



TECHNICAL BULLETIN

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Technical History of the 2000i (September 2003 to June 2005)

Questions Answered in This Bulletin:

- Which projectors were used in which cabinets?
- What was the method of focusing the image?
- How many DVIT™ (Digital-Vision Touch) technology digital cameras were included in the design?
- Which DVIT technology firmware was used?
- Which Wonderbar firmware was used for each projector?
- What functions were available on each cabinet's control panel?
- Which X-Port™ 20 switch could be used with each projector?

SMART has released several versions of the *Rear Projection SMART Board™ 2000i* interactive whiteboard. These versions have featured different NEC projectors and cabinet designs. To resolve potential confusion, this bulletin provides a summarized history of the 2000i.

NOTE: All 2000i interactive whiteboards include DVIT technology, which uses digital cameras to track the position of objects on the interactive screen.

2000i History in Table Form

| Model | Approximate Start Date | Starting Serial Number | DViT Technology Firmware | Projector |
|-----------|------------------------|------------------------|--------------------------|-------------|
| 2000i-DV | September 2003 | 2000i-DV-01xxx | 2.x | NEC MT860R |
| 2000i-DV | February 2004 | 2000i-DV-02xxx | 3.x | NEC MT860R |
| 2000i-DVS | February 2004 | 2000i-DVS-01xxx | 3.x | NEC VT465 |
| 2000i-DVS | October 2004 | 2000i-DVS-03xxx | 3.x | NEC VT470 |
| 2000i-DVX | September 2003 | 2000i-DVX-01xxx | 2.x or 3.x | NEC MT1060R |
| 2000i-DVX | June 2004 | 2000i-DVX-02xxx | 3.x | NEC VT560 |
| 2000i-DVX | October 2004 | 2000i-DVX-03xxx | 3.x | NEC VT570 |
| 2000i-DVX | June 2005 | 2000i-DVX-04xxx | 3.x | NEC VT670 |

NOTE: Each model name includes the suffix DV, DVS or DVX:

- DV or DVS models include an SVGA (800 x 600) projector
- DVX models include an XGA (1024 x 768) projector

2000i-DV: Released September, 2003

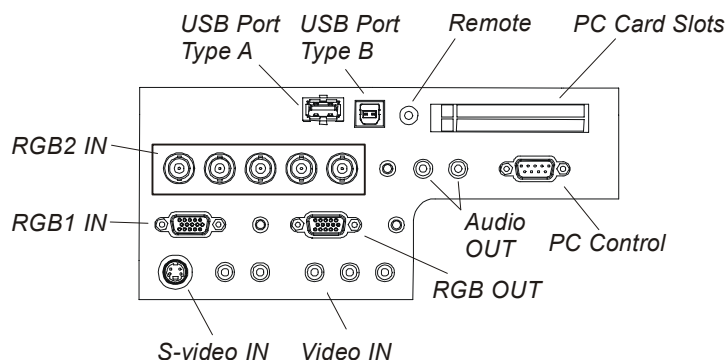
This information applies to units with serial numbers that start with 2000i-DV-01xxx.

| Starting Serial Number | Projector | DViT Technology and Firmware | Firmware | Interactive Screen Serial Number |
|------------------------|------------|--------------------------------|---------------|----------------------------------|
| 2000i-DV-01xxx | NEC MT860R | Four Cameras with DViT F/W 2.x | Wonderbar 3.0 | RB467-02xxx |

Projector

The cabinet contains an SVGA (800 x 600) NEC MT860R projector (part number 03-00041) with short-throw lens and 4000 hour, extended life lamp (part number 01-00129).

The available ports on the MT860R are RGB1 IN, RGB1 Audio input, RGB2 IN, RGB2 Audio input, RGB OUT, S-video IN, S-video Audio input, Video IN, Video Audio input, Audio OUT, USB port type A, USB port type B, Remote and PC Control and two PC card slots.



Focusing the Projector

To focus the projected image, do the following:

1. Loosen the focus lock knob.
2. Grasp the focus lever and rotate it until the best focus is obtained.
3. Tighten the focus lock knob.

Cameras

Four cameras track the position of objects on the interactive screen.

