

DATALOGIC2 Grafic Terminal for DAT'AIR

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User manual



CE
1370

Program code: EPAIRIECZUG
application in English

AIR  **BLUE**
a i r c o n d i t i o n i n g

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User terminal

The user terminal is used solely for programming machine parameters (i.e. the machine can operate without the terminal).

DATALOGIC2 - *Grafic* terminal



The DATALOGIC2-Grafic interface comprises an electronic board controlled by a microprocessor, which converts the information from the board into graphic images.

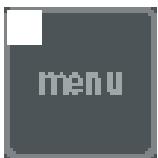
The LCD graphic rear-lit 240x128 pixel display features 16 lines and 30 columns.

The terminal can also be used to:

- factory program specific unit controllers, operations protected by security passwords;
- to modify main run-time operating parameters;
- to display alarms detected and to indicate their presence by a buzzer;
- display all dimensions measured;
- represent the status of control probes: input air, delivery air, humidity, outlet water, inlet water /external air.

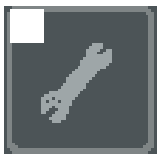
Display keys

Besides the LCD display, the interface also features the following keys with relative functions:



MENU key.

Press from any page to return to the first menu or main page.



MAINTENANCE key.

Press to access the maintenance and assistance section. Access by assistance password only.



PRINT key.

Press to access printer configuration (only if printer is connected).



I/O key

Press to access the status of digital inputs and outputs and the values read by analogue inputs and outputs.



CLOCK key.

Press to access the clock section. Access by clock password only.



SET key

Press to access operating settings section.



PROG key

Press to access the user section. Access by user password only.



?INFO key

Press to access the unit information section.



MENU+PROG keys.

Press both keys at the same time to access the manufacturer section. Access by manufacturer password only.



"RED" and "BLUE" keys.

Press both keys at the same time to access graph configuration. Access by graph password only.

Press the blue key to advance, the red key to go back.



ON./OFF key
Press to set the unit on or off.



ALARM key
Press the key once to silence the alarm buzzer, twice to display the alarm message, three times to eliminate the alarm.
If there are no alarms, the message "No alarm" will be displayed when this key is pressed. In the event of alarm, press the "up" and "down" arrow keys to scroll the sequence of the alarm pages.



UP / DOWN arrow keys.
Press to scroll pages or to change settings when in a modifiable field.



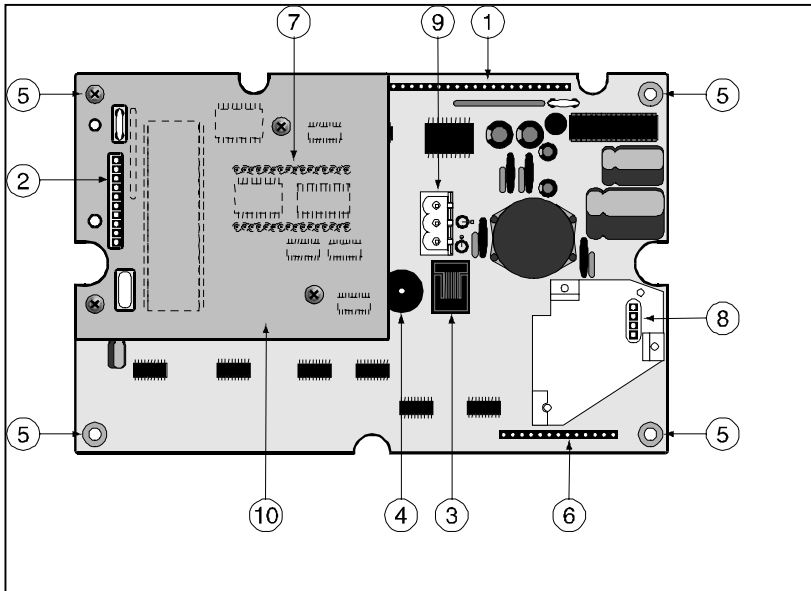
ENTER key
Press to access fields with modifiable parameters, then to confirm modifications.

