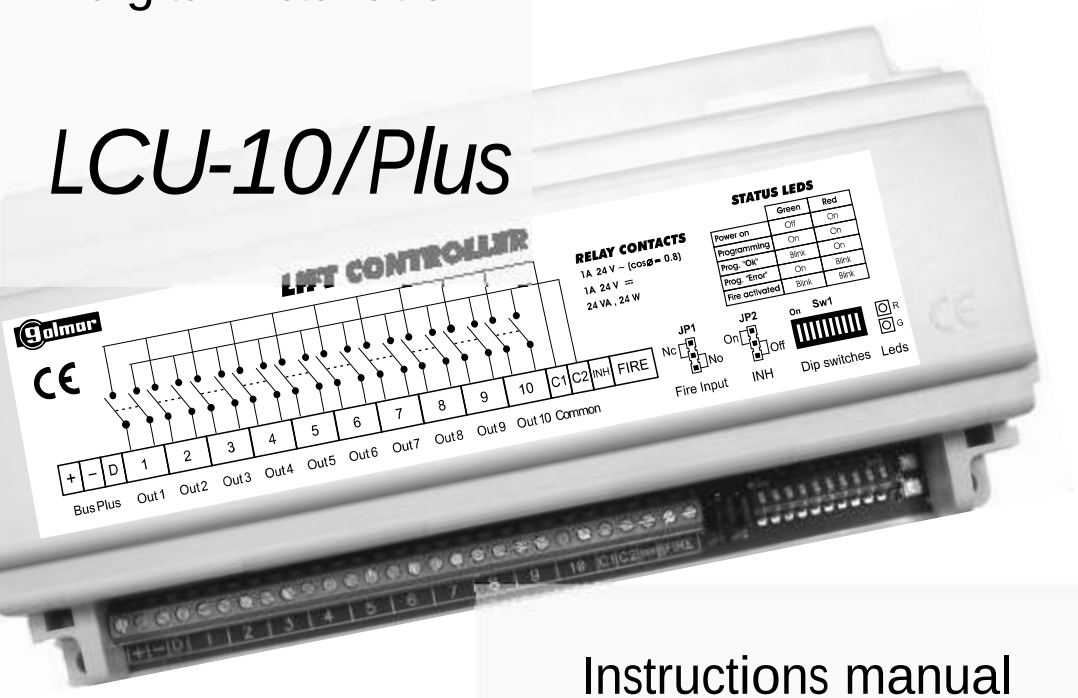
Lift controller
for systems
with Plus / Uno
digital installation

# *LCU-10/Plus*



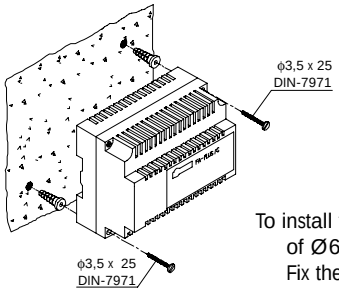

Instructions manual

# SYSTEM CHARACTERISTICS

- Lift control unit for systems with “Plus” or “Uno” bus installations:
  - Audio system with 4 common wires installation.
  - Video system with 3 common wires plus coaxial cable or 4 common wires plus twisted pair cable.
- 10 relay outputs to control up to ten floors. In case of more floors, additional units can be used.
  - N/C or N/O selectable (same operation for all relays).
  - Up to 190 addresses (apartments) for each relay.
  - Programmable delay time from 0 to 120 seconds (in one second steps).
  - Programmable activation time from 1 to 300 seconds (in one second steps).
  - Two common terminals.
  - Do not switch voltage and current higher than: 24Vac/1A and 24Vdc/1A.
  - Maximum switching power: 24VA / 24W.
- N/C or N/O input for fire alarm.
- Three different operation modes.
- INH inhibition input.
- Requires 18Vd.c. power supply (FA-Plus/C).

# UNIT AND POWER SUPPLY INSTALLATION

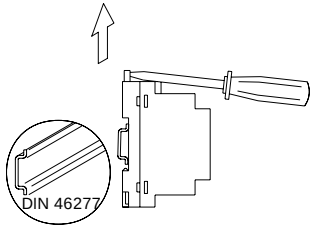
Installing the LCU-10PLUS lift controller and FA-PLUS/C power supply.




