

WINCOR
NIXDORF

BA68

TFT LCD 8.4" USB Monitor
User Manual

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TFT LCD 8.4" USB Monitor

User Manual

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Manufacturers Certification and notes



The device complies with the requirements of the EEC directive 2004/108/EC with regard to "Electromagnetic compatibility" and 2006/95/EC "Low Voltage Directive".

FCC-Class A Declaration

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his expense.

User Information

Wincor Nixdorf (WN) does not accept responsibility for radio and TV interference and faults that are caused by unauthorized changes that have been made to the devices. Furthermore, cables or other devices that have not been approved by WN may not be connected to the device. The user is responsible for any faults and interference that are caused as a result.



Repair work on the devices should only be carried out by authorized and specially trained personnel. Improper repairs will lead to the loss of any guarantee and liability claims.

Extension boards with electrostatic ally endangered components can be identified with this label.



If this monitor is to be used for office task, it's required a specially control luminous environment.

Introduction

BA86 is 8.4" color TFT LCD monitors, with compact and ecological design. The power consumption is only 2.5W with LED backlight.

Important Safety Precautions



Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



- (1) A Unshielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cords be used.*
- (2) Use only shielded cables to connect I/O devices to this equipment.*
- (3) Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

Instructions for Maintenance

Clean your BA68 regularly with an appropriate surface cleaning product. Make sure that the device is switched off, connector cables are unplugged and that no moisture is allowed to get into the inside of the device.

Please observe the maintenance and cleaning instructions for each of the BA68 components. These instructions can be found in their respective chapters.

Warranty

Wincor Nixdorf guarantees a limited warranty engagement for 12 months beginning with the date of delivery. This warranty engagement covers all those damages that occur despite a normal use of the product.

- Damages because of
- improper or insufficient maintenance,
- improper use of the product or unauthorized modifications of the product,
- inadequate location or surroundings

Will not be covered by the warranty. All parts of the product which are subject to wear and tear (e.g. backlight of the LED) are not included in the warranty engagement. Please order spare parts at the Wincor Nixdorf customer service.

Recycling

Environmental protection does not begin when the time has come to dispose of the BA68; it begins with the manufacturer. This product was designed according to our internal norm "Environmental conscious product design and development".

The BA68 is manufactured without the use of CFCs and CCHS and is produced mainly from reusable components and materials. The processed plastics can, for the most part, be recycled. Even the precious metals can be recovered, thus saving energy and costly raw materials.

Please do not stick labels onto plastic case parts. This would help us to re-use components and material. You can protect our environment by only switching on your equipment when it is actually needed. If possible, even avoid the stand-by-mode as this wastes energy, too. Also switch your equipment off when you take a longer break or finish your work.

Currently at present, there are still some parts that are not reusable.

Wincor Nixdorf guarantees the environmentally safe disposal of these parts in a Recycling Center, which is certified pursuant to ISO 9001.

So don't simply throw your BA68 on the scrap heap when it has served its time, but take advantage of the environmentally smart up-to-date recycling methods!

Please contact your competent branch or the Recycling Centre Paderborn (for European countries) for information on how to return and re-use devices and disposable materials under the following fax number:

Fax. +49 (0) 5251 8- 26709

Or send us an email to:

referat.umweltschutz@wincor-nixdorf.com

We look forward for your fax or message.

BA68

Overview

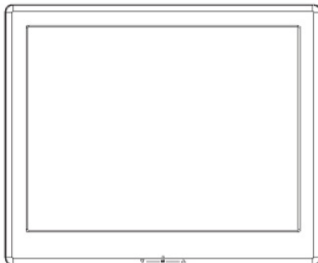
A single USB connection from your computer gets you an instant high-resolution secondary display.

Plug and display to extend viewing area and increase productivity by adding additional displays without an extra graphics card, much deployment cost, and additional technical training.

