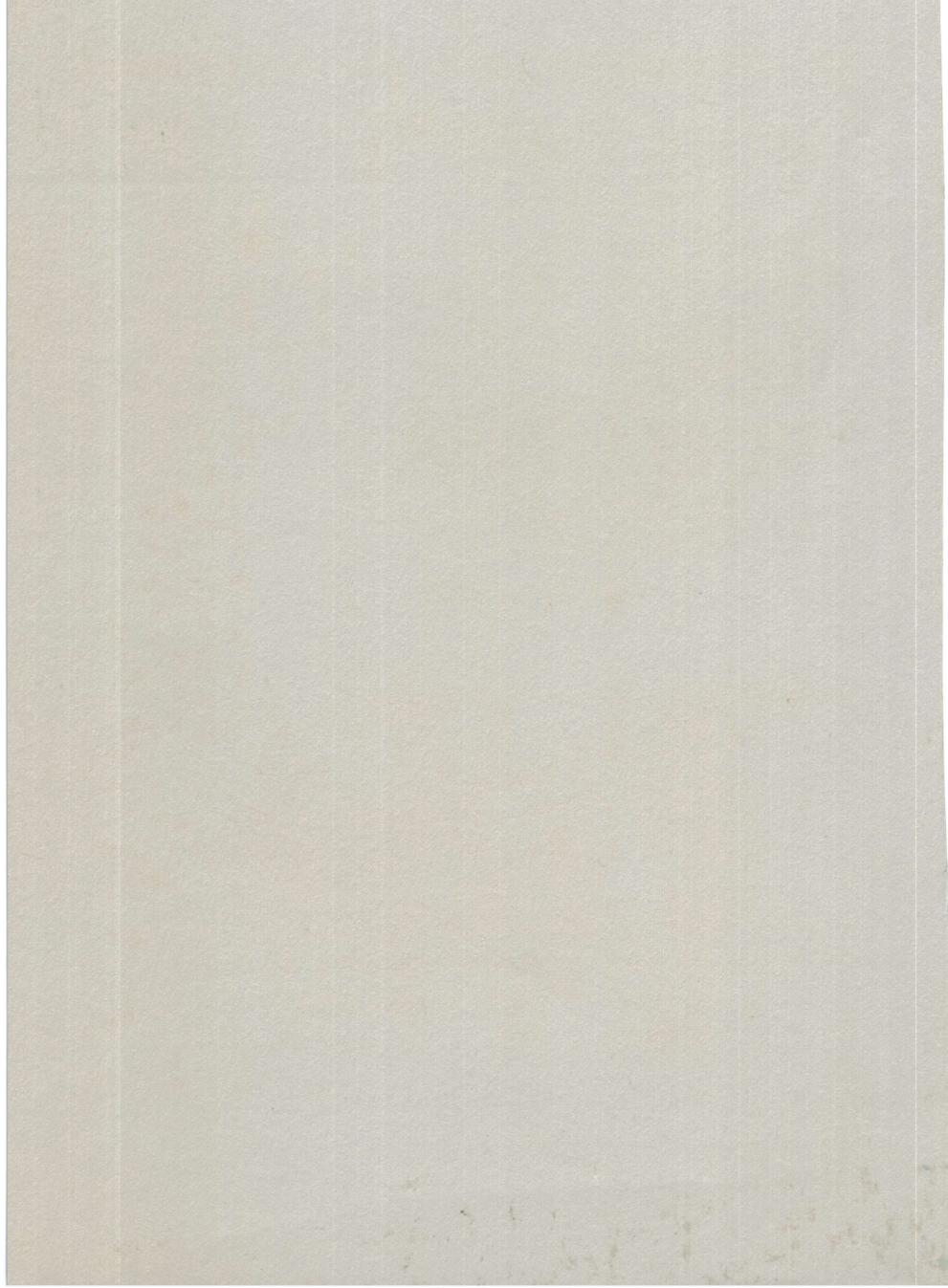


# Installation Guide

# VL-Bus SuperX VGA by BOCA™

*BRILLIANT LIFELIKE PHOTOGRAPHIC IMAGES*

**PRODUCT CODES:**  
**SVGAXL1**  
**SVGAXL2**



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## Section One: Introduction

Congratulations on the purchase of your VL-Bus SuperX VGA board. The VL-Bus SuperX is designed to work with any VESA Local Bus (VL Bus) AT-compatible computer. Information is provided for installing software drivers which provide enhanced video display with many popular applications. Drivers are included on diskettes shipped with your VL-Bus SuperX, but it is *NOT* necessary to install these drivers for normal VGA operation.

