NOTIFIER®
by Honeywell

LCD-6000N Installation manual

LCD Remote panel

INDEX

NOTE: Do not try to install the LCD6000N without having read this manual.

WARNING: This manual refers to all the features available in software revision indicated on manual's cover.

DETECTION SYSTEM LIMITS

A security or fire detection system is useful for timely advice of each dangerous event, like fire, theft, intrusion and in some cases can provide automatic event management (evacuation messages diffusion, automatic extinguishing systems, CCTV plants interfacing, door and accesses lock, automatic warning of authorities etc.) but in any case, does not assure protection against property damage or resulting from fire or theft in general. Each system also can not function properly if not installed and maintained according to manufacturer's instructions.

PRECAUTIONS

- These instructions contain procedures to follow to avoid devices damages. We assume that the user of this manual has previously attended a course and knows applicable laws and regulations.
- The system and devices must be installed in an environment with the following characteristics:
  - Temperature: -5°C to +40°C
  - Humidity: 10 % - 93 % (without condensate).
- Devices (sensors etc.), not perfectly complying with the control panel can cause damages to the control panel or system malfunctioning, and this could even happen at the worst time. That's why it's essential to use only material that is indicated by NOTIFIER as compatible with its control panels. In case of doubt check with NOTIFIER technical assistance.
- This system and all its solid state components, can be damaged by induced electrostatic discharges: handle the boards picking them on borders and avoid to touch electronic components.
- A good grounding connection ensures noise sensitivity reduction
- Consult Technical Service NOTIFIER if you are unable to solve installation problems
- Any electrical system requires proper power supply. Whether mains is missing, the system can work with backup batteries, but only for a limited time.
- During plant's programming, consider required autonomy in order to choose the correct power supply and battery
- Periodically check batteries' level by qualified personnel
- Disconnect mains and batteries BEFORE removing or adding any board
- Disconnect all power sources, BEFORE performing any service operation
- Control panel and connected devices (sensors, modules, annunciators etc.) can be damaged if a board is inserted or removed, or if cables under voltage are connected.
- The most common cause of malfunctioning is bad maintenance
- Take care of these issues particularly from the stage of system design, to facilitate and thereby reduce the future cost of interventions

This device is marked CE, to certify its quality and compliance with European community's regulations

- Electromagnetic Compatibility Directive 89/336/EEC (and 92/23/EEC directive)
- Low Voltage Directive 73/23/EEC

National regulations

This device must be installed and operate in compliance with these instructions and installing place local regulations.

GENERAL DESCRIPTION

DESCRIPTION

LCD6000N is a LCD remote panel for the new series of AM-2000, AM-4000, AM-6000 control panels.
A control panel can connect up to 12 or 16 LCD6000N as remote repeater panel according to the type of control panel.

TAB.1

CONTROL PANEL	LCD6000N LCD6000T	LCD6000A	TOTAL INSTALLABLE LCD
AM2000	max 12	max 10	16
AM4000	max 16	max 14	22
AM6000	max 16	max 16	24

The remote repeater LCD6000N display all reports of control panel and allow to performs the following functions:

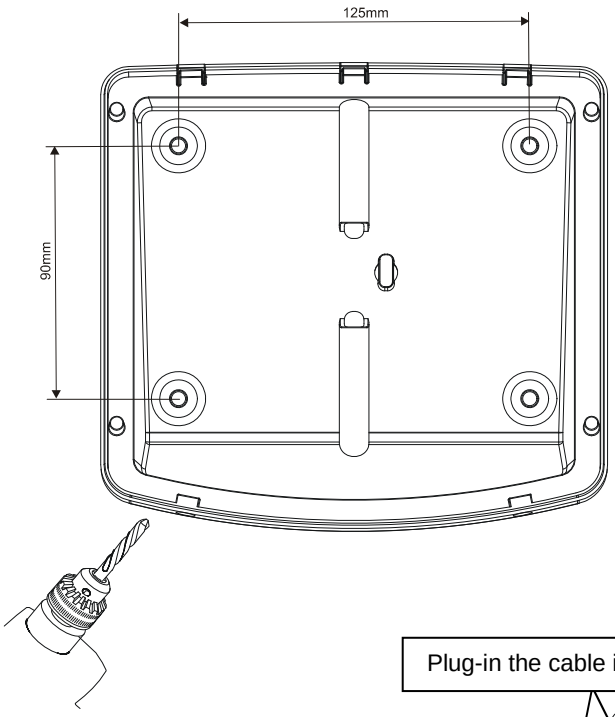
- ALARM ACKNOWLEDGMENT;
- OUTPUT TACITATION;
- RESET ALARMS.

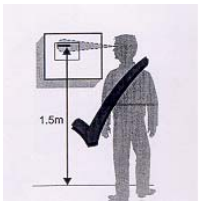
FUNCTIONING
The repeater needs of local configuration for the assignment of peripheral address.
LCD6000N displays time, date and personalized messages from the AM Series control panel.
Using the function keys of the **LCD6000N** repeater can be successfully performed the following functions:
- Buzzer tacitation, Output tacitation, Reset alarm and Lamp Test.
- It also allows viewing of the events list on the control panel divided by: Alarms, Fault, System fault.

