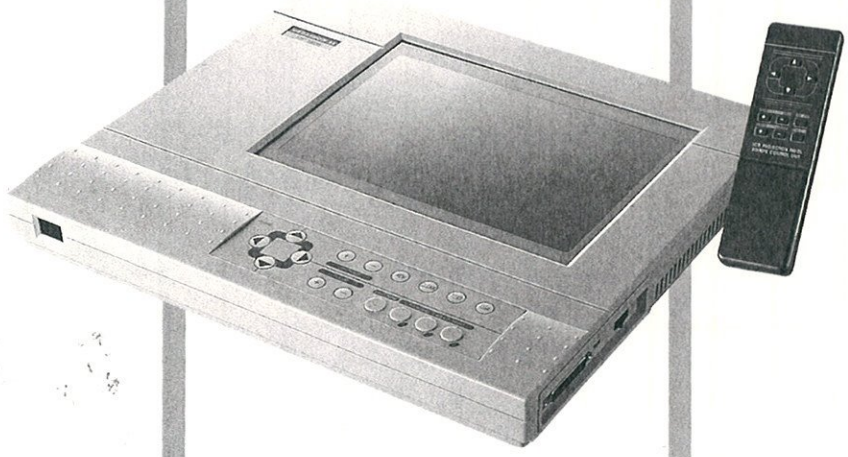
# MEGASHOW II

## LCD PROJECTION PANEL



# USER'S MANUAL

# FCC Statement

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. The equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which cause the user at his own expense will be required to take whatever measures may be required to correct the interference.

# Table of Contents

# Chapter 1

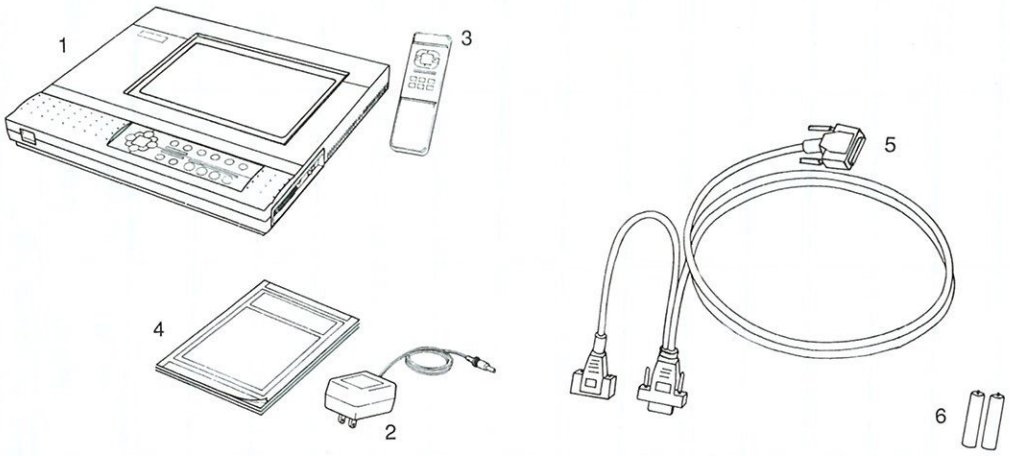
## Introduction

Congratulations for purchasing your LCD Projection Panel. It is an effective and portable presentation tool for projecting computer-generated video information onto a large screen. The enlarged display allows large groups to simultaneously view the video output of a personal computer, greatly facilitating presentations in conferences, seminars, exhibitions, classrooms, etc.

The LCD panel's 720x480 pixel high resolution display ensures highly detailed images of excellent clarity. Color charts and graphics are translated into 13 shades of simulated color.

The LCD panel is compatible with all IBM and compatible personal and laptop computers equipped with CGA, EGA, VGA or Hercules as well as Apple Macintosh family of computers. It features VGA compatibility in both text and graphics mode. With the exception of CGA mode, the LCD panel senses the type of video system you have connected and automatically adjusts for the appropriate video standard.

A "Y" cable allows you to reattach your computer monitor after connecting the LCD panel for simultaneous viewing of both the computer's monitor and the big screen.



