

USER'S MANUAL

AMB-562 Series

*Industrial Panel PCs
With Flat-Panel Display*

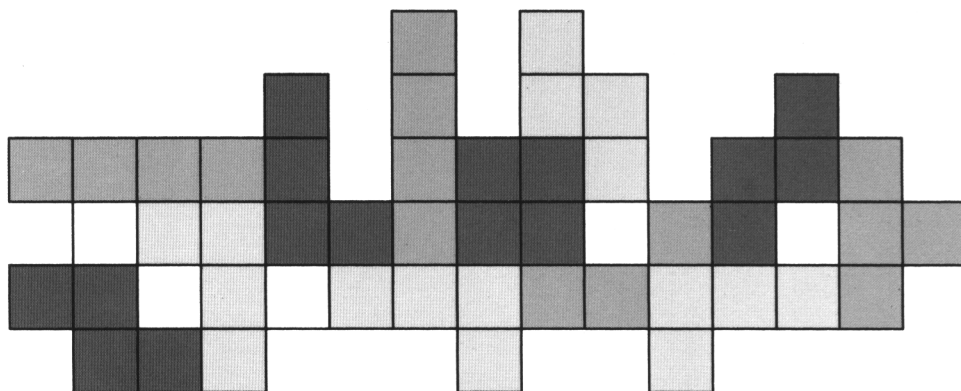


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About This Manual

Welcome to the AMB-562 series of industrial panel PCs with flat-panel display. This manual will introduce the AMB-562 series to you in very detail. In addition, it will help you understand how to set up and use AMB-562 industrial panel PCs.

This manual contents three chapters and two appendixes.

- Chapter 1 Gives you an overview of the industrial panel PCs
- Chapter 2 Tell you how they are basically constructed and what procedures you should take for system setup.
- Appendix A Gives detailed specifications of power supply.
- Appendix B Gives a picture of exploded diagram on them.

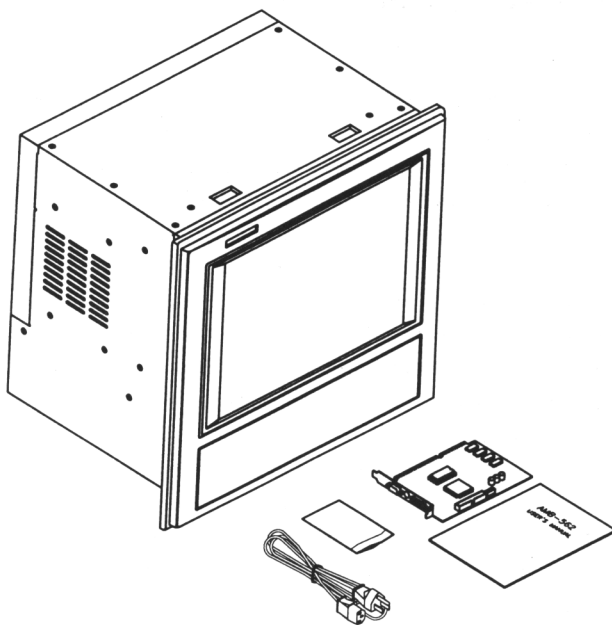
Important safety Instructions

- Please read this manual completely before operating the unit and retain it for future reference.
- Before you start any of the actions, make sure that you have the correct version of the unit. So far the series have AMB-562C, AMB-536T and AMB-562HT(Hi-brightness), and AMB-562/562HT- (Your selected display)
 - T(Optional touchscreen)
- Please unplug this product from the wall outlet before cleaning. If the surface of the LCD cells needs to be cleaned, wipe it swiftly with cotton or other soft cloth. If the product is still not completely clear, blow on its surface and wipe it.
- Please pay attention not to scratch on the surface of the front panel polarizer, because it is easily damage.
- Do not use this product close to water. And avoid exposing this product to the direct sunlight, strong ultraviolet light, etc. for a long time.
- This product must be operated from the type of power source specified. If you are not sure which type of power source is available, please refer to appendix A.

Packing List

The following items will be contained in the package. If any of these items are missing or damaged you should contact your dealer immediately.