Technical features:
- Microprocessor based system
- LCD graphic 320 x 240 pixel display
- Keyboard with dedicated keys for special functions: Buzzer tacitation, Sounder tacitatione, Reset, LampTest.
- **Serial lines**:
  - 1 RS 485 interface
- **Voltage range**:
  10÷30Vcc
- **Collegamenti**
  - 2 wire (power)
  - 2/3 wire for serial wiring (2 with common power, 3 with separate power)
- **Mechanical**:
  LCD6000N is suitable for wall mountin installations.
  Dimensions 180mm (W) x 168mm (H) x 55mm (D)
  IP rating: IP 20
  Temperature range: -5°C ÷ +40°C

INSTALLATION

Dimensions for wall-mount





The panel is designed to be wall-mounted through 4 self-blocking nogs (stone walls) or self-tapping screws (pre-built panels etc.)
Screws diameter must be 5mm max. We advice not to install the panel near heating sources (radiators etc.)

It is recommended to not install the LCD6000N control panel close to heat sources (radiators, heaters, etc..).

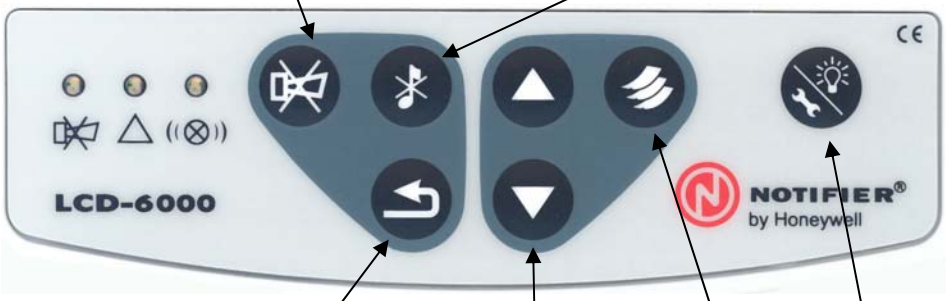
FRONT PANEL CONTROLS

SOUNDER ACKNOWLEDGMENT
In alarm condition the following devices are active:
- Control panel sonunder output
- Control module Type-ID **HORN** programmed
- All control module activated by CBE association

This button disabe the following devices:
- Control panel sonunder output
- Control module Type-ID **HORN** programmed enabled for tacitation
- All control module activated by CBE association enabled for tacitation

This requires the **level 2 password.**
To access the level 2 password, press key, the entry window will be shown. With arrow keys select first number, than press to confirm. Repeat this step to enter the entire password.

BUZZER TACITATION: this key silence LCD6000N and control panel buzzer and enable the operator to perfor a RESET.



RESET: la pressione di questo tasto cancella la memoria degli allarmi o guasti di punti presenti al momento. Disattiva le sirene e spegne tutte le segnalazioni luminose dei sensori in allarme.
Per poter effettuare questa operazione occorre conoscere la **password di livello 2**.
Per accedere alla password di livello 2 premere il tasto, comparirà una finestra per l'immissione. Con i tasti selezionare il primo numero, quindi premere per confermare. Ripetere l'operazione per inserire la password completa.

ARROWS: selection keys.

LAMP-TEST: this key executes the lamp-test (LEDs blink for few seconds and then the test is performed on screen).
Holding down this button for a few seconds, the user can access to the configuration menu of the LDC6000N.

LISTE : this button in case of alarm or fault from area, allows to view the list of individual points in alarm or fault.

FRONT PANEL SIGNALLING

ALARM (Red) **:**
Flashes if there is at least one device in alarm condition that has not yet been recognized.
On Fixed if all alarm events have been recognized.

FAULT (Yellow) :
Flashes if there is at least one fault that has not yet been recognized.
On Fixed if all fault events have been recognized.

TACITATION (Yellow) :
On if acknowledgment key have been peviously pressed.

