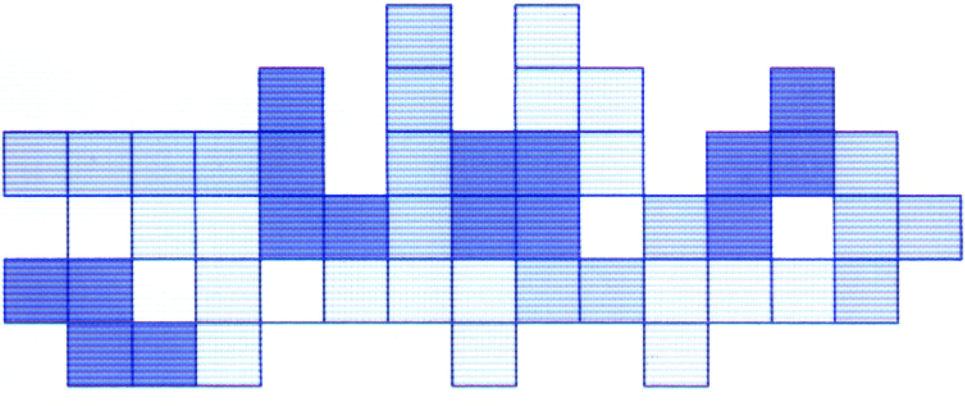
USER'S MANUAL

AMB-232 Series

Flat Panel Industrial Display Panels



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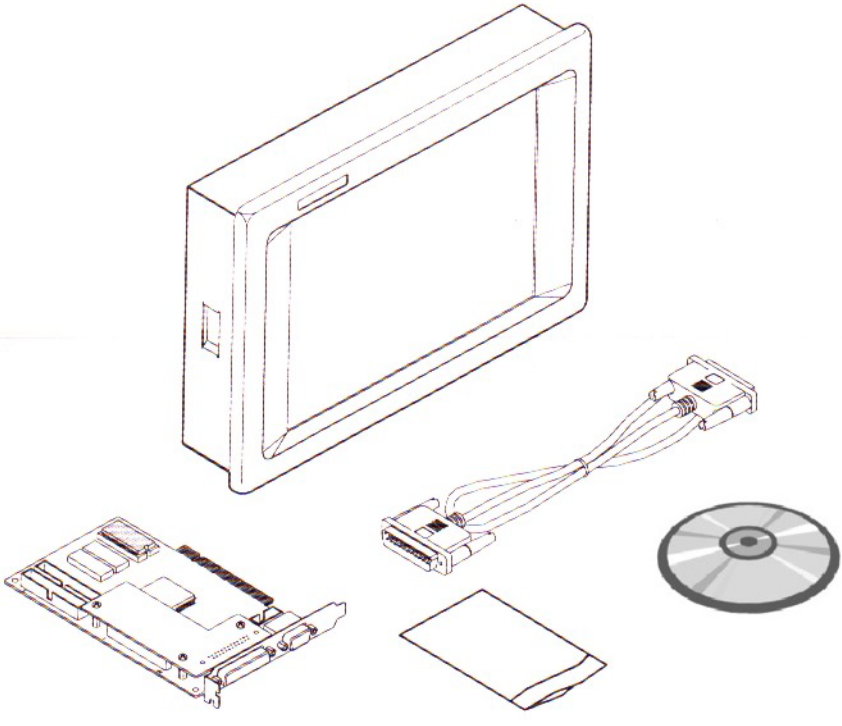
About This Manual

The manual is made to help you understand how to set up and use the AMB-232 series industrial display panels. It is divided into two chapters. Chapter one gives you an overview of the display panels. Chapter two tells you how they are basically constructed and what procedures you should take for system setup or upgrading.

