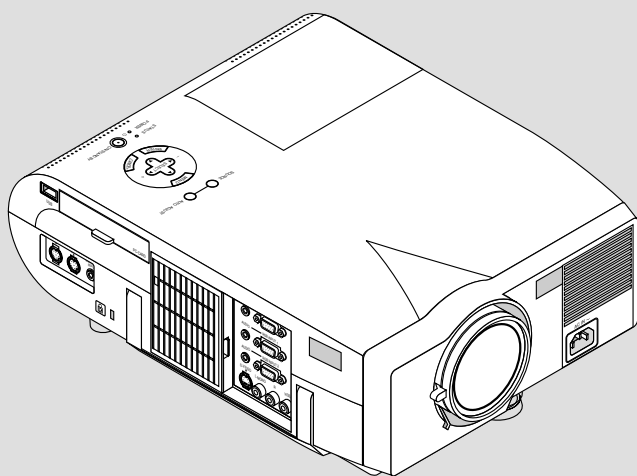# MT1056
LCD Projector
User's Manual

English

IMPORTANT INFORMATION

Precautions

Please read this manual carefully before using your NEC MT1056 Projector and keep the manual handy for future reference.

Your serial number is located under the name plate label on the left side of your MT1056. Record it here:

CAUTION

To turn off main power, be sure to remove the plug from power outlet.
The power outlet socket should be installed as near to the equipment as possible, and should be easily accessible.

CAUTION

TO PREVENT SHOCK, DO NOT OPEN THE CABINET. NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED NEC SERVICE PERSONNEL.

This symbol warns the user that uninsulated voltage within the unit may be sufficient to cause electrical shock. Therefore, it is dangerous to make any kind of contact with any part inside of the unit.

This symbol alerts the user that important information concerning the operation and maintenance of this unit has been provided. The information should be read carefully to avoid problems.

WARNING

TO PREVENT FIRE OR SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.
DO NOT USE THIS UNIT'S GROUNDED PLUG WITH AN EXTENSION CORD OR IN AN OUTLET UNLESS ALL THREE PRONGS CAN BE FULLY INSERTED.
DO NOT OPEN THE CABINET. THERE ARE HIGH-VOLTAGE COMPONENTS INSIDE. ALL SERVICING MUST BE DONE BY QUALIFIED NEC SERVICE PERSONNEL.

DOC Compliance Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

3. GSGV Acoustic Noise Information Ordinance:

The sound pressure level is less than 70 dB (A) according to ISO 3744 or ISO 7779.

CAUTION	RADIACION LASER NO MIRE AL RAYO PRODUCTO LASER CLASSE2	RAYONNEMENT LASER NE PAS REGARDER DANS LE FAISCEAU APPAREIL A LASER DE CLASSE2
LASER RADIATION- DO NOT STARE INTO BEAM	LASER-STRAHLUNG NICHT IN DEN STRAHL BLICKEN ! LASER KLASSE2	レーザ光 ビームをのぞき込まないこと 1mW max, 650nm クラス2レーザ製品
WAVE LENGTH:650nm MAX. OUTPUT :1mW CLASS II LASER PRODUCT CLASS 2 LASER PRODUCT	EN60825 -1:1994＋A11: 1996	JIS C 6802:1998 MADE IN JAPAN

This label is located on the side of the remote control.

CAUTION

Do not look into the laser pointer while it is on and do not point the laser beam at another person. Serious injury could result.

RF Interference

WARNING

The Federal Communications Commission does not allow any modifications or changes to the unit EXCEPT those specified by NEC Solutions, Inc. in this manual. Failure to comply with this government regulation could void your right to operate this equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

* Reorient or relocate the receiving antenna.
* Increase the separation between the equipment and receiver.
* Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
* Consult the dealer or an experienced radio / TV technician for help.

In UK, a BS approved power cable with moulded plug has a Black (five Amps) fuse installed for use with this equipment. If a power cable is not supplied with this equipment please contact your supplier.

* IBM is a registered trademark of International Business Machines Corporation.
* Macintosh and PowerBook are registered trademarks of Apple Computer, Inc.
* Other product and company names mentioned in this user's manual may be the trademarks of their respective holders.

Important Safeguards

These safety instructions are to ensure the long life of your projector and to prevent fire and shock. Please read them carefully and heed all warnings.

Installation

1. For best results, use your projector in a darkened room.
2. Place the projector on a flat, level surface in a dry area away from dust and moisture.
3. Do not place your projector in direct sunlight, near heaters or heat radiating appliances.
4. Exposure to direct sunlight, smoke or steam can harm internal components.
5. Handle your projector carefully. Dropping or jarring can damage internal components.
6. Do not place heavy objects on top of the projector.
7. **If you wish to have the projector installed on the ceiling:**
   a. Do not attempt to install the projector yourself.
   b. The projector must be installed by qualified technicians in order to ensure proper operation and reduce the risk of bodily injury.
   c. In addition, the ceiling must be strong enough to support the projector and the installation must be in accordance with any local building codes.
   d. Please consult your dealer for more information.

To Dealer or Installer:

To prevent the projector from falling, install it in a place and fasten it in a way with sufficient strength to support the combined weight of the projector (6.0 kg/13.3 lbs) and a ceiling mount for an extended period of time as well as to withstand earthquakes.

Power Supply

1. The projector is designed to operate on a power supply of 100-120 or 200-240 V 50/60 Hz AC. Ensure that your power supply fits this requirement before attempting to use your projector.
2. Handle the power cable carefully and avoid excessive bending. A damaged cord can cause electric shock or fire.
3. If the projector is not to be used for an extended period of time, disconnect the plug from the power outlet.

Cleaning

1. Unplug the projector before cleaning.
2. Clean the cabinet periodically with a damp cloth. If heavily soiled, use a mild detergent. Never use strong detergents or solvents such as alcohol or thinner.
3. Use a blower or lens paper to clean the lens, and be careful not to scratch or mar the lens.

CAUTION

Do not unplug the power cable from the wall outlet under any one of the following circumstances. Doing so can cause damage to the projector:
- While the Hour Glass icon appears.
- While the message "Please wait a moment." appears. This message will be displayed after the projector is turned off.
- Immediately after the power cable is plugged into the wall outlet (the POWER indicator has not changed to a steady orange glow).
- Immediately after the cooling fan stops working (The cooling fan continues to work for ONE minute after the projector is turned off with the POWER button).
- While the POWER and the STATUS indicators are alternately flashing.

CAUTION

Do not put the projector on its side when the lamp is turned on. Doing so may cause damage to the projector.

Lamp Replacement

- To replace the lamp, follow all instructions provided on page E-47.
- Be sure to replace the lamp when the message **"The Lamp has reached the end of its usable life. Please replace the lamp."** appears. If you continue to use the lamp after the lamp has reached the end of its usable life, the lamp bulb may shatter, and pieces of glass may be scattered in the lamp case. Do not touch them as the pieces of glass may cause injury. If this happens, contact your NEC dealer for lamp replacement.
- Allow a minimum of ONE minute to elapse after turning off the projector. Then disconnect the power cable and allow 60 minutes to cool the projector before replacing the lamp.

Fire and Shock Precautions

1. Ensure that there is sufficient ventilation and that vents are unobstructed to prevent the build-up of heat inside your projector. Allow at least 3 inches (10 cm) of space between your projector and a wall.
2. Prevent foreign objects such as paper clips and bits of paper from falling into your projector. Do not attempt to retrieve any objects that might fall into your projector. Do not insert any metal objects such as a wire or screwdriver into your projector. If something should fall into your projector, disconnect it immediately and have the object removed by a qualified NEC service personnel.
3. Do not place any liquids on top of your projector.

- Do not look into the lens while the projector is on. Serious damage to your eyes could result.
- Keep any items such as magnifying glass out of the light path of the projector. The light being projected from the lens is extensive, therefore any kind of abnormal objects that can redirect light coming out of the lens, can cause unpredictable outcome such as fire or injury to the eyes.
- Do not cover the lens with the supplied lens cap or equivalent while the projector is on. Doing so can lead to melting of the cap and possibly burning your hands due to the heat emitted from the light output.

TABLE OF CONTENTS

1. INTRODUCTION

Introduction to the MT1056 Projector

This section introduces you to your new MT1056 (XGA) Projector and describes the features and controls.

Congratulations on Your Purchase of The MT1056 Projector

The MT1056 is one of the very best projectors available today. The MT1056 enables you to project precise images up to 300 inches (measured diagonally) from your PC or Macintosh computer (desktop or notebook), VCR, DVD player, document camera, a laser disc player or PC Card Viewer.

You can use the projector on a tabletop or cart, you can use the projector to project images from behind the screen, and the projector can be permanently mounted on a ceiling[1]. The remote control can be used wirelessly.

Features you'll enjoy:

- Simple set up and operation.
- Hot air blown from the vents does not bother the audience during your presentation since the vents are located at the front of the projector.
- A high-performance 200 watt NSH lamp.
- The supplied wireless remote control that operates the projector from any angle.
- The image can be projected between 30 and 300 inches (measured diagonally).
- Keystone correction allows you to correct trapezoidal distortion so that the image is square.
- You can choose between video modes depending on your source: "normal" for a typical picture, "natural" for true color reproduction.
- The built-in PC Card Viewer allows you to start your presentation even when a PC is not available at the site.
- The "Capture" enables you to capture the current projected image.
- An image can be projected from in front or behind a screen, and the projector can even be installed on the ceiling.
- NEC Solutions' exclusive Advanced AccuBlend intelligent pixel blending technology - an extremely accurate image compression technology - offers a crisp image with UXGA (1600×1200) resolution[2].
- Supports most IBM VGA, SVGA, XGA, SXGA/UXGA(with Advanced AccuBlend)[2], Macintosh, component signal (YCbCr / YPbPr) or any other RGB signals within a horizontal frequency range of 15 to 100 kHz and a vertical frequency range of 50 to 120 Hz. This includes NTSC, PAL, PAL60, SECAM and NTSC4.43 standard video signals.

