USA's primary source for projector lamps
myprojectorlamps

PROJECTOR OWNER'S MANUAL

Dukane

7707

Need a replacement lamp for this projector?

www.myprojectorlamps.com

Original manufacturer manual, provided unmodified as a courtesy of MyProjectorLamps.com.
All trademarks belong to their respective owners.

PLEASE READ

This manual is provided as a free service by Projector.com.

We are in no way responsible for the contents of the manual. We do not guarantee its accuracy and we do not make any claim of copyright. The copyright remains the property of their respective owners.

ABOUT PROJECTOR.COM

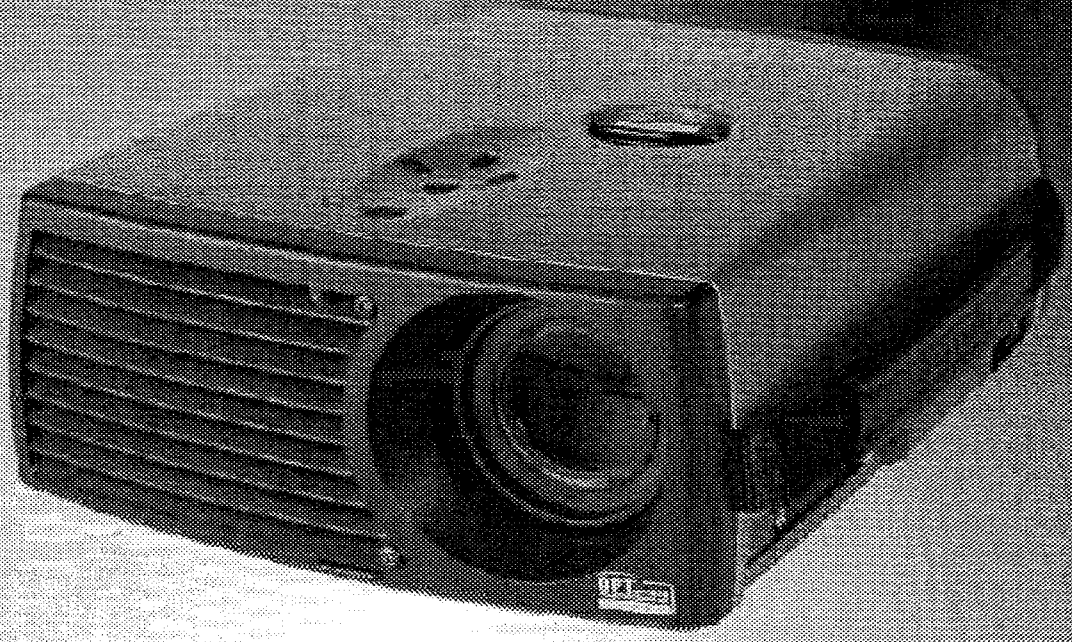
Projector.com (http://www.projector.com) is your review and buying guide resource for DLP and LCD video projectors.

Visit the site to read the latest projector news and reviews, read and comment on projector specifications, download user manuals and much more.

USER MANUAL

7707 Series

ULTRA-PORTABLE PROJECTOR



DUKANE

Notices and Safety Precautions 2
Inventory 3
Quick Start 4
Connecting to a Computer 4
Connecting to a Video Source 5
* Getting Started Detail 6
Adjusting Focus 7
Adjusting Height 7
Projector Keypad Controls 8
Connecting to Computer Video 9
Connecting to Computer Audio 9
Connecting to Video Player Video 9
Connecting to Video Player Audio 9
Connecting to Computer/Video Player Diagrams 10
Menus 11
Menu Operation 11
Menu Structure 12
Audio Menu 13
Image Menu 13
Frequency 13
Tracking 13
Room Light 14
Source Menu 14
Features Menu 14
Custom Menu 15
Service Menu 15
Reset Lamp Timer 16
Auto Setup 16
Curtain 16
Menu Example 17
Appendices 18
A: Replacing the Lamp Module 18
B: Remote Control 19
C: Laptop External Video Port Activation 20
- Computer Manufactor-Port Activation Keys 21
D: Specifications 22
E: Distance to Screen vs. Image Size 23
F: Limited Warranty 24
G: Notices and Safety Precautions Detail 25
- FCC/Canada/European Statements and Notices 26
- EU Manufactures Declaration & Conformity 27
H: Technology Labels 28
I: Troubleshooting 29/30

Notices and Safety Precautions

Information in this document is subject to change without prior notification for the sake of improved reliability, design and function.

This document contains proprietary information protected by copyright. All rights are reserved. No part of this manual may be reproduced by any mechanical, electronic, or other means in any form without first obtaining written permission.

All brand or product names are trademarks of their respective companies.

Personal computers and computer software referred to in this manual are not included with this unit.

To prevent accidents caused by improper handling or operation, please take note of the following precautions:

1. Do not attempt to service the product yourself. Opening the case may expose the users to dangerous voltage or other hazards. Refer all servicing to qualified service personnel. Although lamp replacement can be accomplished by the user, consultation with Technical Support is suggested before doing so.

2. Follow all hazard markings and instructions on the product. Openings in the cabinet are provided for ventilation; to ensure safe and reliable operation of the product and to protect it from overheating, be sure that these openings are not blocked. This product may not be used in a built-in installation unless proper ventilation is provided.

3. Care should be taken when handling the UHP (Ultra High Pressure) Lamp. There is a risk of heat or eye damage from the intense illumination . Avoid direct viewing or unprotected viewing into the projection lens.

4. When replacing the lamp module, allow lamp to cool with power off for ten minutes before removing front cover.

Inventory

Mite-E-Lite II Projector

Soft Sided Carrying Case

AC Power Cord

VGA Cable

Computer/Video Player Stereo Audio Cable

Dual Male RCA to Female 3.5mm Adapter

Composite Video Cable

User Manual

Remote Control

optional equipment

S-Video Cable

MAC Adapter

Extra Lamp Module

Connecting to a Computer

1. Install the power cable (see Figure 3 on next page) after placing the projector approximately twice the distance from the screen as the screen is wide.
2. Connect the computer using the standard VGA cable (in kit).
3. Adjust the elevation of the projector by lifting the front and depressing the black elevator release button at the bottom of the center front.
4. Turn power on projector and, using the top focus knob, **gently** focus on the logo.
5. Turn power on computer. Certain models might sound as though the fan is stopping or a short has occurred. This is normal operation, the fan will restart automatically.
6. If necessary, after the laptop is ready for use, enable the computer external VGA port (see Appendix C or Fn+F10 for the Casio Fiva).[1]
7. Press the Auto Setup button on top of the projector.
8. The audio connection requires a cable from the computer audio out or headset out to the 3.5 mm audio jack located just to the right of the VGA cable connection (see Figure 1).
9. See "Getting Started Detail" on Page six (6) for more information.