- One AMB-562 industrial panel PC with flat panel display
- One flat panel/CRT display control card
- One power cord
- A pack of accessory
- AMB-562 user's manual



Chapter 1 Overview

1.1 General

To fulfill customer satisfaction, AMB-562 series are IBM PC/AT compatible computers and specially designed to keep normal operation under harsh environment which meet all the requirements for an industrial man-machine interface.

They come equipped with a flat panel display which is 12.1" color DSTN or color TFT LCD display, an ISA-bus 7 slot passive backplane or space for motherboard, an ISA-bus flat panel/CRT display control card; an analog resistive or capacitive touchscreen (option), 70W switching power supply (refer to appendix A for options), a space for a 3.5" HDD and 3.5FDD. All of them are enclosed with a heavy-duty steel chassis and a high-quality aluminum front panel and environmental protection standards.

All the controls and connectors are placed on the rear panel, users can connect the industrial panel PC to other devices via them.

NOTE Touchscreen or DC power supply is optional as users' order and to ask for additional price table.

1.2 Features

- * Compact size 10.4" color DSTN or color TFT LCD display
- * Removable front panel
- * Universal 70 W switching power supply (or other options)
- * Analog resistive touchscreen (option)
- * Heavy-duty steel chassis and high quality plastic front panel
- * Panel mount
- * Hold-down clamp keeping add-on cards from vibration
- * Acrylic display-protecting cover
- * 30CFM cooling fan
- * One disk drive housing for one 3.5" HDD and one 5.25"CD-ROM
- * Controls and connectors on the front panel: Power switch, Brightness VR, Keyboard connector.

1.3 Specifications

1.3.1 General Specification of AMB-562

Case Material	Heavy-duty steel chassis & high quality aluminum front panel
Operating Voltage	85-265 VAC, 47-440Hz
Power Supply	70 Watts
Front Panel	Click-on dust-protecting door: covering 5.25" CD-ROM slot, Keyboard connector, power switch, brightness Connector, power switch, brightness control VRs
Disk Bay	One driver housing for one 3.5" HDD or 3.5" FDD And one 5.25" CD_ROM drive
Inner Cooling	One 30CFM fan
Operating Temperature	0°C to 50°C
Storage Temperature	-20°C to 60°C
Relative Humidity	5 to 95%, non-condensing
Altitude	10,000ft (3000 meters)
Vibration	5 to 17 Hz, 0.1" double-amplitude displacement 17 to 500Hz, 1.5G peak to peak
Shock	10G-peak acceleration (11-msec. duration)
Safety	meets UL/CSA/TUV
EMI	meets FCC/VDE Class A
Dimensions	362 (W) x 345 (H) x 234 (D) mm
Net Weight	8.5Kgs

NOTE

Model Number System

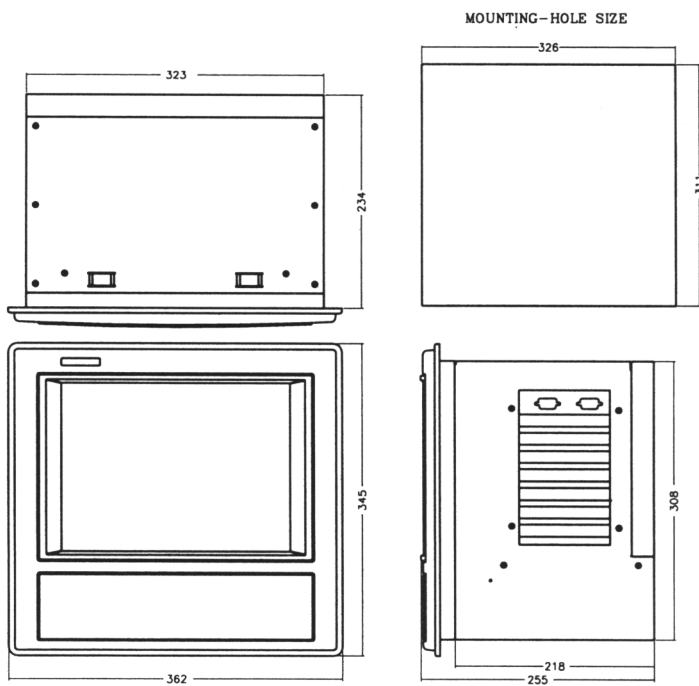
Product Names	AMB-562C: Standard model AMB-562T: Color TFT LCD display AMB-562HT Hi-brightness color TFT display
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1.3.2 Display Option and Specification