NOTE: Composite video standards are as follows:
NTSC: U.S. TV standard for video in U.S. and Canada.
PAL: TV standard used in Western Europe.
PAL60: TV standard used for NTSC playback on PAL TVs.
SECAM: TV standard used in France and Eastern Europe.
NTSC4.43: TV standard used in Middle East countries.

- The supplied remote control can be used without a cable, and you can even use the remote control and mouse adapter to operate your PC or Macintosh mouse wirelessly from across the room with the built-in remote mouse receiver.
- You can control the projector with a PC using the PC Control port[3].
- USB terminal allows USB mouse operation[4].
- The contemporary cabinet design is light, compact, easy to carry, and complements any office, boardroom or auditorium.
- Eight pointers are available for your presentation.

[1] Do not attempt to mount the projector on a ceiling yourself. The projector must be installed by qualified technicians in order to ensure proper operation and reduce the risk of bodily injury. In addition, the ceiling must be strong enough to support the projector and the installation must be in accordance with any local building codes. Please consult your dealer for more information.

[2] A UXGA (1600×1200) and SXGA (1280×1024) image are converted to an XGA (1024×768) crisp image with NEC Solutions' Advanced AccuBlend.

[3] The PC Control Utility 1.0 is required. This program is included on the supplied CD-ROM.

[4] The USB terminal meets the USB1.1 specification and accepts a USB mouse only.

Getting Started

The fastest way to get started is to take your time and do everything right the first time. Take a few minutes now to review the user's manual. This may save you time later on. At the beginning of each section of the manual you'll find an overview. If the section doesn't apply, you can skip it.

What's in the Box?

Make sure your box contains everything listed. If any pieces are missing, contact your dealer.
Please save the original box and packing materials if you ever need to ship your MT1056 Projector.

Lens cap
(24FT7291)

String
(24C05051)

Rivet
(24C04534)

Batteries (AA×2)
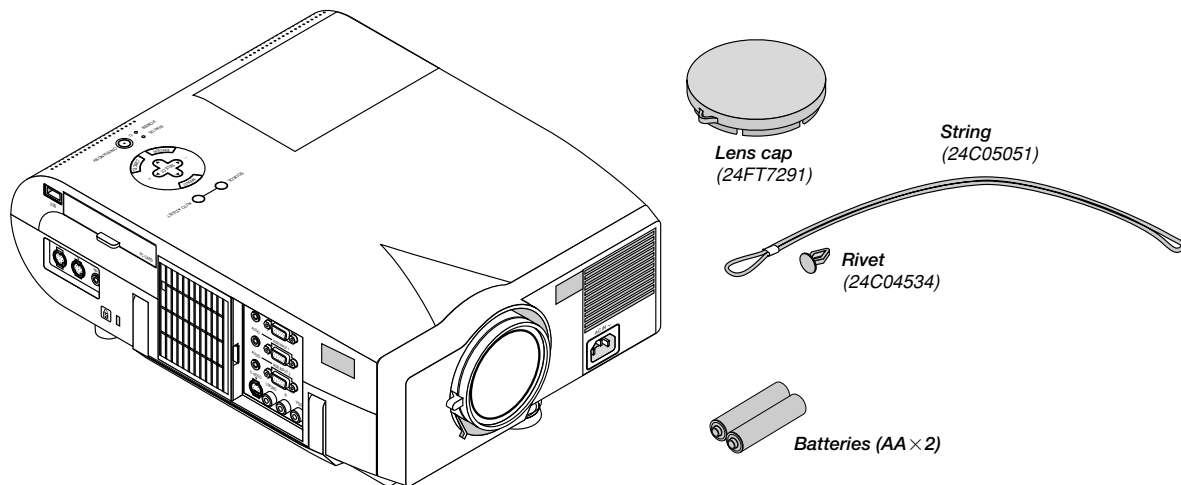
NEC MT1056 projector
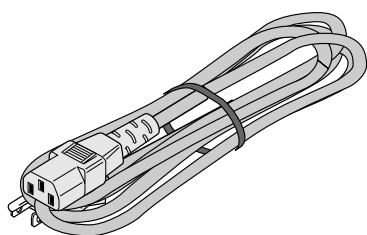
Power cable
(70810775 for North America)
(70800033 for Europe)
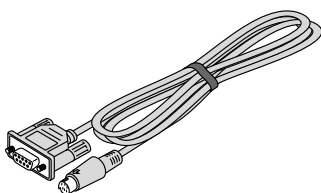
Serial cable
(73499390)
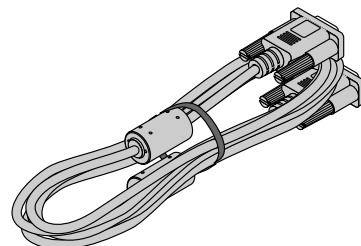
RGB signal cable
(15-Pin Mini D-Sub To 15-Pin Mini D-Sub connector)
(7N520001)
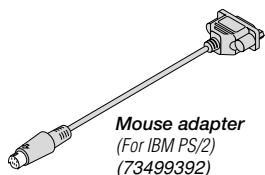
Mouse adapter
(For IBM PS/2)
(73499392)
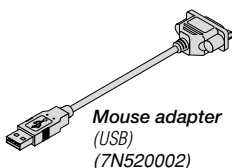
Mouse adapter
(USB)
(7N520002)
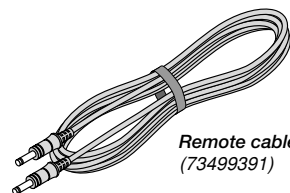
Remote cable
(73499391)

CD-ROM
(7N950063)

(7N8P1331)

Quick
Connect
Guide

User's
Manual
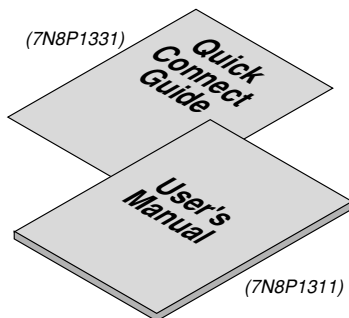
(7N8P1311)
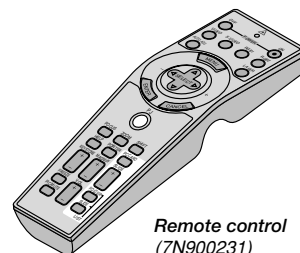
Remote control
(7N900231)

E – 6

Getting to Know Your MT1056 Projector

Front/Side Features

Remote Sensor

Controls

USB (Mouse) Terminal

Zoom lever

Focus ring

Remote Sensor

Air-Filter

PC Card Slot

Slot for Kensington Micro saver Security System

Air Filter

Lenscap

AC Input
Connect the supplied power cable's three-pin plug here.

Terminal Panel

Carrying Handle

Adjustable Tilt Foot

Lens

Ventilation (outlet)

Rear/Side Features

Remote Sensor

Built-In Stereo Speaker (1W)

One-touch Tilt Button

Rear Foot

Remote Sensor

Lamp Cover

Built-In Stereo Speaker (1W)

Lamp Cover Screw

Rear Foot

Top Features

1. Source Button

Use this button to select a video source such as a PC, VCR, DVD player or PC Card Viewer (PC card).

Each time this button is pressed, the input source will change as follows:

→ RGB1 → RGB2 → Video → S-Video → PC Card Viewer ─

If no input signal is present, the input will be skipped.

2. Auto Adjust Button (RGB only)

Use this button to adjust Position-H/V and Pixel Clock/Phase for an optimal picture. Some signals may not be displayed correctly or take time to switch between sources.

3. Menu Button

Displays the menu.

4. Select ▲▼ ◄ ► / Volume (+) (-) Buttons

▲▼: Use these buttons to select the menu of the item you wish to adjust.

When no menus appear, these buttons work as a volume control.

◄ ►: Use these buttons to change the level of a selected menu item. A press of the ► button executes the selection.

When the menus or the Viewer tool bar is not displayed, these buttons can be used to select a slide, or to move the cursor in Folder List or Slide List.

When the pointer is displayed, these ▲▼ ◄ ► buttons move the pointer.

5. Enter Button

Executes your menu selection and activates items selected from the menu.

6. Cancel Button

Press this button to exit "Menus". Press this button to return the adjustments to the last condition while you are in the adjustment or setting menu.

7. Status Indicator

When this is lit red (orange in Eco mode) continually, it's warning you that the projection lamp has exceeded 1500 hours (2500 hours in Eco mode) of service. After this light appears, it is advisable to replace the projection lamp as soon as possible. (See page E-47). In addition the message "The lamp has reached the end of its usable life. Please replace the lamp." appears continually until the lamp is replaced.

If this light blinks red rapidly, it indicates that the lamp cover is not attached properly or the projector is overheated.

See the Power / Status Light Messages on page E-49 for more details.

8. Power Indicator (⏻)

When this indicator is green, the projector is on; when the indicator is orange, it is in standby mode.

9. Power Button (ON / STAND BY)

Use this button to turn the power on and off when the power is supplied and the projector is in standby mode.

NOTE: To turn off the projector, press and hold this button for a minimum of two seconds.

Terminal Panel Features

1. USB Terminal
Connect a commercially available mouse that supports USB. You can operate the menu or PC Card Viewer with the USB mouse via this terminal.
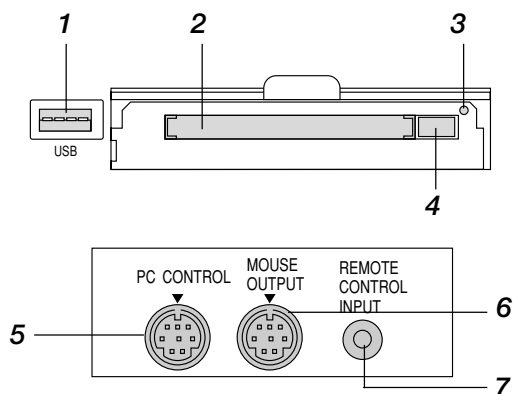
Note that this terminal is not used with a computer and that there may be some brands of USB mouse that the projector does not support.