But before we come to all that the first thing you should do when you receive your unit is check if it is the right version you ordered. The series has four versions respectively named as: AMB-232M, AMB-232C, AMB-232E, and AMB-232T (please refer to the display selection table in section 1.3 for details). Then you should also check if the package contains the following items. You should contact your dealer immediately if any of them is missing or damaged:

* One AMB-232 industrial display panel
* One graphic card
* One DB-25 cable
* One accessory box
* One CD-title



Chapter 1 Overview

1.1 General

The AMB-232 series industrial display panels are ideal VGA interface specially designed for use in the industrial field. They come equipped with either a 10.4" color TFT, color DSTN LCD, EL, or 9.4" mono LCD display. They also come with a graphic card, which is for you to install on your motherboard or passive backplane in your PC. The card also carries an LVDS interface which enables your PC to communicate with the display panels at up to 20 meters away. No additional power source is required to run the display panels as the power coming from the graphic card is already enough.

The front panel is made of plastic which meets the NEMA 4/12 standard. On the back panel of the chassis there are brightness and contrast controls, and two connectors: DB-25 (for LCD) and DB-9 (for touchscreen) via them you can link the display panels up with your PC.

1.2 Features

* Heavy-duty steel chassis, NEMA 4/12 plastic front panel
* 10.4" color TFT, color DSTN LCD, EL, or 9.4" mono LCD display
* Analog resistive touchscreen (option)
* ISA-bus (default) graphic card (MBC-265+LVDS interface) or PCI-bus (MBC-266+LVDS interface)
* DB-25 cable (1.8 up to 20 meters)
* Brightness and contrast controls on the back panel
* DB-25 (for LCD) and DB-9 (for touchscreen) connectors on the back panel
* Panel mount

1.3 Specification

*** General**

Construction: heavy-duty steel chassis, plastic front panel
Dimensions: 300mm(W)x215mm(H)x48.8mm(D)
Weight: 3 kgs

*** Display**

(refer to the selection table)

*** Environmental**

Operating temperature: 0°C to 45°C
Storage temperature: -20°C to 60°C
Relative humidity: 5 to 95%, non-condensing
Altitude: 10,000 ft (3000 meters)
Vibration: 5 to 17 Hz, 0.1" double-amplitude displacement
17 to 500 Hz, 1.5 G peak to peak
Shock: 10 G peak acceleration (11 msec. duration)
Safety: meets UL/CSA/TUV
EMI: meets FCC/VDE Class A

*** Display Selection Table**

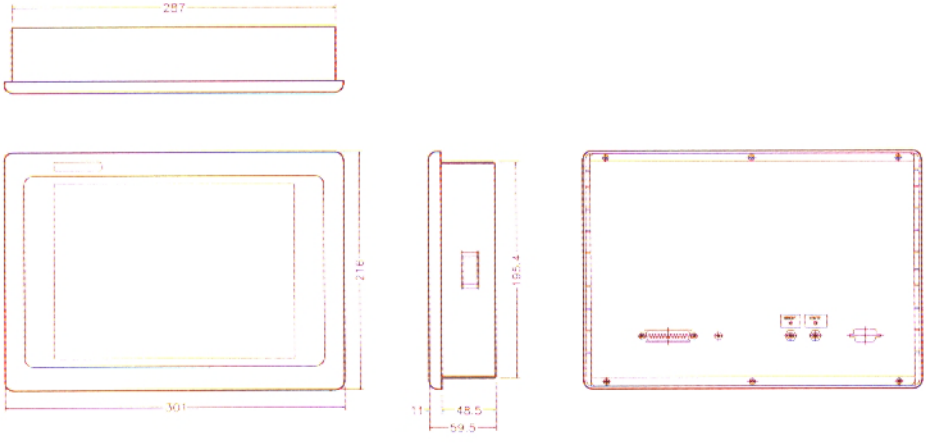
Item	Color DSTN	Color TFT	EL VGA	Mono DD
Diagonal	10.4"	10.4"	10.4"	9.4"
Display area	211.2(H) x158.4(V)	214.2(H) x164.4(V)	211.1(H) x158.4(V)	196(H) x147.6(V)
Resolution	640 x 480	640 x 480	640 x 480	640 x 480
Color or Gray scale	256 colors	16 colors	4 gray scales	16 gray scales