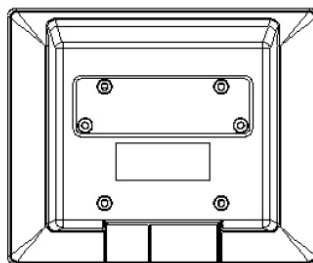
Components



Front view



Rear view

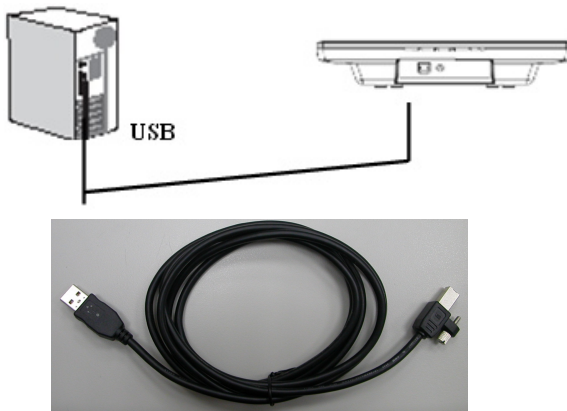


Basic operation

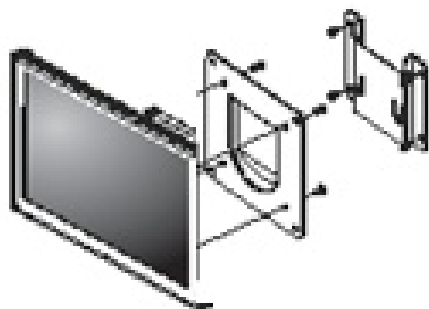
- Make sure to connect the USB cable and begin the installation after your PC has booted
- The Setup program requires about one minute for the installation. If you turn the power off or remove the USB cable while the Setup program is running, it may cause an error with the PC or the Windows operating system.
- The optimal resolution for this USB monitor is 800x600.

How to operate

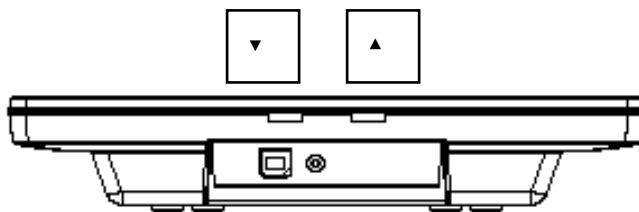
To PC



To wall



Control buttons



▲UP / ▼DOWN key: When adjustment item is selected, the two keys are defined to decrease or increase the value of brightness.

Software installation

PC requirements

USB Monitor software can be used on PCs, from Netbooks, Notebooks/Laptops to Desktops. The driver will run on processors ranging from Atom N270 based PCs, basic single Core CPUs, and of course the latest Dual, Quad Core and Core i3/i5/i7 CPUs.

The performance of the software is dependent upon the processing power available, as well as the Operating system in use. More capable systems offer higher performance.

DisplayLink software is available for PCs running one of the following Windows Operating Systems:

- Windows 7 (32-bit or 64-bit)
- Windows Vista with Service Pack 1 or 2 (32-bit or 64-bit)
- Windows XP Home or Professional (including Tablet edition) with Service Pack 2 or 3
- Windows 2000 with Service Pack 4

Note: 64-bit editions of XP are not supported. No Windows Server editions are supported. Mac OS X support can be found at <http://www.displaylink.com/mac>

Recommended typical system requirements are:

Windows 7

For Windows 7, the Windows Experience Index (WEI) is a useful measure of hardware level. The WEI is accessible from Computer > Properties, or from Control Panel > System.

The recommended typical hardware requirements for the PC are:

- WEI score of at least 3 in the 'Graphics; Desktop performance for Windows Aero' category.
- Overall WEI score of at least 3 as recommended by Microsoft.
- At least one USB 2.0 port.
- 30 megabytes (MB) of free disk space.
- Computer screen for use with the DisplayLink device, if it is not integrated.
- Network access for software downloads, or access to a CD-ROM drive.