Features of the graph display terminal

The graph terminal is effectively a second controller unit controlled by a microprocessor; the board supports the program memories, the EPROM with the display management application program, and includes a connector for the clock board, as well as an EEPROM of 32k for storage of the alarm history. The terminal also features a fluorescent lamp to illuminate the display (these lamps should be replaced by authorised personnel only).

Graph display board

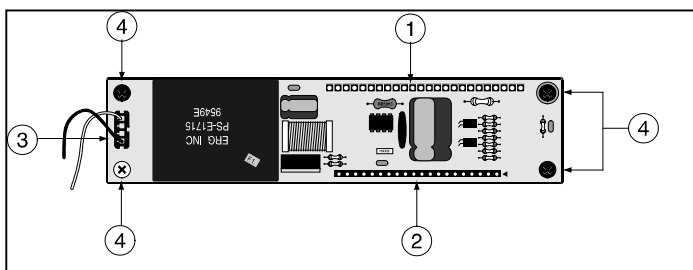
The main components of the board are shown below.



1. Connector for inverter board and display signal management
2. Connector for optional printer board (not included)
3. Telephone connector for connection to basic pco2 board
4. Alarm buzzer
5. Reinforced anchor holes
6. Connector for additional keyboard
7. Connector for program EPROM
8. Connector for clock board (with 32k EEPROM).
9. Power supply connector (min. section 0.5 mm², max. section 2.5 mm²)
10. Interference protection shield

Inverter board for fluorescent lamp power supply

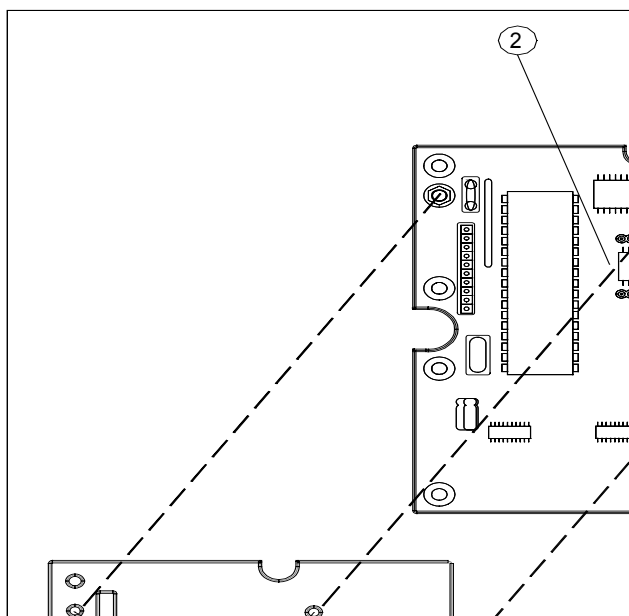
The main components of the board are shown below.



1. Display board connector
2. 240x128 pixel display connector
3. Lamp electrical connections
4. Reinforced anchor holes

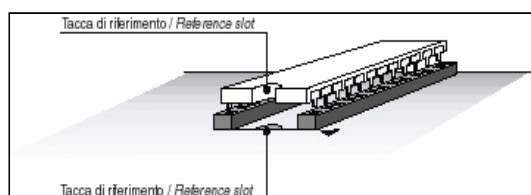
Installation of the EPROM on the display terminal

To install the EPROM with the language application, remove the cover (3) after slackening the 3 securing screws (1); position the EPROM in the base (2), making sure that the EPROM reference slots correspond to the those printed on the board.



1. Securing holes
2. EPROM fixing base
3. Interference protection cover
4. Clock board with 32k EEPROM

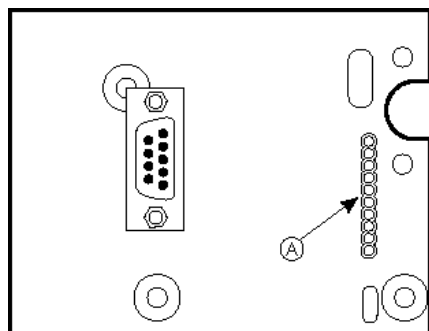
Position the program EPROM as shown in the figure.