## 1.1 System Contents

The following items should be included in your package :-

1. LCD projection panel
2. AC/DC Power Adapter
3. Handheld Remote Control
4. User's Manual
5. 15-pin VGA "Y" video cable
6. Two AA Batteries (for the remote control)

If any item is missing or damaged, please contact your dealer.

# Chapter 2

## Connecting the LCD Panel to your PC

When the LCD panel is connected to a PC, it functions the same way a monitor does, taking signals from the same video port as your PC monitor.

If you have a portable or laptop computer with an internal screen, the external video port may require that you activate it. Please consult the user's manual for your portable computer on how to activate the external video port.

### 2.1 Set Up

1. Position your overhead projector at proper level and distance for projection.

2. Set up your personal computer and monitor in a location convenient to the overhead projector for comfortable cabling with the "Y" cable provided.

3. Place the panel on projector's glass platen with controls of the LCD panel nearer to the screen.

### 2.2 Video Cable

The 15-pin video "Y" cable is required to connect the LCD panel to the IBM VGA video system. The "Y" cable has three video connectors to allow simultaneous viewing of the computer monitor and the projected image.

Optional cables and adapters are available from your dealers for connecting the LCD panel to other video systems.

**EGA/CGA/Hercules/Apple IIe "Y" Cable** - 9-pin video cable for use with RGB video port.

**Macintosh SE Adapter and Cable** - The adapter has to be installed into your MAC SE computer as per installation instructions supplied.

**Macintosh II Adapter and Cable** - The adapter has to be connected to your MAC II computer per installation instructions supplied with adapter.

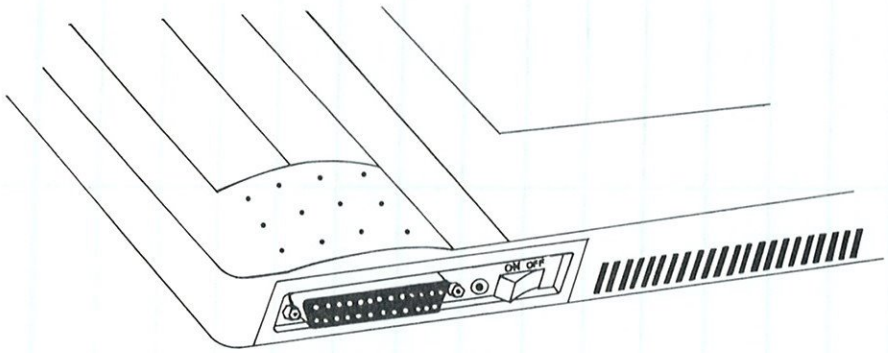



Figure 2 Connector Ports

## 2.3 Connecting to a VGA System

1. Make sure the PC is switched off! Never connect the LCD panel with the power on the PC!

2. Disconnect the monitor cable from the PC and plug it into the short cable stub on the LCD panel "Y" cable.

3. Plug the "Y" cable connector with two cables coming out of it into the PC video port. Tighten the connector screws to hold the connector securely in place.

4. Plug the large (DB-25) connector into the LCD panel.

5. Plug in the DC power jack of the AC/DC power adapter.

6. Make sure that the Panel's power is off, and then insert the AC plug of the AC/DC adapter into an AC outlet.

7. Turn on the PC and then the LCD panel.

Note :- Computers that use the VGA video system contain circuitry that senses the video cable signal (from the monitor) to determine what type of display is connected. Because of this, the LCD panel should be turned on first (to validate its video signal) before turning on the PC.