Item	Color DSTN	Color TFT	Hi-brightness color TFT
Diagonal	12.1"	12.1"	12.1"
Resolution	800x600	800x600	800x600
Luminance (cd/m ²)	65	70	250
Life-time (Hrs)	10,000	10,000	10,000

1.4 Dimensions

Unit: mm



Chapter 2 System Setup And Operating

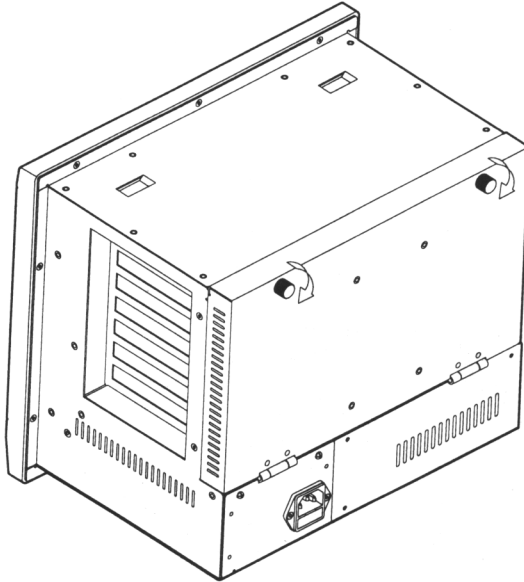
2.1 General

In order to let users realize the AMB-562 series in constructions, this chapter will illustrate the step of sequence for users. Users will learn how to set up this system and apply it step by step. As regards quality, AMB-562 series warrant the quality for customers. This is because, AMB-562 series have been setup and tested at R&D Department of Astech before they were shipped.

IMPORTANT Do not plug in any power source when you start to setup the system. Also remember whenever you want to open the industrial workstation again for either upgrading or maintenance you have to switch all the power off and unplug them.

2.2 Opening The Rear Cover

The rear cover is fastened to the chassis with two screws at the upper side and two hinges at the lower side. You only need to turn loose the two screws to open the cover on the hinges. This step will give you the access to the hold-down clamp on the inner side of the rear cover. To reach the power supply and disk drive housing you need to open another two rear covers under the two hinges.

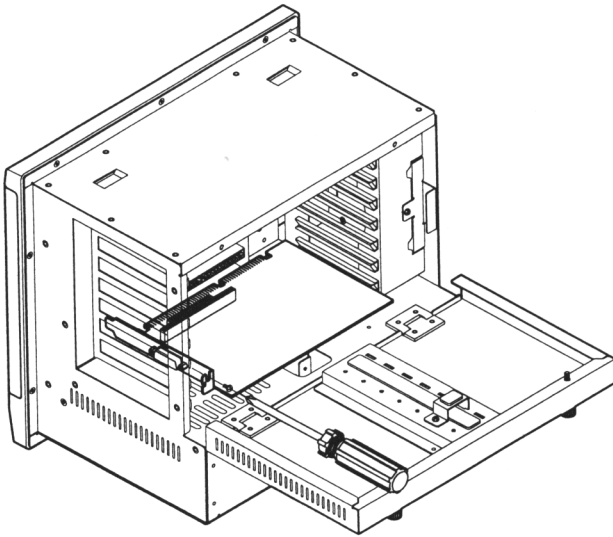


2.3 Install add-on cards

There are 7 slots on the passive backplane, but for the sake of saving them you should basically install an all-in-one SBC and the flat-panel/CRT display control card which comes with the panel PCs before taking up any of other I/O cards.

