- **4 by 4 Video and stereo Audio matrix**

- **BNC Video connectors**

- **RCA socket Audio connectors**

- **Input and output selectable by dedicated pushbuttons**

- **Status indication by 4 x 4 leds matrix**

- **Memory retention**

TZ04-M   30/07/09

INSTALLATION AND USEOF THE TZ04

INDEX

When installing the TZ04 unit, please read this handbook carefully.

The manufacturer shall not be held responsible for any damage or injury caused by use, even correct, of its products.
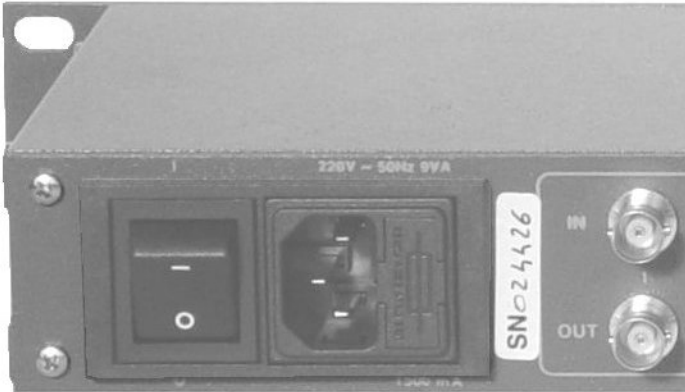
The data and characteristics of the product may be modified without prior notice

2.0 POWER SUPPLY

The TZ04 must be powered at 230 Vac 50Hz using the cable provided. The cable must be terminated in the related panel plug on the left at the back of the unit.

The panel plug is complete with fuse-holder for 5X20 fuses. If the fuse blows, replace with a fuse **with the same rating** as specified on the back of the unit. (T 500mA).

WARNING
All operations must be carried out by qualified personnel only
who must be informed of the risks of electric shock

In some countries, the power plug must be adapted to local standards. The wires are identified according to the following coding:

- Brown   PHASE   (Identified with the letter L, may be red)
- Blue   NEUTRAL   (Identified with the letter N, may be black)
- Yellow/Green   GROUND   (Identified with the letter E, may be green)
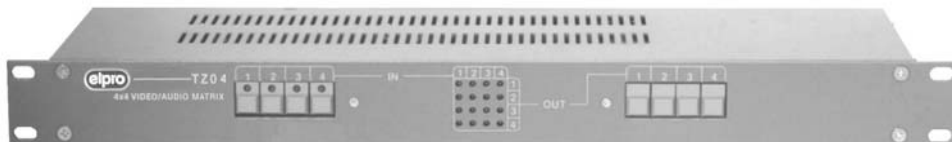
WARNING
A ground connection is mandatory.

The TZ04 can be ordered for powering at 115Vac 60Hz.
The setting is made in factory and cannot be modified by the customer.

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3.0 COMMAND

The unit is provided with an integrated command keyboard.
It consists of 4 pushbuttons with led, 4 pushbuttons without led and a matrix of 16 red leds that indicates the machine connections. The unit is provided with an integrated command keyboard. It consists of 4 pushbuttons with led, 4 pushbuttons without led and a matrix of 16 red leds that indicates the machine connections.

Looking the TZ04 from the front, we can realize that an input is selected pressing one of the button called **IN**; the relative led switch on and remain lighted.

Pressing one of the button named **OUT**, the input previously selected is routed to this output.

3.1 Saving configuration

Pressing the button IN1 for 5 seconds, we save the current configuration and the same will be active on further power-on of the TZ04.

3.2 Three state output

To make the video and audio output in high impedance state, press for 2 seconds the OUT button. The led on the matrix status will light off.

To restore the video and audio on the output, press again for for 2 seconds the OUT button. The led on the matrix status will light on.

4.0 INSTALLATION

The 4 video sources must be connected to 4 BNC named **VIDEO IN 1-4**
The 4 video destination must be connected to 4 BNC named **VIDEO OUT 1-4**

WARNING
**The video inputs are internally terminated with 75 ohm.
The video outputs are source terminated with 75 ohm**

As already written, the TZ04 is provided with stereo audio that follows the video switching.