2 PC Card Slot
Push up and open the cover to access this slot. Insert a PC card here.

3. PC Card Access Indicator
Lights while this indicator light shows that data is being.

4. PC Card Eject Button
Press to eject a PC card partially.

5. PC Control Port (Mini DIN 8 Pin)
Use this port to connect your PC to control your projector via a serial cable. This enables you to use your PC and serial communication protocol to control the projector. The NEC optional serial cable is required to use this port. Also PC Control Utility 1.0 included in the supplied CD-ROM must be installed on your PC.

If you are writing your own program, typical PC control codes are on page E-55.

A cap is put on the port at the factory. Remove the cap when using the port.

6. Mouse Output Port (Mini DIN 8 Pin)
Use this port to operate your computer's mouse functions from the remote control.

7. Remote Control Input Jack
Connect your remote control cable here for wired operation.

8. Audio Monitor Output Mini Jack
Connect additional external speakers here to listen to audio coming from your computer, Video or S- Video input.
RGB Monitor Output Connector (Mini D-Sub 15 pin)
You can use this connector to loop your computer image to an external monitor from the RGB input source.

9. RGB Audio Input 1 Connector
This is where you connect RGB audio output from a computer or another RGB source.
RGB Input 1 Connector (Mini D-Sub 15 pin)
Connect your PC or other RGB equipment. Use the signal cable that's supplied to connect to a PC.
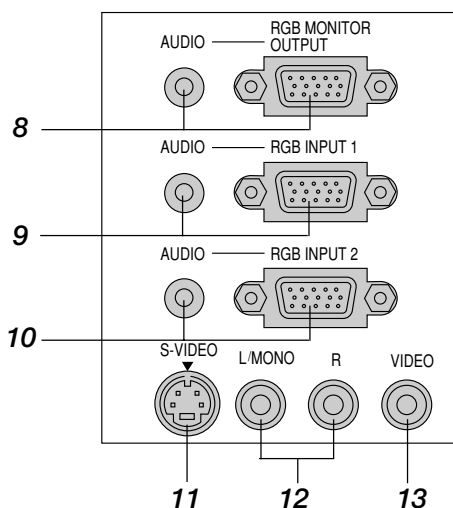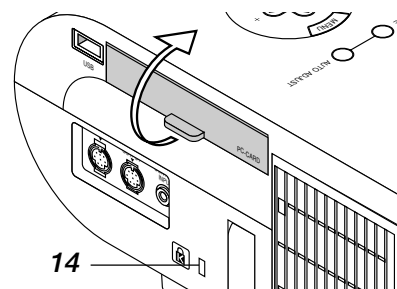
10. RGB Audio Input 2 Connector
This is where you connect RGB audio output from a computer or another RGB source.
RGB Input 2 Connector (Mini D-Sub 15 pin)
Connect your PC or other RGB equipment. Use the signal cable that's supplied to connect to a PC.

11. S-Video Input Port
Here is where you connect the S-Video input from an external source like a VCR.

12. Left Channel/Mono Audio Input Jack (RCA)
This is the left channel audio input for stereo sound coming from video equipment or audio system. This also serves as your monaural audio input. (Video and S-video only)
Right Channel Audio Input Jack (RCA)
This is the right channel audio input for stereo sound. (Video only)

NOTE: When using two Video sources simultaneously, the Left Channel Audio Input jack is available for the S-Video source only and the Right Channel Audio Input jack is available for the composite video source only.

13. Video Input
Connect a VCR, DVD player, laser disc player, or document camera here to project video.

14. Built-in Security Slot (🔒)
This security slot supports the MicroSaver® Security System.
MicroSaver® is a registered trademark of Kensington Microware Inc. The logo is trademarked and owned by Kensington Microware Inc.

Remote Control Features

NOTE: If you are using a Macintosh computer, you can click either the right-click or left-click button to activate the mouse.
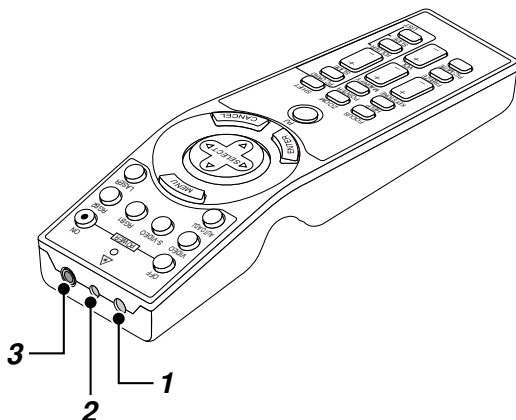
1. Infrared Transmitter
Direct the remote control toward the remote sensor on the projector cabinet.

2. Laser Pointer
Beams a laser light when "Laser" button is pressed.

3. Remote Jack
Connect your remote control cable here for wired operation.

4. LED
Flashes when any button is pressed.

5. Power ON Button
If the main power is applied, you can use this button to turn your projector on.

6. Power OFF Button
If the main power is applied, you can use this button to turn your projector off.

NOTE: To turn off the projector, press and hold the POWER OFF button for a minimum of two seconds.

7. VIDEO Button
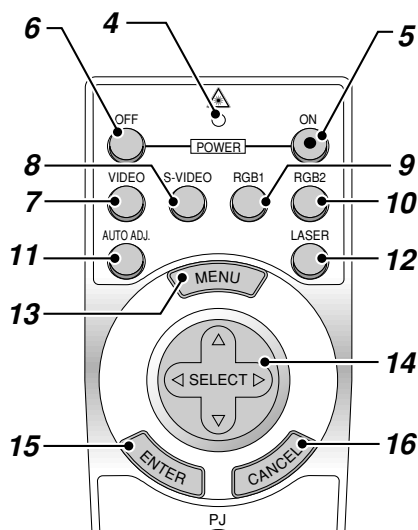Press this button to select an NTSC, PAL, SECAM or NTSC4.43 compatible video source from a VCR, DVD player, laser disc player or document camera.

8. S-VIDEO Button
Press this button to select an S-Video source from a VCR.

9. RGB 1 Button
Press this button to select a video source from a computer or component equipment connected to your RGB 1 port.

10. RGB 2 Button
Press this button to select a video source from computer or component equipment connected to your RGB 2 port.

11. AUTO ADJ Button
Use this button to adjust an RGB source for an optimal picture. Some signals may not be displayed correctly or take time to switch between sources.

12. LASER Button
Press and hold this button to activate the laser pointer. When lit, you can use the laser to draw your audience's attention to a red dot that you can place on any object.

13. MENU Button
Displays the menu for various settings and adjustments.

14. SELECT (▲▼◄►) (Mouse) Button
When you are in the Computer mode, these buttons work as a computer mouse.
When you are in the Projector mode, which is indicated by lighting the PJ button:
▲▼: Use these buttons to select the menu of the item you wish to adjust.
◄►: Use these buttons to change the level of a selected menu item. A press of the ► button executes the selection.
When the pointer is displayed, these ▲▼◄► buttons move the pointer.

15. ENTER (Left Click) Button
When you are in the Computer mode, this button works as the mouse left button.
When this button is pressed and held for a minimum of 2 seconds, the drag mode is set.
When you are in the Projector mode, which is indicated by lighting the PJ button:
Use this button to enter your menu selection. It works the same way as the "Enter" button on the cabinet.

16. CANCEL (Right Click) Button
When you are in the Computer mode, this button works as the mouse right button.
When you are in the Projector mode, which is indicated by lighting the PJ button:
Press this button to exit "Menus". It works the same way as the "Cancel" button on the cabinet.
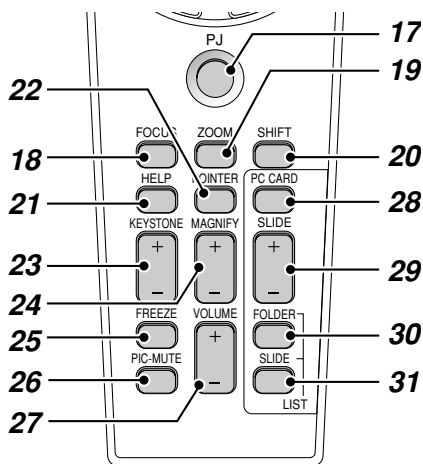
17. PJ Button
Press this button to switch the Select, Cancel, and Enter buttons between the Projector mode (lit red) and the Computer mode. Press this button or any one of the Power ON/OFF, Menu, Help, Pointer, Magnify, PC Card, Folder List or Slide List buttons to switch to the Projector mode and the PJ button lights red. To switch back to the Computer mode, press the PJ button again.

18. FOCUS Button
Not available on this model.

19. ZOOM Button
Not available on this model.

20. SHIFT Button
Not available on this model.

21. HELP Button
Provides information about operation and adjustment procedures or the set information for the current menu or adjustment during menu operation.

22. POINTER Button
Press this button to display one of the eight pointers; press again to hide the pointer. You can move your pointer icon to the area you want on the screen using the Select button.

23. KEYSTONE (+) (–) Button
Press the (+) or (–) button to correct the keystone (trapezoidal) distortion, and make the image square.

24. MAGNIFY (+) (–) Button
Use this button to adjust the image size up to 400%.
When the pointer is displayed, the image is magnified about the center of the pointer. When the pointer is not displayed, the image is magnified about the center of the screen.
When the image is magnified, the pointer is changed to the magnifying icon.

25. FREEZE Button
This button will freeze a picture. Press again to resume motion.

26. PICTURE MUTE Button
This button turns off the image and sound for a short period of time. Press again to restore the image and sound.
NOTE: When the menu is displayed, a press of this button mutes an image and sound without turning off the menu.

27. VOLUME (+) (–) Button
Press (+) to increase the volume and (–) to decrease it.

28. PC CARD Button
Press this button to select the PC Card Viewer source.

29. SLIDE (+) (–) Button
Press (+) to select the next folder or slide and (–) to select the previous folder or slide.

30. FOLDER LIST Button
Press this button to select PC Card Viewer source to display a list of folders included in a CompactFlash card.