Both units must be installed in a dry and protected place. It's recommended to protect the power supply by using a thermo-magnetic circuit breaker and to use a ground connection.

To install the units directly on the wall, drill two holes of Ø6mm. and insert the wallplugs. Fix the transformer with the specified screws.

The units can be installed on a DIN 46277 guide simply pressing it. To disassemble the power supply from the DIN guide, use a plain screwdriver to lever the flange as shown on the picture.
The FA-Plus/C power supply uses 6 units over DIN guide and 10 units the LCU-10Plus lift controller.




IMPORTANT: in case of more than one lift controller unit, it’s not necessary to add additional power supplies.

# IMPORTANT NOTES

This lift controller is to be used on Golmar systems with "Plus" or "Uno" digital installation only.

We would like to recommend you to set switches n.4 (NO or NC relays), n.5 and n.6 (operation mode) and JP1 (NO or NC fire input) to the desired position, before to power the lift controller.

INH function is only available when using the lift controller with door panels containing EL540, EL530 or EL531 sound modules. Ask for technical assitance to use this function with Golmar panels not containing these sound modules (i.e. 6403/INOX or 7403/INOX).

Kindly note that the lift controller uses relays without latch. For this reason, if you have selected NC option, relays will change to NO position in case of power interruption.

This unit is activated when an apartment unit activates the door open function. Door open function activated from an access control or porter's exchange will have no effect on the lift controller.

# OPERATION MODES

When an apartment activates the door open function, the lift controller activates the relay output assigned to this apartment. On systems with main and internal entrances, the lift controller can be inhibited when the apartment is in communication with the main entrance, by using INH input.

Operation modes are selectable through switches n.5 and n.6, as described on page 4. There are three different operation modes, that depends on how the relays are activated. Operation mode must be selected with the lift controller switched off.

In case of several lift controllers, each lift controller will operate as single unit, as there is no digital communication between them.

If the lift controller is combined with the fire alarm through the FC input, the lift controller will be inhibited in case of fire alarm and the relay outputs will be disabled. Once the fire alarm disappears, the lift controller will return to the normal operation mode, being the relays on the stand-by position.

- OA operation mode.

  In this operation mode, more than one relay can be active at the same time. Relays are activated after TD seconds from the door open activation, and during TA seconds. In case that one or more relays are already activated and a new activation request is coming, the lift controller will act as follows:

  - If the new request is for a relay that's not yet processed, the new relay will be activated after TD seconds and during TA seconds.
  - If the new request is for an already processed relay:
    - If the new request is arriving during TD, TD delay time will be restarted.
    - If the new request is arriving during TA, the lift controller will increase the activation time to (remaining TA) + TD + TA.

- OB operation mode.

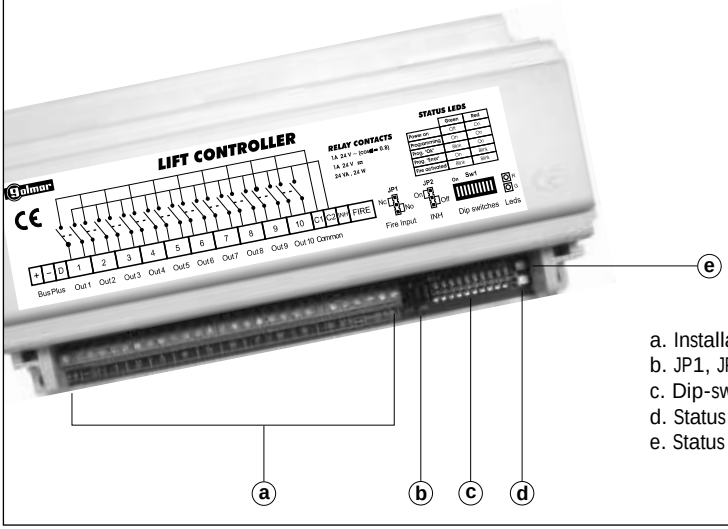
  In this operation mode, only one relay can be active at the same time. The several request are memorized in order of reception, and activated in the same order. In case that a relay receives more than one consecutive request, only the first request is to be executed. The internal memory can memorize up to 255 requests.

- OC operation mode.

