

FPM-30

Flat Panel Monitor with
10.4" Color TFT LCD Display

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Contents

Chapter 1 Introduction	1
Checklist	2
Introduction	2
Specifications	3
Flat Panel Displays	4
Connectors	5
Connection Diagram	6
Dimensions	7
Chapter 2 System Setup	9
Wall Mounting	10
Panel Mounting	11
Exploded Diagram	12

CHAPTER
1

Introduction

This chapter includes:

- **Checklist**
- **Introduction**
- **Specifications**
- **Flat Panel Displays**
- **Connectors**
- **Connector Diagram**
- **Dimensions**

Checklist

- FPM-30
- Accessory Pack, including:
 - FPM-30 User's Manual
 - PCA-6653 Manual
 - PCA-6653 Disk
 - PCA-6653 Video Display Card
 - Component Bag
 - Screw Bag

Introduction

Advantech's FPM-30 series flat panel monitors are a state-of-the-art alternative to conventional CRT monitors. They offer the traditional advantages of flat panel displays — small-size, light weight and low power consumption — with the added security of a rugged NEMA4/12 (IP52/56) compliant design.

The flat panel monitor package includes an ISA-bus video display card and your choice of flat panel displays: color TFT/DSTN LCD, B/W LCD. The display card supports simultaneous use of LCD panels and analog CRT monitors. A shielded 1.8 meter cable connects the FPM-30 and the video display card, allowing remote operation. Add an optional touchscreen to create the ultimate user interface. The FPM-30's compact size and extended range allow easy placement in almost any location.

Specifications

General

- **Construction:** Heavy-duty aluminum and steel chassis
- **Front panel:** NEMA 4/12 (IP 52/56)
- **Control:** One waterproof brightness/contrast adjustment knob (monochrome series only)
- **Mounting:** Panelmount or wallmount
- **Dimensions:**
 - Width: 13.0" (330 mm)
 - Height: 9.5" (242 mm)
 - Depth: 2.0" (50 mm)
- **Weight:** 7.7 lbs (3.5 kg)

Video Display Card

- **Model:** PCA-6653
- **Board:** 16-bit ISA-bus, half-size
- **Video Chip:** CHIPS 65545
- **Memory:** 1 MB on board, frame buffer 512 KB (optional)
- **Max. Resolution:** 1024 x 768 for both flat panel and CRT displays
- **Connectors:** One DB-44 connector for flat panel display
One DB-15 connector for CRT
- **Simultaneous CRT/LCD display:** Available with TFT, B/W LCD
- **Power Consumption:** +5 V @ 1 A, max.

Touchscreen (optional)

- **Type:** Analog resistive
- **Resolution:** Transmission @ 75%
- **Controller:** RS-232 interface
- **Power Consumption:** +5 V @ 200 mA
- **Software drivers:** DOS and Windows supported
- **Life cycle:** 30 Million touches
- **Surface:** Meets ASTM-D-1044 standard (Taber Abrasion Test)

Flat Panel Displays

Model	FPM-30CT	FPM-30M
Display Type	TFT Color LCD	Mono LCD
Size (diagonal)	10.4"	10.4"
Max. Resolution	640 x 480	640 x 480
Max. Colors	256 K Colors	64 Greyscale levels
Viewing Angle	90°	50°
Dot Size (mm)	0.33 x 0.33	0.33 x 0.33
Luminance (cd/m2)	160	70
LCD Model	Toshiba LTM10C042 or compatibles	Sharp LM64P89 or compatibles
Temperature	0 ~ 50°	0 ~ 45°
VR Controls	N/A	Contrast
Simultaneous Mode	Yes	Yes
LCD MTBF	50,000 hours	50,000 hours
Backlight MTBF	10,000 hours	10,000 hours

Connectors

The following connectors are situated on the left hand side of the FPM-30. Also refer to the diagram overleaf.

Video I/O Port (DB-44)

This connector links the FPM-30 to the PCA-6653 display card. The figure below shows how to connect the DB-44 to the PCA-6653.

Note: *The Display card provides power to the FPM-30; no external power is required.*



WARNING: Make sure that your display card corresponds with your choice of display! If you install a TFT LCD display card and connect a Mono LCD, or vice versa, you risk damaging your display. Do not use any VGA card other than the PCA-6653 shipped with this panel display.