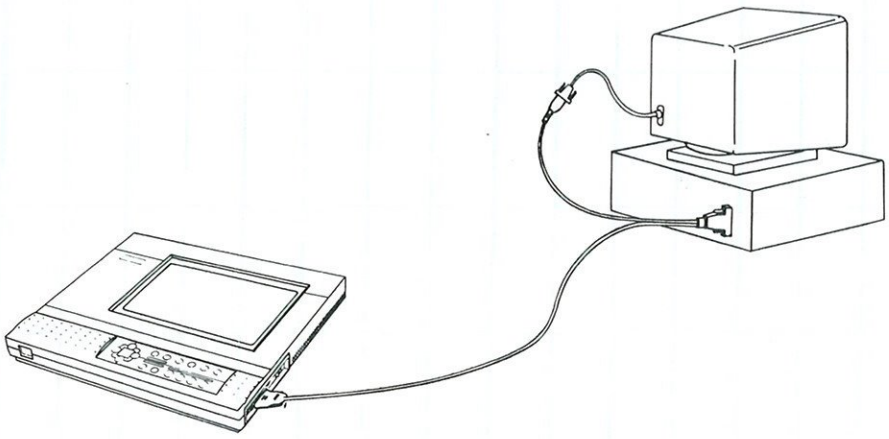


Figure 3 Video Connections

# Chapter 3

## Operation

Once you have connected the panel to your PC and power supply and placed it on your transmissive overhead projector, you are ready for operation. The following describes the controls available on the control panel and the handheld remote control unit.

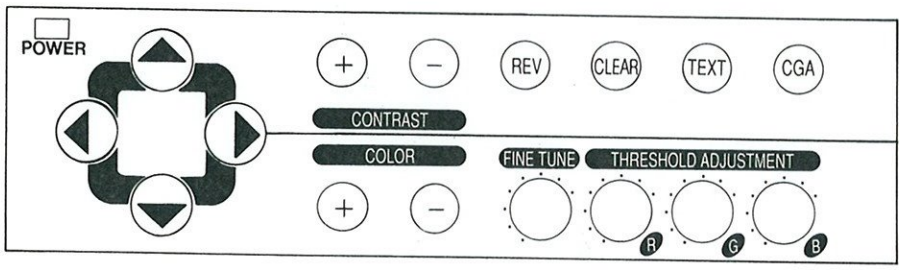



Figure 4 Control Panel

## 3.1 Control Panel

The keys on the handheld remote control unit can all be found on the control panel. Pressing any of these keys on the handheld remote control or the control panel has the same effect.

### ARROW KEYS

Use the arrow keys to move the screen images up, down, left or right. Pressing the arrow keys and immediately releasing it will move the screen image by one pixel. Continuous depressing the arrow keys will advance the screen at a faster rate.

### CONTRAST "+" and "-"

These buttons control the display contrast. Press "+" to lighten the image and "-" to darken the image.

### REVERSE

Toggles between normal and reverse video.

### CLEAR

Clears the image regardless of the presence or absence of a signal. Push the CLEAR button to restore the image.

Note : Pressing the CLEAR, CONTRAST "+" and CONTRAST "-" keys will restore the default contrast setting.
Pressing the CLEAR, COLOR "+" and COLOR "-" keys will restore the default color palette setting.

### COLOR "+" and "-"

These buttons are used to select different color palettes of the LCD panel. There are 8 different color palettes. The default palette for VGA mode is on the extreme "-".

### TEXT

This TEXT button is active for VGA or Hercules displays. Pressing the TEXT button toggles between text and graphics modes.

### CGA

This unit is an improved version in that the selection of CGA mode is automatic and does not require any more the use of this CGA button.

### RGB System Level Adjustment

These control knobs sets the threshold levels used to convert VGA analog video signals to TTL level signals.

### Fine Tune

This control knob is used to eliminate uneven text characters or "streaking" in graphic images. Slowly turn the control knob to get the optimum image.

### POWER

Turns the power to the unit ON or OFF.

## 3.2 Using the LCD Panel

1. Turn the LCD panel ON by turning the Power switch to the "ON" position. Next, turn on the overhead projector and power up your computer.

2. Use the CONTRAST "+" and "-" buttons to achieve the best looking image.

3. Use the Fine Tune adjustment knob to eliminate uneven text characters or "streaking" in graphic images. This adjustment compensates for slight variances in the PC's video timing.

4. Use the RGB level adjustments to adjust the threshold levels for input signals. These adjustments are used only for VGA analog video systems. Turn these knobs slowly to adjust to the best picture image. If the projected image is completely blank, it might be due to the color of the image is all below the threshold. Slowly turn the RGB knob all the way clockwise and the image will show up.