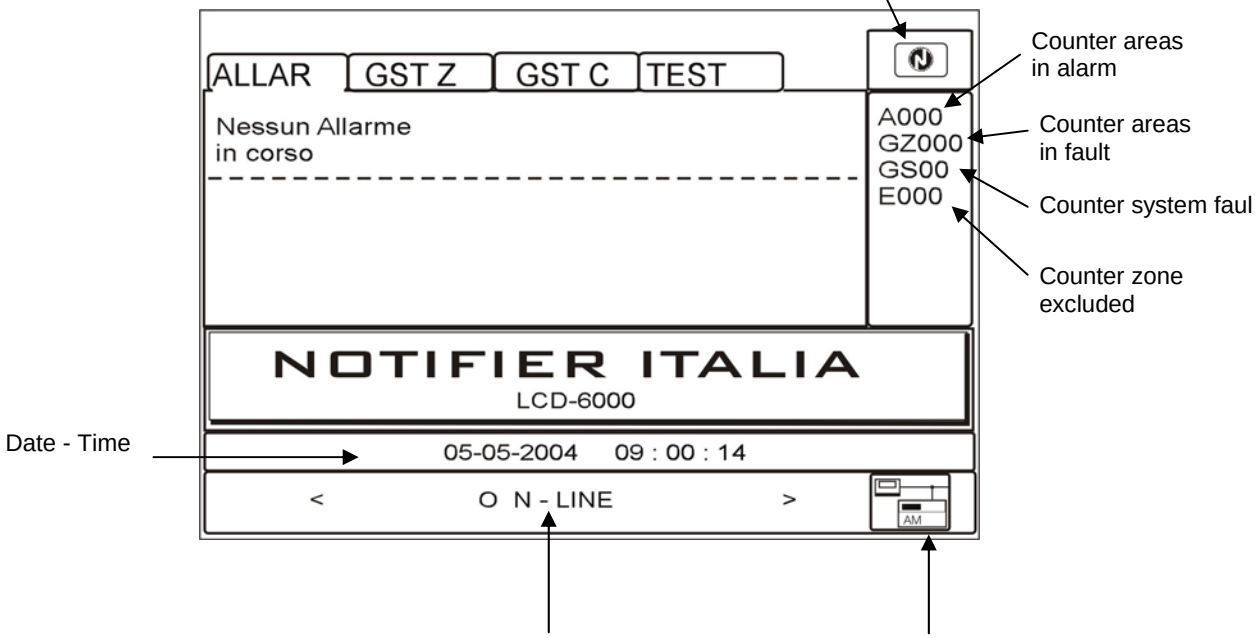
USER INTERFACE DESCRIPTION

Condizione normale

The following screen is displayed when the panel LCD6000 there are no fault conditions (allarm or fault):

Panel iIcon status.
In normal condition, without alarm and fault, the NOTIFIER trademark symbol is present.
In the presence of points or zone not included an exclamation is displayed (**!**).
In allarm condition the symbol Flame is displayed.
In fault condition the symbol Triangle is displayed.

Note: The alarm state prevails in the event that the panel is alarm and fault condition simultaneously.

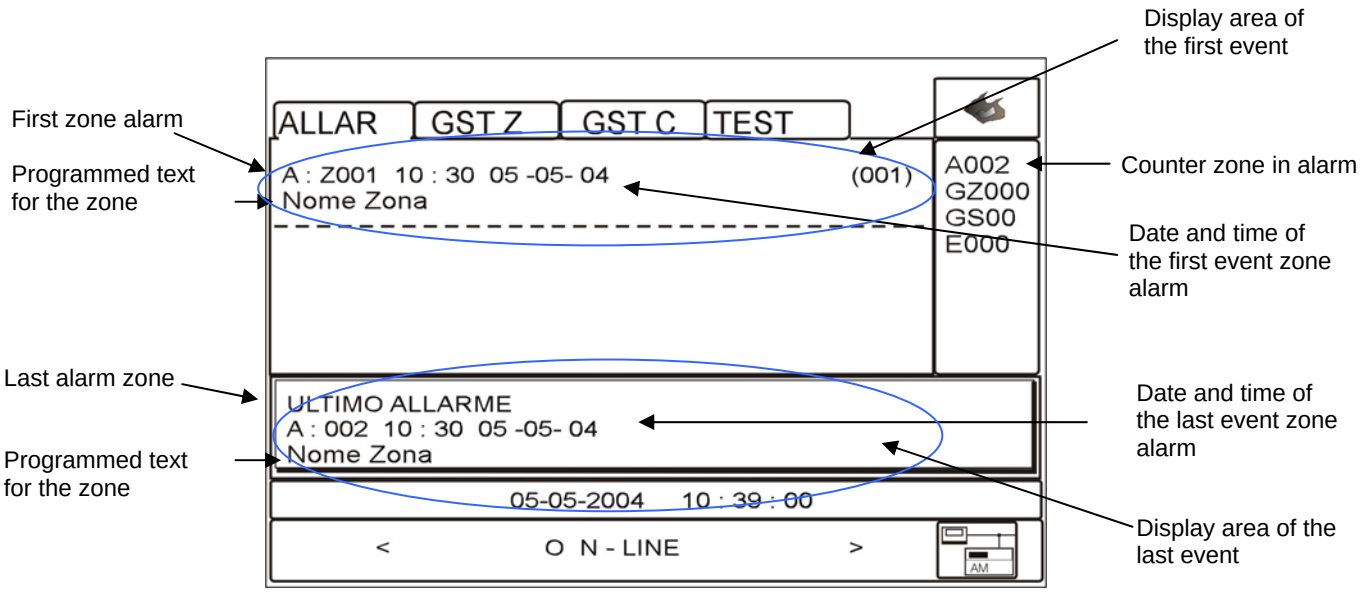


Serial connection RS485 status
In case of failure on the serial connection "OFF LINE" will displayed.