DViT Technology Firmware

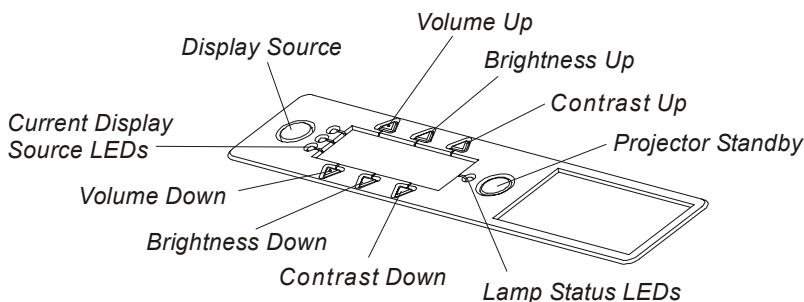
The DViT technology firmware version is 2.x (cabinet serial number 2000i-DV-01xxx, interactive screen serial number RB467-02xxx).

Wonderbar Firmware

The Wonderbar firmware version used with the NEC MT860R projector is version 3.0.

Control Panel

You can use the control panel to set the display source, volume, brightness and contrast settings and initiate the Projector Standby mode.



To change the display source using the control panel, press the **Display Source** button. Each press selects the next source in a three source sequence: the host computer (source 1), a connected guest laptop (source 2, but only available if the optional X-Port 20 switch is installed) and a VCR or DVD player (source 3).

NOTE: If you don't have an X-Port 20 switch, press **Display Source** to select the next source in a two source sequence: the host computer (source 1) and a VCR or DVD player (source 2).

X-Port 20 Switch (part number XP20-2000i)

The optional X-Port 20 switch that's available for use with the NEC MT860R projector is a serial switch. The projector automatically switches the video.

2000i-DV: Released February, 2004

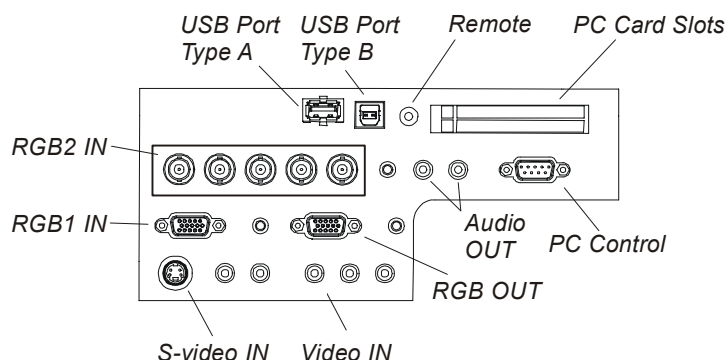
This information applies to units with serial numbers that start with 2000i-DV-02xxx.

| Starting Serial Number | Projector | DViT Technology and Firmware | Firmware | Interactive Screen Serial Number |
|------------------------|------------|---------------------------------|---------------|----------------------------------|
| 2000i-DV-02xxx | NEC MT860R | Three Cameras with DViT F/W 3.x | Wonderbar 3.0 | RB467-3A-03xxx |

Projector

The cabinet contains an SVGA (800 x 600) NEC MT860R projector (part number 03-00041) with short-throw lens and 4000 hour, extended life lamp (part number 01-00129).

The available ports on the MT860R are RGB1 IN, RGB1 Audio input, RGB2 IN, RGB2 Audio input, RGB OUT, S-video IN, S-video Audio input, Video IN, Video Audio input, Audio OUT, USB port type A, USB port type B, Remote and PC Control and two PC card slots.



Focusing the Projector

To focus the projected image, do the following:

1. Loosen the focus lock knob.
2. Grasp the focus lever and rotate it until the best focus is obtained.
3. Tighten the focus lock knob.

Cameras

Three cameras track the position of objects on the interactive screen.

NOTE: Due to technological developments, this model uses three cameras instead of four. There is no reduction in functionality, efficiency or accuracy.

DViT Technology Firmware

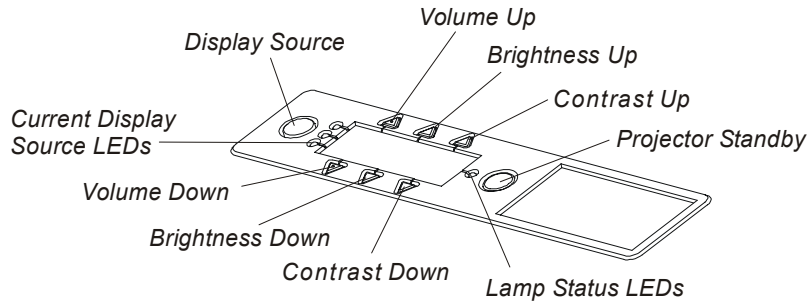
The DViT technology firmware version is 3.x (cabinet serial number 2000i-DV-02xxx, interactive screen serial number RB467-3A-03xxx).