Fit the component carefully to avoid bending or breaking the feet. Do not touch the feet with fingers; static electricity discharges can cause permanent damage to the program and cause the machine to malfunction.

Serial printer board for graphic terminal (optional)

The board shown in the figure is an optional card for the 240x128 LCD graphic display terminal. The special connector "A" must be fitted in the respective backplane connector on the printer board by means of a printer serial cable (9-pin – terminal; 9-25 pin - printer).



Serial printer specifications and port settings

Dot matrix printer compatible with RS232 serial port;

Baud-rate: 19200;

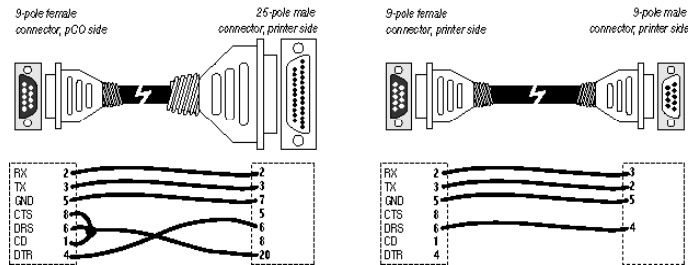
Parity: none;

Stop bit 1 or 2;

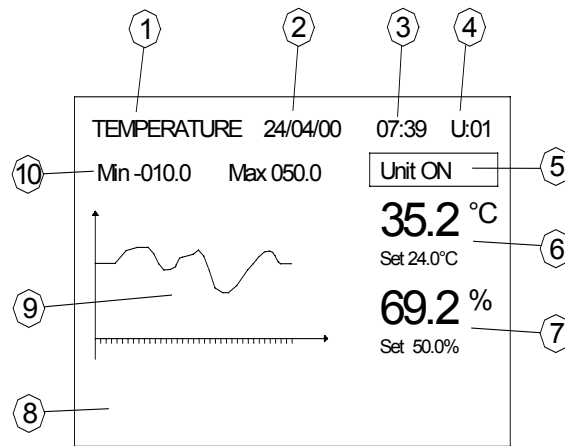
Data bit 8;

handshake hardware protocol.

Serial printer cable type



Graph display terminal



Features of the main page:

1. Parameter measured: TEMPERATURE or HUMIDITY. Use the arrow keys to make the selection.
2. Date
3. Time
4. Number of the unit in the pLAN network
5. Unit operating status
6. Current temperature and temperature setting
7. Relative humidity value and humidity setting
8. Dynamic icon display space
9. Graph curve of parameter selected in point (1).
10. Minimum and maximum values (modifiable) of graph axes.

Dynamic icons

The dynamic icons represent the unit operating status.



Fan
Main fan is operating.



1 2
Cooling

The numbers represent the operating steps 1 and 2.

The pointer symbol indicates the operating mode: CW "cooling water" and DX "direct expansion".



1 2
Heating

The numbers represent the operating steps 1 and 2.



Humidification
This function inhibits dehumidification function.



Dehumidification
This function inhibits the humidification function.

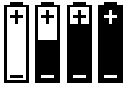


Alarm
Unit alarm is active.

AOM AOM AOM



A-0-M (Automatic-Off-Manual) selector.
Icon always displayed.



Back-up battery level.
Sectors are marked in black according to power level detected.

