INSTALLATION TEVA-2 CARD

Tulip®
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's-Hertogenbosch The Netherlands

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INSTALLATION OF THE TEVA-2 CARD

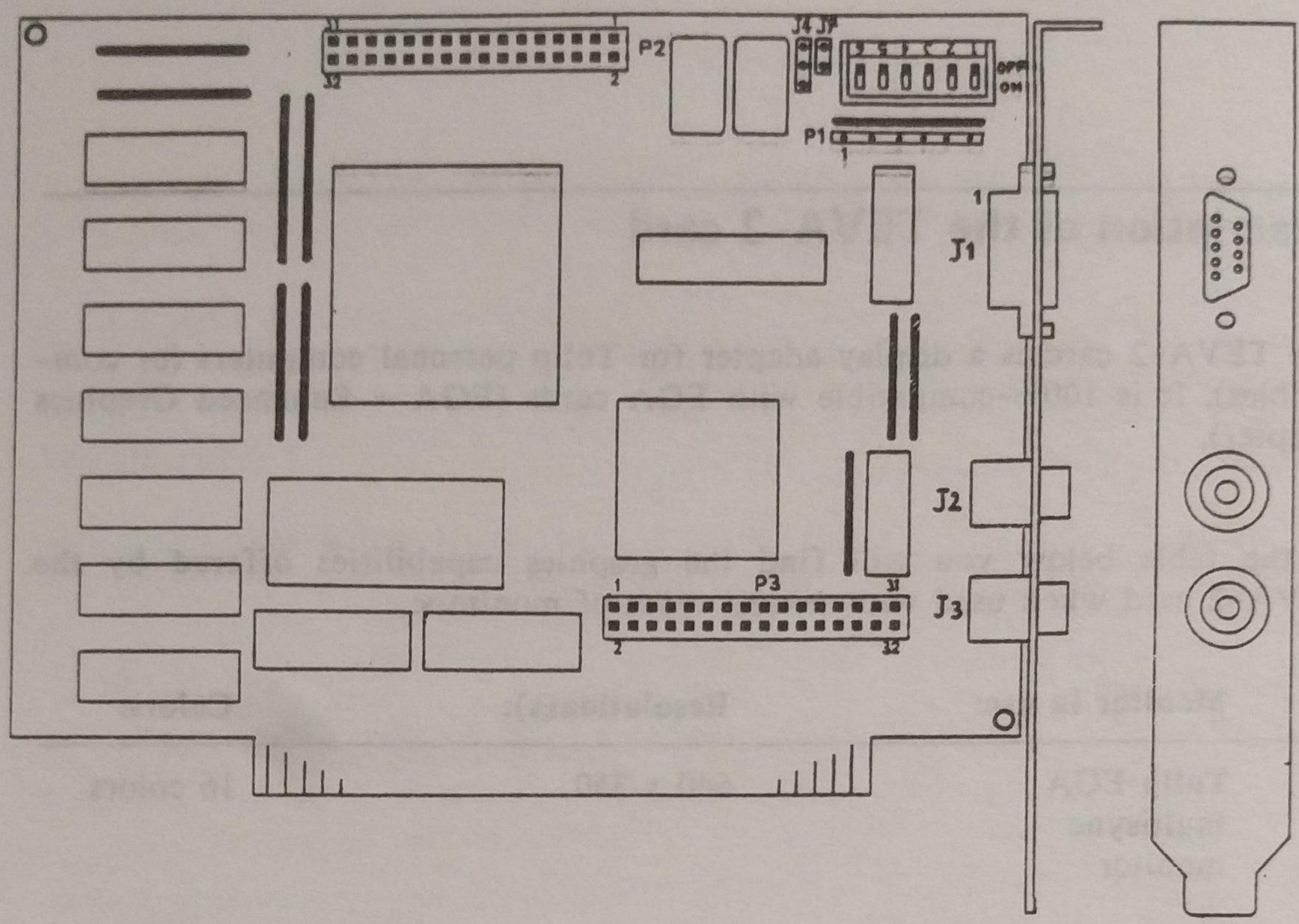
Description of the TEVA-2 card

The TEVA-2 card is a display adapter for Tulip personal computers (or compatibles). It is 100%-compatible with EGA cards (EGA = Enhanced Graphics Adapter).