31. SLIDE LIST Button
Press this button to select PC Card Viewer source to display a list of slides included in a CompactFlash card.

NOTE: The default is the Computer mode, which allows you to use the Select, Cancel, and Enter buttons as your computer mouse. When the POWER ON/ OFF, MENU, HELP, POINTER, MAGNIFY, PC CARD, FOLDER LIST, or SLIDE LIST button is pressed, the PJ button lights red to indicate that you are in the Projector mode. If no buttons are pressed within 10 seconds, the light goes out and the Projector mode is canceled.

Remote Control Battery Installation

1. Press firmly and slide the battery cover off.
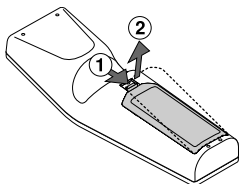
2. Remove both old batteries and install new ones (AA). Ensure that you have the batteries' polarity (+/–) aligned correctly.
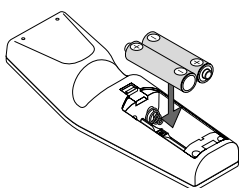
3. Slip the cover back over the batteries until it snaps into place.
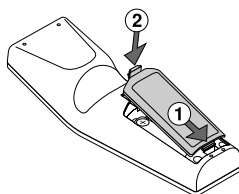
Do not mix different types of batteries or new and old batteries.

Note on Remote Control Operation:
Pressing and holding the Select (▲, ▼, ◀, ▶)/ Mouse button while installing new batteries may cause malfunction or no operation. Should this happen, remove the batteries and then install them again without touching the Select/Mouse button.

Operating Range

22feet / 7 m
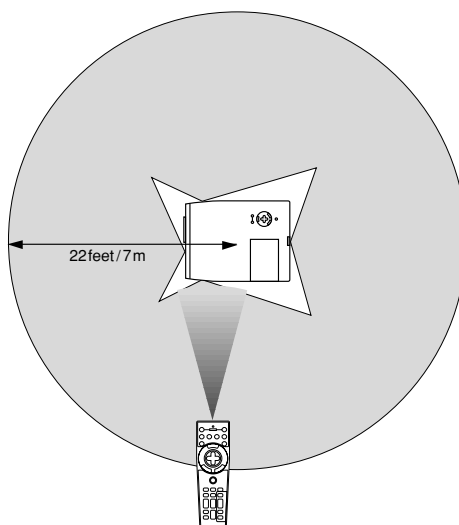
Remote Control Precautions
- Handle the remote control carefully.
- If the remote control gets wet, wipe it dry immediately.
- Avoid excessive heat and humidity.
- If you will not be using the remote control for a long time, remove the batteries.
- Do not place the batteries upside down.
- Do not look into the laser pointer while it is on.
- Do not point the laser beam at a person.

Setting the function switch

OFF   ON
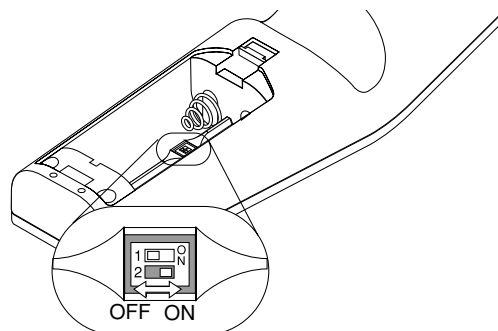
There are two switches on the bottom of the battery case: an applicable projector selector switch (1) and laser enable/disable switch (2). Check the projector being used and decide whether to enable or disable laser, then set these switches as necessary using the tip of a thin ball-point pen.
On this model, an applicable projector selector switch (1) is not used.

Switch (2)
On: Enabled (the laser lights when the LASER button is pressed) [Factory default]
Off: Disabled (the laser does not light even when the LASER button is pressed)
Disable the laser when using in an environment in which the unit is accessible to children.

Switching operation mode between computer and projector

The three shaded buttons shown on the drawing work as a computer mouse in the Computer mode.
In the Computer mode the PJ button is not lit.

• When the MENU button is pressed, the PJ button lights red to indicate that you are in the Projector mode, which allows the projector menu operation using the three buttons.

• When the POINTER button is pressed, the PJ button lights red to indicate that you are in the Projector mode and that the SELECT ▲, ▼, ◄, ► button works as a moving button for the POINTER or magnified image.

• If no buttons are pressed within 10 seconds, the PJ button's light goes out to indicate that you are in the Computer mode. To enable the projector menu operation again, press the PJ button to light red. To move the pointer or a magnified image again, turn off the pointer and then turn on the pointer (press the POINTER button two times).

• When the PJ button is lit, if you want to use the mouse function immediately, press the PJ button to return to the Computer mode (not lit).

Works as a mouse for your computer.

Works as a right-click button for your computer.

Not lit

Works as a left-click button for your computer.

Works as the Select button on the projector.

Works as the Cancel button on the projector.

Lit red

Works as the Enter button on the projector.
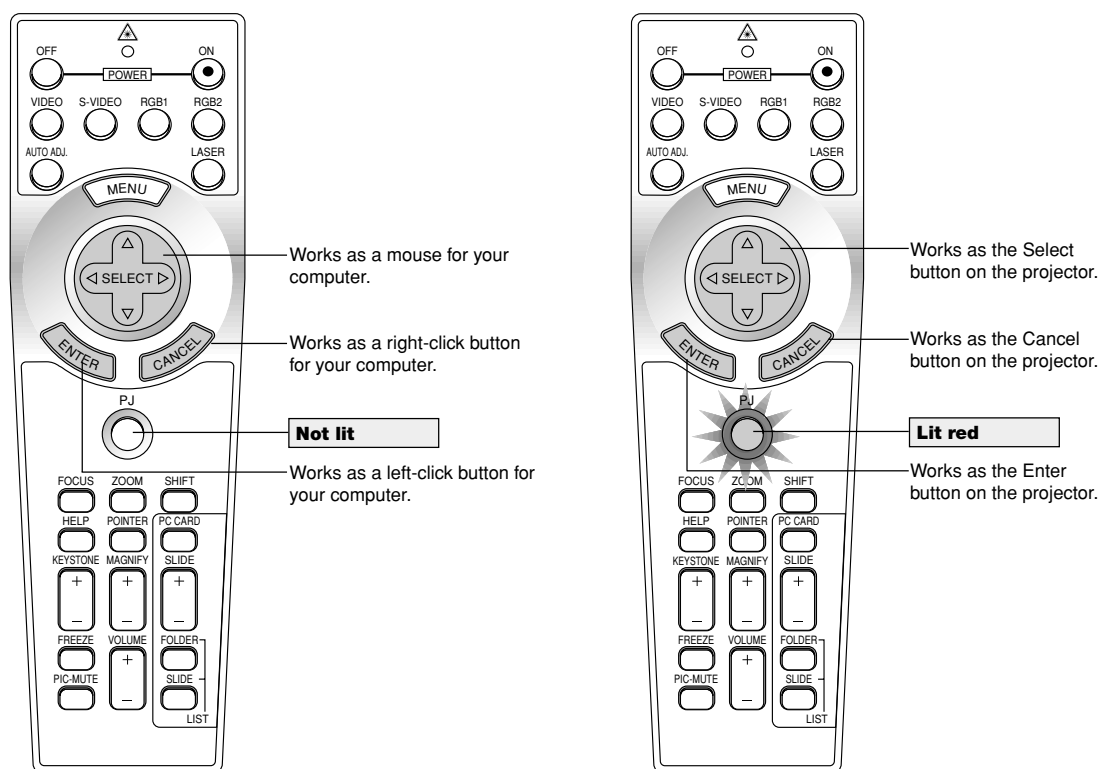
During Computer mode:
During Computer mode by pressing the ENTER button for 2 seconds or more then releasing, the drag mode is set and the drag operation can be performed simply by pressing the SELECT (▲, ▼, ◄, ►) (mouse) button. To cancel the drag mode, press the ENTER (left click) button again or press the CANCEL (right click) button.

2. INSTALLATION

This section describes how to set up your MT1056 projector and how to connect video and audio sources.

Setting up Your Projector

Your MT1056 Projector is simple to set up and use. But before you get started, you must first:

1. *Determine the image size.*

2. *Set up a screen or select a non-glossy white wall onto which you can project your image.*

Carrying the Projector: Always carry your projector by the handle. Ensure that the power cable and any other cables connecting to video sources are disconnected before moving the projector.
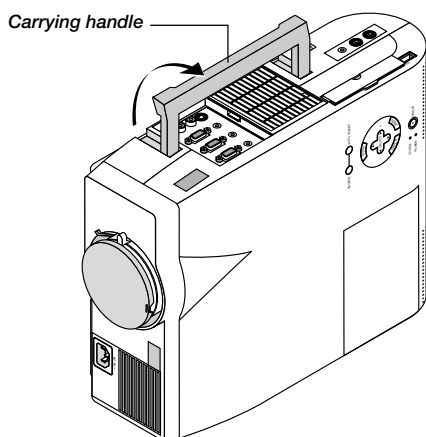When moving the projector or when it is not in use, cover the lens with the lens cap.

Carrying handle

Attaching the lens cap to the bottom of the projector with the supplied string and rivet.