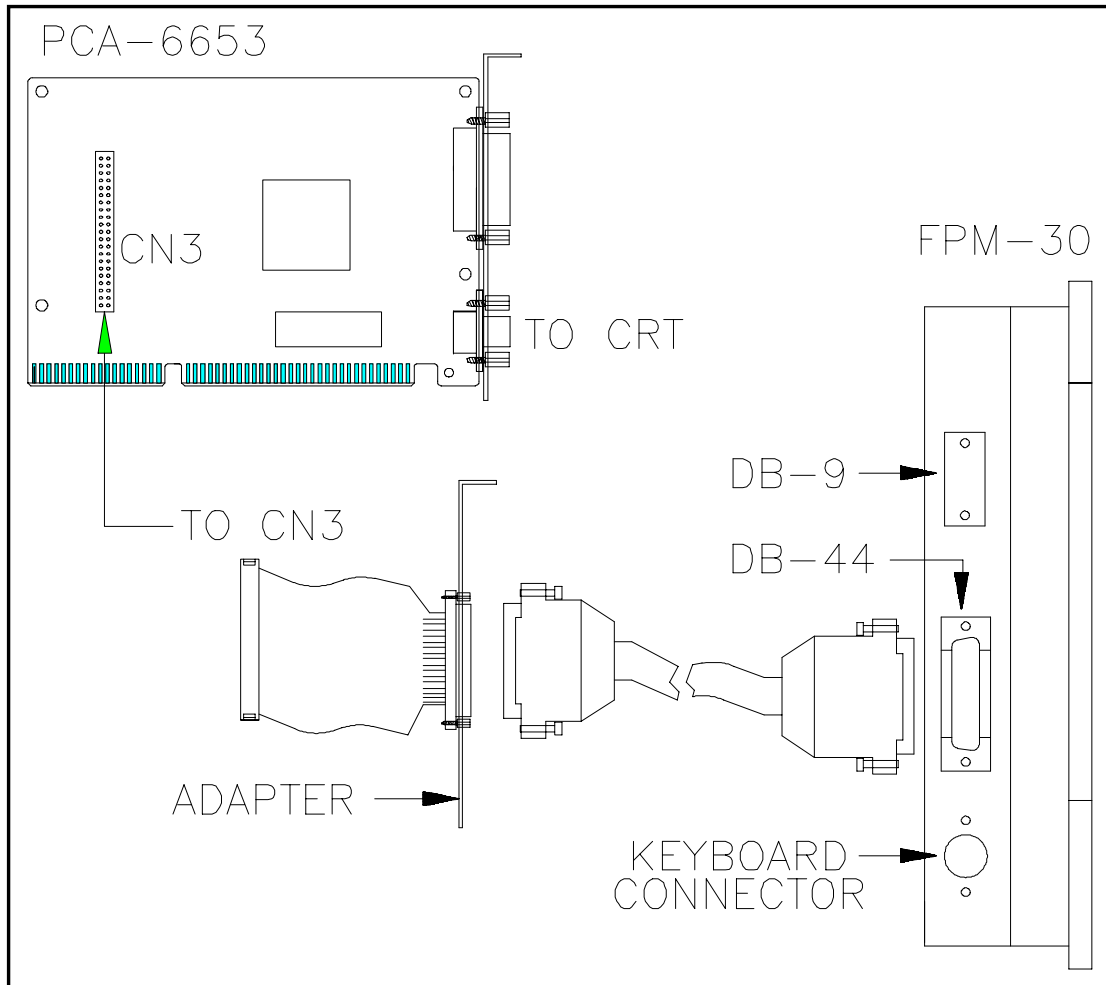
Touchscreen Connector (DB-9) (optional)

This connector will be present only if a touchscreen is installed. It must be connected to the RS-232 port of the CPU card in your chassis. The touchscreen cable is included with all orders which include the touchscreen option.