  In this operation mode, more than one relay can be active at the same time. The relays are activated in request order. All relays remain active till the last relay activation time expires.

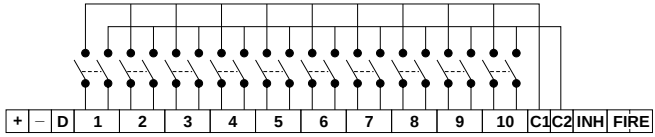
# LIFT CONTROLLER DESCRIPTION

## Description of the lift controller unit.



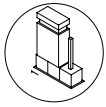

a. Installation terminals.
b. JP1, JP2 jumpers.
c. Dip-switch.
d. Status Green LED.
e. Status Red LED.

## Description of the installation terminals, JP1 and JP2 jumpers.



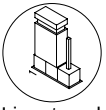

+ , - : positive, negative.
D : data.
1 to 10 : relay terminals.
C1 , C2 : relay common terminals.
INH: in combination with JP2 jumper, inhibits the data capture when in communication with main entrance panels. For normal operation, don't modify JP2 position (set to 3). For further details about this function, contact our aftersales service department.
FIRE : in case of fire alarm, this input can be used to inhibit the relay outputs while the fire alarm is activated.
With the lift controller switched off, use JP1 jumper to set FIRE input as NO or NC.

JP1


NC


NO (factory default)

JP2

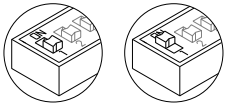

INH input enabled


Factory default

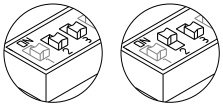
# LIFT CONTROLLER DESCRIPTION

Description of the dip switch and status LED.

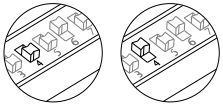
The SW1 configuration dip switch is used for programming and configuration purposes. The switches used during programming process are deeply described on pages 5 to 8.



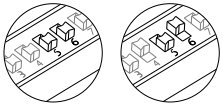
Switch n. 1 is used to enter / exit the lift controller into / from the program mode.



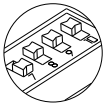
Switches n. 2 and n. 3 are used to assign / delete apartment addresses to each relay and to program TA and TD times.



Switch n. 4 is used to set the relay outputs as NO or NC:
OFF: Normally Open relays.
ON: Normally Closed relays.



Switches n. 5 and n. 6 define the operation mode:
5(OFF), 6(OFF): OA mode.
5(OFF), 6(ON): OB mode.
5(ON), 6(OFF): OC mode.
5(ON), 6(ON): inhibit the lift controller.
These operation modes are described on page 2.



Switches n. 7 to 10 define the relay under programming:

| | |
|---|---|
| Relay n.1: | 7(OFF), 8(OFF), 9(OFF), 10(ON) |
| Relay n.2: | 7(OFF), 8(OFF), 9(ON), 10(OFF) |
| Relay n.3: | 7(OFF), 8(OFF), 9(ON), 10(ON) |
| Relay n.4: | 7(OFF), 8(ON), 9(OFF), 10(OFF) |
| Relay n.5: | 7(OFF), 8(ON), 9(OFF), 10(ON) |
| Relay n.6: | 7(OFF), 8(ON), 9(ON), 10(OFF) |
| Relay n.7: | 7(OFF), 8(ON), 9(ON), 10(ON) |
| Relay n.8: | 7(ON), 8(OFF), 9(OFF), 10(OFF) |
| Relay n.9: | 7(ON), 8(OFF), 9(OFF), 10(ON) |
| Relay n.10: | 7(ON), 8(OFF), 9(ON), 10(OFF) |

Non listed combinations are not valid or used for other purposes.