Windows Vista

For Windows Vista, the Windows Experience Index (WEI) is a useful measure of hardware level. The WEI is accessible from Computer > Properties, or from Control Panel > System.

The recommended typical hardware requirements for the PC are:

- WEI score of at least 3 in the 'Graphics; Desktop performance for Windows Aero' category.
- Overall WEI score of at least 3 as recommended by Microsoft.
- At least one USB 2.0 port
- 30 megabytes (MB) of free disk space.
- Computer screen for use with the DisplayLink device, if it is not integrated.
- Network access for software downloads, or access to a CD-ROM drive.

If the PC specification is below this, performance will be lower (or CPU loading higher than acceptable).

Windows XP/2000

- For 1-2 monitors, business usage, productivity target. This may not provide full frame rate DVD playback at full screen.
 - o 1.2GHz Single Core CPU
 - o 512MB memory

- For 3 monitors where 1 could run DVD video while also targeting productivity and business apps. Will support only 1 video of DVD resolution at full screen:
 - o 1.6GHz CPU
 - o 1GB memory

- For 6 screens where 1 screen can run full screen DVD video:
 - o 1.8GHz Core Duo
 - o 1GB memory

- At least one USB 2.0 port.
- 30 megabytes (MB) of free disk space.
- Computer screen for use with the DisplayLink device, if it is not integrated.
- Network access for software downloads, or access to a CD-ROM drive.

Graphics Card Support (Windows Vista/Windows 7)

On Windows Vista and Windows 7, DisplayLink software interacts closely with the primary graphics card. DisplayLink support and test a single graphics card (GPU) installed in a PC. All major GPU vendors Intel, ATI, NVIdi and Via.

Issues may be found with PCs with multiple graphics cards, or other graphics card combinations, and DisplayLink software. The following documents the combinations of testing and known configuration support.

Vista/Windows 7 on version 5.2

Switchable Graphics (ATI/Intel)

- Untested on Vista may be used at user's own risk
- On Windows 7 unsupported

Hybrid Graphics / Hybrid SLi / Hybrid Crossfire

- Unsupported

SLi machine in SLi mode:

- Untested on Vista may be used at user's own risk
- On Windows 7 unsupported

SLi machine in non-SLi mode (i.e. with 2 or more identical GPUs):

- Unsupported

Crossfire

- Unsupported

Other machines with 2 GPUs where only 1 is active at once – reboot needed to switch

- Supported

Graphics Card Support (Windows 2000/XP)

All graphics cards are supported on Windows 2000/XP.

Supported Languages

The following languages are supported in version 5.2, on all supported operating systems:

- Arabic
- Bahasa Indonesian
- Bulgarian
- Chinese (Traditional)
- Chinese (Simplified)
- Croatian
- Czech
- Danish
- Dutch
- English
- Finnish
- French
- Greek
- German
- Hungarian
- Italian
- Japanese
- Korean
- Norwegian
- Polish
- Portuguese
- Russian
- Slovak
- Slovenian
- Spanish
- Swedish
- Turkish

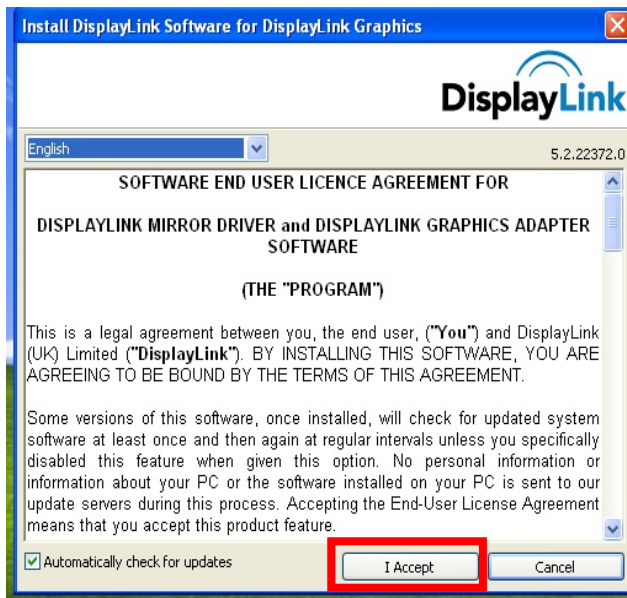
Unsupported languages default to English.