Wonderbar Firmware

The Wonderbar firmware version used with the NEC MT860R projector is version 3.0.

Control Panel

You can use the control panel to set the display source, volume, brightness and contrast settings and initiate the Projector Standby mode.



To change the display source using the control panel, press the **Display Source** button. Each press selects the next source in a three source sequence: the host computer (source 1), a connected guest laptop (source 2, but only available if the optional X-Port 20 switch is installed) and a VCR or DVD player (source 3).

NOTE: If you don't have an X-Port 20 serial switch, press **Display Source** to select the next source in a two source sequence: the host computer (source 1) and a VCR or DVD player (source 2).

X-Port 20 Switch (part number XP20-2000i)

The optional X-Port 20 switch that's available for use with the NEC MT860R projector is a serial switch. The video is switched automatically by the projector.

2000i-DVS: Released February, 2004

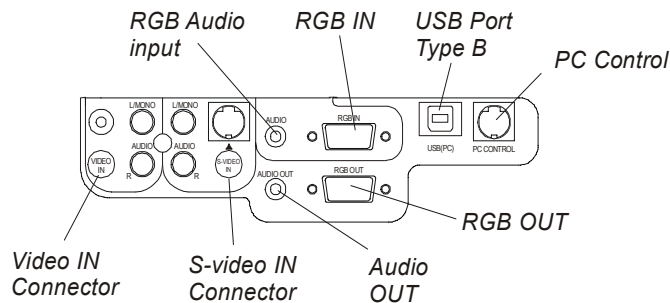
This information applies to units with serial numbers that start with 2000i-DVS-01xxx.

| Starting Serial Number | Projector | DViT Technology and Firmware | Firmware | Interactive Screen Serial Number |
|------------------------|-----------|---------------------------------|-------------------|----------------------------------|
| 2000i-DVS-01xxx | NEC VT465 | Three Cameras with DViT F/W 3.x | Wonderbar 4.1.0.2 | RB467-3A-03xxx |

Projector

The cabinet contains an SVGA (800 x 600) NEC VT465 projector (part number 03-00047) with custom short-throw lens and 2000 hour lamp (part number 01-00151).

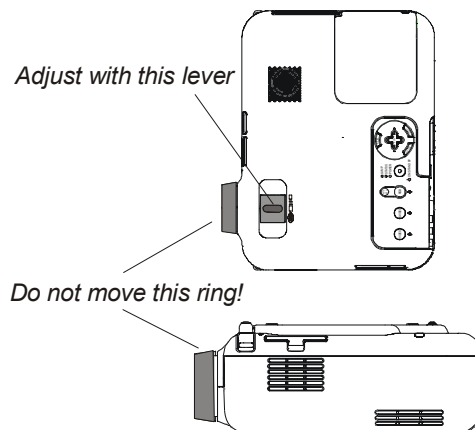
The available ports on the VT465 are RGB IN, RGB Audio input, RGB OUT, S-video IN, S-video Audio input, Video IN, Video Audio input, Audio OUT, USB port type B and PC Control



Focusing the Projector

To focus a VT465, use the focus lever at the top of the projector. See the figure below.

NOTE: Don't adjust the focus by moving the lens ring!



Cameras

Three cameras track the position of objects on the interactive screen.

NOTE: Due to technological developments, this model uses three cameras instead of four. There is no reduction in functionality, efficiency or accuracy.

DViT Technology Firmware

The DViT technology firmware version is 3.x (cabinet serial number 2000i-DVS-01xxx, interactive screen serial number RB467-3A-03xxx).

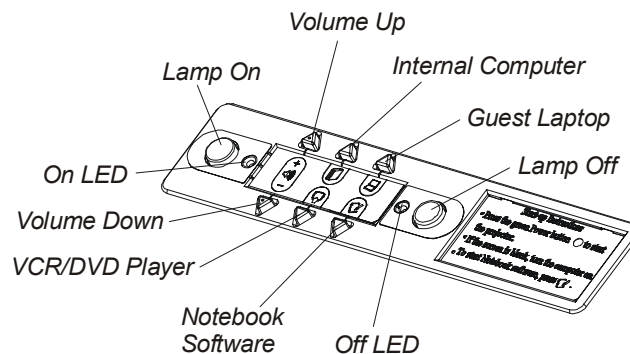
Wonderbar Firmware

The Wonderbar firmware version used with the NEC VT465 projector is version 4.1.0.2.