### Features:

- Complies with the Video Electronics Standards Association (VESA) VL-Bus specifications
- 32-bit VL-BUS interface
- 32-bit wide access to memory and 8/16-bit I/O transfers occur over the VL-BUS. BIOS is accessed via the ISA bus.
- 15/16-bit Hi Color and 24-bit True Color
- Extensive graphics support
- Available with 1MB or 2MB DRAM
- Hardware BitBLT (Bit Block Transfer) Engine
- Supports 132-column text display
- Extensive Driver Support

### Benefits:

- VL-Bus devices communicate with the CPU *at near CPU speeds!*
- VL-Bus significantly increases the speed of graphics-intensive applications.
- BitBLT accelerates GUIs such as Microsoft Windows and compatible applications. Bit Block Transfer improves GUI and graphics applications by holding a block of graphics in memory. This enables the box to be redrawn and moved quickly.
- HighColor and True Color displays provide photo-realistic images.
- Built-in True Color palette DAC.

## Section Two: Compatibility & Requirements

Please examine the VL-Bus SuperX board and driver diskettes to see if there is any damage which may have occurred during shipment. If damage exists or if anything appears to be missing, contact the retailer from whom the VL-Bus SuperX was purchased.

### 2.1 Installation Requirements

This user manual is designed to answer questions you might have concerning the installation and use of the VL-Bus SuperX, as well as provide descriptions of legitimate system configurations. Please take a little time to read through this manual before installing your VL-Bus SuperX.

### 2.2 Monitor Compatibility

The VL-Bus SuperX board is compatible with VGA Color and Analog monochrome monitors. TTL monochrome monitors with 9-pin connectors are NOT compatible with the VL-Bus SuperX. It is also compatible with Multiple Frequency Monitors, provided the proper 15-pin cable adapter is used with the monitor and the monitor is set to analog.

**IMPORTANT:** The VL-Bus SuperX uses the same 15-pin (DB15) cable available from monitor manufacturers to interface with IBM PS/2 computers. Using the wrong cable could cause damage to the monitor and/or adapter. Contact the monitor manufacturer for proper cabling and pin-outs if you have questions.

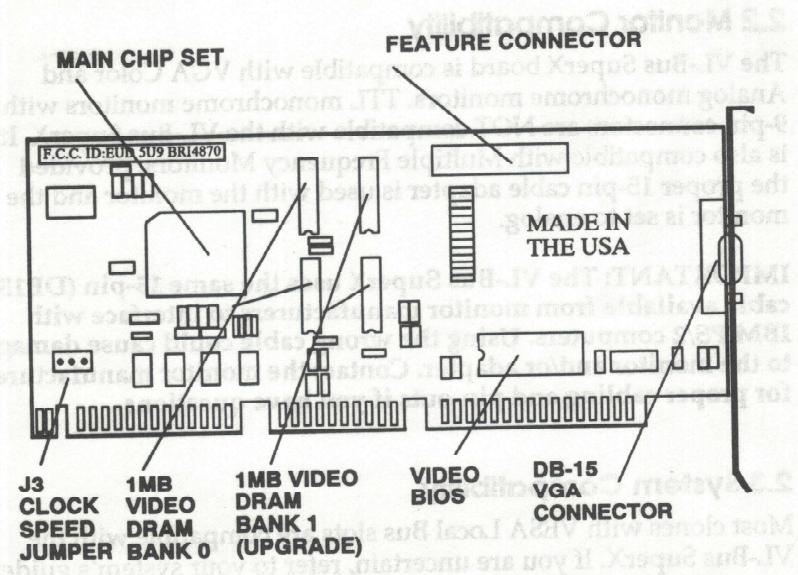
### 2.3 System Compatibility

Most clones with VESA Local Bus slots are compatible with the VL-Bus SuperX. If you are uncertain, refer to your system's guide to operation or check with the dealer or manufacturer of your computer. The VL-Bus SuperX board is compatible with the IBM Video Graphics Array and Enhanced Graphics Adapter.

Most compatible systems support the IBM VGA or EGA standard. If your computer supports the IBM Enhanced Graphics Adapter, then the VL-Bus SuperX board will work in your system.

**NOTE:** Drivers are not necessary for normal VGA operation. Drivers are included on 1.44MB 3.5-inch high-density diskettes only. You may download drivers released after the printing of this manual from our BBS 24 hours a day at (407) 241-1601 (N, 8, 1).

If, however, you decide to use the drivers, you should run the CLMODE utility, as described in Section Five.



VL-Bus SuperX VGA

## Section Three: Physical Installation

Installation is simple and quick for the expert and novice alike.

The following instructions assume an AT-style or compatible machine. Obviously, locations and types of screws as well as type of case cover will vary based on your particular system. Refer to your computer system documentation for additional assistance.