Lens cap

String

Rivet
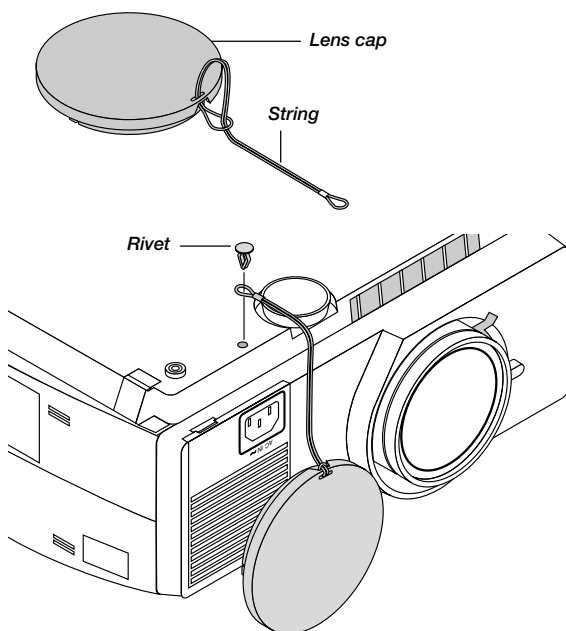
Selecting a Location

The further your projector is from the screen or wall, the larger the image. The minimum size the image can be is approximately 30" (0.76 m) measured diagonally when the projector is roughly 4.3 feet (1.3 m) from the wall or screen. The largest the image can be is 300" (7.6 m) when the projector is about 36.9 feet (11.3 m) from the wall or screen.

Using a Tabletop or Cart

1. *Place your projector on a flat level surface at the optimal distance from the screen or wall so you realize the size image you want. (Avoid having bright room lighting or sun light directly on the screen or wall where you'll be projecting the image.)*

2. *Connect the power cable, remove the lens cap and turn the projector on. (If no input signal is available, the projector will display a background image.)*

3. *Ensure that the projector is square to the screen.*

Top view
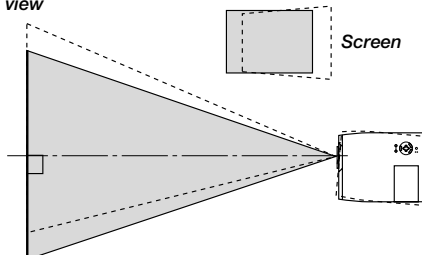
Screen

4. *Move the projector left or right to center the image horizontally on the screen.*

5. *To center the image vertically, lift the front edge of the projector and press the One-Touch Tilt button on the front-left side of the projector to release the Front Adjustable foot.*

Side view
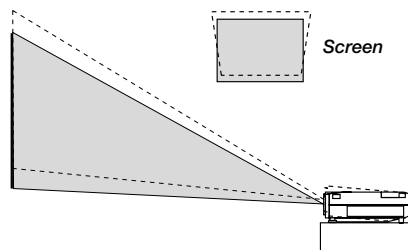
Screen

(There is approximately 10 degrees of up and down adjustment for the front of the projector.)

6. *If the projected image does not appear square to the screen then use keystone correction for proper adjustment.*

7. *Adjust the size of the image using the Zoom lever on the lens.*

Adjusting the Tilt Foot

Press and hold the Tilt button on the left side of the projector.
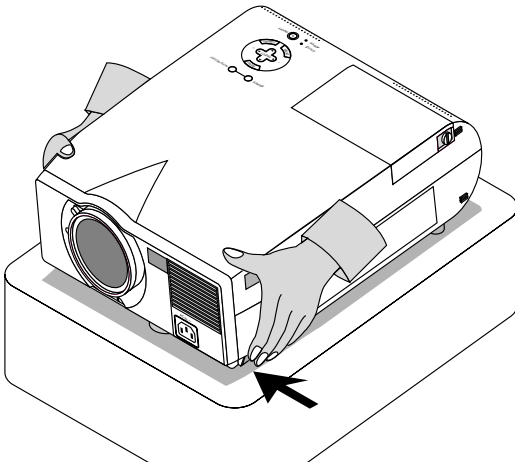
Lift the front edge of the projector to the height you want, and release the button to lock the Adjustable Tilt Foot.
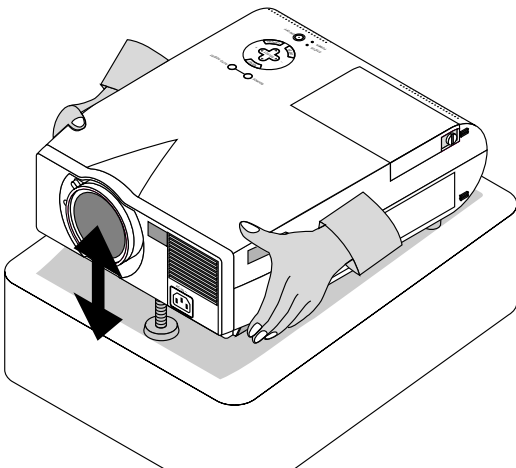
To fine-tune the image's position vertically on the screen, rotate the foot. Each of the rear feet height can be changed up to 0.6" (4mm).

Screen and Projection Distance

The following shows the proper relative positions of the projector and screen. Refer to the table to determine the position of installation.

Throw distance

Screen size (Unit: cm/inch)

558.8 (W) × 419.1 (H) / 220 (W) × 165 (H)

487.7 (W) × 365.8 (H) / 192 (W) × 144 (H)

406.4 (W) × 304.8 (H) / 160 (W) × 120 (H)

304.8 (W) × 228.6 (H) / 120 (W) × 90 (H)

243.8 (W) × 182.9 (H) / 96 (W) × 72 (H)

203.2 (W) × 152.4 (H) / 80 (W) × 60 (H)

162.6 (W) × 121.9 (H) / 64 (W) × 48 (H)

121.9 (W) × 91.4 (H) / 48 (W) × 36 (H)

81.3 (W) × 61.0 (H) / 32 (W) × 24 (H)

67.1 (W) × 50.3 (H) / 26 (W) × 20 (H)

TELE: 30"
61.0 (W) × 45.7 (H) / 24 (W) × 18 (H)

Screen

WIDE : 300"
609.6 (W) × 457.2 (H) / 240 (W) × 180 (H)

275"

240"

200"

150"

120"

100"

80"

60"

40"

33"

Lens center

1.3/4.3
1.6/5.2
2.4/7.9
3.2/10.5
4.1/13.4
4.9/16.1
6.2/20.2
8.2/27.0
9.9/32.5
11.3/36.9

Distance (Unit: m/feet)

Distance Chart

B = Vertical distance between lens center and screen center
C = Throw distance
D = Vertical distance between lens center and screen bottom (screen top for ceiling installation)

Ceiling Installation

If your projector is mounted on the ceiling and your image is upside down, use the "Menu" and "Select" buttons on your projector cabinet or ▲▼ button on your remote control to correct the orientation. (See page E-36.)

Reflecting the Image

Using a mirror to reflect your projector's image enables you to enjoy a much larger image. Contact your NEC dealer if you need a mirror. If you're using a mirror and your image is inverted, use the "Menu" and "Select" buttons on your projector cabinet or ▲▼ buttons on your remote control to correct the orientation. (See page E-36.)