NOTE: Some early release models may have used 4.0.0.6.

Control Panel

You can use the control panel to turn the projector lamp on and off, change the display source for the projector, open Notebook software and adjust the volume



To change the display source using the control panel, press the **Internal Computer** button, the **Guest Laptop** button (only available if the optional X-Port 20 switch is installed) or the **VCR/DVD Player** button.

X-Port 20 Switch (part number XP20-2000i-B)

The optional X-Port 20 switch that's available for use with the NEC VT465 projector is a serial/video switch.

2000i-DVS: Released October 2004

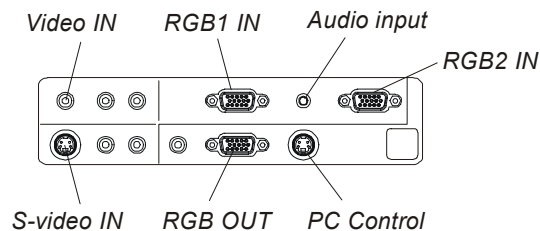
This information applies to units with serial numbers that start with 2000i-DVS-03xxx.

| Starting Serial Number | Projector | DViT Technology and Firmware | Firmware | Interactive Screen Serial Number |
|------------------------|-----------|---------------------------------|-----------------------------|----------------------------------|
| 2000i-DVS-03xxx | NEC VT470 | Three Cameras with DViT F/W 3.x | Wonderbar 1.0.0 for NEC x70 | RB467-3A-03xxx |

Projector

The cabinet contains an SVGA (800 x 600) NEC VT470 projector (part number 03-00067) with custom short-throw lens and 2000 hour lamp (part number 01-00161).

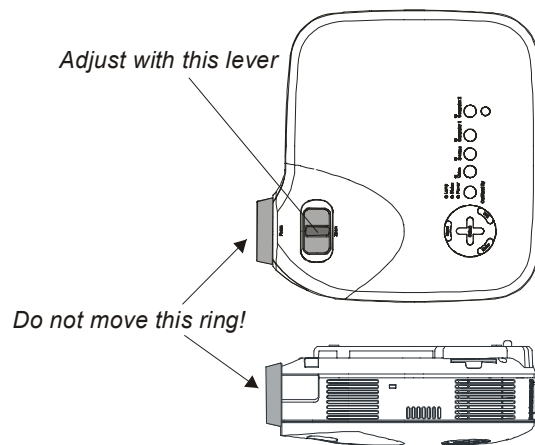
Available ports on the VT470 are RGB1 IN, RGB2 IN, RGB Audio input, RGB OUT, RGB Audio OUT, S-video IN, S-video Audio input, Video IN, Video Audio input and PC Control



Focusing the Projector

To focus a VT470, use the focus lever at the top of the projector. See the figure below.

NOTE: Don't adjust the focus by moving the lens ring!



Cameras

Three cameras track the position of objects on the interactive screen.

NOTE: Due to technological developments, this model uses three cameras instead of four. There is no reduction in functionality, efficiency or accuracy.

DViT Technology Firmware

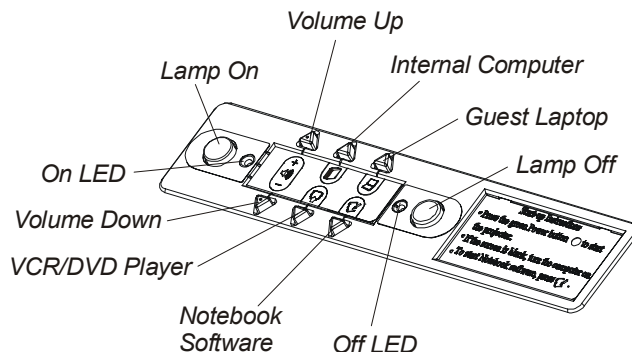
The DViT technology firmware version is 3.x (cabinet serial number 2000i-DVS-03xxx, interactive screen serial number RB467-3A-03xxx).