Connect the 4 audio sources to the 4 RCA sockets named **AUDIO1 IN 1-4** and **AUDIO2 IN 1-4**.

Connect the 4 audio destinations to the 4 RCA sockets named **AUDIO1 OUT 1-4** and **AUDIO2 OUT 1-4**.

For both inputs and outputs the connections are standard unbalanced.

WARNING
**Audio outputs are able to drive 600 ohm loads
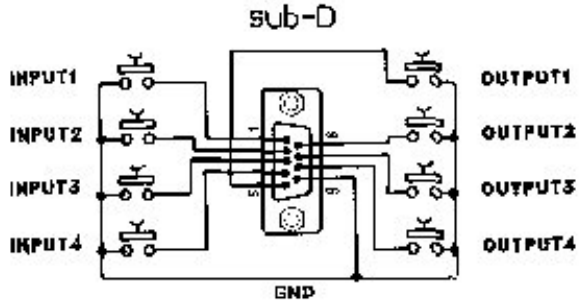Loading the output with 600 ohm makes a loss of 1 dB**

5.0 REMOTE COMMAND (opz. TZ04/OPT1)

On request it's possible to fit on the matrix on option cod. TZ04/OPT1 for remote command by dry contacts (max. 10mt.).
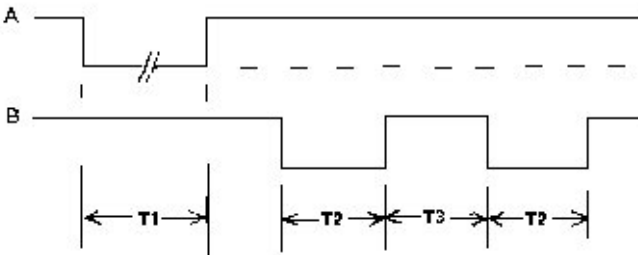In this caseis available on the rear panel a sub-D 9 p. female connector.
The signals involved are 4 for the inputs and 4 for the outputs and are connected as follows:

INPUT	sub-D9p. f.
1	1 – 9
2	2 – 9
3	3 – 9
4	4 – 9
OUTPUT	
1	5 – 9
2	6 – 9
3	7 – 9
4	8 – 9

WARNING: Make connections by dry contacts or O. C. (open collector) devices with the time relationship as follows:

A INPUT selection
B OUTPUT selection

T1 5 mSec minimum
T2 5 mSec minimum
T3 5 mSec minimum

6.0 TECHNICAL DATA

VIDEO:	
Input level	:1 Vpp
Input ret.loss	:48 dB at 5 MHz
Output ret.loss	:27 dB at 5 MHz
Frequency response	:0.3 dB at 5 MHz
Diff.gain	:1%
Diff.phase	:1°
Crosstalk (two adj.ch.):	40 dB at 5 MHz

AUDIO:	
Input impedance	:10 Kohm
Input level	:11 dBm MAX.
Frequency response	:-0.5 dB from 20Hz to 500KHz
Harmonic distortion	:0.1% from 20Hz to 20KHz, 0dBm
Crosstalk (two adj.ch.)	:60 dB at 16KHz
Hum &Noise	:-84dBm

Main input   :230Vac 50Hz (115Vac 60Hz su richiesta)
Power consumption   :13 VA
Size (WXDXH)   :483X140X44
Weight   :2.5 Kg

Operating temp. range :0 ÷ 45°
Safety   :according to EN60065
EMC   :according to EN55103-1 and EN55103-2

CE Mark

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7.0 NOTES

This product is guaranteed for 2 years from the date of purchase.

**If the fault in the product is due to improper use or operations
carried out by third parties, the warranty is forfeited.**

During the warranty period, Elpro will repair the faulty units free of charge.
The faulty units must be sent CARRIAGE FREE to the Elpro offices in Turin with a
regular accompanying note.
The units repaired will be returned CARRIAGE FORWARD to the addressee.
Outside the warranty period, Elpro will repair the faulty units EX its Turin offices,
charging the cost of the repair to the customer.

**For any problems during installation of the TZ04
use the Elpro hot-line +039 011 7701583
or E- mail: info@elprovideolabs.com**