Installing steps:

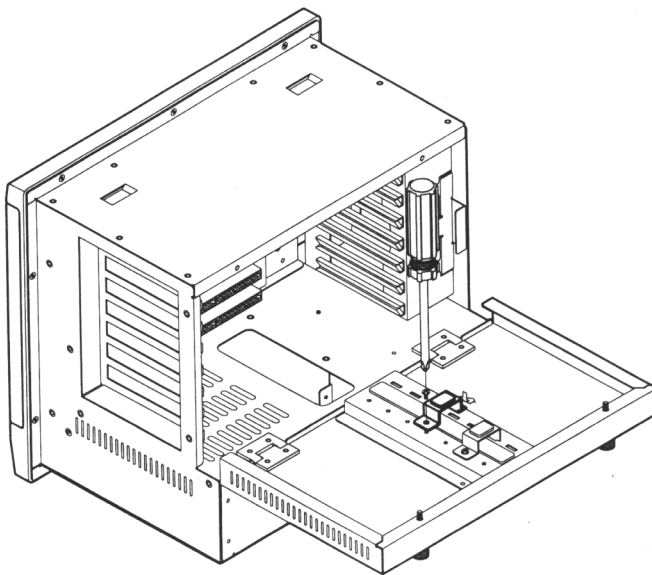
1. Take up card and slide it slowly into a slot until its bracket goes well down a groove on the securing panel.
2. Match the screw hole on the bracket with the one in the groove and drive a screw tight through.



2.4 The hold-down clamp

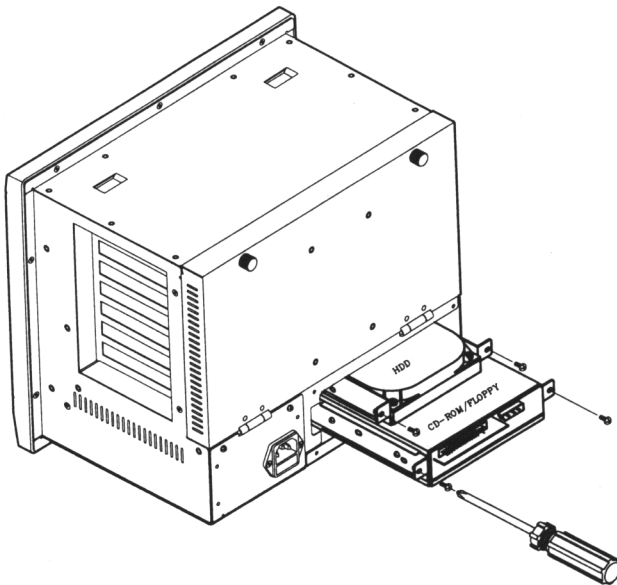
Looking to the inner side of the rear cover, you can see a clamp with a long rubber band going down it. This is to hold any AT cards you might have installed on the passive backplane. Looking into the accessory box you will also see seven small clamps with a rubber pad fixed on them. They are for you to install them on the big clamp to hold any XT cards, you might have installed on the passive backplane.

To install the same clamps, slide one end of them into a slit along the long rubber band, then match the screw through.



2.5 Install the disk drives

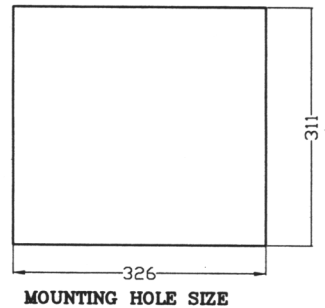
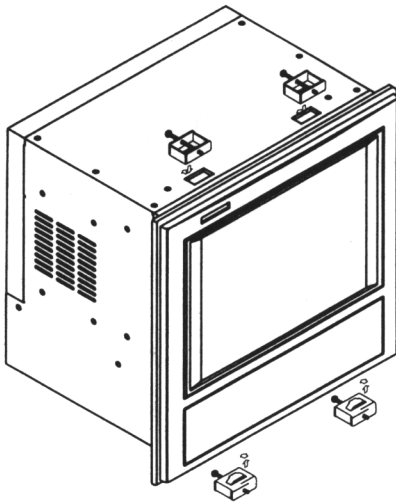
We mentioned two back covers under the two hinges on the back of chassis. To reach the disk drive housing you need to remove the right one. You will see the housing with two bays. Unfastening the two screws at the front of each of the bays will allow you to draw them out. The lower one is for you to install a 3.5" FDD and upper one is a 3.5" HDD. Please connect the related cables properly before placing the two bays back in place and putting back the rear cover. And the front panel has one 5.25" CD-ROM drive slot.