Serial connection icon status.
In case of failure on the serial connection the icon will displayed as follow:

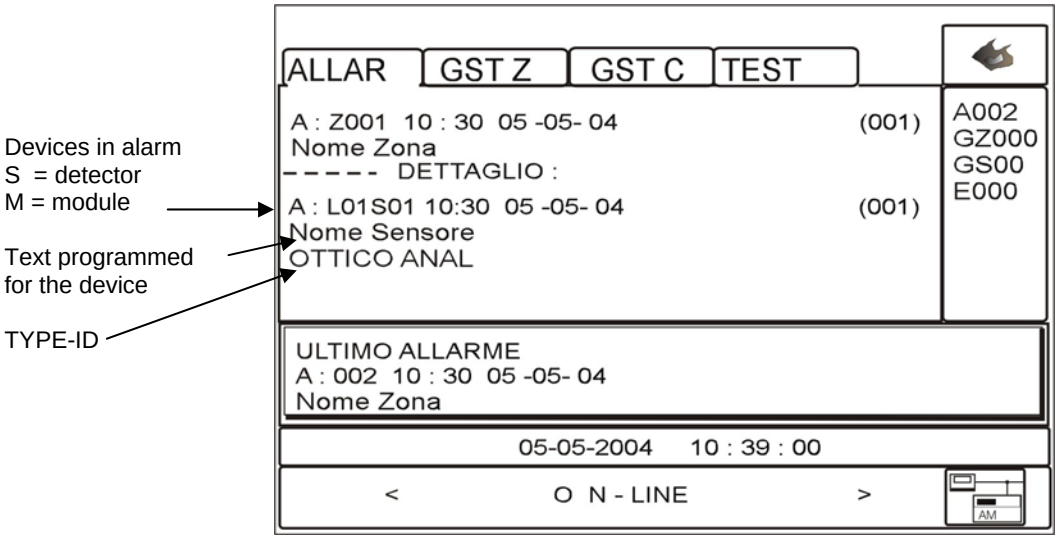
Events from zone in alarm condition

The following screen is displayed when the control panel has a zone in alarm.



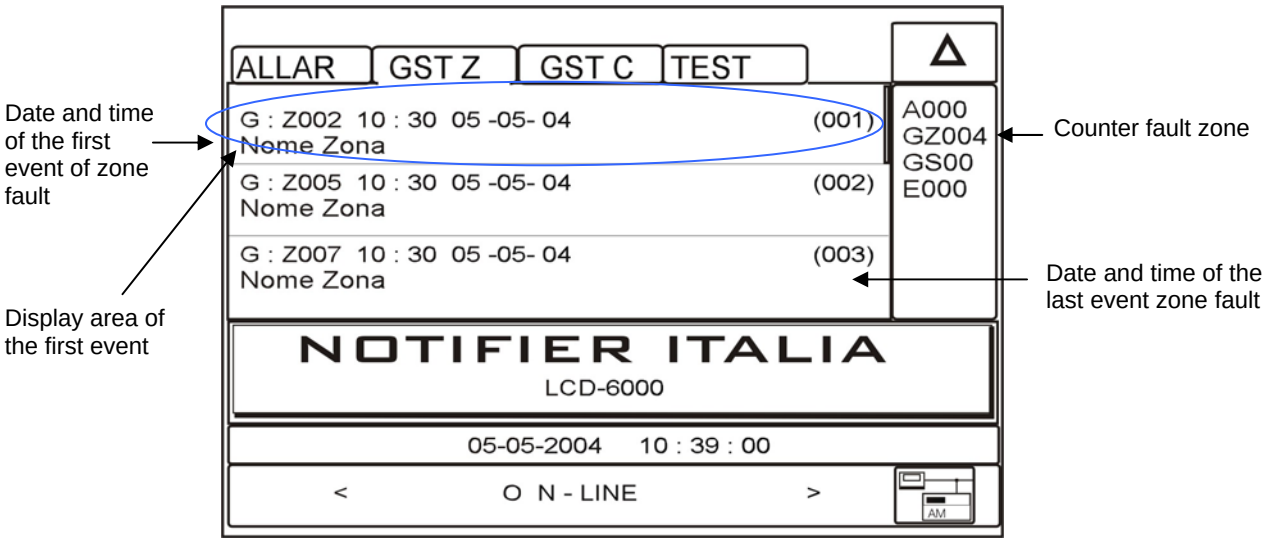
With arrow keys ▲ ▼ it is possible to scroll through the list of zones in alarm.
If there are several zone alarm, to display the devices in a given area; scroll through the list of zones until the selected zone is in the viewing area.

Use key to access the list of points in alarm of the selected zone.
With arrow keys ▲ ▼ it is possible to scroll the list of the devices in alalrm.