INSTALLING USB MONITOR SOFTWARE

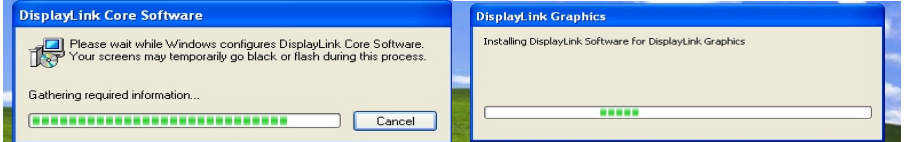
Installing USB monitor software

- Make sure to connect the USB cable and begin the installation after your PC has booted.
- The Setup program requires about one minute for the installation. If you turn the power off or remove the USB cable while the Setup program is running, it may cause an error with the PC or the Windows operating system.
- The optimal resolution for this USB monitor is 800x600.

1. Insert CD into the CD-ROM drive. Click "USB Monitor Driver"
2. Click "I Accept".



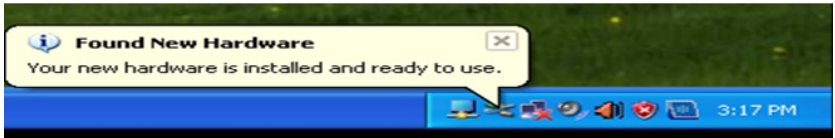
3. The progress window appears, as shown in the figure below.



4. If you connect your USB monitor to your PC, it recognizes the monitor and the "Found New Hardware" wizard is displayed, as shown in the figure below.

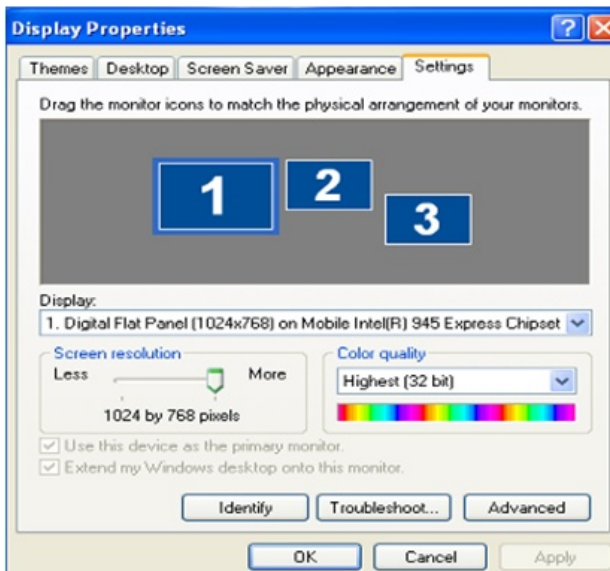


When setup is finished, a monitor icon is created in the system tray at the bottom of the monitor screen, and the information for the installed USB monitor is displayed.