Wonderbar Firmware

The Wonderbar firmware version used with the NEC VT470 projector is version 1.0.0 for NEC x70.

Control Panel

You can use the control panel to turn the projector lamp on and off, change the display source for the projector, open Notebook software and adjust the volume.



To change the display source using the control panel, press the **Internal Computer** button, the **Guest Laptop** button (only available if the optional X-Port 20 switch is installed) or the **VCR/DVD Player** button.

X-Port 20 Switch (part number XP20-2000i-C)

The optional X-Port 20 switch that's available for use with the NEC VT470 projector is a serial switch. The video is switched automatically by the projector.

2000i-DVX—Released September, 2003

This information applies to units with serial numbers that start with 2000i-DVX-01xxx.

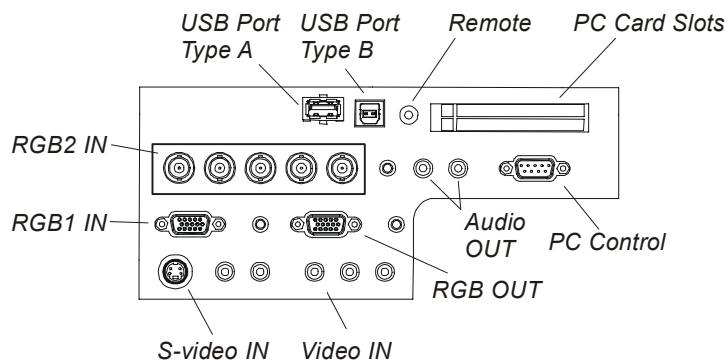
| Starting Serial Number | Projector | DViT Technology and Firmware | Firmware | Interactive Screen Serial Number |
|------------------------|-------------|---|---------------|-------------------------------------|
| 2000i-DVX-01xxx | NEC MT1060R | Four Cameras with DViT F/W 2.x OR Three Cameras with DViT F/W 3.x | Wonderbar 3.0 | RB467-02xxx OR RB467-3A-03xxx |

Projector

The cabinet contains an XGA (1024 x 768) NEC MT1060R projector (part number 03-00037) with short-throw lens and 2000 hour lamp (part number 01-00128).

NOTE: Available replacement lamps include the 2000 hour lamp and the 4000 hour extended life lamp (part number 01-00129)

The available ports on the MT1060R are RGB1 IN, RGB1 Audio input, RGB2 IN, RGB2 Audio input, DVI IN, DVI Audio input, RGB OUT, S-video IN, S-video Audio input, Video IN, Video Audio input, Audio OUT, USB port type A, USB port type B, Remote and PC Control and two PC card slots



Focusing the Projector

To focus the projected image, do the following:

1. Loosen the focus lock knob.
2. Grasp the focus lever and rotate it until the best focus is obtained.
3. Tighten the focus lock knob.

Cameras

If a 2000i-DVX has a serial number of 2000i-DVX-01xxx (where xxx is a number between 001 and 152), then four cameras track the position of objects on the interactive screen.

However, if a 2000i-DVX has a serial number of 2000i-DVX-01xxx (where xxx is 153 or greater), then three cameras track the position of objects on the interactive screen.

NOTE: Due to technological developments, the latter models use three cameras instead of four. There is no reduction in functionality, efficiency or accuracy.

DViT Technology Firmware

The DViT technology firmware version is 2.x (cabinet serial number 2000i-DVX-01xxx where xxx is a number between 001 and 152, interactive screen serial number RB467-02xxx).

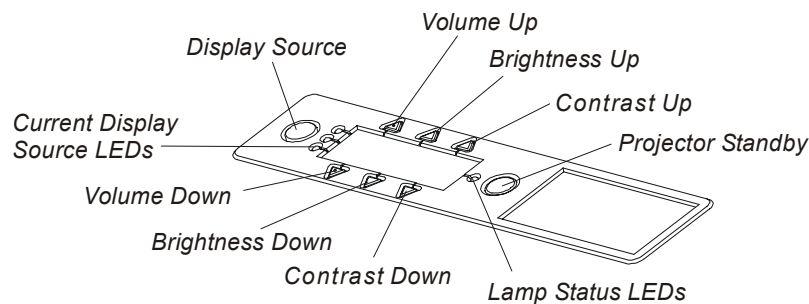
The DViT technology firmware version is 3.x (cabinet serial number 2000i-DVX-01xxx where xxx is 153 or greater, interactive screen serial number RB467-3A-03xxx).