Events from zone in fault condition

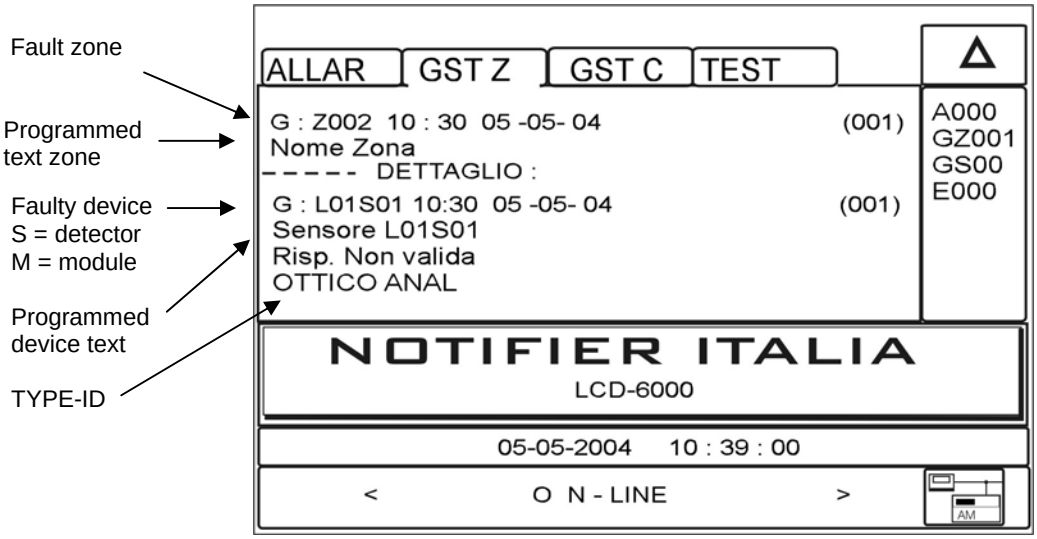
The following screen is displayed when the control is in zone fault condition.
Even the events of fault are initially displayed by zone.



With arrow keys ▲ ▼ it's possible to scroll the listo fault zone.

If there are several fault zone, to display the faulty devices in a given area; scroll through the list of zones until the selected zone is in the viewing area.

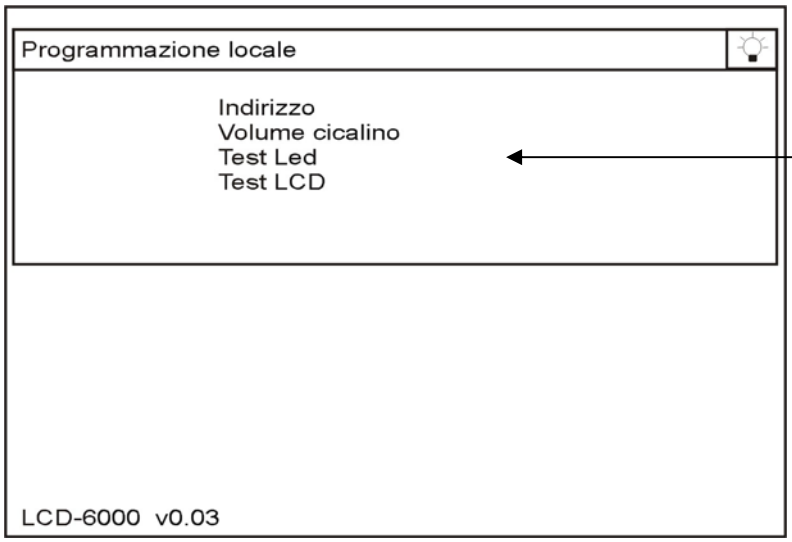
Use key to access the list of fault points of the selected zone.
With arrow keys ▲ ▼ it is possible to scroll the list of the devices in fault.



PROGRAMMING MENU'

To enter in the initial configuration programming menù of the LCD6000N, hold the key for a wile.
To change the panel configuration the 3A password level is requied. To access the password level 3A press for a wile then the entering windows will displayed. With arrow keys select first number, than press to confirm. Repeat this step to enter the entire password.

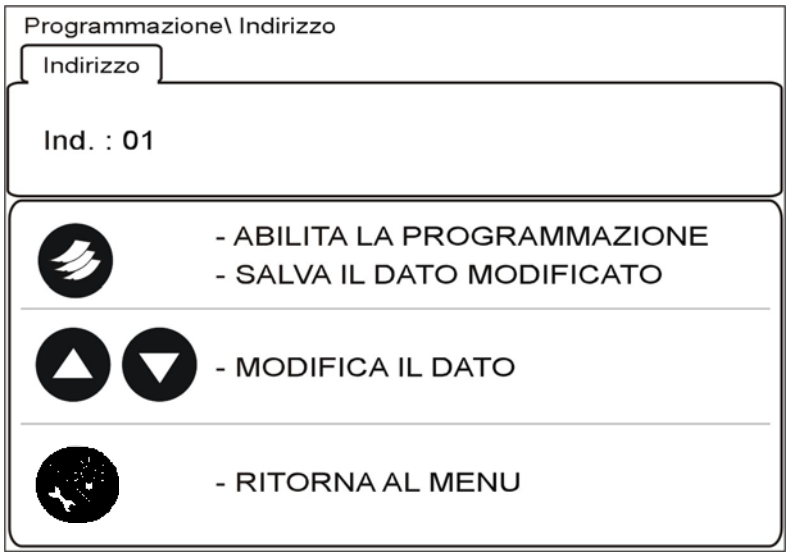
The follonig menù will displayed:



Where:

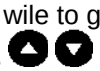
Address

Select "Indirizzo" voice to assign peripheral number to LCD6000N.
Use arrow key sto select device number and press list key to confirm. 16 available device address for LCD6000N.