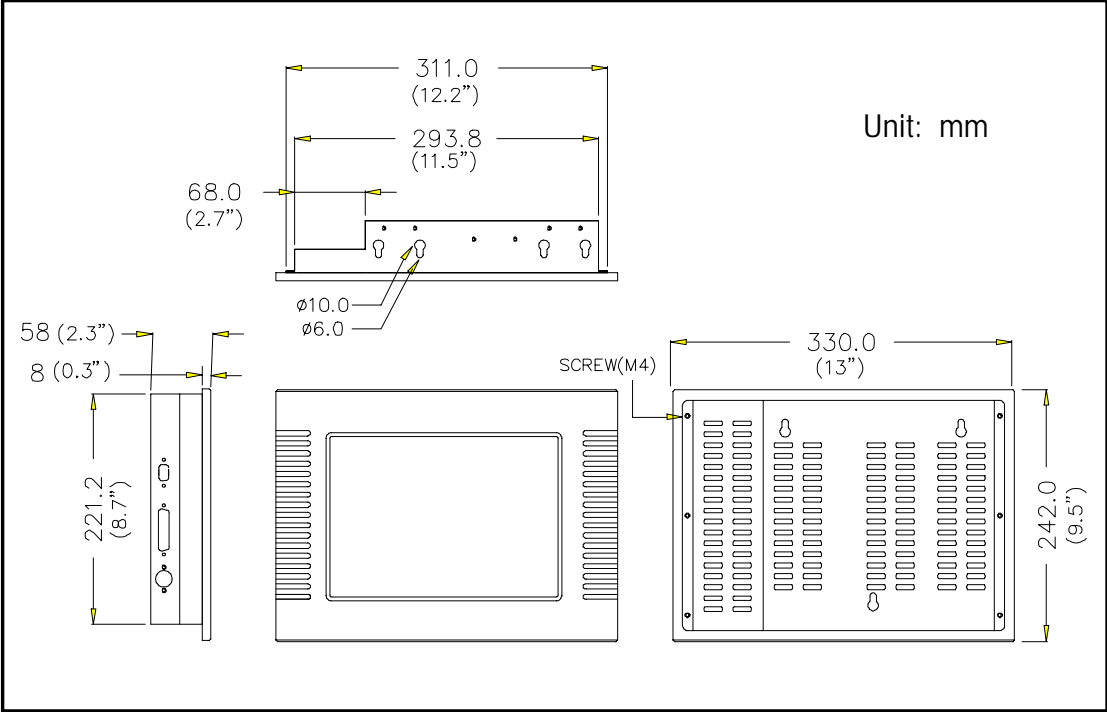
External Keyboard Connector

The FPM-30 provides an external keyboard connector to let you attach a PC/AT standard keyboard. The figure below shows the correct wiring method. Be sure the internal keyboard connector between PCA-6653 (EXT.KBD) and the CPU card (KBD) has been connected.

Connection Diagram



Dimensions



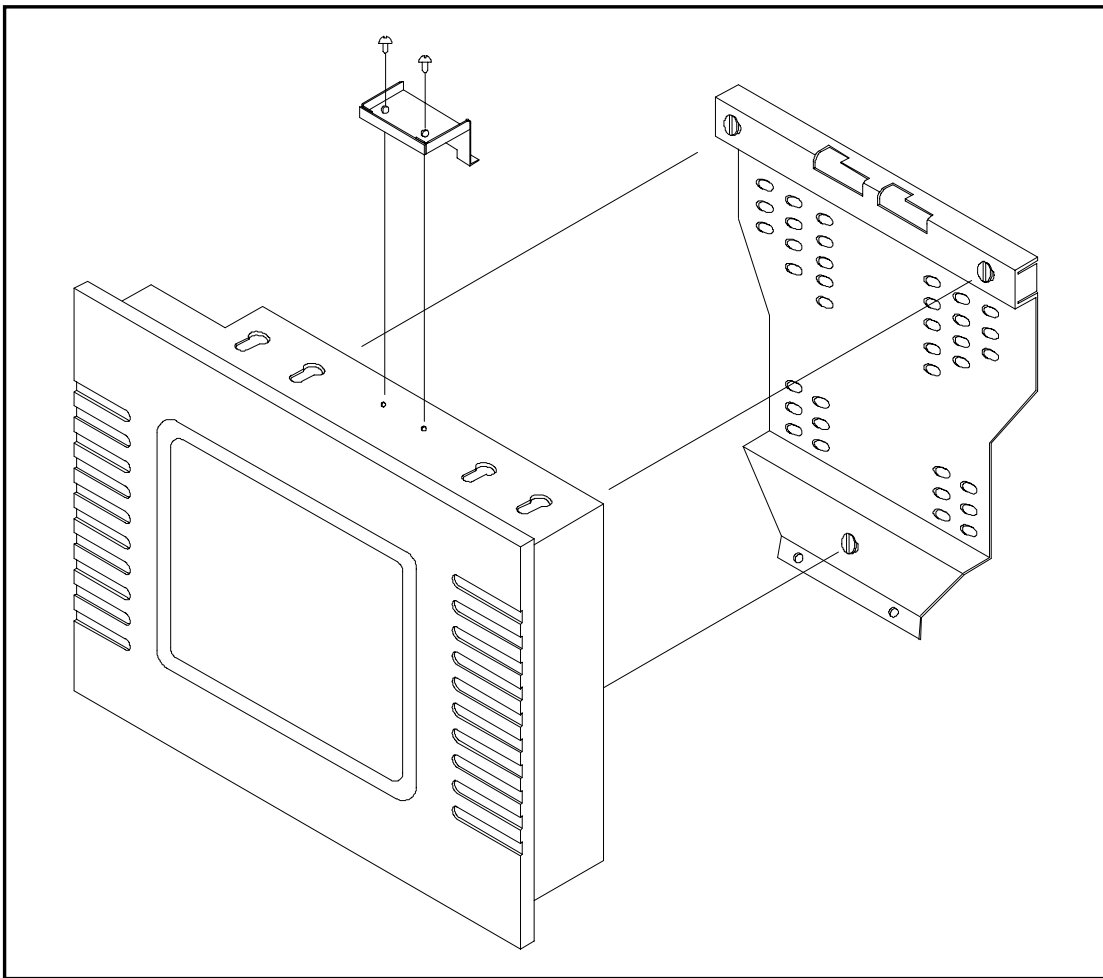
System Setup

This chapter includes:

- **Wall Mounting**
- **Panel Mounting**
- **Exploded Diagram**

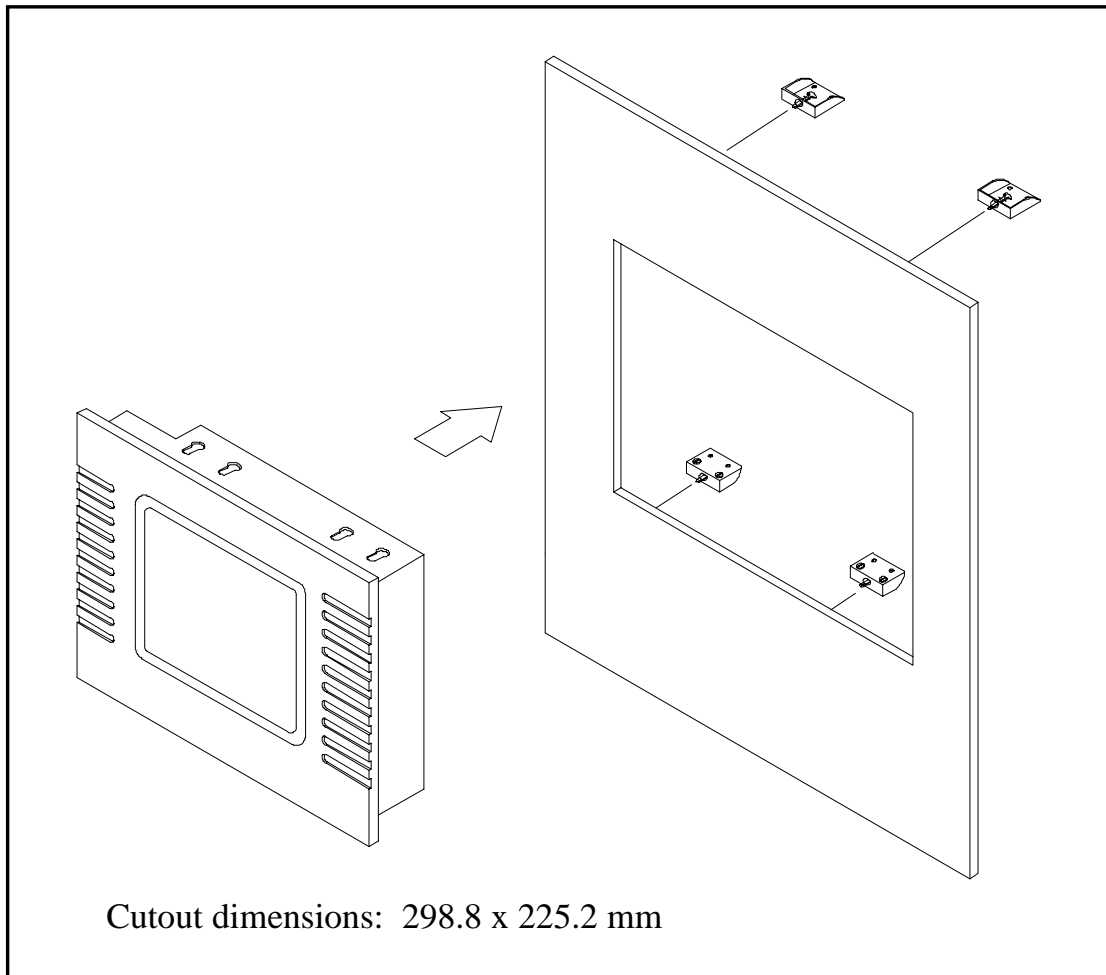
Wall Mounting

When the FPM-30 assembly is complete, the unit may be mounted in a panel or wall. Mounting brackets and fix brackets are supplied for convenient **wall mounting**. The screw holes are used to secure the large mounting bracket to the wall. Connect the FPM-30 to the bracket using the three screws included. After attaching the FPM-30 to the bracket, use the fix bracket to stabilize the unit.



Panel Mounting

A cutout can be made to accommodate **panel mounting**. Four panelmount brackets are included with the FPM-30. Slide the unit backwards into the panel opening. Attach the four mounting brackets by inserting the screws into the keyhole slots on the PC cover. Use the screws to secure the brackets to the cover. Tighten to secure the front panel monitor against the back panel.



Exploded Diagram

Remove the six screws as shown, then lift the rear panel from the unit. Internal components are as shown below.