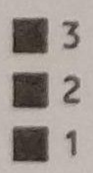
In the table below you will find the graphics capabilities offered by the TEVA-2 card when used with several types of monitors:

	Monitor in use:	Resolution(s):	Colors:
●	**Tulip** EGA multisync monitor	640 x 350	16 colors
●	**Tulip** color monitor	640 x 200 320 x 200	16 colors 16 colors
●	**Tulip** monochrom monitor	640 x 350 720 x 348	4 "colors" 2 "colors"

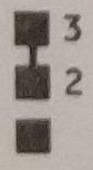
Jumper settings



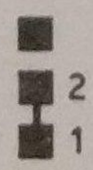
Jumper J4



Jumper J4 must be set for display on whatever supported monitor type is connected, as is indicated below:



monochrome or color monitor



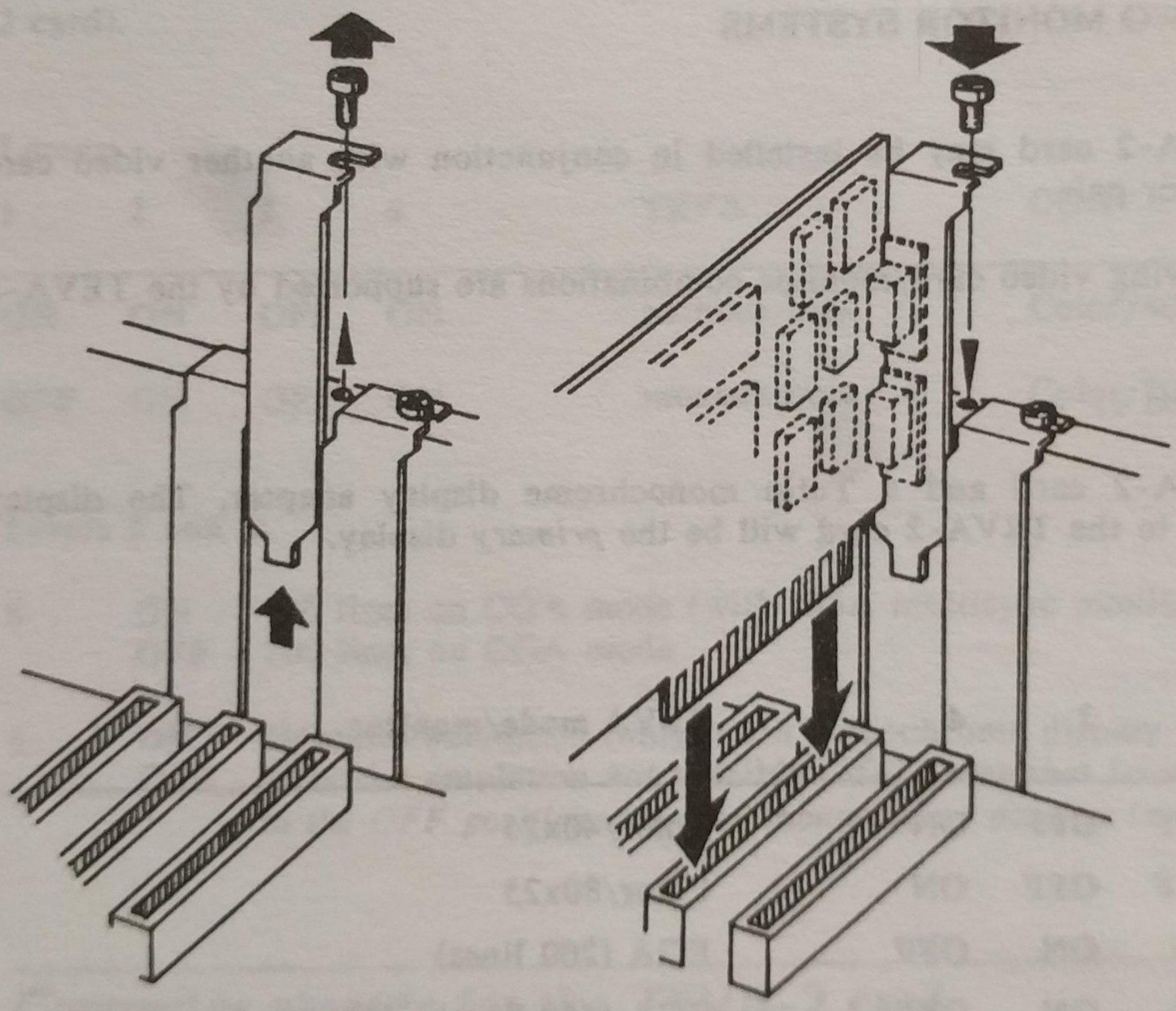
EGA monitor

Installing the TEVA-2 card

Refer to your sytem's user's guide for more information on:

- Opening your system
- Changing the jumper and dipswitch setting on the main board, when applicable.

Remove one of the system expansion slot covers which are located at the back of the system unit by removing its retaining screw and lifting it out. (Save the screw, because you will need the screw when mounting the card.) Install the TEVA-2 card. Make sure that the card is fully seated in the expansion slot. Secure the card with the screw that you removed earlier.



Please consult your system's user's guide for detailed information on:

- Closing the system unit.
- Configuring your system again by running the DIAGNOSTICS program.

Now the TEVA-2 card installation is complete. If you still encounter any problem using this card, please contact your local dealer with a complete description of your problem.