Password

PASSWORD LEVEL 2 – For acknowledgement or reset **LEVEL 2** password is required. After pressing the corresponding key the entering window for the password entry will displayed. With arrow keys  select first number, than press  to confirm. Repeat this step to enter the entire password. Default password is 22222.

3A LEVEL PASSWORD – Press  key for a wile to get **3A LEVEL** password, than entering window for the password entry will displayed. With arrow keys  select first number, than press  to confirm. Repeat this step to enter the entire password. Default password is 44444.

Buzzer volume

Selecting “Volume Cicalino” with the arrow keys to scroll the list, than list  key to confirm it is possible to set buzzer volume for alarm and fault.

LED Test

Selecting “Test Led**”** with the arrow keys, than list  key to confirm. The LCD6000N perform the lamp-test

LCD Test

with the arrow keys, than list  key to confirm. The LCD6000N perform the display test.

RS485 Serial connection

EN54-2 12.5

Connection integrity:

RS485 connection does not support redundancy in case of cut as required by the standard EN.54.

- The connection of LDC6000N with the control panel use serial line RS485.
- RS-485 line must be installed in “MULTI-POINT” configuration (daisy chain).
- Each peripheral must be programmed with an address between 1 ÷ 16. (refer to TAB.1).

“Multi-Point” configuration (Daisy Chain)

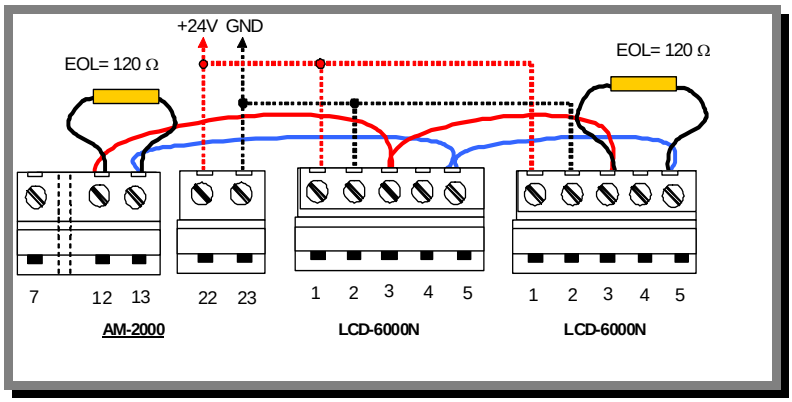
Connect two wires to the RS485 control panel terminal block (**LIN+** and **LIN-**) to the corresponding terminals of the first device on the line.

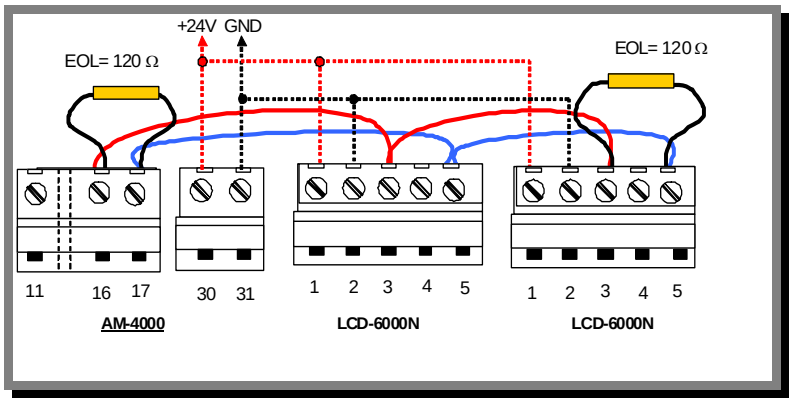
Continue wiring from the first device to the next, and so on.

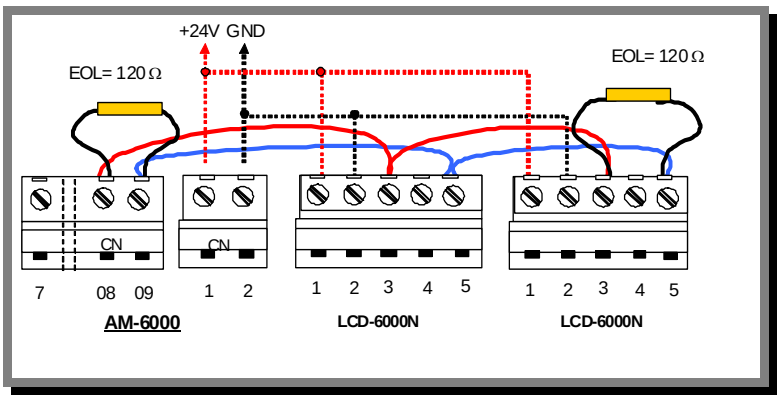
Install EOL (120-150Ω,0.5W) on the terminal block on both control panel and last device of the line.

Maximum length beetween control panel and last device 1,5 km.

