

POWERED BY



matrox

**Matrox G200 Flat Panel Add-On
•User Guide•**

10629-301-0140
1999.09.17

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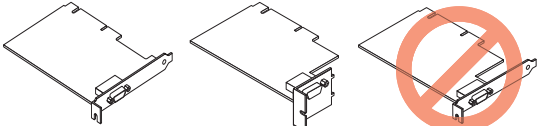

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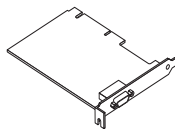
Requirements

Requirement type	Requirement
Matrox graphics card model	G200-based card with support for your Matrox digital flat panel add-on. Compatible models include: Millennium G200, Millennium G200 SD, Millennium G200 SE, and MGA-G200 SD.
Graphics card form	ATX or NLX* cards  (ATX card) (NLX card) (NLX card with ATX bracket)
Monitor while installing	Until Matrox software is installed, you may need to use an analog computer monitor (a CRT monitor) to view the output of your graphics card.
Monitor	Digital flat panel monitor
Connector type on your digital flat panel monitor	P&D or MDR-20*  (P&D connector) (MDR-20 connector) (DVI connector) If your flat panel monitor and your Matrox flat panel add-on don't use the same connector type, contact the vendor of your digital flat panel monitor to obtain a connector adapter.
Operating system	Windows 95, 98 or NT 4.0

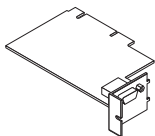
* With NLX cards, only MDR-20 connectors are supported.

Hardware installation

The hardware installation procedure for your add-on depends on the form factor (ATX or NLX) of your Matrox graphics card. For information specific to your computer, like how to remove its cover, see your system manual.



ATX card



NLX card

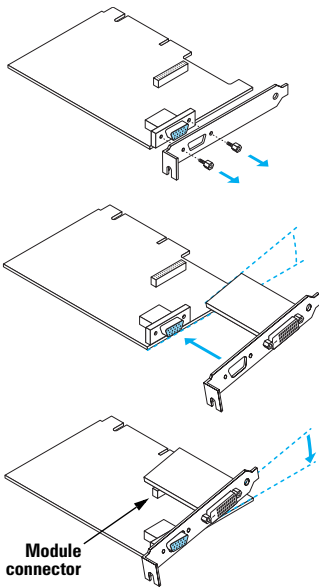
WARNING: Static electricity can severely damage electronic parts. Before touching any electronic parts, drain the static electricity from your body. You can do this by touching the metal frame of your computer. When handling a card, hold it by its edges and avoid touching its circuitry.

WARNING: Pressing together incorrectly aligned connectors can damage them. Before pressing connectors together, make sure all pins and holes are correctly aligned. After pins and holes are aligned, make sure connectors are firmly pressed together.

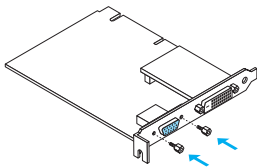
WARNING: To help prevent personal injury, allow your computer to cool before touching any of its internal parts.

ATX graphics card

- 1 Turn off your computer and remove its cover. If your Matrox graphics card is installed in your computer, remove it.
- 2 Remove the bracket from your Matrox graphics card by using pliers to unscrew the hexagonal nuts on either side of the monitor connector.
- 3 At a slight angle, place the bracket of the add-on over the monitor connector of your Matrox graphics card (see picture).
- 4 Make sure the module connector pins and connector holes are correctly aligned, then carefully press the add-on and card together.



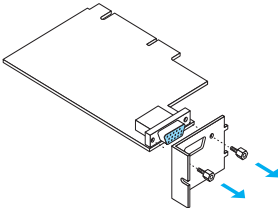
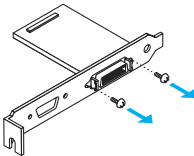
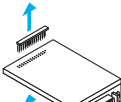
- 5 Using pliers, replace the two hexagonal nuts you removed earlier. Make sure the nuts are securely fastened.



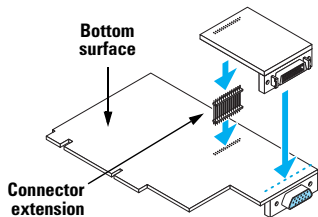
- 6 Reinsert your Matrox graphics card into the slot you removed it from. Fasten the bracket to the computer with the screw you removed earlier. If this is the first time you're installing your Matrox graphics card, see your Matrox graphics card manual for more information.
- 7 Connect your flat panel monitor to the connector you just added to your Matrox graphics card, then see [“Software installation”](#), page 11.

Note: If your add-on has an MDR-20 connector (see page 4), your add-on package includes extra parts (2 screws, a bracket and a connector extender). These parts are only used with an NLX graphics card.