2.5 Panel mounting

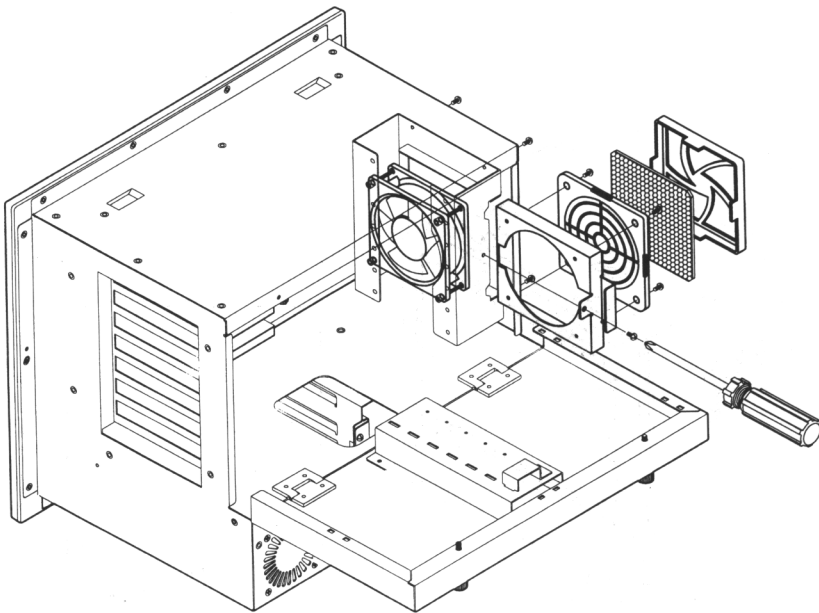
The panel PCs can be mounted onto a control panel within an aperture. The mounting steps are:

1. Set the chassis within the aperture.
2. Slide the mounting kits into the slots on the top and bottom of the chassis.
3. Drive the screws on the kits tight against the control panel until a hooklike click on the kits firmly stuck.



2.7 Cleaning and Changing the Fan

Open the cover on the fan of the rear cover to clean the filter net. The fan is installed on the left corner within a housing. Therefore users must unfasten the single screws to change and clean the fan.



Appendix A: Power Supply Specification

Power supply constitutes an essential part of the panel PCs, so we make this section to let you know more about the power supply used in them. It is a universal 70W AC switching power supply (default).

Industrial Features:

- 47-440Hz input frequency
- 100% equipped “NIPPON CHEMI-CON” super high reliability aluminum electrolytic capacitors
- 60KHz switching frequency control IC inside
- 0°C to 60°C operating temperature
- High precision and stable DC outputs for long term operation

General Specifications

Ripple and Noise: The peak to peak ripple and noise for each output is less than 1% at rated load. Measuring is done by 15MHz band width limited oscilloscope and terminated at each output with a 0.47 uF capacitor.

Line Regulation: The line regulation for each output is less than +/-1% while measuring at load and +/-10% of input voltage changing.

Load Regulation: The output voltage load regulation is less than the values in the following table by changing each output load +/-40% from 60% rated load, and keep all other outputs at 60% rated load.

Output # +5V: +/-3% +12V: +/-5%

Hold-up Time: Hold-up time is longer then 16ms by measuring from the last AC line changing pulse to the point that +5V drop down to +4.75V

Output Protection: The built-in over voltage protection circuit will shut down the outputs to prevent damaging external circuits. The trip point of crowbar circuit is around 5.9V to 7.0V. The power supply will go into latch off against short circuit or over load conditions, and will have to OFF and ON the input line to restart the power supply.

Efficiency: The efficiency is higher than 70% by measuring at normal line and rated load.