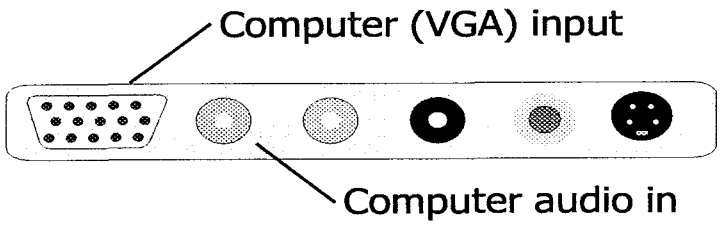


Figure 1: Mite-E-Lite II I/O Panel Computer Connection

Under normal operation, the Mite-E-Lite II requires **no cool down** period. Turn off the power switch and remove the power cable when projector use is complete. Allow projector to stand five minutes before packing.

Notes:

1. If "mode too high" error message is displayed on the projection screen, lower the resolution or refresh rate (see Appendix I).

Connecting to a Video Source

1. Install the power cable (see Figure 3) after placing the projector proximately twice the distance from the screen as the screen is wide.
2. Connect video using either S-Video or composite video (see Figure 2).
3. Adjust the elevation of the projector by lifting the front and de-pressing the black elevator release button at the bottom of the center-front.
4. Turn power on projector and, using the top focus knob, **gently** focus on the logo.
5. Enable the video source (i.e. VCR).
6. The audio connection requires a cable from the computer audio out or head set out to the 3.5 mm audio jack located just to the left of the composite video connection (see Figure 2).

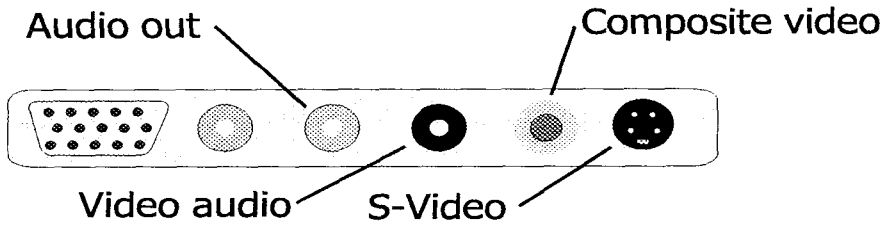


Figure 2: Mite-E-Lite II I/O Panel Video Connection

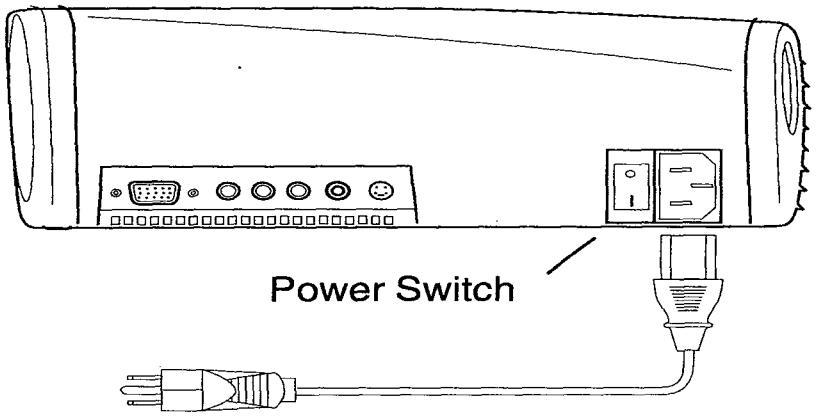


Figure 3: Connecting to Power

Getting Started Detail

This chapter explains the setup and connection procedures for your projector. It includes information pertaining to basic adjustments and interfacing with other equipment.

Connecting to Power

1. Insert the power cord into the AC input socket of the projector.
2. Connect the other end of the cord to an AC outlet.

Turning On The Projector

Depress the power switch (I) at the side of the projector (see Figure 5). The following will occur:

- The projector will initiate its start-up sequence.[1]
- Once the lamp warms up,[2] the logo will appear on the projected image (5-20 sec).
- After power up, the projector will search for a signal source. The logo will remain if no signal source is found.
- If there is more than one source present, the projector will display the source that was last detected.

Caution: Allow the lamp to remain on for at least a minute so that it may reach full temperature. Failure to do so may result in degraded lamp performance.

Notes:

1. The projector is designed to remain on for an extended period (longer than one minute). Use the curtain feature (see Page 16) to blank the screen during presentations instead of turning power off and on.
2. The lamp temperature can cause the lamp not to strike reliably on the first try. The projector will attempt to light three more times before the red LED displays a steady red (see Troubleshooting on Page 29). If lamp fails to strike, turn off the power switch for 30 seconds and power on again; the UHPprojection lamp is an arc lamp and has no filament

Adjusting Focus

To adjust focus, gently rotate the focus adjust knob on top of the projector as shown in Figure 4. Caution: do not apply excessive pressure to focus.

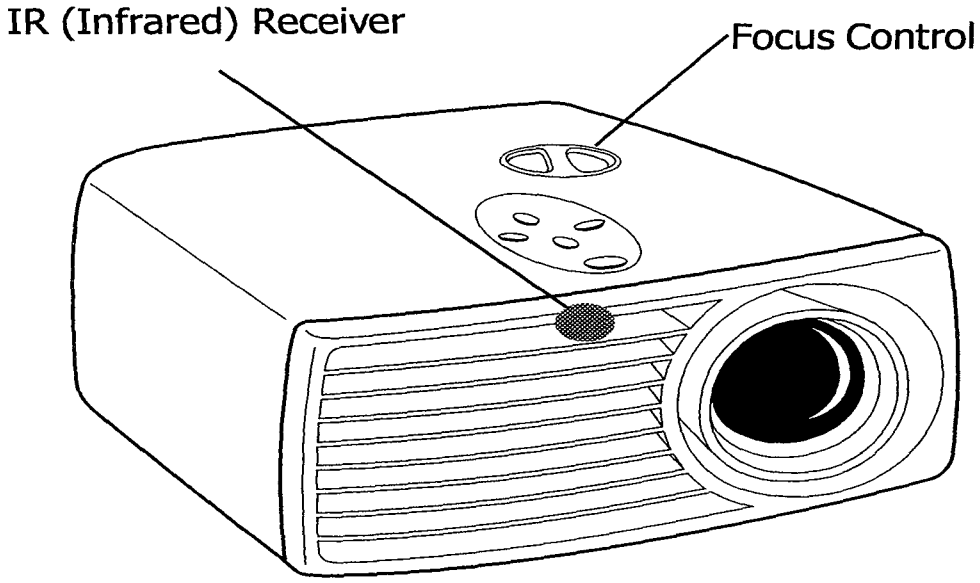


Figure 4 Focus Adjust

Adjusting Height

To adjust the height of the front of the projector, Lightware has provided a quick-release elevator foot under the front center of the projector. To set the appropriate image height, press the release mechanism shown in see Figure 5 and lift.