Note : The RGB threshold adjustment is used only for adjustment with VGA video system. When used with EGA/CGA/Hercules and other modes, these knob will have no effect. Avoid rotating these knobs unless analog video input signal is applied to the panel.

5. You may press the REVERSE button to get the "reverse" video effect or press color "+" to access other color palettes to get the optimum projected image.

## 3.3 Remote Control Operation

The signal from the hand-held remote control unit is received by the unit on the surface of the panel facing the overhead projector screen. To operate the remote control, stand behind the overhead projector, point the remote control unit at the screen. The signal will be reflected off the screen towards the panel. Your remote control has the capability of operating the Screen Direction Controls, CONTRAST, COLOR PALETTE, REVERSE and CLEAR functions.

# Chapter 4

## Care and Maintenance

This chapter describes the methods recommended to help you care for and prevent accidental damage to your LCD Projection Panel. You should treat your LCD Projection Panel with the same care you would give to any other valuable computer equipment.

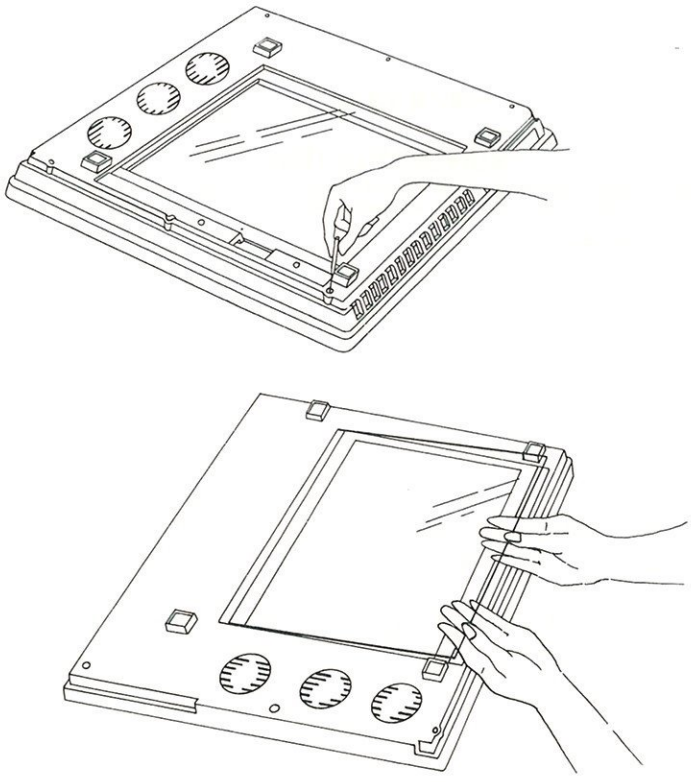


Figure 5 Removing the Bottom Glass

## 4.1 Cleaning the Bottom Glass

You can periodically clean the airway by removing the bottom glass of the unit. Remove the three mounting screws on the glass mounting bar as seen in Figure 5. Gently remove the mounting bar and the bottom glass. Use a non-alcohol-based glass cleaner and a soft, non-abrasive cloth. Wipe the glass gently to remove any dust or dirt. Reinstall the bottom glass in the same manner it was taken out.

CAUTION : Removing the bottom glass will expose the LCD glass inside the unit which is fragile and scratches easily. Avoid touching this LCD glass. Replace the bottom protective glass immediately after cleaning.

## 4.2 LCD Projection Panel Housing

**DO NOT** open the housing. If your LCD Projection Panel requires service or repair, contact the dealer directly to request service. If you attempt to open the housing or repair the LCD Projection Panel you will void your warranty.

**DO NOT** clean the housing with organic solvents, such as those containing acetone. Wipe the exterior of the housing with a soft, damp cloth. Protect the LCD Projection Panel from rain or snow.