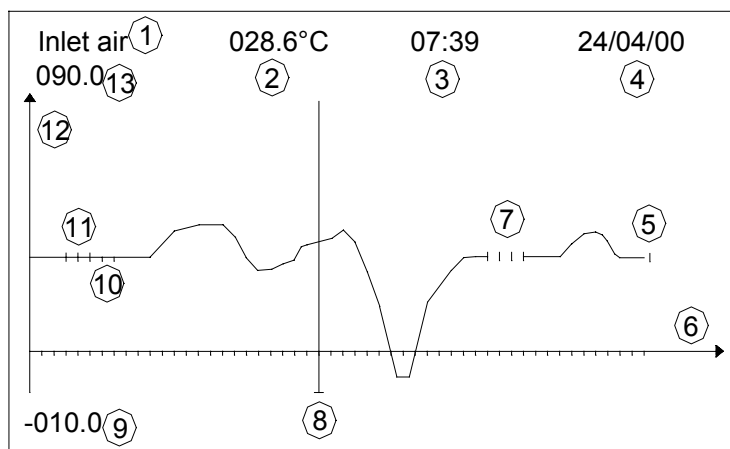
Display stand-by

The display sets to stand-by once 15 minutes since a key was last pressed have elapsed; the display resets to the main page and blackens, while the LED of the menu key starts flashing. Press this key to restore the display (this function prolongs the operating life of the neon, which is normally 700 hours of continuous use).

LCD contrast adjustment

To adjust the display contrast to the visual angle, press the Menu and "Up" keys at the same time to increase contrast, or the Menu and "Down" keys to reduce it. Approximately 30 contrast tones are available.

Description of a graph



The display shows the following:

1. Probe being displayed.
2. Maximum value in point where cursor is positioned (8).
3. Hours and minutes of value in point where cursor is positioned (8).
4. Day, month and year of the value in where the cursor is positioned (8).
5. Last measurement taken.
6. Horizontal axis represents time. Reference marks along the axis refer to different times, depending on the active ZOOM type.
In ZOOM IN, the marks represent the sampling; in ZOOM OUT, the time interval between marks represents the division of the basic time and the number of reference marks.
7. Two or more marks interrupting the curve indicate a black-out.
8. Reference cursor. Move the cursor along the axis by means of the "Up" and "Down" arrow keys, by intervals equal to sampling frequencies.
9. Minimum value displayed of ZOOM OUT and ZOOM IN limits. If the curve exceeds this value, a horizontal line is displayed until the value returns inside the set limits.

10. One or more half marks below the curve indicate when a modification to sampling frequency was made.
11. One or more half marks above the curve indicate the unit status when disconnected from the pLAN network.
12. The horizontal axis represents the interval between the values at points (9) and (13).
13. Maximum value displayed of ZOOM OUT and ZOOM IN limits. If the curve exceeds this value, a horizontal line is displayed until the value returns inside the set limits.

Access to parameters

General

For access to programming levels (Factory parameters, User parameters, Assistance parameters, etc.), refer to the DATALOGIC2 manual.

The pages in each section can be accessed by pressing one or a combination of keys, in the order specified below. Use the arrow keys to scroll the pages in each section.

Inside each page, the cursor is positioned in the top-left field.

Press the "enter" key to move inside the page from one field to another to modify values. Press the "enter" key to confirm modifications.

To modify the values inside a field page, position the cursor then press one of the arrow keys; press the "up" arrow to increase the value, the "down" arrow to lower it.

The pages relating to the graphs only are shown below.

Bear in mind that unauthorised modification of parameters will automatically render the guarantee null and void, and could compromise unit operation.

General definitions

SAMPLING FREQUENCY is the interval of time between one sampling and the next. The values that can be selected range from a minimum of 010 to a maximum of 300 seconds (by steps of 10).

TIME BASE is the part of the graph to be displayed in detail. The values that can be selected are: 1h, 12h, 1 day (24 hours), Week (168 hours).

GRAPH DISPLAY refers to the display mode of the graph: ZOOM OUT or ZOOM IN.

ZOOM OUT represents the minimum and maximum value of graph curve display .

ZOOM IN represents the minimum and maximum value of curve trend detail. This mode affords greater definition of the curve.

GRAPH RESET refers to the possibility of erasing all data stored to date. Use this function on the first start-up to cancel any stored data.