### 3.1 Removing the System Cover

1. Turn the power switch to the OFF position.
2. Remove the power cord from the back of the computer.
3. Unplug the keyboard cable found in the lower middle of the computer's rear panel.
4. Use a small screwdriver to remove the screws that attach the computer's cover to the rear panel.
5. Carefully slide the cover forward—away from the rear panel. Be careful not to let the cover catch on internal cables to the disk drive and power supply.

**The VL-Bus SuperX board must be installed in a VL-Bus compatible connector. This connector slot will consist of the two standard ISA connectors plus one extension connector. The VL-Bus SuperX board will NOT function if it is plugged into a standard 16-bit connector slot.**

Adapter card connector slots normally reside in the rear of the system board adjacent to the power supply. There are usually two VL-Bus connectors, depending on the model of your system.

### 3.2 Inserting the VL-Bus SuperX Board

**IMPORTANT:** The VL-Bus SuperX uses the same 15-pin (DB15) cable to interface with the IBM PS/2 computers. Using an incorrect cable could cause damage to the monitor and/or adapter. If you have a monochrome display adapter in your system, set the VL-Bus SuperX board as the primary adapter; this will be the display available upon boot-up. The secondary monochrome adapter will only be used if the appropriate DOS command is entered. You **MUST remove any other color video card (VGA, EGA, CGA)**, even if it is multi-functional. **NOTE:** Boca Research does not recommend using two adapters.

1. Select any available VL-Bus expansion slot.
  2. Remove the screw and the metal plate that covers the external access to the slot you have selected.
- NOTE:** If there are two local bus slots in your system ("master" and "slave", the VL-Bus SuperX may be placed in either. If you have a bus-mastering card already installed, it must be in the "master" slot and the VL-Bus SuperX must be in the "slave" slot.
3. Insert the VL-Bus SuperX board in the slot that you have selected, so that the three edge connectors on the bottom rear of the board mates with the socket on the motherboard. Try inserting the local-bus connector first, then press down firmly on the rest of the board. Secure the board with the screw which you just removed.
  4. Make sure the switches/jumpers have been set for VGA on the system motherboard if necessary.

### 3.3 Replacing the System Cover

Slide the computer cover back over the chassis taking care not to let it catch on the disk drive or power cables. Once the cover is in place, replace all the screws that you removed earlier. Re-attach all cables and power cords to their original positions. Attach the appropriate monitor cable to the VL-Bus SuperX.

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VL-Bus SuperX VGA

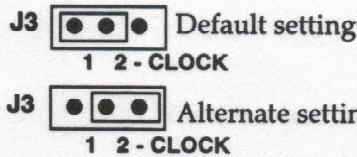
### 3.4 Configuring Your System

After the Boca VL-Bus SuperX is installed in your system, use the SETUP program supplied with the system to tell the computer about the video adapter just installed. Run SETUP to configure the computer. Sometimes, this utility comes on a diskette and sometimes it is built into the system's ROM BIOS. When you get to the part of the program which addresses video support, you may be asked if the monitor you are using will be the primary monitor. Answer YES. If you are presented with a list of video options, select the option for "VGA".

At the conclusion of the SETUP program, the computer will either automatically restart or offer you the option of restarting. *NOTE: Setup procedures vary for different computer systems. Please refer to the user's manual for your computer system as well as this manual when configuring the VL-Bus SuperX.*

### 3.5 Clock Speed Jumper

The J3 jumper is provided to allow support of motherboards that operate the CPU and/or the VESA Local Bus at speeds greater than 33MHz. Settings are as follows:



If your VL-Bus SuperX does not have this feature, ignore the above.

### 3.6 Configuring the VL-Bus SuperX on a Network

Generally speaking, when configuring a network system avoid the following areas the VL-Bus SuperX occupies: Memory addresses A000h - C7FFh, I/O addresses 03B0h - 03Dfh and in some instances 02E0h - 02EFh. The VL-Bus SuperX does not require an interrupt (IRQ).

Some network cards do not fully decode a 16-bit I/O address; these cards deal only with 10-bits of a 16-bit I/O address.

The VL-Bus SuperX has a global set up register at an I/O base address of 46E8h. A network card that improperly decodes I/O addresses will see 46E8h in a 10-bit format as 02E8h.

02E8h may conflict with a network card in the 02E0h-02EFh range. The symptoms of this conflict manifest in the inability to access the Server. To alleviate this problem choose an alternative base I/O address for your network card and regenerate the shell; refer to your network documentation or network software vendor if you require additional assistance in this area.

Setting address in and load ASCII self to bus GPO will cause a conflict as seen signified .SHR-NIC need