**AMB-232M: with Mono
AMB-232C: with Color DSTN
AMB-232E: with EL VGA
AMB-232T: with Color TFT
(When you opt for a touchscreen, the above model names will be attached with a T, AMB-232TT for an example)

*** Touchscreen** (option)

(refer to the touchscreen user's guide which will be included in the package if you opt for a touchscreen)

1.4 Dimensions



Chapter 2 System Setup

2.1 General

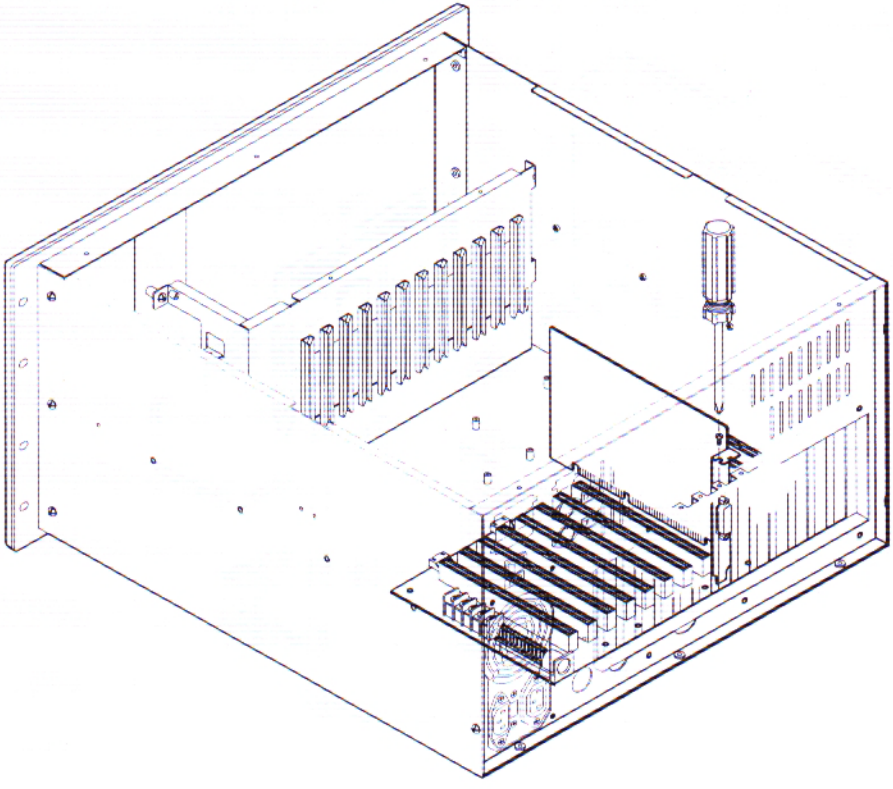
The AMB-232 series display panels are very easy to set up for operation, all you have to do is install the graphic card on your PC's motherboard or passive backplane, and connect the DB-25 cable from the graphic card to the display panels. As we have said before, no additional power source is required to run them, the power coming through the graphic card is already enough.