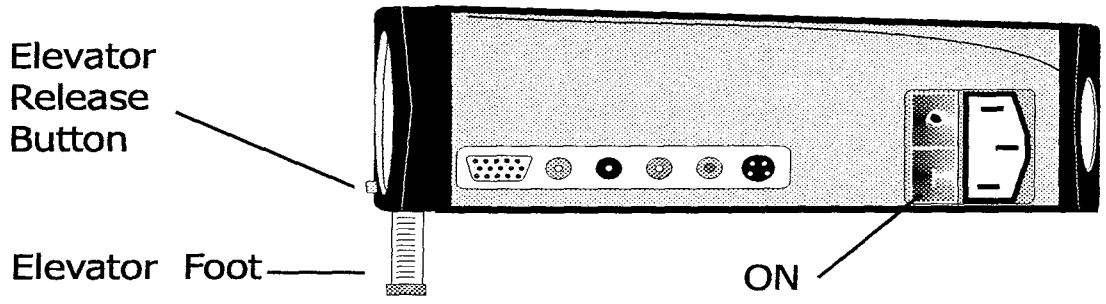


Figure 5: Quick Release Elevator

Projector Keypad Controls

Figure 6 shows the layout of the projector keypad controls. The Lamp Status LED provides information on the condition of the lamp (see Troubleshooting in Appendix I). Other functions (see below) are explained in the Menu section (see Page 11).

1. Source: causes the projector to seek the next valid input.
2. Vol: volume up (+) and down (-).
3. Auto Setup: causes the projector to analyze the input computer signal and adjust the frequency, tracking and position.

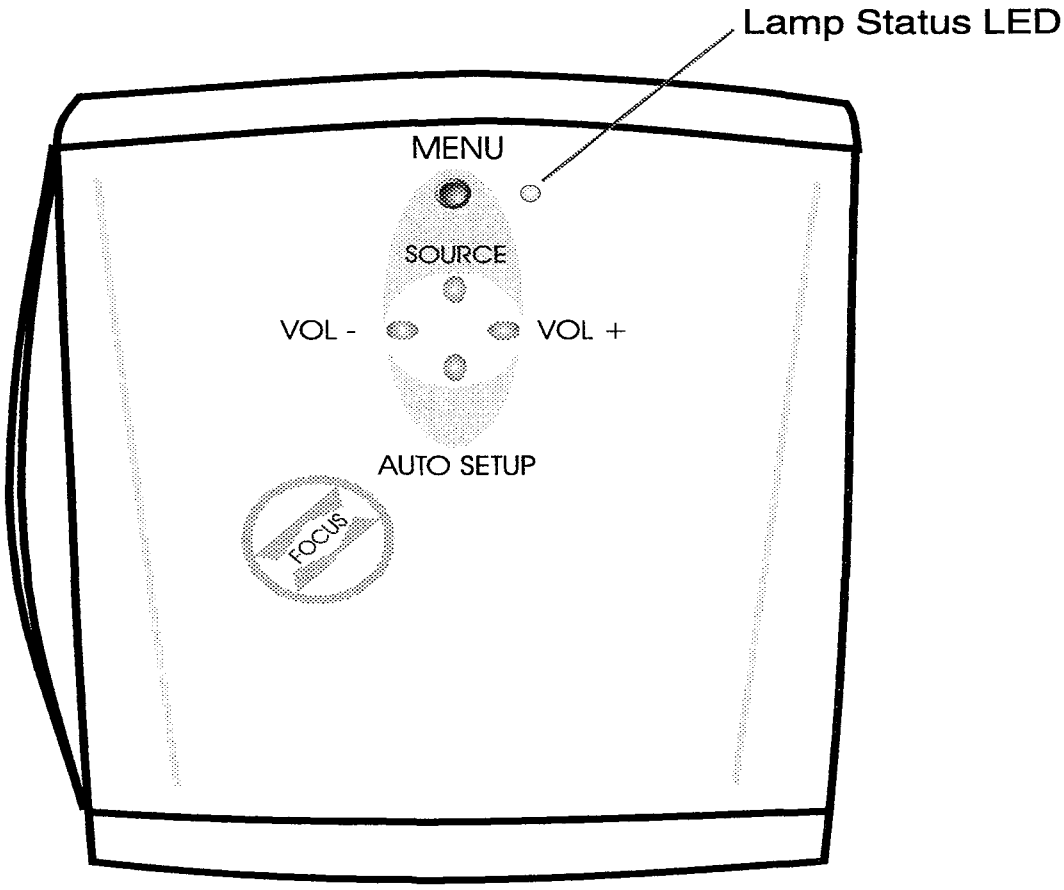


Figure 6: Keypad Controls

Connecting to Computer Video

1. With a desktop computer, disconnect the computer monitor cable from the computer. With a laptop, move to Step 2.
2. Connect one end of the 15 pin cable[1] (in kit) to the computer Monitor Output connector on the computer. Macintosh computers require an adapter (available upon request) between the computer Monitor Output and the 15 pin cable.
3. Connect the other end of the cable to the Computer Input connector on the projector.
4. Activate the laptop's external video (VGA) port. This is usually accomplished using the Fn key in conjunction with one of the functions keys[2] (Fn+F5 for example).

Connecting to Computer Audio

1. Connect one end of the 3.5mm to 3.5mm audio cable (in kit) to the computer Audio Input connector of the projector.
2. Connect the other end of the audio cable to the computer Audio Out connector.

Connecting to Video Player Video

1. Connect one end of the composite video cable (in kit, RCA yellow connector to RCA yellow connector) to the video player Video Output connector.[3]
2. Connect the other end of the composite video cable to the Video Input connector of the projector. see Figure 8.

Connecting to Video Player Audio

1. Connect one end of the supplied 3.5mm to 3.5mm stereo audio cable (in kit) to the video Audio Input connector of the projector.
2. Connect the other end of the 3.5 mm cable to the supplied 3.5mm to dual RCA adapter and connect the adapter to the video player Audio Output. see Figure 8.

Notes:

1. To ensure maximum protection from radio interference, the end of the 15 pin cable with the interference suppressor should be connected to the computer.
2. See Page 20 in the Appendix for a list of manufacturers and the methods they use to activate the laptop's external video port.
3. If the video player has an S-Video output connector, make the video connections with an S-Video cable (optional).