Wonderbar Firmware

The Wonderbar firmware version used with the NEC MT1060R projector is version 3.0.

Control Panel

You can use the control panel to set the display source, volume, brightness and contrast settings and initiate the Projector Standby mode.



To change the display source using the control panel, press the **Display Source** button. Each press selects the next source in a three source sequence: the host computer (source 1), a connected guest laptop (source 2, but only available if the optional X-Port 20 switch is installed) and a VCR or DVD player (source 3).

NOTE: If you don't have an X-Port 20 switch, then press the **Display Source** button to select the next source in a two source sequence: the host computer (source 1) and a VCR or DVD player (source 2).

X-Port 20 Switch (part number XP20-2000i)

The optional X-Port 20 switch that's available for use with the NEC MT1060R projector is a serial switch. The video is switched automatically by the projector.

2000i-DVX-Released June, 2004

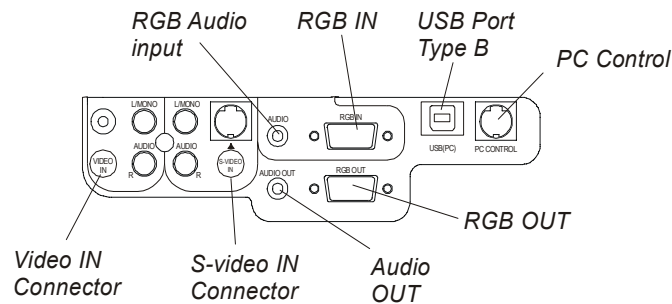
This information applies to units with serial numbers that start with 2000i-DVX-02xxx.

| Starting Serial Number | Projector | DViT Technology and Firmware | Firmware | Interactive Screen Serial Number |
|------------------------|-----------|---------------------------------|-------------------|----------------------------------|
| 2000i-DVX-02xxx | NEC VT560 | Three Cameras with DViT F/W 3.x | Wonderbar 4.1.0.2 | RB467-3A-03xxx |

Projector

The cabinet contains an XGA (1024 x 768) NEC VT560 projector (part number 03-00060) with custom short-throw lens and 2000 hour lamp (part number 01-00151).

The available ports on the VT560 are RGB IN, RGB Audio input, RGB OUT, S-video IN, S-video Audio input, Video IN, Video Audio input, Audio OUT, USB port type B and PC Control

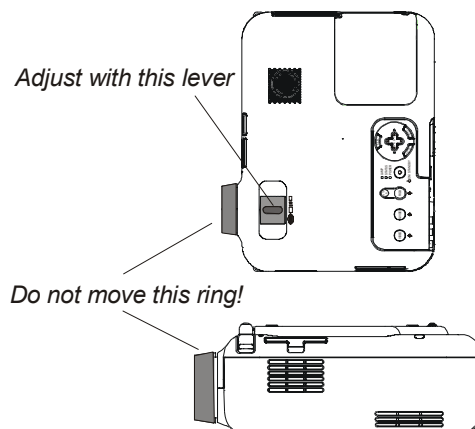


Focusing the Projector

To focus a VT560, use the focus lever at the top of the projector. See the figure below.

NOTE: Don't adjust the focus by moving the lens ring

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Cameras

Three cameras track the position of objects on the interactive screen.

NOTE: Due to technological developments, this model uses three cameras instead of four. There is no reduction in functionality, efficiency or accuracy.

DViT Technology Firmware

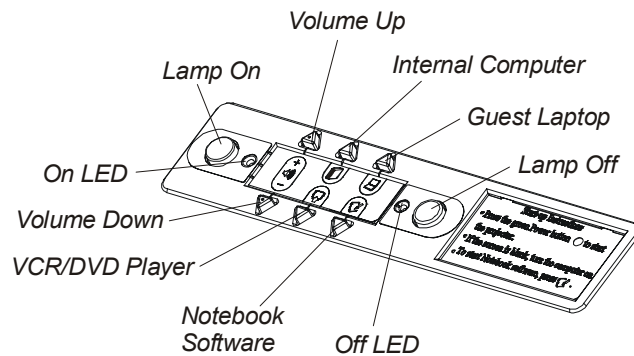
The DViT technology firmware version is 3.x (cabinet serial number 2000i-DVX-02xxx, interactive screen serial number RB467-3A-03xxx).