Switch settings

Switch settings for levers 1 through 4:

Monitor in use:	Levers: 1	2	3	4
Monochrome	**OFF**	**OFF**	**ON**	**OFF**
Color/40x25	**ON**	**OFF**	**OFF**	**ON**
Color/80x25	**OFF**	**OFF**	**OFF**	**ON**
EGA *(200 lines)*	**ON**	**ON**	**ON**	**OFF**
EGA *(350 lines)*	**OFF**	**ON**	**ON**	**OFF**

USING TWO MONITOR SYSTEMS

The TEVA-2 card may be installed in conjunction with another video card and monitor pair.

The following video card/monitor combinations are supported by the TEVA-2 card:

Combination 1:

The TEVA-2 card and a Tulip monochrome display adapter. The display connected to the **TEVA-2 card** will be the *primary* display.

Levers: 1	2	3	4	TEVA mode/monitor
ON	**OFF**	**OFF**	**ON**	Color/40x25
OFF	**OFF**	**OFF**	**ON**	Color/80x25
ON	**ON**	**ON**	**OFF**	EGA (200 lines)
OFF	**ON**	**ON**	**OFF**	EGA (350 lines)

Combination 2:

The TEVA-2 card and a Tulip monochrome display adapter. The display connected to the **monochrome display adapter** will be the *primary* display.

Levers: 1	2	3	4	TEVA mode/monitor
ON	**ON**	**ON**	**ON**	Color/40x25
OFF	**ON**	**ON**	**ON**	Color/80x25
ON	**OFF**	**ON**	**ON**	EGA (200 lines)
OFF	**OFF**	**ON**	**ON**	EGA (350 lines)

Combination 3:

The TEVA-2 card and a Tulip color/graphics display adapter (CGA-compatible). The display connected to the **TEVA-2 card** will be the *primary* display (with a monochrome monitor connected).

Levers:

1	2	3	4	TEVA	CGA
ON	OFF	ON	OFF	monochrome	Color/40x25
OFF	OFF	ON	OFF	monochrome	Color/80x25

Combination 4:

The TEVA-2 card and a Tulip color/graphics display adapter (CGA-compatible). The display connected to the **color/graphics display adapter** will be the *primary* display (and with a monochrome display connected to the TEVA-2 card).

Levers:

1	2	3	4	TEVA	CGA
ON	ON	OFF	ON	monochrome	Color/40x25
OFF	ON	OFF	ON	monochrome	Color/80x25

Levers 5 and 6:

5	ON	400 lines on CGA mode (with EGA multisync monitor)
	OFF	200 lines on CGA mode
6	ON	Hercules emulation (only when monochrome display is connected)
	OFF	Hercules emulation not possible *(Make sure that lever 6 is set to the OFF position, when no monochrome display is connected.)*

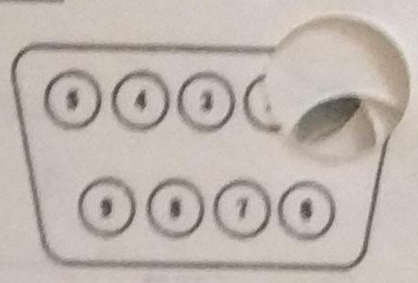
Connector pinouts for the TEVA-2 card

Light pen connector (P1)

Pin	*Signal*
1	Light pen input
2	Not used
3	Light pen switch
4	Ground
5	+5V
6	+12V

Video port connector pinout by monitor (J1)

Pin	*EGA*	*CGA*	*Monochrome*
1	Ground	Ground	Ground
2	Secondary red	Ground	Ground
3	Primary Red	Primary red	Primary red
4	Primary green	Primary green	Primary green
5	Primary blue	Primary blue	Primary blue
6	Secondary green	Intensity	Intensity
7	Secondary blue	No con	Mono video
8	H. sync	H. sync	H. sync
9	V. sync	V. sync	V. sync



J2 Auxiliary Jack (connected to P2, pin 4)

J3 Auxiliary Jack (connected to P2, pin 5)

P2 Feature connector

Pin	*Signal*	*Pin*	*Signal*
1	GND	2	-12V
3	+12V	4	J2 pin 1
5	J3 pin 1	6	G' out
7	R' out	8	B' out
9	ATRS/L	10	B out
11	G out	12	G in
13	R' in	14	B in
15	R in	16	R out
17	FEAT 1	18	Blank
19	FEAT 0	20	FC 1
21	FC 0	22	G'/I in
23	B'/B in	24	Horiz in
25	Vert in	26	14.318 MHz
27	Internal	28	Ext osc
29	Vert out	30	Horiz out
31	GND	32	+5V

P3 Feature connector

Pin	*Signal*	*Pin*	*Signal*
1	+AEN	2	+ Reset Drv
3	+5V	4	-IOW
5	-IOR	6	GND
7	+ A0	8	+ A1
9	+ A2	10	+ A3
11	+ A4	12	+ A5
13	+ A6	14	+ A7
15	+ A8	16	+ A9
17	+ D0	18	+ D1
19	+ D2	20	+ D3
21	+ D4	22	+ D5
23	+ D6	24	+ D7
25	+ IRQ2	26	+ IRQ3
27	+ IRQ4	28	+ IRQ5
29	+ IRQ7	30	No con
31	-12V	32	+12V