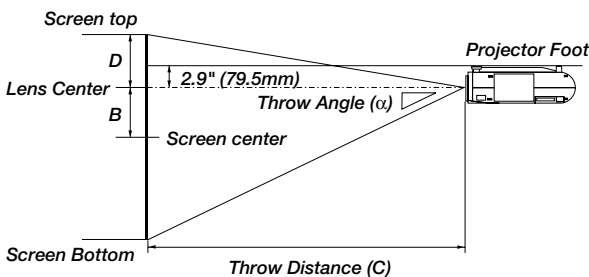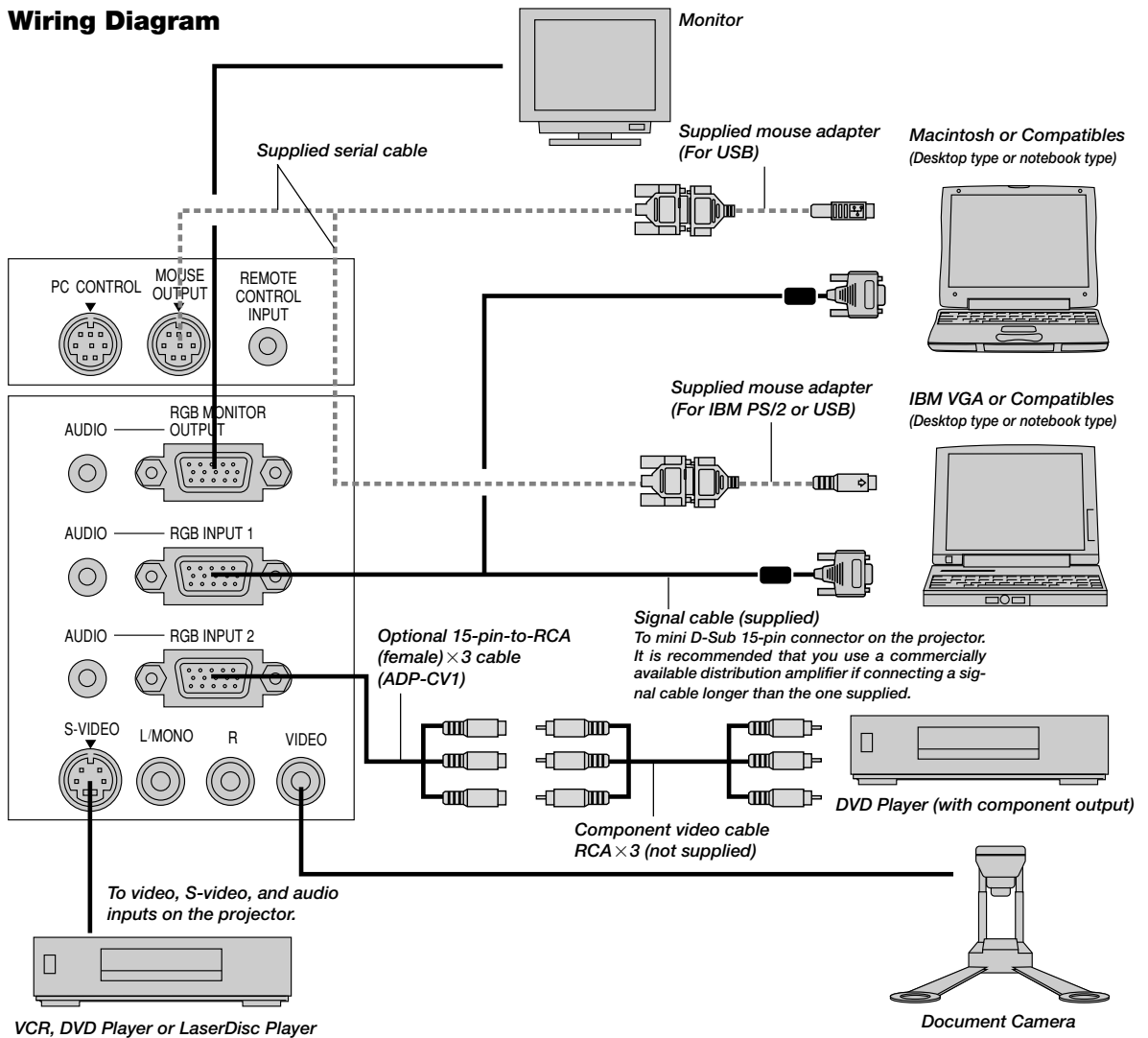| Screen Size			B	C			D	α		
Diagonal	Width	Height		wide		telephoto		wide		telephoto
30 inch	24 inch	18 inch	7.7 inch	41.4 inch	−	50.8 inch	1.3 inch	10.5 degree	−	8.6 degree
762 mm	609.6 mm	457.2 mm	194.6 mm	1052.6 mm		1290.5 mm	34.0 mm			
40 inch	32 inch	24 inch	10.2 inch	56.3 inch	−	68.6 inch	1.8 inch	10.3 degree	−	8.5 degree
1016 mm	812.8 mm	609.6 mm	259.5 mm	1430.3 mm		1743.7 mm	45.3 mm			
60 inch	48 inch	36 inch	15.3 inch	86.1 inch	−	104.3 inch	2.7 inch	10.1 degree	−	8.4 degree
1524 mm	1219.2 mm	914.4 mm	389.2 mm	2185.8 mm		2649.9 mm	68.0 mm			
67 inch	53.6 inch	40.2 inch	17.1 inch	96.5 inch	−	116.8 inch	3.0 inch	10.1 degree	−	8.3 degree
1701.8 mm	1361.44 mm	1021.08 mm	434.7 mm	2450.2 mm		2967.1 mm	75.9 mm			
72 inch	57.6 inch	43.2 inch	18.4 inch	103.9 inch	−	125.7 inch	3.2 inch	10.0 degree	−	8.3 degree
1828.8 mm	1463.04 mm	1097.28 mm	467.1 mm	2639.0 mm		3193.7 mm	81.5 mm			
84 inch	67.2 inch	50.4 inch	21.5 inch	121.7 inch	−	147.1 inch	3.7 inch	10.0 degree	−	8.3 degree
2133.6 mm	1706.88 mm	1280.16 mm	544.9 mm	3092.3 mm		3737.4 mm	95.1 mm			
90 inch	72 inch	54 inch	23.0 inch	130.7 inch	−	157.8 inch	4.0 inch	10.0 degree	−	8.3 degree
2286 mm	1828.8 mm	1371.6 mm	583.9 mm	3318.9 mm		4009.3 mm	101.9 mm			
100 inch	80 inch	60 inch	25.5 inch	145.5 inch	−	175.7 inch	4.5 inch	10.0 degree	−	8.3 degree
2540 mm	2032 mm	1524 mm	648.7 mm	3696.6 mm		4462.4 mm	113.3 mm			
120 inch	96 inch	72 inch	30.6 inch	175.3 inch	−	211.4 inch	5.4 inch	9.9 degree	−	8.3 degree
3048 mm	2438.4 mm	1828.8 mm	778.5 mm	4452.1 mm		5368.7 mm	135.9 mm			
150 inch	120 inch	90 inch	38.3 inch	219.9 inch	−	264.9 inch	6.7 inch	9.9 degree	−	8.2 degree
3810 mm	3048 mm	2286 mm	973.1 mm	5585.2 mm		6728.0 mm	169.9 mm			
180 inch	144 inch	108 inch	46.0 inch	264.5 inch	−	318.4 inch	8.0 inch	9.9 degree	−	8.2 degree
4572 mm	3657.6 mm	2743.2 mm	1167.7 mm	6718.4 mm		8087.4 mm	203.9 mm			
210 inch	168 inch	126 inch	53.6 inch	309.1 inch	−	371.9 inch	9.4 inch	9.8 degree	−	8.2 degree
5334 mm	4267.2 mm	3200.4 mm	1362.3 mm	7851.5 mm		9446.8 mm	237.9 mm			
240 inch	192 inch	144 inch	61.3 inch	353.7 inch	−	425.4 inch	10.7 inch	9.8 degree	−	8.2 degree
6096 mm	4876.8 mm	3657.6 mm	1557.0 mm	8984.7 mm		10806.2 mm	271.8 mm			
270 inch	216 inch	162 inch	69.0 inch	398.3 inch	−	479.0 inch	12.0 inch	9.8 degree	−	8.2 degree
6858 mm	5486.4 mm	4114.8 mm	1751.6 mm	10117.8 mm		12165.5 mm	305.8 mm			
300 inch	240 inch	180 inch	76.6 inch	443.0 inch	−	532.5 inch	13.4 inch	9.8 degree	−	8.2 degree
7620 mm	6096 mm	4572 mm	1946.2 mm	11251.0 mm		13524.9 mm	339.8 mm			

NOTE: Distances may vary +/−5%.

Wiring Diagram

Monitor

Supplied serial cable

Supplied mouse adapter
(For USB)

Macintosh or Compatibles
(Desktop type or notebook type)

PC CONTROL   MOUSE OUTPUT   REMOTE CONTROL INPUT

Supplied mouse adapter
(For IBM PS/2 or USB)

IBM VGA or Compatibles
(Desktop type or notebook type)

AUDIO — RGB MONITOR OUTPUT

AUDIO — RGB INPUT 1

Signal cable (supplied)
*To mini D-Sub 15-pin connector on the projector.
It is recommended that you use a commercially available distribution amplifier if connecting a signal cable longer than the one supplied.*

AUDIO — RGB INPUT 2

Optional 15-pin-to-RCA
(female)×3 cable
(ADP-CV1)

S-VIDEO   L/MONO   R   VIDEO

DVD Player (with component output)

Component video cable
RCA×3 (not supplied)

To video, S-video, and audio
inputs on the projector.

Document Camera

VCR, DVD Player or LaserDisc Player

NOTE: *When using with a notebook PC, be sure to connect between the projector and the notebook PC before turning on the power to the notebook PC. In most cases signal cannot be output from RGB output unless the notebook PC is turned on after connecting with the projector.*

NOTE: *If using video, S-video, or audio cables, the cables should be 3 m (9.8 feet) or shorter.*

Remote Control Guideline

1. Plug the supplied serial cable with the mouse output port of the projector into your computer's mouse port and restart your computer to gain remote mouse control.
2. When using the remote control's built-in infrared mouse on a laptop computer, the laptop's mouse, trackball or trackpad will be disabled. Disconnect the serial cable from the mouse output port and restart your computer to regain trackball or trackpad mouse control.
3. If the screen goes blank while using your remote control, it may be the result of the computer's screen-saver or power management software.
4. If you accidentally hit the OFF button on the remote control, wait one full minute and then press the ON button to resume.

Connecting Your PC or Macintosh Computer

IBM VGA or Compatibles (Notebook type)
or
Macintosh (Notebook type)

RGB signal cable (supplied)
To mini D-Sub 15-pin connector on the projector. It is recommended that you use a commercially available distribution amplifier if connecting a signal cable longer than the one supplied.
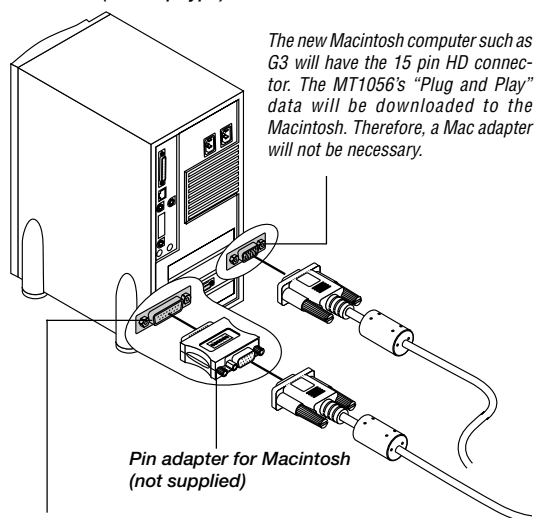
Audio cable (not supplied)
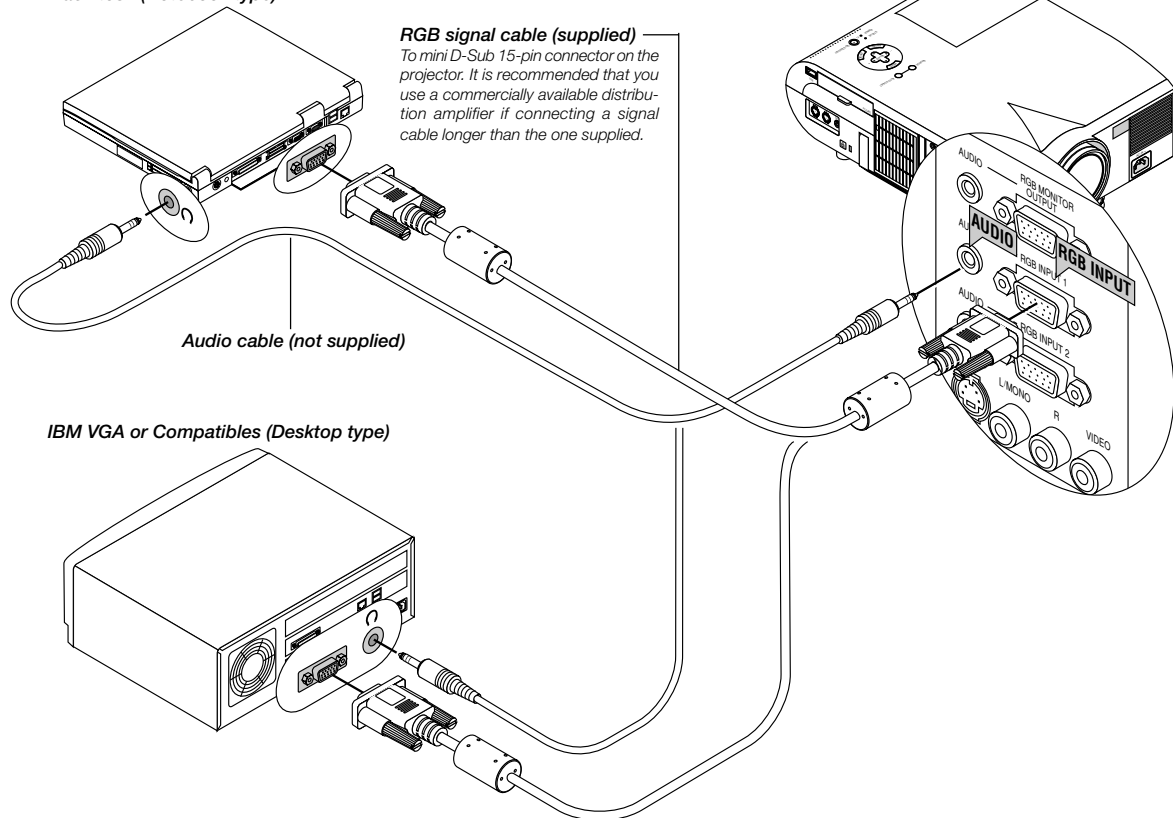
IBM VGA or Compatibles (Desktop type)
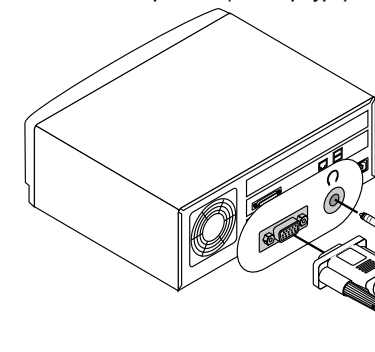
Macintosh (Desktop type)