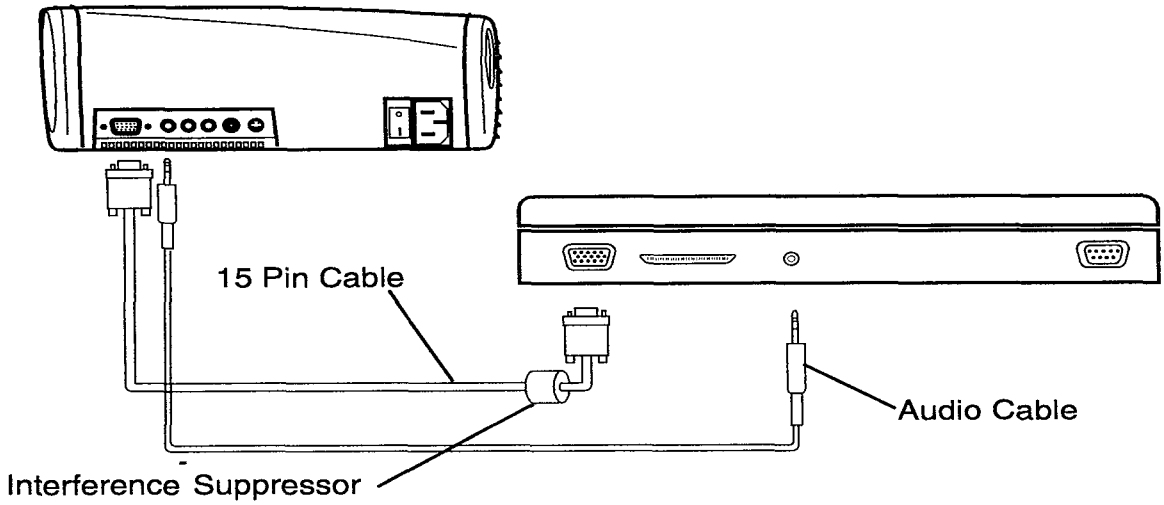


Figure 7: Connecting to a Computer

*To request a MAC adapter, call Dukane Technical Support at 1-800-676-2487

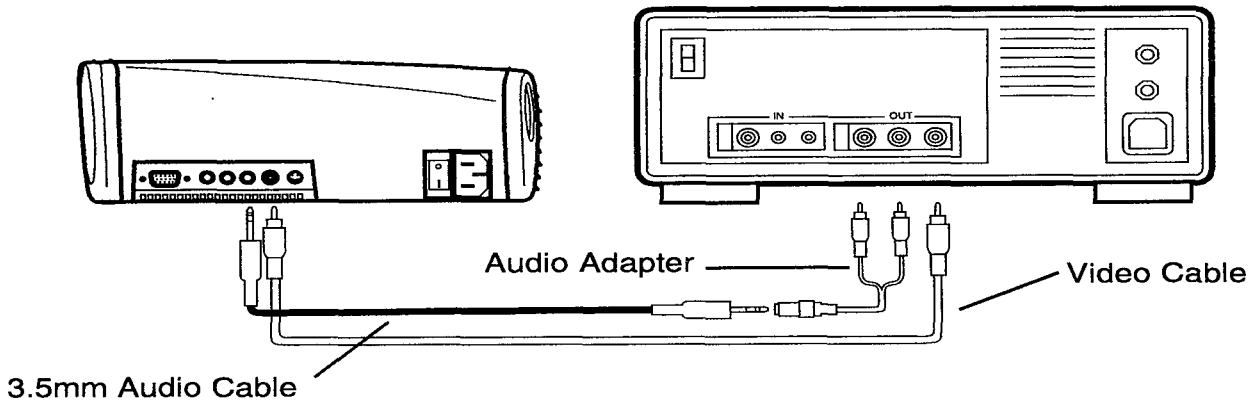


Figure 8: Connecting to a Video Player

Menus

The projector on-screen menus provide the means to access all of the projector functions. There are three levels of menus. Typical examples of each level are shown on the opposite page. To access menus, follow the instructions below.

Menu Operation

1. Press the *Menu* button on the remote control or on the projector's keypad to bring up the on-screen main menu and the sub-menu for the highlighted selection (see Page 19).

2. Press the **up / down** arrow keys on the remote control or the Source / Auto Setup buttons on the projector keypad to highlight a menu item.

3. Use the **right** arrow key (Vol+ on the projector) to move to the sub-menu.

4. Press the **up** or **down** arrow keys (Source / Auto Setup on the projector) to highlight the selection.

5. Press the **right** arrow key (Vol+ on the projector) to either increase the volume or to move right in the menu system.

A Reset function is available at the bottom of the main menu and in each sub-menu. The **Reset** function returns user-adjustable settings to factory defaults. A short time after the cursor is moved to the Reset position it returns to No Reset indicating the Reset function is complete.

Any changes or adjustments made are saved after thirty (30) seconds. The projector will remember the configuration settings for the last ten computers and recall those computer settings when detected.

Menu Structure

Top Level	Second Level	Third Level
Help	www.dukane.com 1-800-676-2487	
Audio	Volume	Volume #
	Bass	Bass #
	Treble	Treble #
	Mode	Stereo/ Enhanced/ Right/ Left
	Mute	Off/ On
	Balance	Balance #
	Reset	No reset/ Reset
Image *The image menu will depend on the image source. i.e. VGA or Video.*	VGA	
	Frequency	Frequency #
	Tracking	Tracking #
	Horizontal	Horizontal #
	Vertical	Vortical #
	Brightness	Brightness #
	Room Light	Dark/ Normal/ Bright
	Reset	No reset/ Reset
	Setup	Automatic/ Manual
	Video	
	Contrast	
	Brightness	
	Sharpness	
	Room Light	
	Color	
	Tint	
	Reset	
Source	Computer	
	Composite	
	S-Video	
Features	Language	English/French/German/Spanish/Italian
	Curtain	Black/ White
	Pal-M	Enable/ Disable
	Ceiling	Off/ On
	Rear	Off/ On
Custom	Mode 1	Active/ Inactive/ Set
	Mode 2	Active/ Inactive/ Set
	Mode 3	Active/ Inactive/ Set
	Mode 4	Active/ Inactive/ Set
	Reset	No reset/ Reset
Service	Info	Rev Level
	Lamp	Hours
Reset	No reset	No Reset/ Reset
	Reset	

Audio Menu

Access the Audio menu from the Main menu as described on Page 15. The following adjustments are available from the Audio menu: Volume, Bass, Treble, Mode, Mute and Balance.

The Mode sub-menu also allows you to select the following stereo modes: Stereo (normal stereo), Enhanced (stereo with a 3D space effect), Left Mono and Right Mono.

Image Menu

The Image Menu provides a series of choices that determine how the projected image will appear on screen (see Page 12). Different sub-menu choices will appear depending on whether the signal source is Data or Video.

The Image sub-menu consists of **Frequency, Tracking,** Vertical, Horizontal, Brightness, **Room Light** and **Auto Setup.** The bolded words are described below. The Video sub-menu consists of Contrast, Brightness, Sharpness, Room Light, Color and Tint.

Frequency

The projector is automatically set to the optimum frequency based on the detected data input signals. In some cases however, manual frequency adjustment may be required (see Auto Setup on Page 16).

The Frequency adjustment acts as a horizontal size control matching the projector to the computer. A poorly-adjusted frequency will cause evenly spaced dark vertical lines or distortions to appear on the projected image. Use the frequency level control to adjust the Frequency until the lines spread apart and finally disappear.

Tracking

The projector is automatically set to the optimum tracking value based on the detected data input signals. In some cases however manual tracking adjustment may be required (see Auto Setup on Page 16).

The Tracking adjustment is used to remove the last indications of noise or shaded areas that remain on the screen after completing the Frequency adjustment. No Tracking adjustment should be made until the Frequency adjustment is checked. It may be necessary to adjust the Frequency and Tracking a few times to correctly match the projector to the computer.

Tip:
For Windows 95 users the best screen to use when adjusting **Frequency** or **Tracking** is the Windows Shut Down screen. To access this screen, click on the Start button on the task bar and then click Shut Down. When the frequency adjustment is completed, click No and return to the active screen.

Room Light

There are three Room Light settings: Dark, Normal and Bright. Each Room Light value sets the optimum levels of brightness, contrast and color saturation to compensate for different room lighting conditions.

Source Menu

The Source menu offers the selection of computer source, composite video or S-Video.

Note: If a computer or video source is lost and no other source is detected, a **No Source** message will appear in the bottom left corner of the screen.