Safety: Designed to meet the following standards

UL 478, 1012, 1950 D3

TUV EN60 950

CSA 22.2 No.234

EMI: Designed to meet the following standards

FCC docket 20780 curve "B"

EN50081-2: CISPP22 "B"

Operating Temperature: -20°C to 70°C

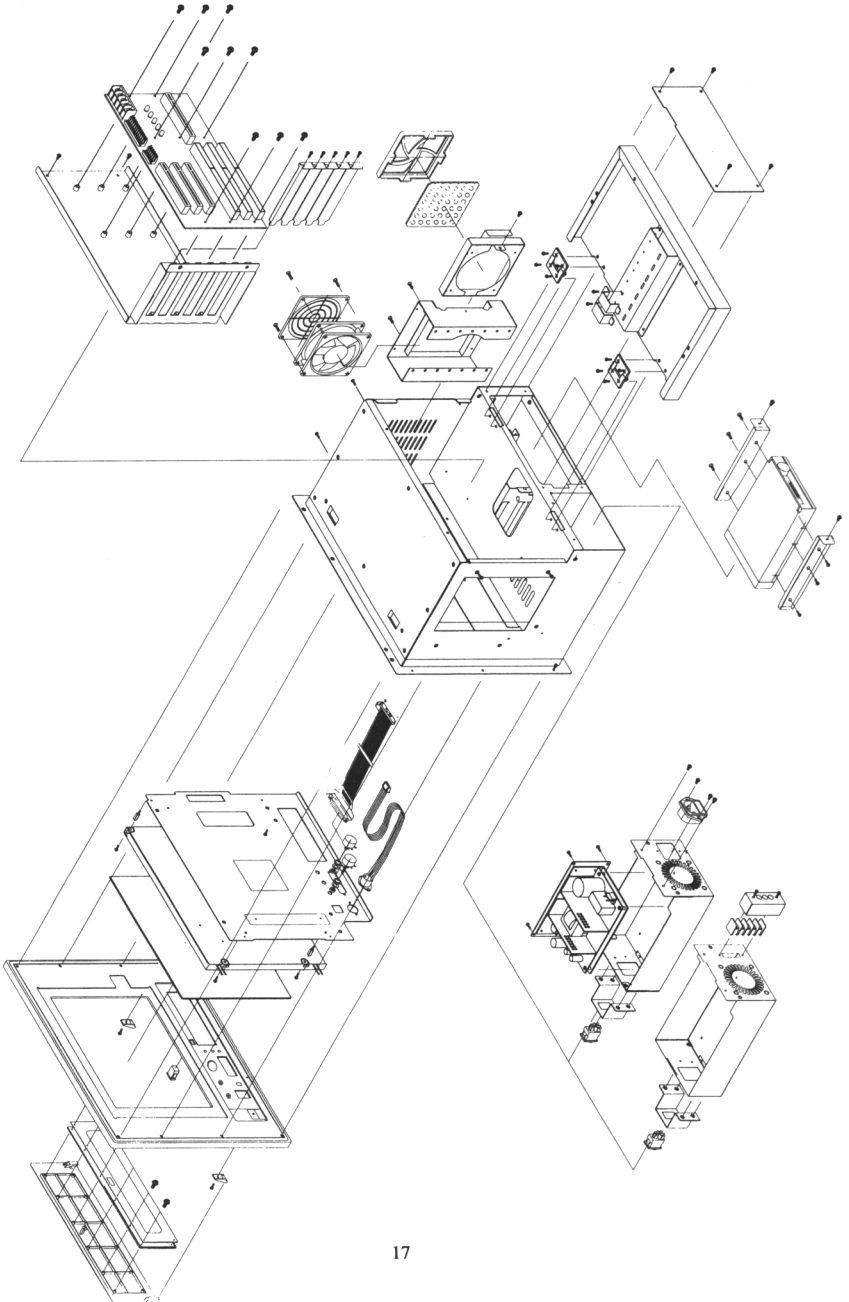
Storage Temperature: -30°C to 85°C

Power Supply Selection Table

Output spec. at 50°C

Model	Input Voltage	Max. Output Current	
		+5V	+12V
Universal/55W	85-265VAC	8A	1.2A
24VDC/55W	16-32VDC	8A	1.2A
12VDC/45W	9.5-18VDC	6A	1.1A

Appendix B: Exploded diagram





HomeTek Technology Inc.