Wonderbar Firmware

The Wonderbar firmware version used with the NEC VT560 projector is version 4.1.0.2.

Control Panel

You can use the control panel to turn the projector lamp on and off, change the display source for the projector, open Notebook software and adjust the volume



To change the display source using the control panel, press the **Internal Computer** button, the **Guest Laptop** button (only available if the optional X-Port 20 switch is installed) or the **VCR/DVD Player** button.

X-Port 20 Switch (part number XP20-2000i-B)

The optional X-Port 20 switch that's available for use with the NEC VT560 projector is a serial/video switch.

2000i-DVX: Released October, 2004

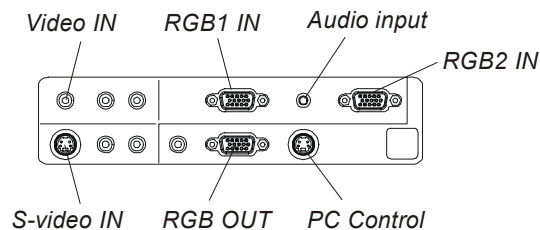
This information applies to units with serial numbers that start with 2000i-DVX-03xxx.

| Starting Serial Number | Projector | DViT Technology and Firmware | Firmware | Interactive Screen Serial Number |
|------------------------|-----------|---------------------------------|-----------------------------|----------------------------------|
| 2000i-DVX-03xxx | NEC VT570 | Three Cameras with DViT F/W 3.x | Wonderbar 1.0.0 for NEC x70 | RB467-3A-03xxx |

Projector

The cabinet contains an XGA (1024 x 768) NEC VT570 projector (part number 03-00068) with custom short-throw lens and 2000 hour lamp (part number 01-00162).

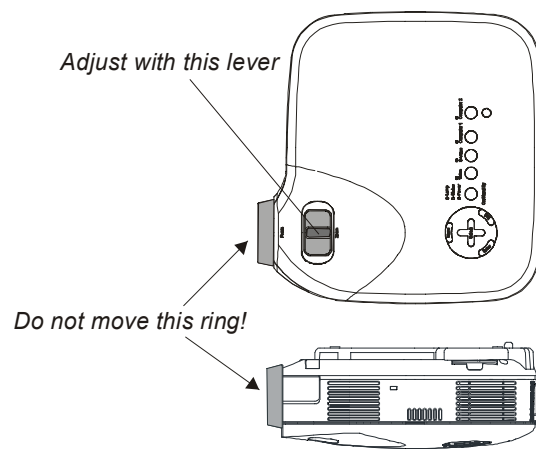
The available ports on the VT570 are RGB1 IN, RGB2 IN, RGB Audio input, RGB OUT, RGB Audio OUT, S-video IN, S-video Audio input, Video IN, Video Audio input and PC Control



Focusing the Projector

To focus a VT570, use the focus lever at the top of the projector. See the figure below.

NOTE: Don't adjust the focus by moving the lens ring.



Cameras

Three cameras track the position of objects on the interactive screen.

NOTE: Due to technological developments, this model uses three cameras instead of four. There is no reduction in functionality, efficiency or accuracy.

DViT Technology Firmware

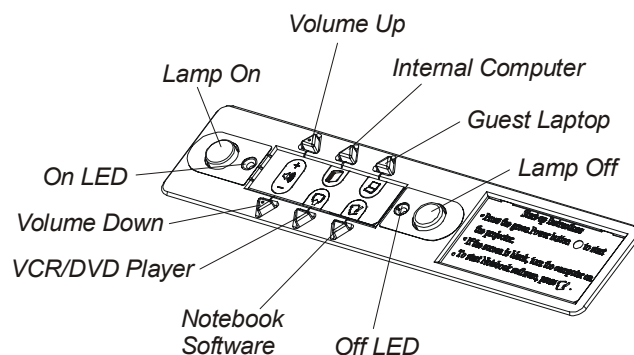
The DViT technology firmware version is 3.x (cabinet serial number 2000i-DVX-03xxx, interactive screen serial number RB467-3A-03xxx).

Wonderbar Firmware

The Wonderbar firmware version used with the NEC VT570 projector is version 1.0.0 for NEC x70.

Control Panel

You can use the control panel to turn the projector lamp on and off, change the display source for the projector, open Notebook software and adjust the volume



To change the display source using the control panel, press the **Internal Computer** button, the **Guest Laptop** button (only available if the optional X-Port 20 switch is installed) or the **VCR/DVD Player** button.