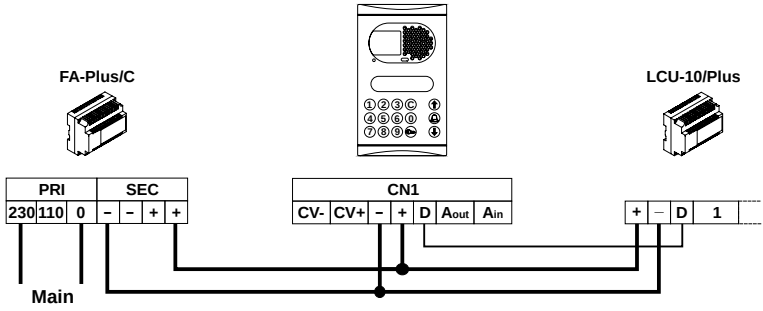
Green and red led show the following lift controller status:

| | | |
|---|---|---|
| Power on: | Green (OFF), | Red (ON) |
| Programming: | Green (ON), | Red (ON) |
| Prog. "OK": | Green (BLINK), | Red (ON) |
| Prog. "Error": | Green (ON), | Red (BLINK) |
| Fire activated: | Green (BLINK), | Red (BLINK) |

Note: SW1 switches are in OFF of factory default.

## Entering into programming.

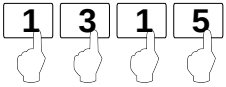
To program the lift controller, a Golmar coded door panel with "Plus" technology will be required as programming tool. In oder to avoid that other system components interfere during programming, it's recommended to isolate this panel and the lift controller from the rest of the installation.




golmar
16:30

To enter the panel into programming mode press key symbol and enter the installer PIN code (factory default: 1315).

pin code
pin:____




configuration

The panel display will show the message CONFIGURAtION.

Set to ON the switch n. 1 of the lift controller to enter it into programming mode. The green led will light and the panel display will show the message PROGRAM MODE.
In case that the red led starts to blink, it will mean that the panel is not in configuration mode.

PROGRAM MODE

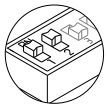
To exit from programming, return switch n. 1 of the lift controller to OFF: the green led will light off. Use CANCEL key on the panel to exit from the configuration menu.

Continue

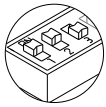
Coming from previous page

## Setting TA and TD times.

When the lift controller receives the order to activate a relay, it delays TD seconds to execute the order. After this time, the relay will be activated during TA seconds. For more information refer to page 2, where the operation modes are explained.
While the lift controller is into programming mode, proceed as follows to set these values:

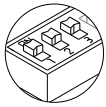


Set switch n.2 to ON. The lift controller is now ready to record TA and TD times.



Set switch n.3 to OFF to record TA time.
Enter the desired value (in seconds) by using the panel keypad and confirm by pressing OK. If a valid value (from 1 to 300) has been introduced, the green led will blink; if not, the red led will blink.


PROGRAM MODE
:000015



Set switch n.3 to ON to record TD time.
Enter the desired value (in seconds) by using the panel keypad and confirm by pressing OK. If a valid value (from 0 to 120) has been introduced, the green led will blink; if not, the red led will blink.


PROGRAM MODE
:000005

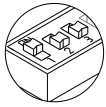
Continue

Coming from previous page

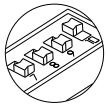
## Recording addresses.

In case you are using a different panel than the one existing on the installation, be sure that the panel address value of the panel used for programming is the same than the one on the installation.

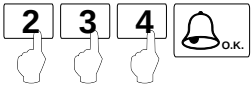
While the lift controller is into programming mode, proceed as follows to record addresses for each relay:



Set switches n.2 and n.3 to OFF. The lift controller is now ready to record addresses.



Set switches n.7 to n.10 according to the relay number to be programmed.
Refer to page 4 for more details.




PROGRAM MODE
:000234

Enter the address to be recorded by using the panel keypad and confirm by pressing OK. The green led will blink to confirm that the address has been correctly recorded. If the address you are trying to record already exists on the relay under programming, the green led will blink, but the recording will not be done.

Repeat the same procedure for all the addresses to be recorded on the same relay. If you are trying to record more than 190 addresses in one relay, the red led will blink to advice that the memory is already full.

Change the relay number and repeat the process.

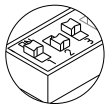
Continue

Coming from previous page

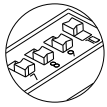
## Deleting addresses.

In case you are using a different panel than the one existing on the installation, be sure that the panel address value of the panel used for programming is the same than the one on the installation.

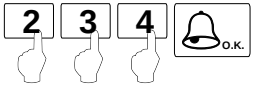
While the lift controller is into programming mode, proceed as follows to delete addresses:



Set switch n.2 to OFF and n.3 to ON. The lift controller is now ready to delete addresses.



