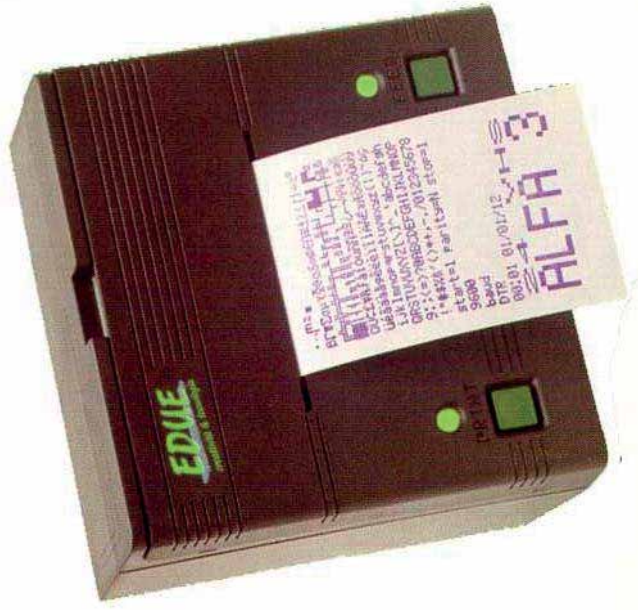




# ALFAPANEL 3

LINE OF IMPACT PRINTERS  
FOR PANEL APPLICATION



CONSULTING DISTRIBUTOR



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The updated version of this manual  
is on line at [www.edue.com](http://www.edue.com)

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In "DATA" mode, the dots in graphics character strings are printed from left to right. The dot on the far left corresponds to bit D5 for the first character following the control character 11hex. The far right character corresponds to bit D0 for the last graphics string character.

As mentioned before, if the graphics line is not the same as the maximum number of characters per line: 24, 40, 42, to exit graphics mode, just transmit character LF (0Ahex)

To make a line of white dots with font A1 or A2 selected, just transmit this string:  
11hex 0Ahex.

With font P transmit this string:

11hex 40hex 0Ahex.

To make a line of black dots, whatever the font, transmit this string:

11hex 7Fhex ... 7Fhex

where the character 7Fhex is repeated 24, 40 or 42 times depending on the printer model.

**NOTE:**

The FEED button on the front panel is disabled during graphics mode printing.

## 5 TECHNICAL INFORMATION

### 5.1 Technical specifications

- Piloted printheads
  - model 24 HS
  - model 42 HS
  - model 24 VHS
  - model 40 VHS
- Print method
  - EPSON M-180
  - EPSON M-183
  - EPSON M-190
  - EPSON M-192
  - impact shuttle (dot matrix)
  - horizontal
  - normal / upside down
  - only feed
  - friction
- Print direction
- Type of print
- Paper movement
- Paper transport<sup>(1)</sup>
- Print speed
  - model 24 HS 1.7 lines/sec
  - model 42 HS 1.0 lines/sec
  - model 24 VHS 2.5 lines/sec
  - model 40 VHS 1.5 lines/sec
- Paper feed
  - model 24 HS 4 lines/sec
  - model 42 HS 2.3 lines/sec
  - model 24 VHS 6 lines/sec
  - model 40 VHS 3.6 lines/sec

- Buffer capacity 130 Bytes
- MCBF (including printhead)<sup>(2)</sup>
  - model 24 HS 10 x 10<sup>5</sup> lines
  - model 42 HS 10 x 10<sup>5</sup> lines
  - model 24 VHS 15 x 10<sup>5</sup> lines
  - model 40 VHS 15 x 10<sup>5</sup> lines

NOTE (1): continuous printing with 5 x 7 matrix, power supply 4.8 Vdc, and temperature 25° C  
NOTE (2): printing with 5 x 7 matrix