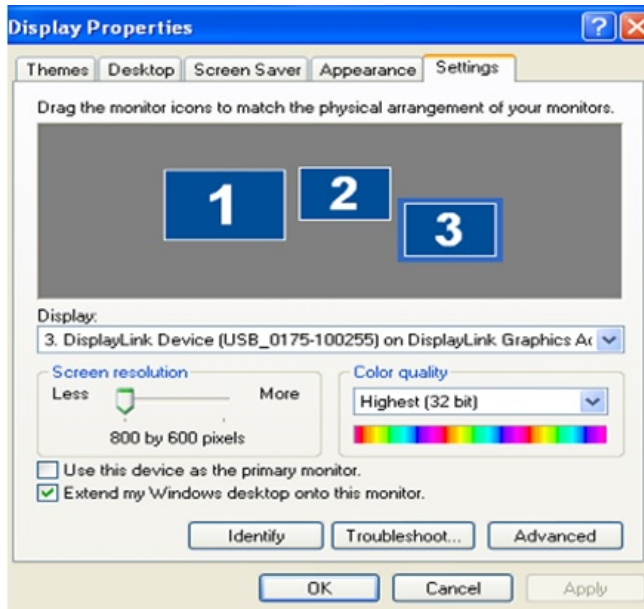


5. When the installation is completed, configure the following settings to use multiple monitors.

- (a). Right-click on the “Windows Desktop” and select “Properties” from the displayed menu. The “Display Properties” window appears.
- (b). Select the “Settings” tab. A list of connected USB monitors is displayed.



(c). Arrange the monitors displayed in the 'Display Properties' window in the order they are actually used.



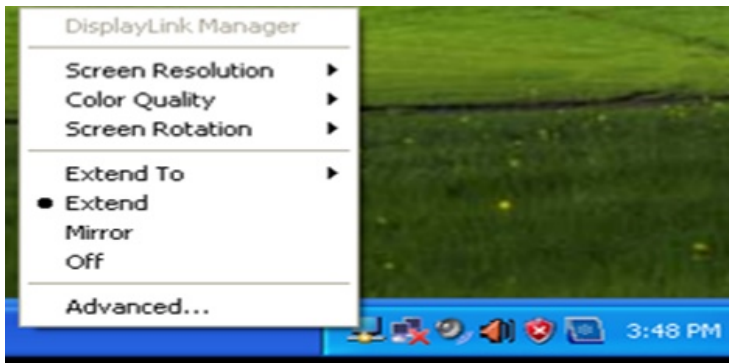
(d). Then click "OK" button.

Configuring the 8.4" USB display monitor information

1. When the driver setup for the USB monitor is finished, a monitor icon is created in the system tray at the bottom of the monitor screen.

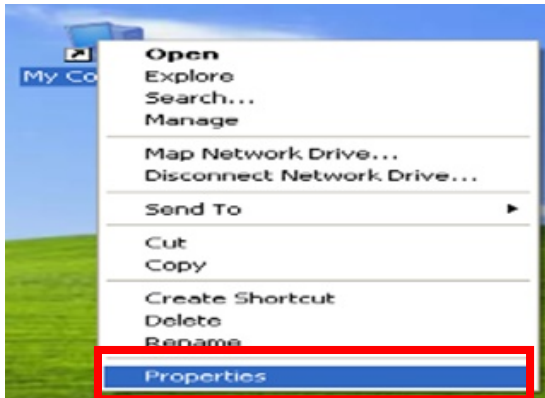


2. Click the monitor icon to display a list of connected USB monitors. Select the monitor for which you want to configure the display settings. You can configure the "Screen Resolution" , "Color Quality" and "Screen Rotation" settings for your monitor.