Features Menu

Select the Features option from the Main menu to preset the preferred style for the projected display.

The choices available from the Features menu are:

Language (selects one of five languages)
Curtain (selects the color of the reveal curtain)
PAL-M (enables PAL-M)
Ceiling (inverts the image vertically and/or horizontally)
Rear (reverses the image horizontally)

Custom Menu

The projector can be used with many different video sources in many different environments. **Custom** allows the user to save up to four different user configurations for up to four video or data sources. The parameters that will be saved as a custom mode for data, video or both are as follows:

Frequency (data)
Vertical Position (data)
Room Light (both)
Sharpness (video)
Tint (video)
Tracking (data)
Horizontal Position (data)
Brightness (both)
Color (video)
Contrast (video)

The choices in each of the four **Custom** sub-menus are:

Active (sets this mode to On)
Inactive (sets this mode to Off)
Set (selects the current configuration to be saved in this mode)

Tip:
Set all custom modes to Inactive prior to adjusting the projector; save those preferences as a custom mode.

Service Menu

The Service Menu provides information on lamp life and software version. The choices in the Service Menu are as follows:

Info (information about software version)
Lamp (information about the lamp hours used and hours remaining)

Note: When the lamp life reaches 1950 hours and thereafter untill 2000 hours the message "Lamp expiring" in n hours will appear in the bottom left corner of the projected image and will stay on for 4 minutes. At 2000 hours the message "Lamp expired" will appear and stay on permanently untill the lamp is replaced and the timer reset.

Warning:
The UHP (ultra high pressure) lamp used in this projector, if operated beyond its recommended life, may burst and cause damage to the projector optics and invalidate the product warranty.

Reset Lamp Timer

To ensure continued proper operation of your projector, DO NOT reset the lamp timer unless you are replacing the lamp.

To reset the lamp timer, press and hold the menu button while pressing the projector Source button four (4) times. The following message will appear on the screen: "Resetting Lamp Timer. Only reset the lamp timer when replacing the lamp." Below the warning message you will be directed to "Press menu to confirm" or "Press the down arrow (Auto Setup button) to cancel."

Auto Setup

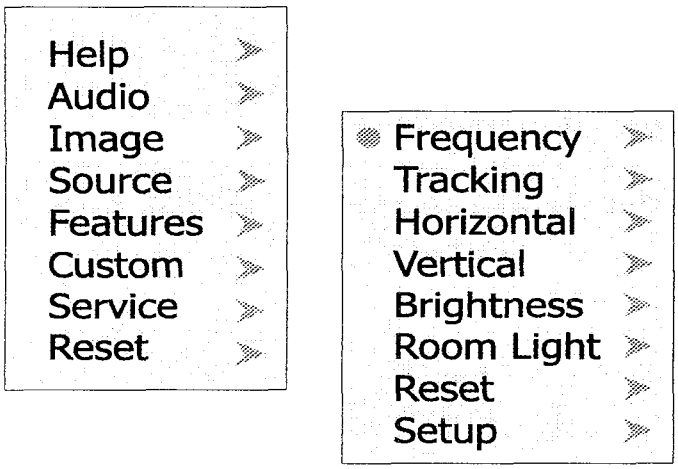
If enabled, each time a mode change is sensed, adjustments are made to frequency, tracking, horizontal position and vertical position. The mode is a composite of resolution and refresh rate. At any time this function can be activated by depressing the **Auto Setup** button on top of the projector. The setup on mode change feature can be disabled by selecting MENU/ Image/Setup/Manual.

Curtain

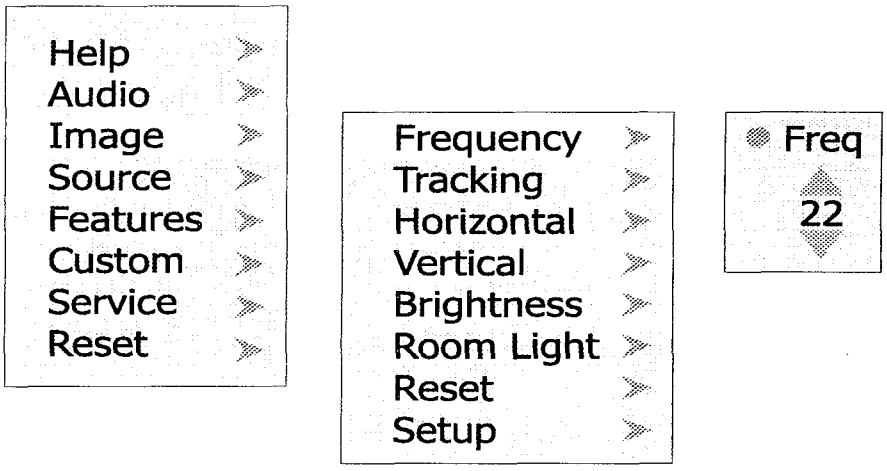
This feature allows the projected screen to be blanked while keeping the projector on. The color of the curtain can be white or black; white is preferred because the projector will run cooler. Use the remote to activate the curtain or see Menu Structure on Page 12.

Menu Example:

Menu level #1
First level-choice and associated sub-menu. Use right arrow to move to menu on right



Menu level #2
First level-choice, sub-menu choice and associated level adjust



Menu level #3
First level-choice, sub-menu choice and selected level adjust

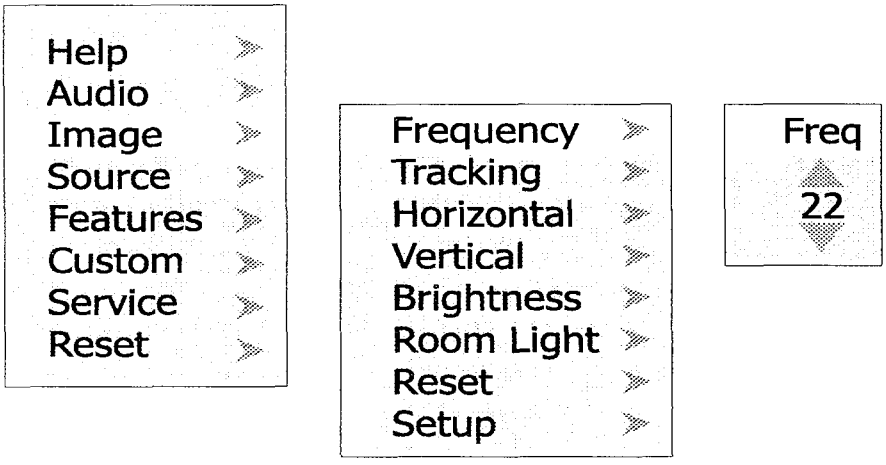


Figure 9: Menu Operation

A: Replacing the Lamp Module

Lamp Removal

1. **Important! Disconnect the power cord from projector.**
2. The lamp module can be very hot; allow ten minutes to cool.
3. Remove the two screws from the front panel.
4. Pull the front panel straight back from the projector.
5. Grasp the lamp module by the flanges using both hands, thumb at the bottom and forefinger on the top press points (see Figure 10 below) and compress the plastic spring. This action will result in lifting the two pins out of the connectors.
7. Pull module straight back to remove.