Graph display

The different graphs can be displayed by pressing on the "up" and "down" arrow keys from the main page.

Press the "enter" key once to move the cursor to the first characteristic, twice to display the curve trend. Use the "up" and "down" arrow keys to change the selection.

GRAPH DISPLAY	
Return air temperature	Always displayed.
Humidity	Displayed when graph enabled.
Air delivery temperature	Displayed when graph enabled.
Water delivery temperature	Displayed when graph enabled.
Temp. inlet water/external air	Displayed when graph enabled.

Graph parameters

To access the "graph" parameters, press the red and light blue keys at the same time; set the "graphs" password. Confirm the password by pressing the "enter" key. The arrow keys can now be used to scroll the pages in the section.

Graph page sequence

**GRAPH
PASSWORD**
0000

Represents the access to pages for setting graphs.

In this case the sequence is set to the value 1234; customise this setting by means of the arrow keys.

GRAPHS

Humidity	N
Delivery air	N
Delivery water	N
Inlet water /external air	N
Sampling	300s
Time base	12h
ZOOM	ZOOM OUT
CANCEL GRAPHS	
WARNING ! ALL GRAPHS WILL BE ERASED!	
	No

Represents the possibility of selecting the graph to be displayed.

Enable the humidity graph (only when probe present). Yes-No
 Enable output air graph (only when probe present). Yes-No
 Enable outlet water graph (only when probe present). Yes-No
 Enable inlet water/external air (only when probe present). Yes-No

ZOOM LIMITS

		MAX	MIN	
Return air	Out	35.0	00.0	°C
	In	25.0	10.0	°C
Delivery air	Out	35.0	00.0	°C
	In	25.0	10.0	°C
Inlet water/ext. air	Out	35.0	00.0	°C
	In	25.0	25.0	°C
Outlet water	Out	35.0	00.0	°C
	In	25.0	10.0	°C
Humidity	Out	095.0	000.0	%
	In	080.0	025.0	%

Represents limits that can be selected for graphs.

Out = ZOOM OUT limits
 In = ZOOM IN limits

The values already displayed refer to default values that are entered during the initialisation process. These parameters can be modified in specific cases.

Alarm history

To access the alarm history, press the "maintenance" key followed by the up or down arrow key to display the "ALARM HISTORY" page and press "alarm". Press again to access the list of alarms in the history.

ALARM HISTORY	
0001	
AL 01	
HP COMPRESSOR 1	
Alarm status: OFF	
10 : 01	15 / 05 / 00

Progressive number of alarm in memory

Alarm code (see DATALOGIC2 alarm pages)

Type of alarm activated

Alarm status

Time and date that alarm tripped.

Status can be:

ON = alarm still active

OFF = alarm no longer active.

The maximum number of alarms that can be stored in the history is 100.

Number 0001 is the oldest alarm that has tripped and the user can use the keys ↑↓ to scroll through the list.

For example, if a total of 15 alarms have been stored and the user is in position 0015, the key ↑ can no longer be used and the message NO OTHER ALARM is displayed.

If the limit of the alarm memory is reached, the first alarm (the oldest) and then subsequent ones are overwritten with new alarms.

The alarm history can only be deleted in maintenance mode (password protected), as specified in the DATALOGIC2 operation manual.

We recommend deleting the alarm memory immediately before memorisation, to remove any false data if present. .

?Info

Press the "?Info" key to display general information about the unit.

?Info page sequence

AIRBLUE	
DAT'AIR SERIES	
CONDIT.OPT.HUMIDIFIER	
COD.EPAIRICZUG VER. x.xxx xx/xx/xx	
OPERATION	
MASTER / SLAVE	
MODELLO:	UEDA
SIZE	100
VERSIONE:	HH

Represents limits that can be selected for graphs.

Application code, last version and present date.

Operating mode of the unit in the network:
MASTER/SLAVE or RUNNING/STAND-BY.

The model, size and version of the controlled unit.



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