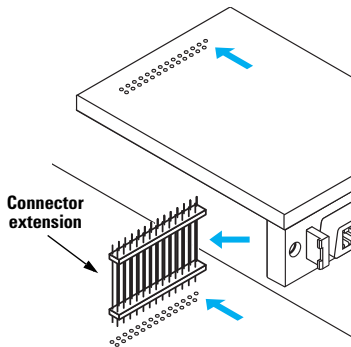
NLX graphics card

- 1 Turn off your computer and remove its cover. If your Matrox graphics card is installed in your computer, remove it.
- 2 Remove the bracket from your Matrox graphics card by using pliers to unscrew the hexagonal nuts on either side of the monitor connector.
- 3 Remove the bracket from your add-on by using a Phillips screwdriver (star-shaped head) to remove the screws on either side of the monitor connector.
- 4 Carefully remove the connector pins from your add-on by pushing the pins into the module and then pulling out the base of the pins from the other side (see picture).

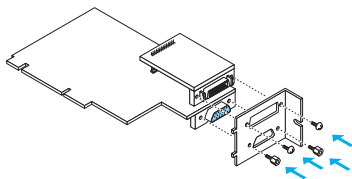
- 5 Attach the connector extension and the add-on to the **bottom** surface of the card (see picture).



WARNING: The connector pins and connector holes are distributed so that they only fit together one way (see picture). Pressing together incorrectly aligned connectors can damage them. Before pressing connectors together, make sure all pins and holes are correctly aligned. After pins and holes are aligned, make sure connectors are firmly pressed together.



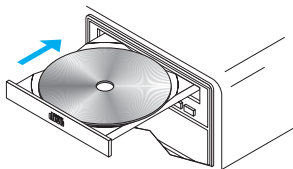
- 6** Attach the bracket included with your add-on and fasten it with the screws and hexagonal nuts removed earlier. Make sure the screws and nuts are securely fastened.



- 7** Reinsert your Matrox graphics card into the slot you removed it from. Fasten the bracket to the computer with the screw you removed earlier. If this is the first time you're installing your Matrox graphics card, see your Matrox graphics card manual for more information.
- 8** Connect your flat panel monitor to the connector you just added to your Matrox graphics card, then see [“Software installation”, page 11](#).

Software installation

If you have an installation CD-ROM that came with your graphics card in addition to the CD-ROM included with your add-on, use the most recent of these CD-ROMs for the software installation. To find out which is more recent, see the date at the top of each CD-ROM *Readme* file. Otherwise, use the one included with your add-on.



After your computer has restarted, insert your Matrox installation CD-ROM in your CD-ROM drive. If you're using Windows 95, 98, or NT 4.0, the setup program automatically starts.* Follow the on-screen instructions.

For more digital flat panel information, see the *Readme* file in the *Fpanel* folder on your Matrox CD-ROM.

* If Windows doesn't start the setup program automatically, you can start it manually from the root folder of the CD-ROM.

Product information

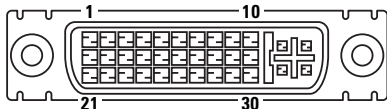
Technical features

- Silicon Image 150 *or* 154 transmitter
- TMDS (Transition Minimized Differential Signaling) encoding based on the Silicon Image PanelLink standard
- With G200 series graphics cards, the following maximum simultaneous display settings are supported:
 - 112 MHz pixel clock
 - 1280 × 1024*† display resolution (SXGA)
 - 60 Hz vertical refresh rate (with standard VESA monitor timings)
 - millions of simultaneous display colors
- VESA-compliant P&D connector *or* DFP-compliant MDR-20 connector
- EDID (Extended Display Identification Data) 1.2 and 2.0 support
- Model #: GS-MOD/PLPND (P&D connector) *or* GS-MOD/PLMDR (MDR-20 connector)

* With flat panel monitors that don't support display scaling, if you use a display resolution lower than the maximum display resolution, the display is centered in the screen with a black border around its edges.

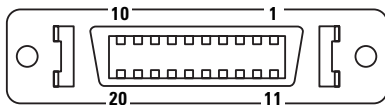
† DOS display modes may not be supported with some 1280 × 1024 digital flat panel monitors that don't support display scaling. For a possible work-around or fix for this problem, contact Matrox.

P&D connector pinouts (VESA compliant)



Pin	Signal	Pin	Signal	Pin	Signal
1	TMDS Data 2 +	11	TMDS Data 1 +	21	TMDS Data 0 +
2	TMDS Data 2 -	12	TMDS Data 1 -	22	TMDS Data 0 -
3	Ground	13	Ground	23	Ground
4	Ground	14	TMDS Clock +	24	Stereo Sync
5	Hsync	15	TMDS Clock -	25	Ground
6	Vsync	16	USB Data +	26	DDC Data
7	Ground	17	USB Data -	27	DDC Clock
8	CP+	18	Ground	28	+5VDC
9	1394 Pair Data 1 A -	19	1394 VG	29	1394 Pair Data 1 B -
10	1394 Pair Data 1 A +	20	1394 VP	30	1394 Pair Data 1 B +

MDR-20 connector pinouts (DFP-compliant)



Pin	Signal	Pin	Signal
1	TMDS Data 1 +	11	TMDS Data 2 +
2	TMDS Data 1 -	12	TMDS Data 2 -
3	Ground	13	Ground
4	Ground	14	Ground
5	TMDS Data C +	15	TMDS Data 0 +
6	TMDS Data C -	16	TMDS Data 0 -
7	Ground	17	Reserved
8	+5V	18	Reserved
9	Reserved	19	DDC Data
10	Reserved	20	DDC Clock

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