Lamp Installation (Replace with Dukane Part# 456-211)

1. Insert the lamp module fully into the lamp cavity. Grasp the lamp by the flanges using both hands, thumbs at the bottom and forefingers on the top press points (see Figure 10 below). Compress the plastic spring. This action will lift the pins above the mating connectors and allow the module to fully seat. Press the module lightly and locate the pins directly over the connectors and release. Be sure that the pins slide between the halves of the connectors. **The spade connectors must be inserted completely into the mating connectors.**
4. Replace the front cover.
5. Reset the lamp timer as described on Page 16.

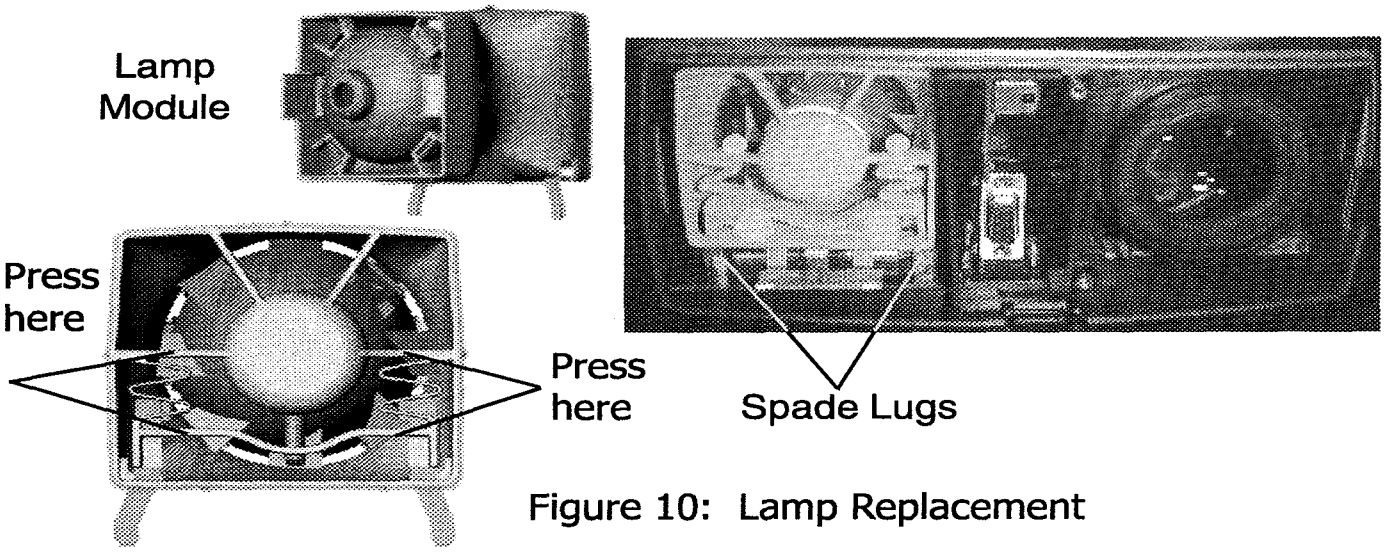


Figure 10: Lamp Replacement

B: Remote Control

The projector remote control allows remote access to almost all projector functions.

- Source
- Menu
- Curtain
- Up, Down, Left, Right arrow keys
- Volume up and down
- Mute

Note: The Dukane supplied remote shown below ONLY works with the Mite-E-Lite II projector. Advancing the slide show presentations requires computer mouse control. Call Dukane sales for additional Information.

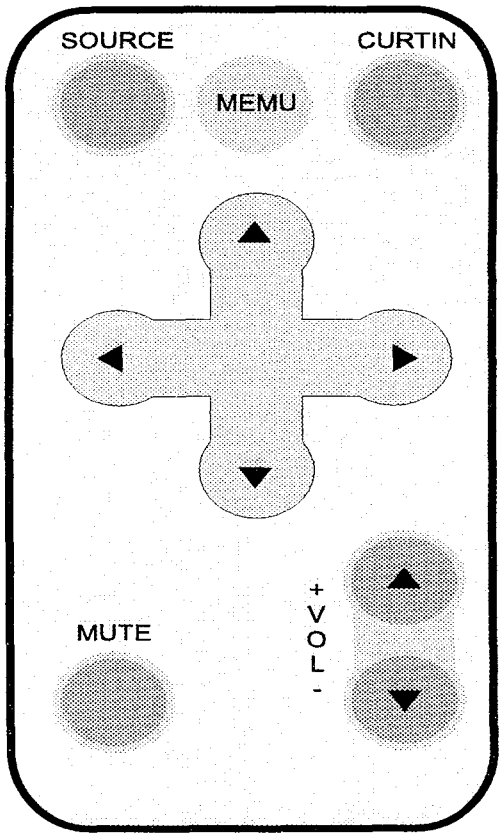


Figure 11:
Remote Control

C: Laptop External Video Port Activation

Most laptop manufacturers have a method for activating the external monitor (VGA) port. For IBM compatible computers, activating the VGA port is usually accomplished using the function (Fn) key on the laptop keyboard in conjunction with one of the regular function keys; for example, hold down the Fn key while pressing F12. Some laptops require a re-boot to allow the computer to check for an attached external monitor and then activate the external port.

The following chart describes the methods used by the listed manufacturers to activate the external video port. Some manufacturers have several models that require different activation methods (see below).

Certain laptop models require the operator to access a Setup menu that will allow activation of the external video port. Check laptop user manual for specifics on enabling or activating the external VGA signal.

Computer Manufacturer	Port Activation Keys
Acer	Ctrl-Alt-Esc (for setup menu)
	Fn-F5
AST	Fn-F5
	Fn-F1
	Fn-F12
Compaq	Fn-F4
DEC	Fn-F5
	Fn-F4
Dell	Fn-F12
	Fn-F8
	NeoMagic screen for setup
Epson	Fn-F10
Fujitsu	Fn-F10
Gateway	Fn-F1
	Fn-F5
	Fn-F3
Hitachi	Fn-F12
	Fn-F7