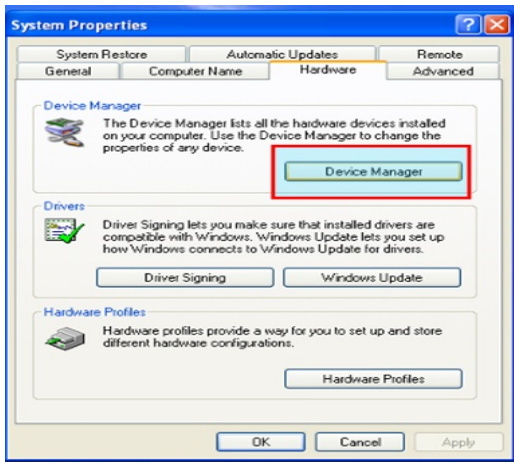


Checking the configuration

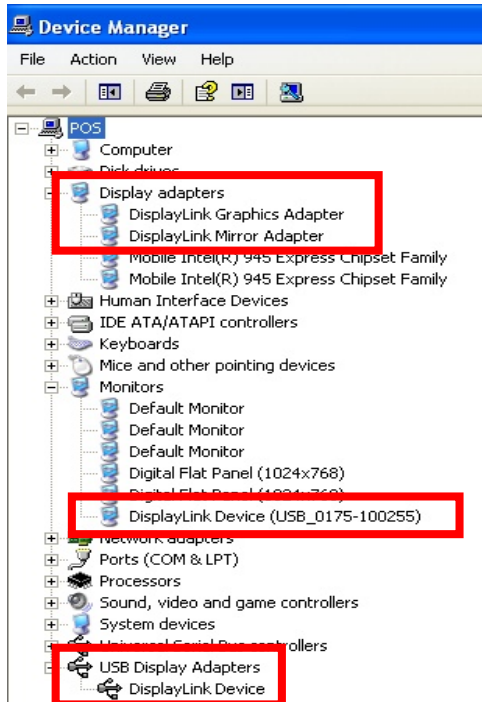
- After the installation, you can check the configuration by following these steps.
1. Right-click "My Computer", and select "Properties" - "System Properties" - the "Hardware tab".



2. Click "Device Manager".



3. A list of the installed device will be displayed, as shown in the figure below.



- **The Initial Screen Settings after Installing the Program**
 - Applicable mode: Extend mode
 - Mode position: To the right of the primary screen
 - Mode rotation: 0°

Restrictions on the 8.4" USB Monitor

Supported OS (Operating Systems)

- Windows XP
 - Service Pack 1 or earlier: Unsupported
 - Service Pack 2 or later: Supported
- Windows 2000
 - Service Pack 3 or earlier: Not Supported
 - Service Pack 4 or later: Supported
- Windows Server 2003: Not Supported
- Windows Vista: Supported.

To check the information on the operating system of your PC, right-click "My Computer" on the "Windows Desktop" and select "Properties" from the displayed menu.

Check the information in the "General" tab of the "Computer Properties" window.

1. Because this USB monitor is recognized as a USB device, the DOS screen that appears for general monitors when a PC is booting up is not displayed.
2. You cannot use the USB monitor for software using 3D hardware acceleration.
 - Real Player (Expansion mode is not supported.)
 - For most 3D games
 - Programs running on the base of Direct X
3. Supported movie programs
 - Power DVD
 - Win DVD (Version 5 onwards)
 - Windows Media Player (Version 10 or later is supported.)
 - VLC
4. This monitor does not support the MagicTune program.
 - The MagicRotation function may not function normally.
 - If the MagicTune program is installed on your PC, it may not be compatible with this monitor.
5. The USB monitor may not work normally with USB 1.0.

6. If the graphics card of your PC does not support WDDM, the extended mode may not be available in Windows Vista.
Example) Some versions of the Matrox Card

Cleaning Instructions

The glass surface should be cleaned from time to time. Always turn off the system before cleaning. The glass surface of your Touch Screen should be cleaned with a mild, commercially available glass cleaning product without any scrubbing material. All pH neutral materials (pH 6 to 8) are good for cleaning. Cleaners with pH values 9 to 10 are not recommended. Cleaning with water and isopropyl alcohol is as well possible. Do not use solvents containing acetic acid. Use a soft, fine-meshed cloth to clean the surface. Dampen the cloth slightly and then clean the screen.