Use shielded cable with appropriate section type Belden 9574 or 9575







Typical wiring RS485 with 24Vdc power supply in common
(Control panel user output voltage 24Vcc)

Installation with separate power supply

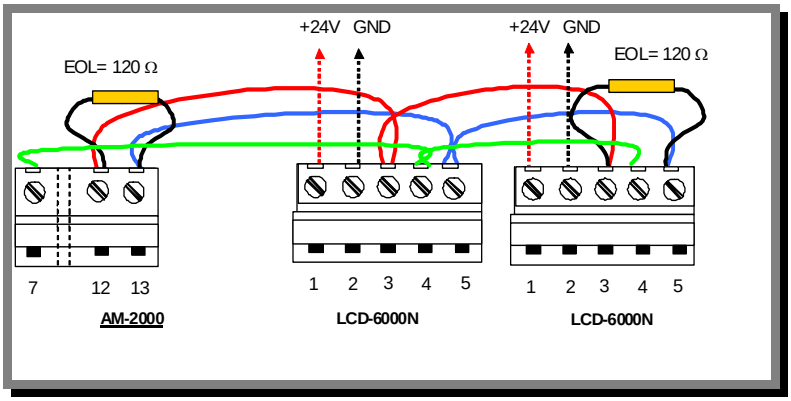
Connect two wires to the RS485 control panel terminal block (**LIN+** and **LIN-**) to the corresponding terminals of the first device on the line.

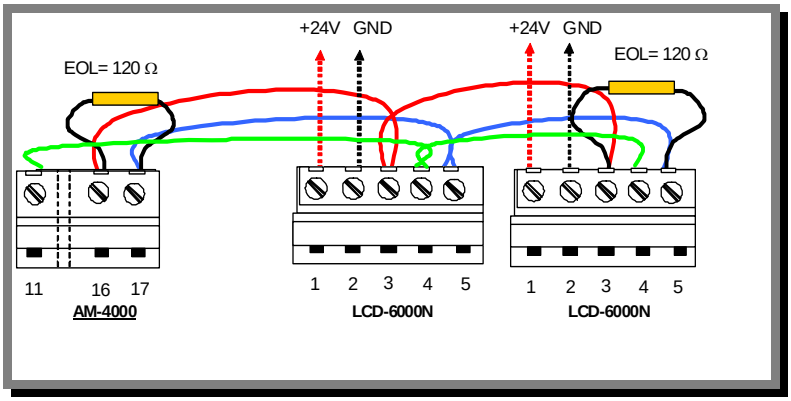
Continue wiring from the first device to the next, and so on.

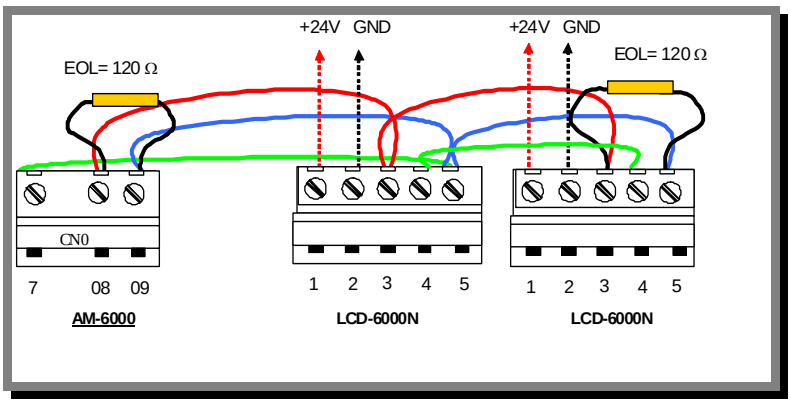
Install EOL (120-150Ω,0.5W) on the terminal block on both control panel and last device of the line.

Maximum length beetween control panel and last device 1,5 km.

Use shielded cable with appropriate section type Belden 9574 or 9575







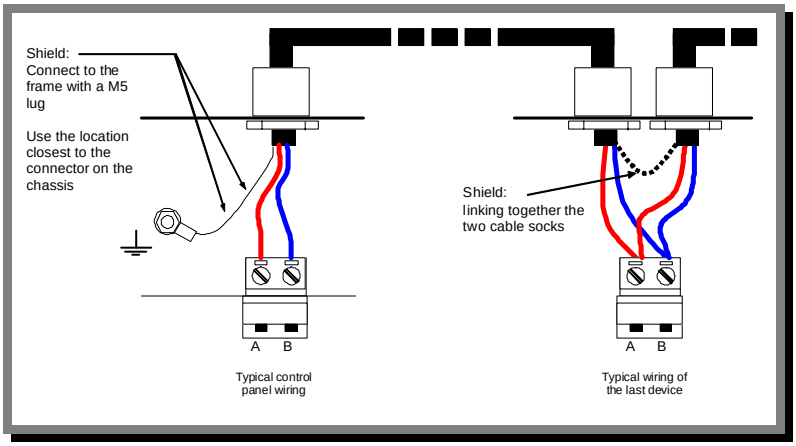
Typical wiring RS485 with 24Vdc separate power supply
(LCDs are powered by auxiliary remote power supply).