X-Port 20 Switch (part number XP20-2000i-C)

The optional X-Port 20 switch that's available for use with the NEC VT570 projector is a serial switch. The video is switched automatically by the projector.

2000i-VT670: Released June 2005

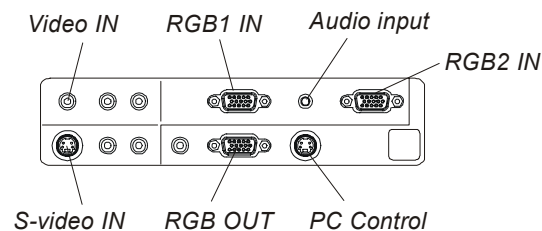
This information applies to units with serial numbers that start with 2000i-DVX-04xxx.

| Starting Serial Number | Projector | DViT Technology and Firmware | Firmware | Interactive Screen Serial Number |
|------------------------|-----------|---------------------------------|---------------------------|----------------------------------|
| 2000i-DVX-04xxx | NEC VT670 | Three Cameras with DViT F/W 3.x | Wonderbar 1.1 for NEC x70 | RB467-3A(B)-03xxx |

Projector

The cabinet contains an XGA (1024 x 768) NEC VT670 projector (part number 03-00068) with custom short-throw lens and 2000 hour lamp (part number 01-00162).

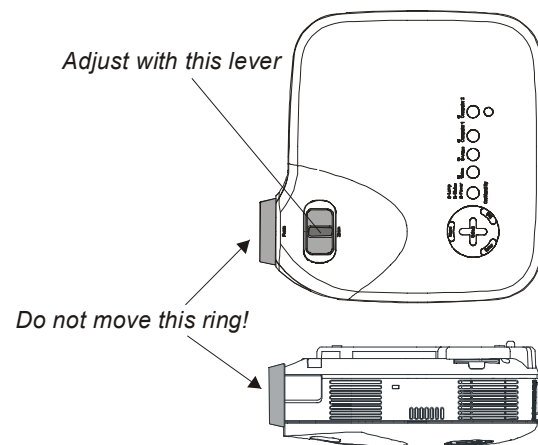
The available ports on the VT570 are RGB1 IN, RGB2 IN, RGB Audio input, RGB OUT, RGB Audio OUT, S-video IN, S-video Audio input, Video IN, Video Audio input and PC Control



Focusing the Projector

To focus a VT570, use the focus lever at the top of the projector. See the figure below.

NOTE: Don't adjust the focus by moving the lens ring



Cameras

Three cameras track the position of objects on the interactive screen.

NOTE: Due to technological developments, this model uses three cameras instead of four. There is no reduction in functionality, efficiency or accuracy.

DViT Technology Firmware

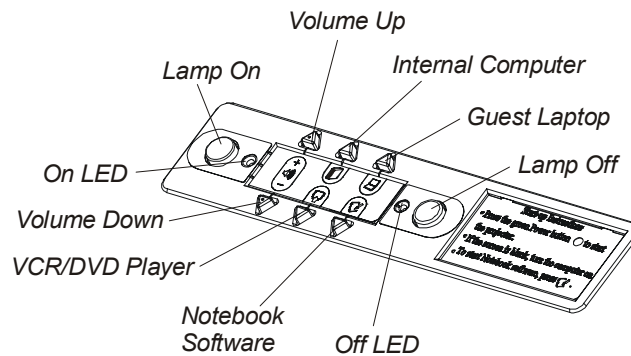
The DViT technology firmware version is 3.x (cabinet serial number 2000i-DVX-03xxx, interactive screen serial number RB467-3A-03xxx).

Wonderbar Firmware

The Wonderbar firmware version used with the NEC VT670 projector is version 1.1 for NEC x70.

Control Panel

You can use the control panel to turn the projector lamp on and off, change the display source for the projector, open Notebook software and adjust the volume



To change the display source using the control panel, press the **Internal Computer** button, the **Guest Laptop** button (only available if the optional X-Port 20 switch is installed) or the **VCR/DVD Player** button.

X-Port 20 Switch (part number XP20-2000i-C)

The optional X-Port 20 switch that's available for use with the NEC VT570 projector is a serial switch. The video is switched automatically by the projector.