Appendix

Technical data

Dimensions	
Width	199.7 mm
Depth	33.7 mm
Height	165.0 mm
Weight	approx. 0.68 kg
Temperature:	
Operating	0°C to +40°C
Storage	-10°C to +60°C
Rated Input voltage	DC 5V±5%
Rated Input Current	500mA (max)

Display specification

LCD Panel		
Size	8.4" diagonal	
Display Area	170.4 (H) x 127.8 (V)	mm
Pixel Pitch	0.213 (H) x 0.213 (V)	mm
Screen Resolution	800 RGB (H) x 600 (V)	Pixels
Type	RGB Vertical stripe	18 bits
Synchronization		
Horizontal	30~35	KHz
Vertical	59~62	Hz
Resolution		
Optimum	800 (H) x 600 (V)	@60Hz
Backlight		
Type	LED Side-light type	
Brightness	170cd/m ²	

§ The backlight is not part of the warranty or part of a possible service agreement. Only trained technical personnel are authorized to replace the backlight.

Interface connectors		
Video Signal	USB interface (Compliant Digital RGB)	B Type
Power Input		
Input	5VDC (USB Power), 0.5A (max)	B Type
Consumption	On Mode 2.4W	
	Sleep Mode <1W	
	Off Mode <1W	
Dimensions		
Display (W x H x D)	199.7x165x33.7	mm
Weight	0.68	
		kg
Accessories		
USB Cable	USB A Type to USB B Type 1.8 meter	

Interface Definition

USB Interface

Pin	Signal
1	+5V
2	D-
3	D+
4	GND

Installing BA68 onto BEETLE /Fusion System

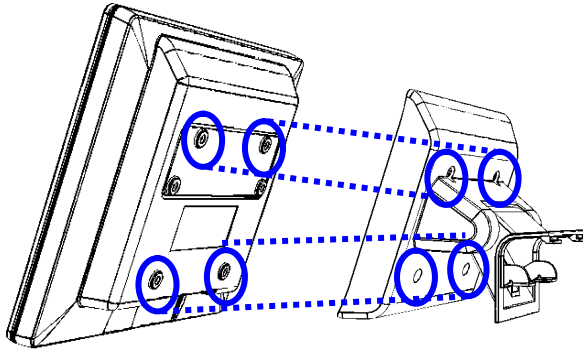
This section describes the steps to be taken to install the BA68 display onto BEETLE /Fusion system.

Tool required

- Torx screwdriver M3
- Torx screwdriver M4
- Nut driver

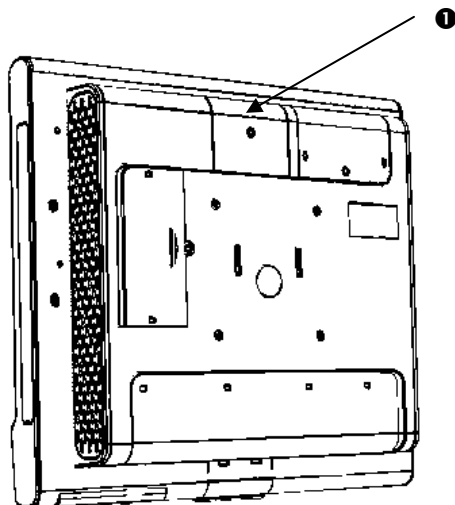
Installing BA68 display to display adaptor

- Align the BA68 display and its display adaptor and install both of them together by tightening the 4 screws as shown in the picture below.