The new Macintosh computer such as G3 will have the 15 pin HD connector. The MT1056's "Plug and Play" data will be downloaded to the Macintosh. Therefore, a Mac adapter will not be necessary.

Pin adapter for Macintosh (not supplied)

For older Macintosh, use a commercially available pin adapter to connect to your Mac's video port.

Connecting your PC or Macintosh computer to your MT1056 (XGA) projector will enable you to project your computer's screen image for an impressive presentation.

To connect to a PC or Macintosh, simply:
1. Turn off the power to your projector and computer.
2. Use the signal cable that's supplied to connect your PC or Macintosh computer to the projector.
3. Turn on the projector and the computer.
4. If the projector goes blank after a period of inactivity, it may be caused by a screen saver installed on the computer you've connected to the projector.

E – 19

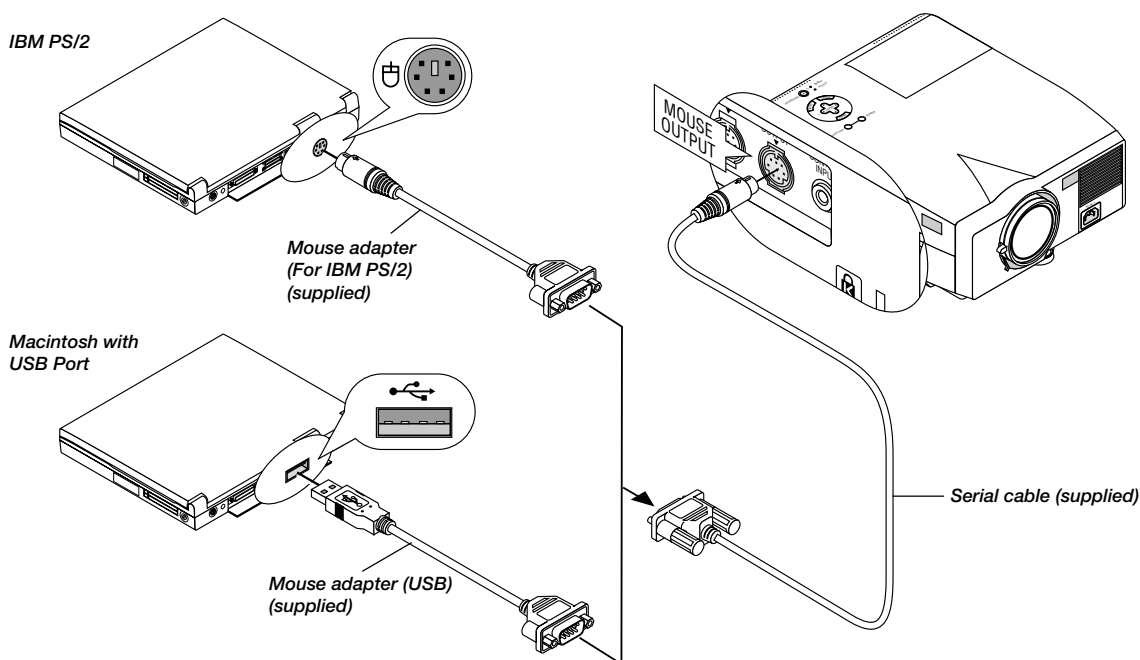# Connecting Your Computer to the Mouse Output Port

Using Remote Mouse Function
The built-in remote mouse receiver enables you to operate your computer's mouse functions from the remote control (Computer mode). It is a great convenience for clicking through your computer-generated presentations. To return to the Projector mode, press the PJ button (lit red).

Connecting your computer to the mouse output port
If you wish to use the remote mouse function, connect the mouse output port and computer. The mouse output port can be connected directly to the computer using the USB terminal. To connect it to the computer using the mouse (PS/2) terminal, do so using the PS/2 adapter.

NOTE: Depending on the type of connection or OS installed on your computer, you may have to restart your computer or change your computer settings.

IBM PS/2

Mouse adapter
(For IBM PS/2)
(supplied)

Macintosh with
USB Port

Mouse adapter (USB)
(supplied)

MOUSE OUTPUT

Serial cable (supplied)

The built-in remote mouse receiver enables you to operate your computer's mouse functions from the remote control. It is a great convenience for clicking through your computer-generated presentations.

To connect the mouse output port:
1. Turn off your computer.
2. For PCs: Remove your current mouse and connect the supplied serial cable from the mouse output to your PC's mouse port. (Use the 6-pin adapter for connecting to a PS/2 computer or the supplied USB adapter.)
   For Macintosh: Attach the supplied mouse adapter for USB to the mouse output port's serial cable and connect the projector to your USB port of a Macintosh computer.
3. When the built-in remote mouse receiver is available, it will disable your regular mouse, disconnect the serial cable and restart your computer.

NOTE: The mouse adapter for USB is not compatible with the USB terminal on the projector.

When connecting using the USB terminal
For PC, the mouse receiver can only be used with a Windows 98/2000/Me/XP operating system.

NOTE:
• Wait at least 5 seconds after disconnecting the mouse receiver before reconnecting it and vice versa. The computer may not identify the mouse receiver if it is repeatedly connected and disconnected in rapid intervals.