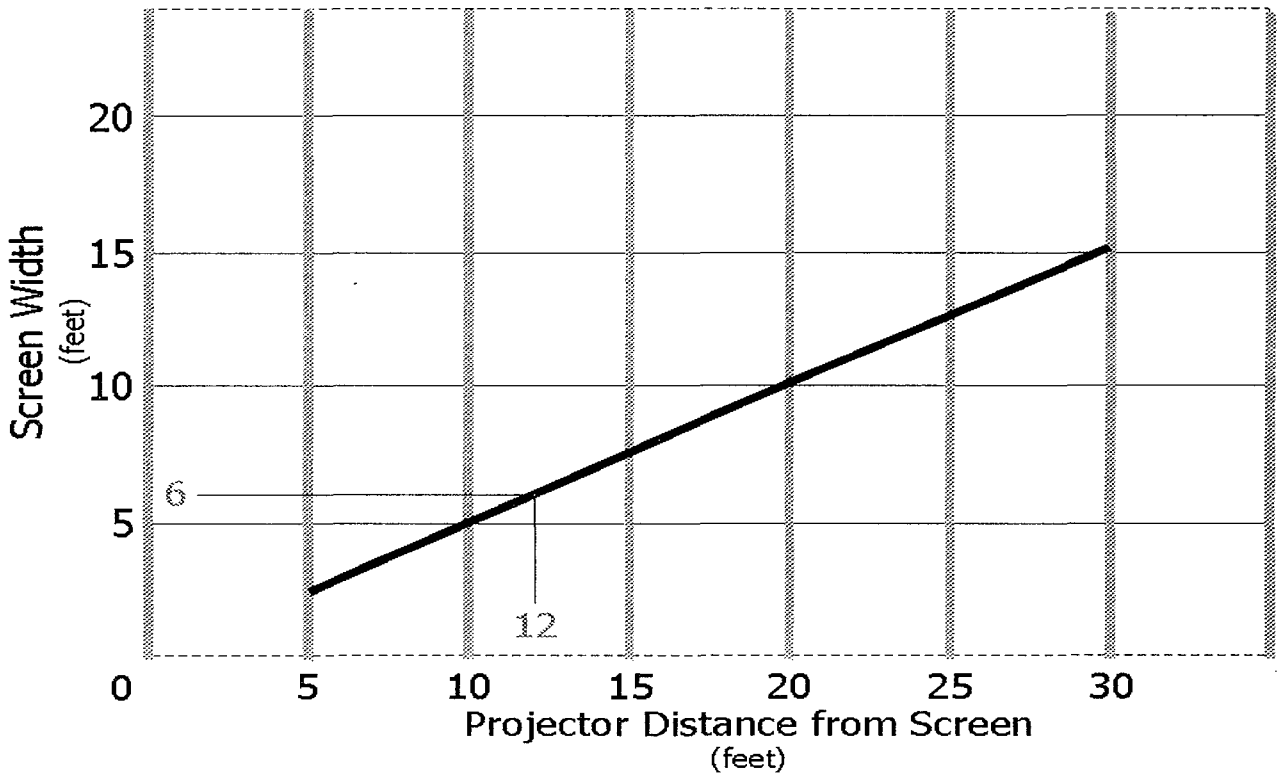
Computer Manufacturer	Port Activation Keys
Hewlett Packard	Automatic on bootup
	Fn-F5
IBM	Fn-F7 (Fn-F12 for the i series)
Micron	Fn-F2
Mitsubishi	SW2 on-off-off-off
NEC	Fn-F2
	Fn-F3
	Fn-F10
Panasonic	Fn-F2
Samsung	Fn-F4
	Fn-F6
Sanyo	Setup screen
Sharp	Fn-F5
	Dip switch to CRT
Texas Instruments	Fn-F2
	Fn-F10
	Fn-F12
Toshiba	Fn-F5
	Fn-F6
Winbook	Ctrl-Alt-F10
	Fn-F10
	Fn-F6
	Fn-F12
Zenith	Fn-F10
	Fn-F2
	Fn-F1
	Fn-F7
Zeos	Ctrl-Shift-D
	Fn-F1

D: Specifications

Computer Compatibility	IBM Compatibles Apple MAC Family
Video Compatibility	**NTSC**-M/N/4.43 **PAL**-M/N/B/D/G/H/IK/L **Secam** (B,D,G,K,K1,L) **Composite** and **S-Video**
Audio	Built-in stereo audio system with two internal 2 watt amplifiers and speakers.
Number of Colors	16.7 Million
Display Type	1 panel polysilicon LCD
Display Format	XGA (1024x768)with compression, SVGA (800x600), VGA (640x480) resized to SVGA
Contrast Ratio	200 to 1
Light Source	150 Watt UHP Lamp Assy
Lamp Life	2000 Hours
Brightness	700 Lumens
Horizontal Frequency	24.366 - 70 KHz
Vertical Frequency	55.378 - 85Hz
Cooling	Internal fans and ventilation
Electrical Supply	AC 100/115/230V, 50 to 60Hz 2.3/2.0/1.0 A
Power Consumption	225 Watts
Temperature	Ambient Operating: 10C to 32°C. Ambient Storage: -20°C to +60°C
Dimensions	7.5 X 10.5 X 3.9 inches
Weight	5 lb

E: Distance to Screen vs Image Size

The following chart and table will assist in determining the distance between the projector and the screen required to produce a desired screen image size (e.g. to determine how far away the projector must be to produce an image on a screen six (6) feet wide).



Distance to Screen	All dimensions are in feet Diagonal	Height	Width
5	3.1	1.8	2.5
10	6.1	3.7	5
15	9.3	5.6	7.5
20	12.4	7.4	9.9
25	15.5	9.3	12.5
30	18.5	11.1	15

LEGAL INFORMATION

FIVE-YEAR LIMITED WARRANTY

This Dukane LCD projector is warranted to the original purchaser for a period of five (5) years from the original purchase date - in normal use and service - against defects in material and workmanship. DUKANE CORPORATION EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

During the warranty period, Dukane Corporation will repair or replace (at the manufacturer's option) any such defective parts (except for the lamp, which is subject to whatever warranties the manufacturer may provide) without charge to the purchaser for parts or labor when the product is returned, prepaid and insured, with proof-of-purchase date. This remedy is void if the product has been damaged by accident, unreasonable use, neglect, improper service or other causes not arising out of defects in material or workmanship.

Dukane Corporation disclaims all liability for incidental or consequential damage of any kind, including all damages arising out of any interruptions in operation of the product and all damages to software.

No person, firm, or representative is authorized to assume any obligation or to make any warranty on behalf of the Dukane Corporation other than as stated above.

THIS LIMITED WARRANTY IS VALID FOR U.S.A AND CANADA. FOR OTHER LOCATIONS, LOCAL WARRANTIES APPLY.

LAMP REPLACEMENT SERVICE & REPAIR POLICY & PROCEDURE

For service and parts, contact the Dukane AV Service Department
at 1 (800) 676-2487 within the USA or 1 (630) 584-2300 worldwide.
If you would like to send a facsimile (FAX), dial 1 (630) 584-5156 worldwide.

When requesting warranty service, please have the sales receipt available along with the model name and serial number.

If it becomes necessary to return the projector, use the original packing material and box (if retained) or pack securely. Dukane Corporation will not be liable for any pick-up or delivery charges or any expenses incurred for service calls or service supplied by anyone other than the Dukane AV Service Department.

G: Notices and Safety Precautions Detail

The ultra high pressure lamp is mounted in a lamp module which includes the reflector. Do not get fingerprints on the glass of the lamp or the reflector. If fingerprints should get on the glass, clean it with alcohol and a clean, lint free cloth or tissue. Cleaning should be done before the lamp is turned on. A hot lamp may etch the fingerprint permanently into the glass.

Warning:

The UHP (ultra high pressure) lamp used in this projector, if operated beyond it's recommended life, may burst and cause damage to the projector optics and invalidate the product warranty.

Keep the product away from dirt and dust, and periodically wipe its surface with a soft, dry cloth. Stubborn marks may be removed using a soft cloth moistened with a mild detergent.

Avoid condensation caused by moving the projector from a cold environment to a warm, humid environment. If condensation should occur, allow the projector to dry out completely before powering it up.

If the product will not be in use for a long period of time, disconnect the power plug from the AC outlet. This product should not be directly connected to telephone circuits.

