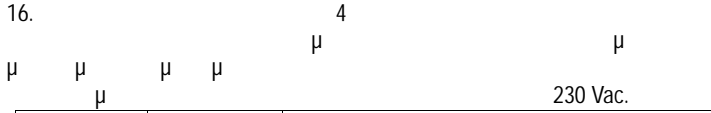


15. Phase supervisor operation
 The system has a built-in phase supervisor. The phase supervisor is a safety device that checks:

- If there is a continuous phase sequence from the power supply network
- If there is lack of phase from the network
- If there is a current fall in a phase
- If the continuous phase sequence changes from the power supply network

The board of the system has three red LEDs (R S T) that turn on and off sequentially clockwise (R S T) or counter-clockwise (T S R) and indicate the consecutive sequence of phase.

The green LED () when ON, indicates that the current supplied by the network is correct and the three phases have the right sequence.



16. Phase Supervisor Deep Switch (4 switches)
 The phase supervisor has a deep switch with four switches with which we can adjust the tolerance of the voltage drop of the three phases with respect to the power network 230 Vac.

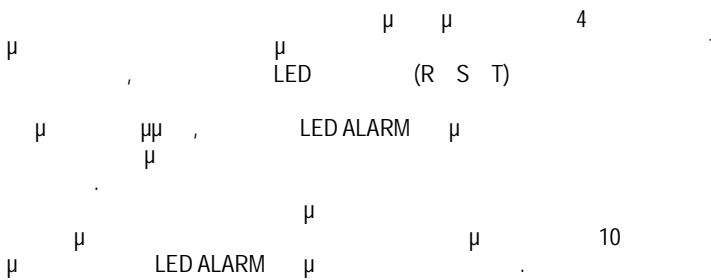
ON	OFF		
	1.-2.-3.		
1.	2.-3.	+ 5%	: 220 Vac – 240 Vac
2.	1.-3.	+10%	: 210 Vac – 250 Vac
1.-2.	3.	+15%	: 195 Vac – 265 Vac
3.	1.-2.	+20% Vac	: 185 Vac – 275 Vac
1.-3.	2.	+25%	: 175 Vac – 285 Vac
2.-3.	1.	+30%	: 160 Vac – 300 Vac
1.-2.-3.		+35%	: 150 Vac – 310 Vac

ON Position	OFF Position	Percentage of voltage drop tolerance
	1.-2.-3.	The voltage drop supervisor is not active
1.	2.-3.	+ 5% Operational Voltage: 220 Vac – 240 Vac
2.	1.-3.	+10% Operational Voltage: 210 Vac – 250 Vac
1.-2.	3.	+15% Operational Voltage: 195 Vac – 265 Vac
3.	1.-2.	Recommended Setting +20% Operational Voltage: 185 Vac – 275 Vac
1.-3.	2.	+25% Operational Voltage: 175 Vac – 285 Vac
2.-3.	1.	+30% Operational Voltage: 160 Vac – 300 Vac
1.-2.-3.		+30% Operational Voltage: 160 Vac – 300 Vac

ON	OFF		
4.	4.		

ON Position	OFF Position	Function
4.		This switch must be ON during installation only. The board will store in its memory the phase sequence of the power network and adjust the tolerance levels of the voltage drops
	4.	The phase supervisor is deactivated.

When the phase supervisor is activated with switch #4 and one of the phases falls outside the selected voltage drop tolerance for more than 10 seconds, the red LED of the phase (R, S or T) that has the problem will flash or will turn OFF completely if there is a lack of phase. The other two will remain ON, the red 'ALARM' LED of the control will turn ON and any door movement will stop in order to protect the motor.

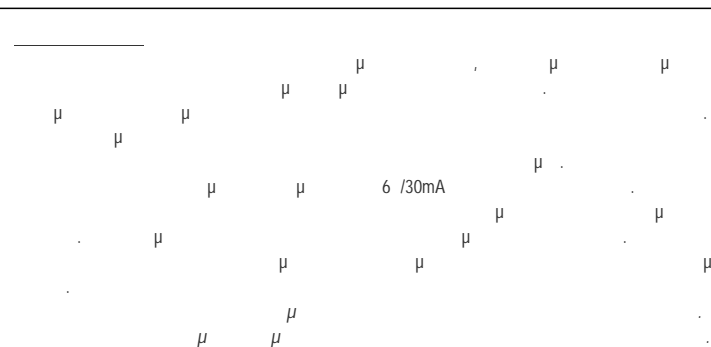


After a power failure or a power problem restoration the board does not accept any commands for 10 seconds, until the red 'ALARM' LED on the control turns off.

When the 'ALARM' LED on the control is flashing, the phase supervisor reads the voltage and the phase sequence of the power network. Then it compares these values with the ones previously stored in memory during the door installation. If for some reason the phase sequence has changed and does not match with the one stored in memory, the red 'ALARM' LED on the control will turn ON and the board will not give any commands to the motor until the problem is resolved in order to avoid further problems.

17. Installation Instructions
 This board must be installed by trained and authorised personnel only. It necessary to comply with the safety measures and take measures for ensuring the protection of devices sensitive to electrostatic unloading during:

- ? The programming of the board
- ? The handling of the board and other accessories.



ATTENTION
 The Product must be installed by qualified personnel who can carry out the installation operation strictly in compliance with safety rules. The device must not be used incorrectly or for any purposes other than the ones designed for. Before proceeding with the installation it is necessary to read the instruction manual carefully in order to avoid danger to either the users or the equipment. It is necessary to power the device using a 6A bipolar thermomagnetic switch equipped with a differential with an operating current of 0.03 A. Before carrying out any installation or maintenance operations turn off the power supply to the device with the bipolar switch. The equipment must not be tampered with or modified in any way. It is necessary to turn off the power supply to the equipment before installing it or opening the enclosure.

The manufacturer reserves the right to make changes to the product without prior notice. Therefore this manual may not correspond exactly to the product specifications.