Connecting an External Monitor

External monitor

RGB Signal cable (suppried)
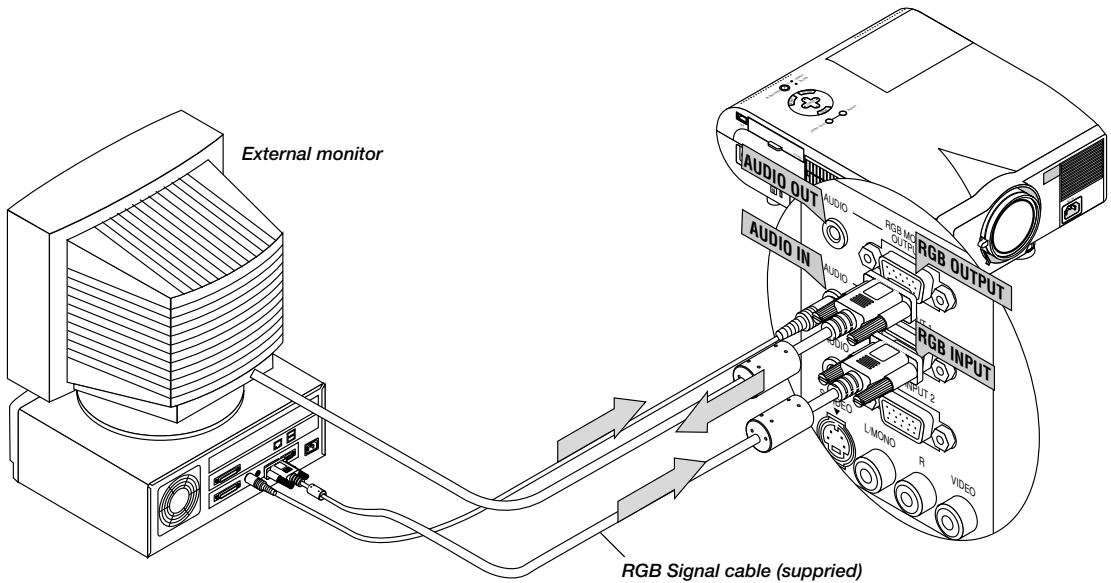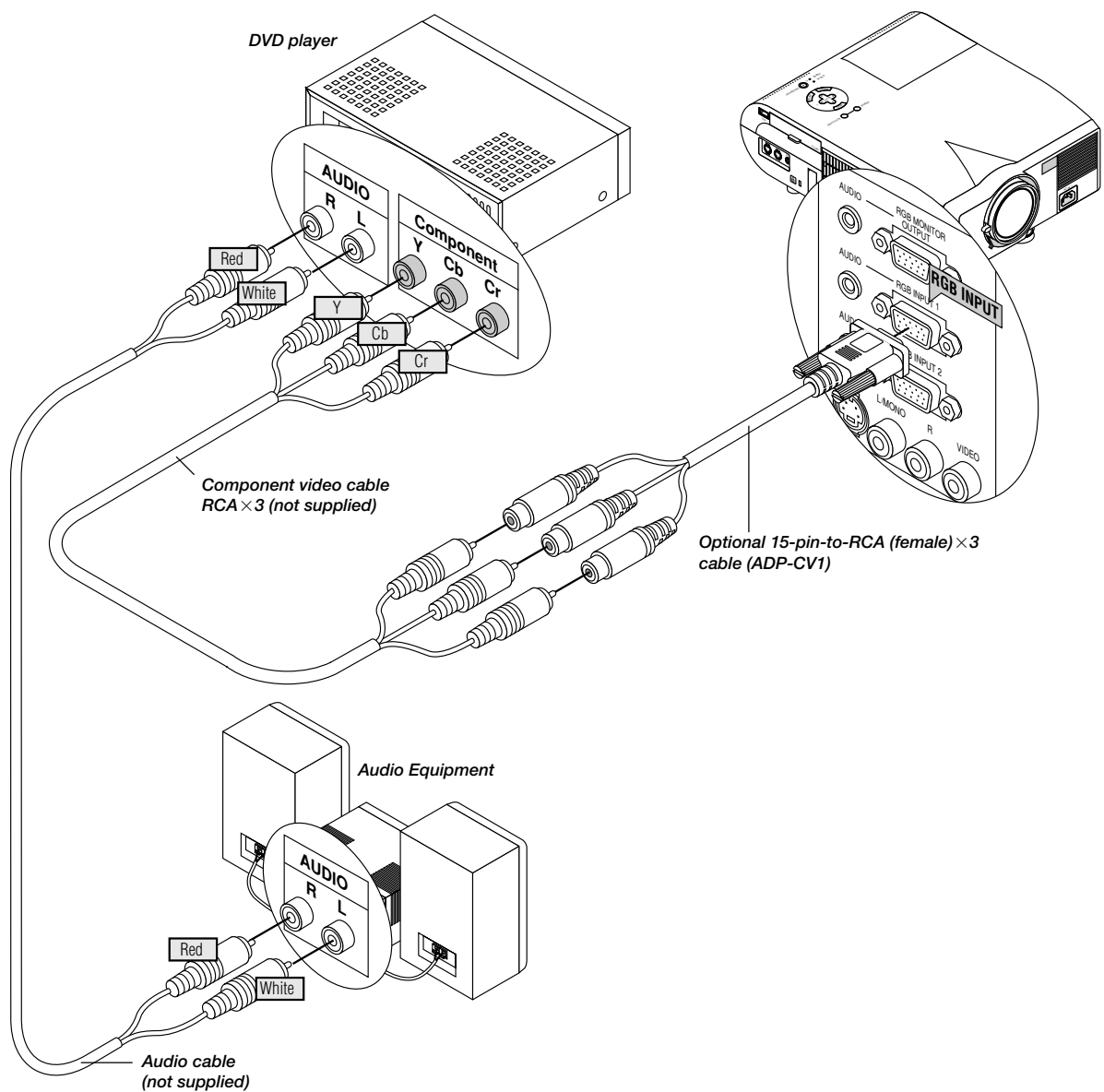
You can connect a separate, external monitor to your MT1056 to simultaneously view on a monitor the image you're projecting. To do so:
1. Turn off the power to your projector, monitor and computer.
2. Use a 15-pin cable to connect your monitor to the RGB Monitor Output (Mini D-Sub 15 pin) connector on your projector.
3. Turn on the projector, monitor and the computer.

Connecting Your DVD Player

DVD player

AUDIO R L

Red

White

Component Y Cb Cr

Y

Cb

Cr

Component video cable RCA×3 (not supplied)

Optional 15-pin-to-RCA (female)×3 cable (ADP-CV1)

RGB INPUT

Audio Equipment

AUDIO R L

Red

White

Audio cable (not supplied)

You can connect your projector to a DVD player with component outputs or Video output. To do so, simply:
1. Turn off the power to your projector and DVD player.
2. If your DVD player has the component video (Y/Cb/Cr) output, use a commercially available component video cable (RCA×3) and the optional 15-pin-to-RCA (female)×3 cable to connect your DVD player to the RGB INPUT connector on the projector.
   For a DVD player without component video (Y/Cb/Cr) outputs, use common RCA cables (not provided) to connect a composite VIDEO output of the DVD player to the Video Input of the projector.
3. Turn on the projector and DVD player.

NOTE: Refer to your DVD player's owner's manual for more information about your DVD player's video output requirements,

Connecting Your VCR or Laser Disc Player

VCR/ Laser disc player

S-video cable (not supplied)

Audio cable (not supplied)

Audio equipment

Video cable (not supplied)
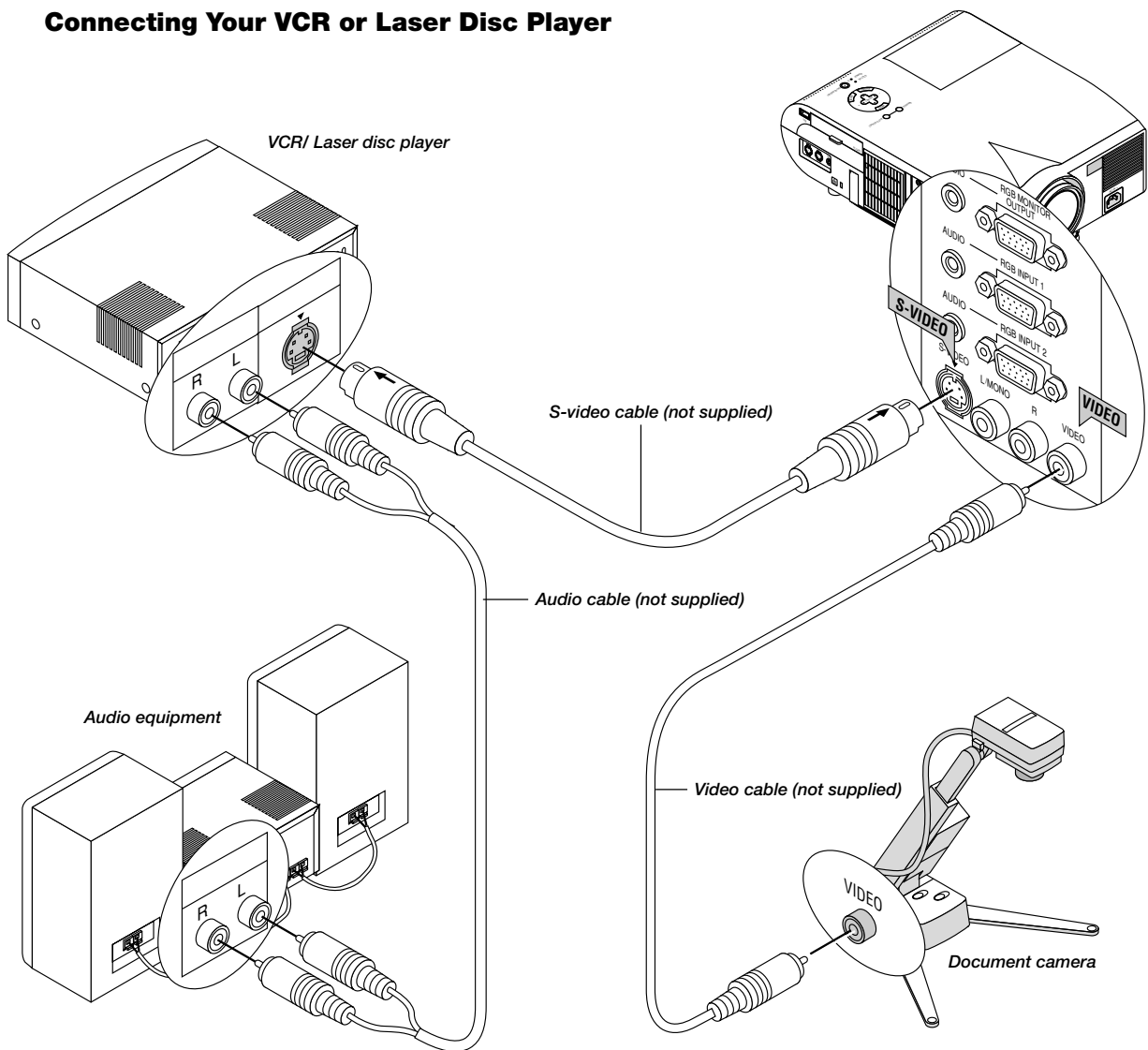
Document camera

Use common RCA cables (not provided) to connect your VCR, laser disc player or document camera to your projector.
To make these connections, simply:
1. Turn off the power to the projector and VCR, laser disc player or document camera.

2. Connect one end of your RCA cable to the video output connector on the back of your VCR or laser disc player, connect the other end to the Video input on your projector. Use an audio cable (not supplied) to connect the audio from your VCR or laser disc player to your audio equipment (if your VCR or laser disc player has this capability). Be careful to keep your right and left channel connections correct for stereo sound.

3. Turn on the projector and the VCR or laser disc player.

NOTE: Refer to your VCR or laser disc player owner's manual for more information about your equipment's video output requirements.

About Startup screen
(Menu Language Select screen)
When you first turn on the projector, you will get the Startup screen.
This screen gives you the opportunity to select one of the seven menu
languages: English, German, French, Itilan, Spanish, Swedish and
Japanese.

To select a menu language, follow these steps:

*1. Use the Select ▲ or ▼ button to select one of the seven languages
for the menu.*

2. Press the Enter button to execute the selection.

*3. The Basic/Custom menu will be displayed in the language you
have selected.*

To close the menu, press the Cancel button.

After this has been done, you can proceed to the advanced menu op-
eration.
If you want, you can select the menu language later. See "Language"
on page E-35.