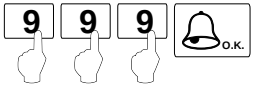
Set switches n.7 to n.10 according to the relay number that contains the address to be deleted. Refer to page 4 for more details.




PROGRAM MODE
:000234

Enter the address to be deleted by using the panel keypad and confirm by pressing OK. The green led will blink to confirm that the address has been correctly deleted. If you are trying to delete an unexisting address, the red led will blink.

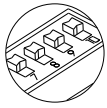
Repeat the same procedure for all the addresses to be deleted on the same relay.



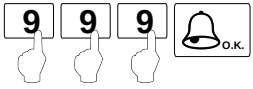

PROGRAM MODE
:000999

In case you want to delete all the existing addresses on the selected relay, enter the address 9 9 9 by using the keypad and confirm by pressing OK. The green led will blink to confirm that all the addresses have been correctly deleted from this relay.

Change the relay number and repeat.



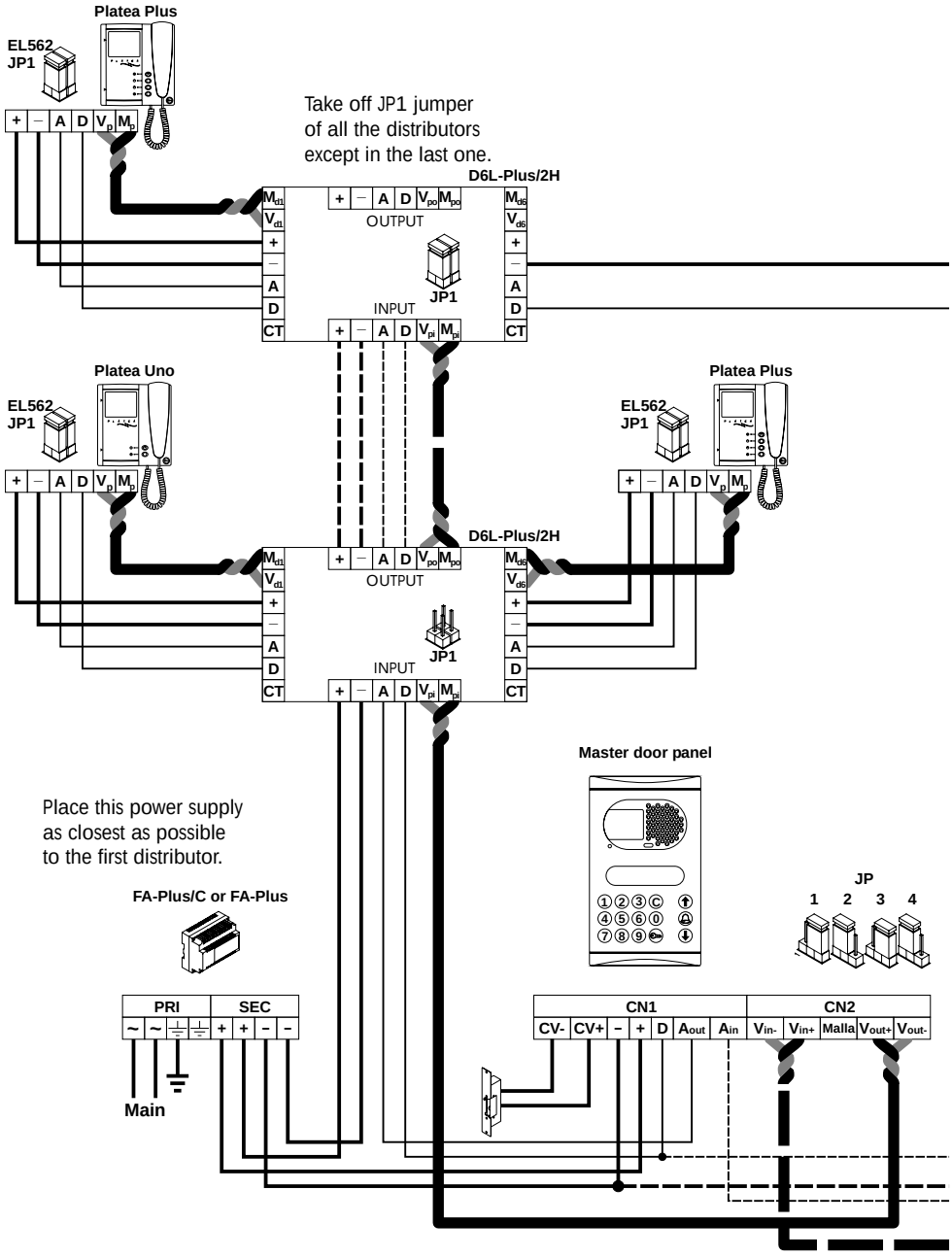
It's possible to delete all the existing addresses on the lift controller. For such purpose, set switches n.7 to n.10 to ON.