Avoid using the product under the following conditions:
Extremely hot, cold or humid environments; areas susceptible to dust; placement near an appliance generating a strong magnetic field.

This equipment generates and uses radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio and television reception. It has been tested and found to comply with the limits for a FCC Class A computing device in accordance with the specifications in Sub-part J of part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. If this equipment does cause inter-

ference to radio or television reception, the user may try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna for the radio or television.
- Relocate the equipment with respect to the receiver.
- Plug the equipment into a different outlet so the equipment and receiver are on different branch circuits.
- Fasten cables using mounting screws to ensure adequate EMI controls.

This product bears the following safety certifications: UL, CUL and TUV/GS.

FCC Statement

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 the user's own expense.

Canadian Notice

This class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

European EN 55022 Notice

This is a Class A product when evaluated to EN 55022. In a domestic environment it may cause radio interference, in which case the user may be required to take adequate measures. The typical use is in a conference room, meeting room or auditorium.

Wenn das Produkt Scout in Deutschland verkauft wird, muß es storüngssicher sein (Klasse B). Dieses Produkt muß beim Bundesamt für Post und Telekommunikation angemeldet sein.

EU Manufacturers' Declaration of Conformity

The Dukane projector conforms to the following European Union Directives and standards stated:

Low Voltage Directive 73/23/EEC including amendments:
EN 60950 - Safety of IT Equipment

Electromagnetic Compatibility Directive 89/336/EEC including amendments
EN 55022 - (Class A) IT equipment emissions
EN 50081-1 - Generic Emissions for Light Industrial Equipment
EN 50082-1 - Generic Immunity for Light Industrial Equipment
IEC 801-2 - ESD
IEC 801-3 - Radiated E Field
IEC 801-4 - Electrical fast transients

Compliance reports are available to proper authorities and the product is appropriately marked.

H: Technology Labels

Optimum Projection Technology™ is a revolutionary optics design. Miniaturized optical parts, uniquely combined, display high quality images while reducing the size and weight of the projector.

Warning Labels

Warning: Do not look directly into the projector lens when the projector is operating -- the light may damage your eyes.

Warnung: Das von der Hochintensitäts-Entladungslampe obgegebene Licht ist so stark daB bei direkten Kontakt die ernsthafte Gefahr von Augenschäden besteht. Vermeiden Sie es, direkt bzw. ungeschützt zurück in das Projektionsobjektiv zu schaun.

Caution	No user-serviceable parts inside. Refer servicing to qualified personnel
Attention	Entretien et réparations internes ne sont authorisés qu' au personnel technique qualifié.
Vorsicht	Wartung und reparatur nur durch fachkräefte
Precaucion	Acceso interno solo. Autorizado a personal técnico qualificado.

Certification Labels

E182454
LISTED I.T.E

I: Troubleshooting

Warning: Except to change the projection lamp, do not attempt to open the projector cabinet; there are potentially **dangerous voltages** and other hazards. If problems are encountered with the projection system, please refer to the section below. If you cannot solve the problem, please contact your supplier or contact Dukane Technical Support at 800-676-2487.

Status Lamp Indicator: (located on top front of projector)
The projection lamp conditions indicated by the lamp status LED are as follows:

- Flashing Green (Starting Lamp)
- Steady Green (Lamp Lit)
- Steady Yellow (Service Mode-Front Panel Off)
- Flashing Red (Trying to Restart)
- Steady Red (Lamp Fault)

Problem: With a computer, the message **"Lower resolution or refresh rate"** appears.
Solution: Reduce the mode. The mode is represented by a combination of resolution and refresh rate. The resolution is often referred to as screen or desktop area, usually located on the START/CONTROL PANEL/DISPLAY/ SETTINGS tab. Lower to 800x600 or 1024x768. The refresh rate is most often the culprit and can usually be found from the previous tab /ADVANCED/ ADAPTER. Lower the refresh rate to adapter default or 70hz, the latter being preferred. Restart the computer and re-enable the output. For further assistance call technical support at 800-676-2487.

Problem: Display is lacking or has excessive red, blue, or green color.
Solution: Check the VGA cable for bent or broken pins or wires.

Problem: With a laptop computer, only the logo or blank screen is projected.
Solution: Be sure the Video Output port on the laptop computer has been activated. The logo or blank screen will only appear if there is no signal present. Most laptop manufacturers have a method for activating the external video port. Activating the external video port is usually accomplished using the function (Fn) key on the laptop keyboard in conjunction with one of the regular function keys; for instance, hold down the Fn key while pressing F5 (see Appendix Page 20, "Laptop External Video Port Activation").

Some laptops require a re-boot to allow the computer to check for an attached external monitor before activating the external port.
Some Macintosh computers activate the external port by opening the **MAC Control Panel** and selecting **Video Mirroring**.

Problem: The projected display has vertical lines or vertical shaded areas in the background.
Solution: Depress Auto Setup. This symptom indicates that the frequency of the projector does not match the frequency of the computer. To manually correct this, press the **Menu** button on the remote control or the keypad on the projector. Select **Picture** from the main menu then select **Frequency**. Using the up and down arrows on the remote control or on the projector keypad, adjust the frequency up or down until the shaded areas spread apart and disappear.

For Windows 95 users, the best screen to use when adjusting **Frequency** or **Tracking** is the Windows Shut Down screen. To access this screen, click the **Start** button on the task bar and then click **Shut Down.** When the frequency adjustment is completed, click on **No** and return to the active screen.

Problem: Lines or dots in display of video mode.
Solution: Check for poor or open ground on the video cable by substituting a verified cable.

Problem: The bottom of the projected display is straight but the top is crooked.
Solution: Align the projector so that it is perpendicular to the screen.

Problem: Remote control is intermittent or inoperative.
Solution: Make sure the IR (Infrared) window (see Figure 4 on Page 7) on the center front of the projector is not blocked. Check the battery. Some florescent lamps can cause problems with infrared remote controls.

Problem: The projected image is rolling vertically or horizontally.
Solution: Check for bent or broken pins on the VGA cable. The problem may also be related to the computer refresh rate. The projector is able to synchronize with refresh rates between 55 and 85Hz, depending on the output resolution of the computer. Any refresh rate outside these limits may cause problems with the projector. Check that the refresh rate of the computer is set to 70hz or less (see Page 29).

Audio Visual Products

Dukane Corporation
Audio Visual Products Division
2900 Dukane Drive
St. Charles, IL 60174-3395
E-mail: avsales@dukane.com

Phone: (630) 584-2300
Orders: (800) 676-2485
Information: (800) 676-2486
Fax: (630) 584-5156
Parts & Service: (800) 676-2487
Fax: (630) 584-0984

Part # 401-560-00

PLEASE READ

This manual is provided as a free service by Projector.com.

We are in no way responsible for the contents of the manual. We do not guarantee its accuracy and we do not make any claim of copyright. The copyright remains the property of their respective owners.

ABOUT PROJECTOR.COM

Projector.com (http://www.projector.com) is your review and buying guide resource for DLP and LCD video projectors.

Visit the site to read the latest projector news and reviews, read and comment on projector specifications, download user manuals and much more.