## 4.3 Power Supply Voltage

The AC/DC adapter is designed to operate only with AC outlet with the same output as the rating (110V or 220V) on the AC/DC adapter. Operating the AC/DC adapter from AC source of different rating could damage the LCD Projection Panel or produce an electrical hazard.

## 4.4 Static Electricity

The LCD Projection Panel is vulnerable to static electricity, such as that generated when you walk across synthetic carpeting. To avoid transferring an electrostatic charge from the

environment to the LCD Projection Panel, be sure you discharge this static electricity before handling the panel. You can do this by touching any grounded object (a piece of furniture), thus dissipating the electrostatic charge.

## 4.5 Transporting your LCD Projection Panel

The LCD Projection Panel is a highly sophisticated piece of electronic equipment that is sensitive to impact, excessive heat, cold and humidity. When transporting the LCD Projection Panel, use a protective carrying case or use the original packing carton to minimize shock and impact. Prolonged storage in an excessive hot or cold environment will damage the LCD.

# Chapter 5

## TROUBLESHOOTING

Before calling for service, please review the following troubleshooting information.

| PROBLEM | PROBABLE CAUSE | SOLUTION |
|---|---|---|
| No image on PC monitor screen | Power switch | The LCD Projection Panel must be turned on to view the PC monitor |
| No screen image | 1. Cable not firmly connected | Check and secure cable connection |
| | 2. No power | Check and securely connect the power cord to the DC-in jack and make sure the AC outlet is functioning |
| Faint screen | 1. Lacks contrast | Adjust the contrast button |
| | 2. Threshold level for VGA input is not properly set | Slowly turn the RGB threshold level knob clockwise until the screen image is normal |
| Handheld remote control not functioning | Batteries are weak or not properly inserted | Check battery compartment and replace battery |
| Jittering, fuzzy letter or image | Out of sync | Adjust fine tune knob |
| The contrast of the display is not "uniform" | Air intake and exhaust vents are blocked | Check to see if air is blowing out from exhaust vent and that the motor is rotating normally |

# Chapter 6

## SPECIFICATIONS

### 6.1 Video Systems Supported

Check to insure that your video signal is compatible with one of the video systems supported by the LCD Projection Panel.

| Video Mode | Resolution | Hsync (KHz) | Vsync (Hz) | Dot Clock (MHz) |
|---|---|---|---|---|
| IBM VGA | 720x400 | 31.47- | 70.00+ | 28.322 |
| | 640x480 | 31.47- | 59.94- | 25.175 |
| | 640x400 | 31.47- | 70.00+ | 25.175 |
| | 640x350 | 31.47+ | 70.00- | 25.175 |
| IBM EGA | 640x350 | 21.85+ | 59.70- | 16.257 |
| IBM CGA | 640x200 | 15.69+ | 59.92+ | 14.318 |
| Hercules (text) | 720x350 | 18.14+ | 49.03- | 16.000 |
| Hercules (graphic) | 720x348 | 18.51+ | 50.05- | 16.000 |
| IBM MDA | 720x350 | 18.43+ | 49.82- | 16.257 |
| Macintosh SE | 512x342 | 22.25+ | 60.15+ | 15.667 |
| Macintosh II | 640x480 | 35.00- | 66.68- | 30.240 |

## 6.2 System Specifications

| | |
|---|---|
| Resolution | 720x480 pixels |
| Active Display Area | 7.9" (200mm) wide, 5.3" (135mm) high |
| Compatibility | VGA, EGA, CGA, Hercules, Apple IIe, MAC SE and MAC II |
| Controls | Horizontal, vertical, contrast, normal or reverse image, clear, color palette selection, VGA text mode, RGB settings and fine tune. |
| Remote Control | Wireless IR remote control provided |
| Cooling System | Dual cooling fans allow operation with 600W lamp overheads. |
| Interface | No card required. Optional Macintosh interface kit required. |
| Operating Humidity | 10% to 85%, non-condensing |
| Storage Temperature | -20° to +60°C |
| Weight | 5 lb (2.3kg) |
| Size | 14.0" (355mm) width, 12.6" (320mm) length, 1.6" (40mm) height |
| Power Requirement | 12 VDC at 1.5A |