But before you come to install the graphic card you should first make sure that: ***you have shut down your PC and unplugged all the power cables from it. If you haven't, do it now. Also remember henceforth that each time you want to take off the graphic card for whatever purpose, you should shut down again your PC and unplug all the power cables from it.***

2.2 Install the graphic card

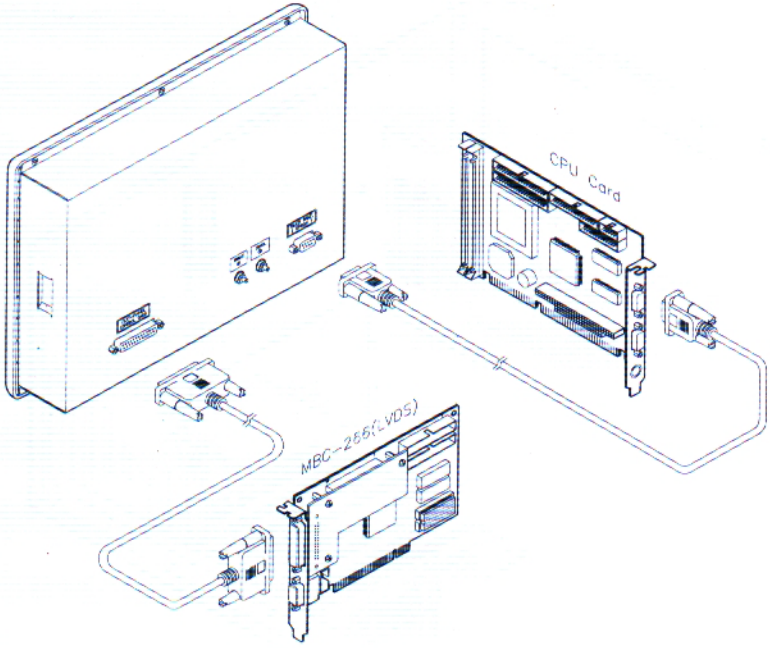
To link the display panels up with your PC you should first install the graphic card on your PC's motherboard or passive backplane. The installation will take the following steps to complete:

1. Choose a proper slot and remove its anti-dust leaf
2. Slide the graphic card into the slot with its mounting bar going down the leaf's groove
3. Drive the screw back to secure

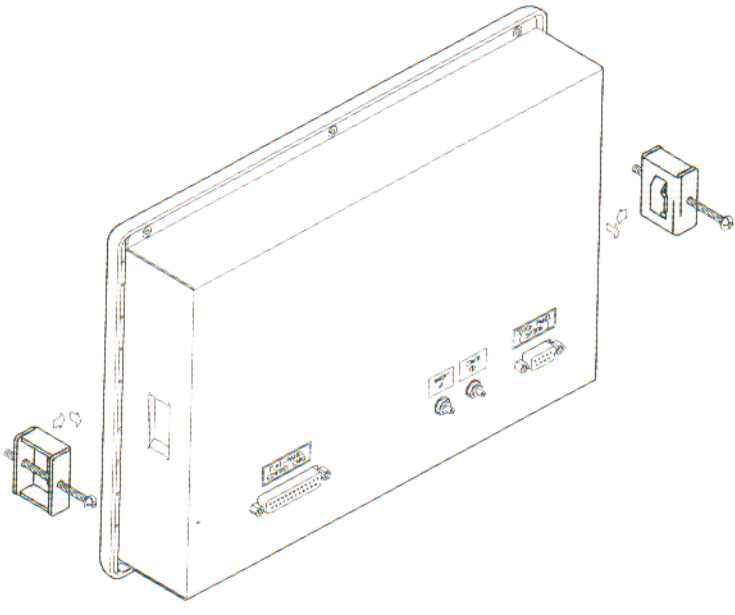


2.3 Connection to your PC

The display panels provide two connectors on their back. From the lower left one you can connect the DB-25 cable to the graphic card you have installed your PC. From the lower right one you can cnnect a DB-9 cable (which will come with the touchscreen if you have opted for it) to the CPU card in your PC.



2.4 Panel mounting

The display panels can be placed on a shelf or table, or mounted onto a control panel. To mount them onto a control panel you need a kind of mounting kits which you will find in the accessory box. Take the mounting steps described here below:

1. Set the display panel within the aperture in your control panel
2. Slide the mounting kits into the slots on the chassis cover
3. Tighten the bolt in the kits until the display panel is firmly secured to the control panel