ADDRESS: No.85-5, Shir Men Road, Tu Cheng City, Taipei Hsien, TAIWAN, R. O. C.
PHONE : 886-2-22608375 FAX : 886-2-22748013
E - mail : hometek@ms15.hinet.net

CERTIFICATE OF COMPLIANCE

EUT : Industrial Panel PCs with Flat-panel Display
MODEL NO. : AMB-562HT, AMB-562T
Final Test Date : 3/12/99 REPORT #: EA8C007
APPLICANT : ASTECH TECHNOLOGY CO., LTD.
ADDRESS : 6F-4, No. 351, Chung-Shan Rd., Sec. 2, Chung-Ho City, Taipei, Taiwan, R. O. C.

MEASUREMENT PROCEDURE USED :

- EN50081-1 (1992) EN50082-1 (1992)
EN50081-2 (1992) EN50082-2 (1992)
EN55011 (1994) IEC 801-2 (1984)
EN55022 (1994) IEC 801-3 (1984)
EN60555-2 (1987) IEC 801-4 (1988)
EN60555-3 (1987)

WE HEREBY SHOW THAT :

THE MEASUREMENT SHOWN IN THE ATTACHMENT WERE MADE IN ACCORDANCE WITH THE PROCEDURES INDICATED, AND THE ENERGY EMITTED BY THE EQUIPMENT WAS FOUND TO BE WITHIN THE LIMITS APPLICABLE.
THIS TEST RESULTS OF THIS REPORT APPLIES TO ABOVE TESTED SAMPLE ONLY.
THIS TEST REPORT SHALL NOT BE REPRODUCE IN PART WITHOUT WRITTEN APPROVAL OF HOMETEK TECHNOLOGY INC.

PREPARED BY : ANGEL CHEN DATE : 3/12/99
CHECK BY : JOSEPH CHOU DATE : 3/16/99
APPROVED BY : GRANT HUANG/Manager DATE : 3/16/99

Declaration of Conformity

We(Manufacturer/Importer)

ASTECH TECHNOLOGY CO., LTD.

(company name)

6F-4, No. 351, Chung-Shan Rd., Sec. 2, Chung-Ho City,

Taipei, Taiwan, R. O. C.

(address)

declares under our sole responsibility that the product

Product name : Industrial Panel PCs with Flat-panel Display

Model No. : AMB-562HT, AMB-562T

to which this declaration relates is in conformity with the following standard(s) or other normative document(s)

- | | | | | | |
|-------------------------------------|-----------|--------|-------------------------------------|---------------|--------|
| <input checked="" type="checkbox"/> | EN50081-1 | (1992) | <input checked="" type="checkbox"/> | EN50082-1 | (1992) |
| <input type="checkbox"/> | EN50081-2 | (1992) | <input type="checkbox"/> | EN50082-2 | (1992) |
| <input type="checkbox"/> | EN55011 | (1994) | <input checked="" type="checkbox"/> | IEC 801-2 | (1984) |
| <input checked="" type="checkbox"/> | EN55022 | (1994) | <input checked="" type="checkbox"/> | IEC 801-3 | (1984) |
| <input type="checkbox"/> | EN60555-2 | (1987) | <input checked="" type="checkbox"/> | IEC 801-4 | (1988) |
| <input type="checkbox"/> | EN60555-3 | (1987) | <input type="checkbox"/> | IEC 1000-4-5 | |
| | | | <input type="checkbox"/> | IEC 1000-4-6 | |
| | | | <input type="checkbox"/> | IEC 1000-4-8 | |
| | | | <input type="checkbox"/> | IEC 1000-4-11 | |

following the provisions of 89/336/EEC Directive

Place: _____ Signature: _____

Date : _____ Full name: _____



Title: _____