PROGRAM MODE
:000999

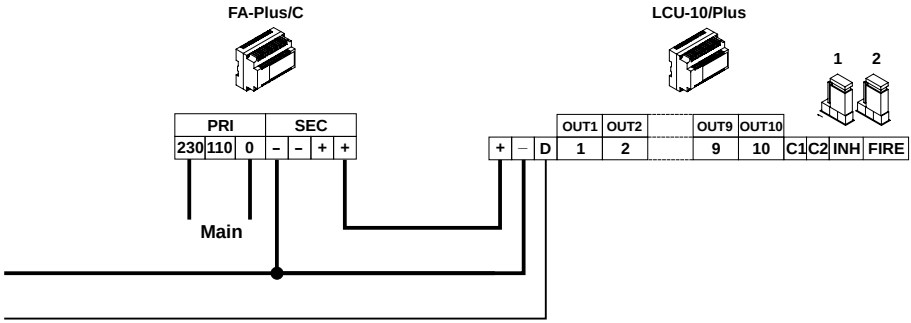
Enter the address 9 9 9 by using the keypad and confirm by pressing OK. The green led will blink to confirm that all the addresses have been correctly deleted from the lift controller.

# INSTALLATION DIAGRAMS

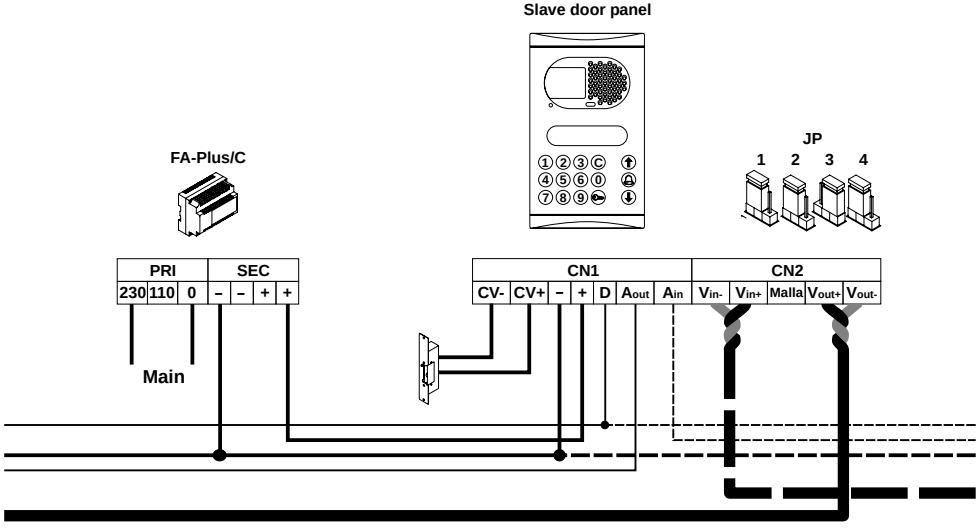



Continue

# INSTALLATION DIAGRAMS




Lift controller unit can be connected anywhere on the installation.
Relay outputs connections are shown on page 3.



**1141 Budapest, Fogarasi út 77.**
Tel.: *220-7940, 220-7814, 220-7959,
220-8881, 364-3428 Fax: 220-7940
Mobil: 30 531-5454, 30 939-9989

**1095 Budapest, Mester utca 34.**
Tel.: *218-5542, 215-9771, 215-7550,
216-7017, 216-7018 Fax: 218-5542
Mobil: 30 940-1970, 30 959-0930

**www.golmar.hu**

**E-mail: info@delton.hu Web: www.delton.hu**