Shielded cable and Earth connection

During installation, you need to consider the consequences of remote ground connections.

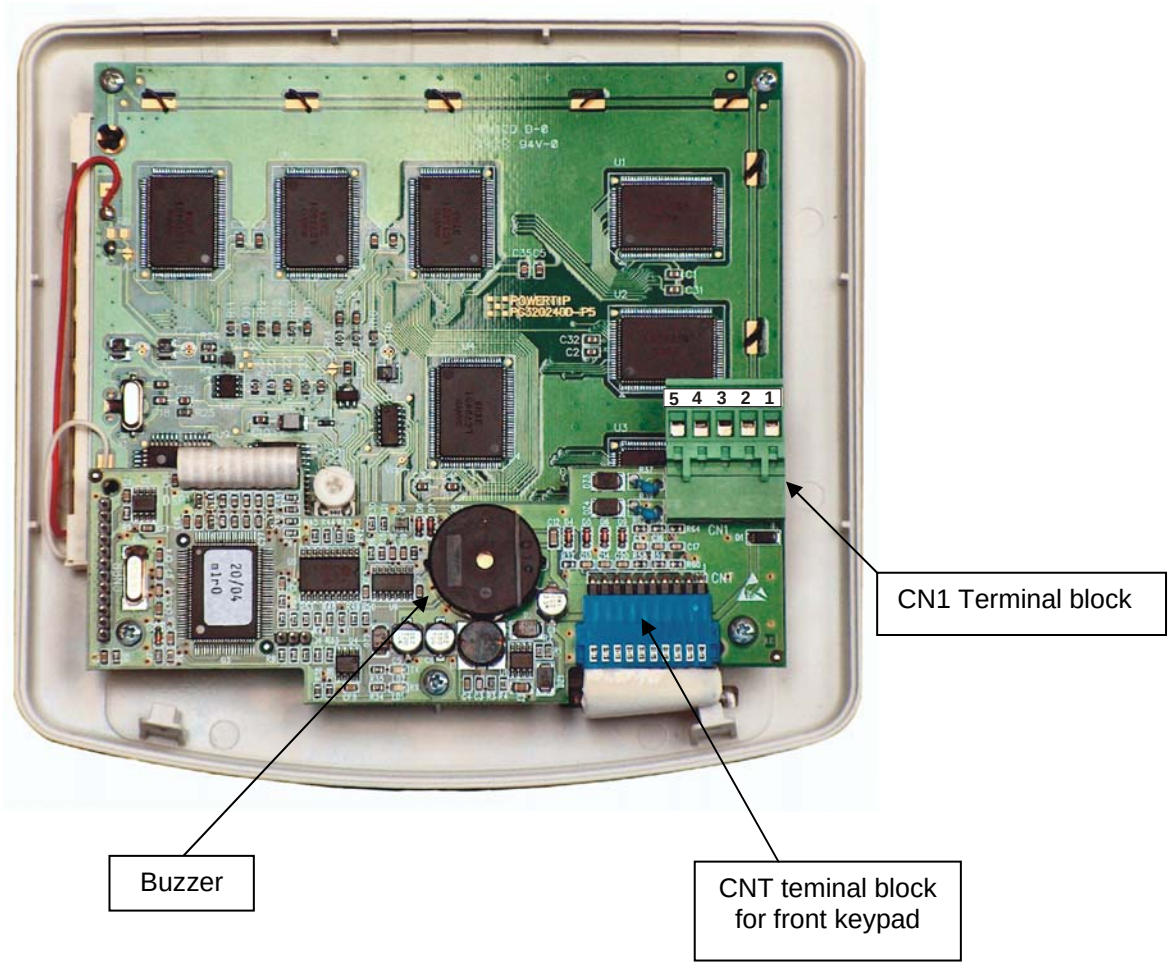
Connecting RS485 circuits, if there is a ground wire (drain), this MUST NOT be connected at chassis of the equipment.

The shield must be connected only at the control panel. Leave the other tail disconnected and isolated



RS485 shield and earth wiring

Topographic LDC6000N board



Cables specifications

Up to 1.200 mt.	18 AWG	Belden 9574 type
Up to 1.500 mt.	16 AWG	Belden 9575 type

CN1 Terminal block

N°	Terminal block	Description	Note
5	LIN –	RS 485 Serial line	
4	GND	Negative reference for serial line RS 485*	
3	LIN +	RS 485 Serial line	
2	GND	Power input	
1	+ 24Vcc		

* TO BE USED IN CASE OF POWER NOT COMMON WITH THE CONTROL PANEL.

ENVIRONMENTAL FEATURES

Operative temperature: - 5°C ÷ + 40°C.
Humidity: 10% ÷ 93% (without condensate).
Stock temperature: -10°C - + 50° C.
Weight: 0,54Kg

Power supply

Voltage range: 10÷30Vcc.

Current in normal condition (without fault or alarms) with display off: 30 mA

Current in alarm condition (with fault or alarms) with display on and buzzer active: 81 mA

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