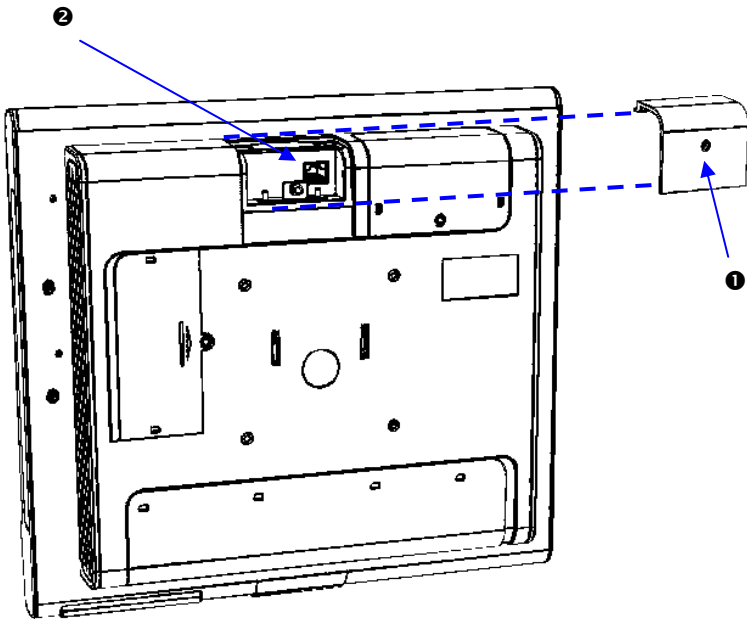


Installing BA68 display module onto B/Fusion system

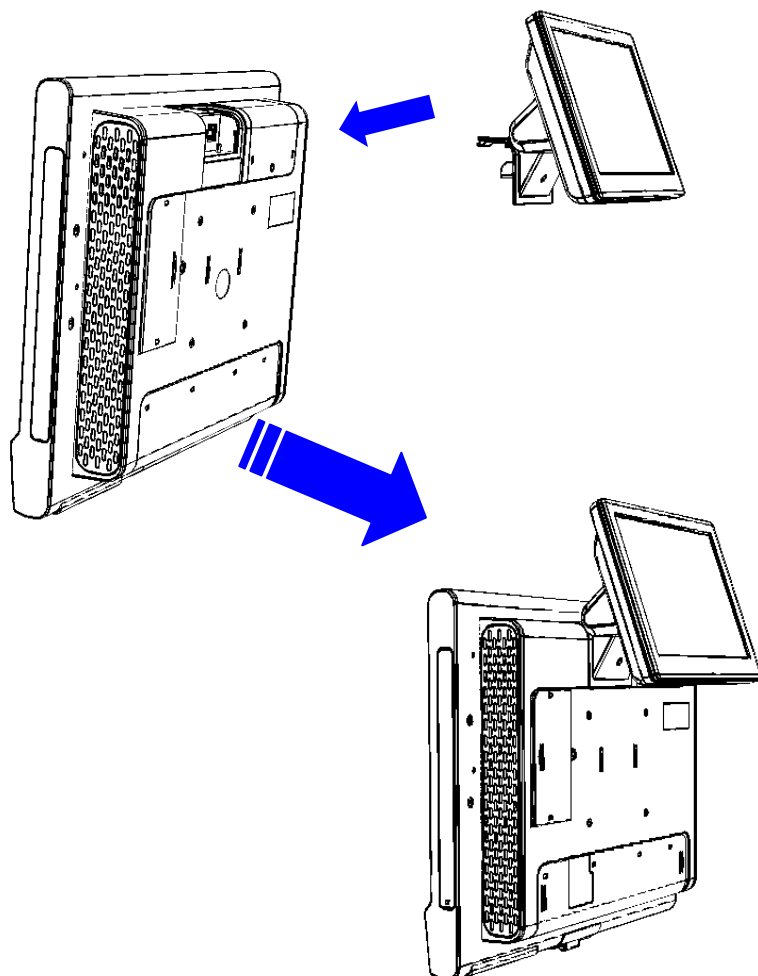
- Remove the screw ❶ to remove the cover from the system (see picture below).



- Remove the M3 nuts to detach the dummy bracket from the system and install the bracket that comes with BA68 display **1**, plug in the RJ45 connector from the display unit onto the connector slot of the system **2** (see picture below).



- Ensure the mounting of the display unit is aligned with the mounting slot of the system. Click the display unit onto the system and tighten the screw to secure the module (see picture below).



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