### 5.2 Functional specifications

- Print quality
- Characters per line
  - model 24 HS and 24 VHS:
    - normal 24
    - double width 12
    - expanded 12
  - model 40 VHS:
    - normal 40
    - double width 20
    - expanded 20
  - model 42 HS:
    - normal 42
    - double width 21
    - expanded 21
- Print area width
  - model 24 HS and 24 VHS 3 dots/mm
  - model 40 VHS 5.05 dots/mm
  - model 42 HS 5.26 dots/mm
- Vertical resolution
  - model 24 HS 2.7 dots/mm (0.37 mm/dot line)
  - model 40 VHS 2.7 dots/mm (0.37 mm/dot line)
  - model 42 HS 2.7 dots/mm (0.37 mm/dot line)
- Dots per line
  - models 24 HS and 24 VHS 144
  - model 40 VHS 240
  - model 42 HS 252
- Standard character height
  - model 24 HS 2.6 mm
  - model 40 VHS 3.7 mm
- Character sets
  - IBM AS CII 256
  - + modified sets (see Chapter 8)
  - + 11 user modifiable characters

### 5.3 Paper

- Type normal in rolls <sup>(1)</sup>
- Width 57.5 ± 0.5 mm
- Thickness 0.060 ÷ 0.085 mm
- Copies 1 + 1 original
- Max. outside roll diameter 50 mm
- Min. inside roll diameter 12.5 mm

NOTE (1): Standard paper rolls supplied by EDUE Italia <sup>®</sup> S.p.a. are 20 meters in length.

### 5.4 Inked ribbon cartridge

- Type cartridge ERC 09 or ERC 22 purple
- Colour 2.5 x 10<sup>5</sup> characters
- Life ERC 09 10 x 10<sup>5</sup> characters

### 5.5 Interfaces

- Serial TTL RS-232C (optional) flag hardware DTR flag software XON-XOFF 1200,2400,4800,9600, 19200 Baud Handshake Centronics (option)
- Parallel AMP MODU II F 2 pin AMP 280358-1

### 5.6 User supply connectors

List of user supply connectors needed to install the printer.

- Controller board J6 (paper take up) AMP MODU 1 F 4 pin p/n 280591-1 + 4 contacts p/n 182198-1
- J7 (power supply) AMP version MSTB 2.5/3-ST-5.08F PHOENIX F 3 pin standard

J11 (communication, standard) FLAT CABLE F 20-pin

- Optional RS-232C board J2 (to host) D-shell M 25 poles

### 5.7 Power supply

- Mains power supply outside power supply (accessory)
- Dc supply if AMP 4 poles connector installed controller mechanism (Vcc) (Vpp) + 4.4 ÷ 6.0 V (dc) + 3.8 ÷ 5.4 V (dc)

NOTE: It must be Vcc ≥ Vpp-0.3V

- Current drain if connector PHOENIX 3 poles installed models 24 HS and 42 HS:
  - print (average value) 25 mA <sup>(1)</sup>
  - standby 700 mA <sup>(1)</sup>
  - print (average value) 1.5 A <sup>(2)</sup>
  - print (average value) 3.8 A for 600 µs
- Controller models 24 VHS and 40VHS:
  - standby 25 mA <sup>(1)</sup>
  - print (average value) 900 mA <sup>(1)</sup>
  - print (peak value) 2.2 A <sup>(2)</sup>
  - print (peak value) 4.9 A for 600 µs
  - Optional paper take-up device power draw 60 mA <sup>(3)</sup> check its manual

NOTE (1): Average print density = 15 dots/character; power supply = 5 Vdc, T = 25° C

NOTE (2): Max. black (all dots printed), power supply = 5 Vdc, T = 25° C

NOTE (3): Max. power draw including optional

### 5.8 Work environmental conditions

- When working
  - temperature 0° ÷ +50° C
  - relative humidity (without condensation) 10% ÷ 80% U.R.
- Non-work conditions
  - temperature - 30° ÷ +65° C
  - relative humidity (without condensation) 5% ÷ 85% U.R.

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