

# ESC/VP21 Command User's Guide for Business Projectors

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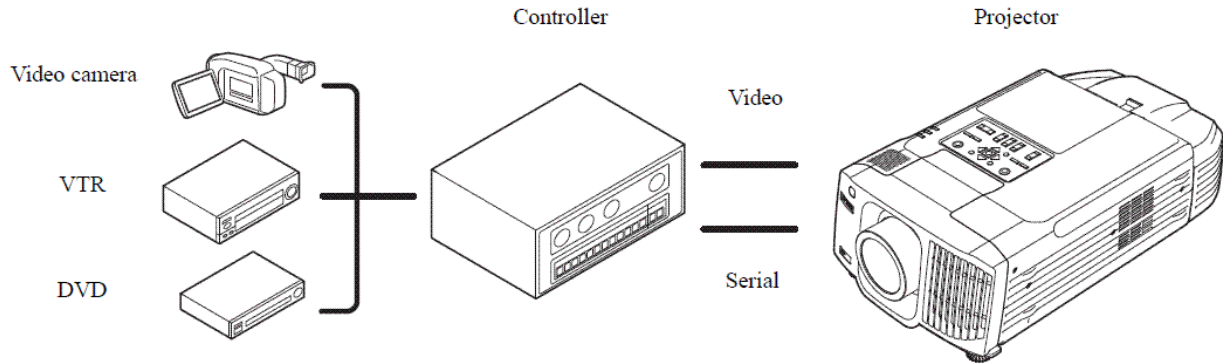
## 1. Introduction to ESC/VP21

ESC/VP21 is a control command and protocol for Epson projectors, which is used for A/V controller to control and monitor Epson projectors. The command codes are comprised of ASCII codes. Therefore the command codes can be understood very easily and you can easily control projectors using a PC with a terminal emulator such as Microsoft Hyper terminal.

Since ESC/VP21 is independent of communication protocols. Serial, USB or TCP/IP network can be used to transmit the commands to projectors.

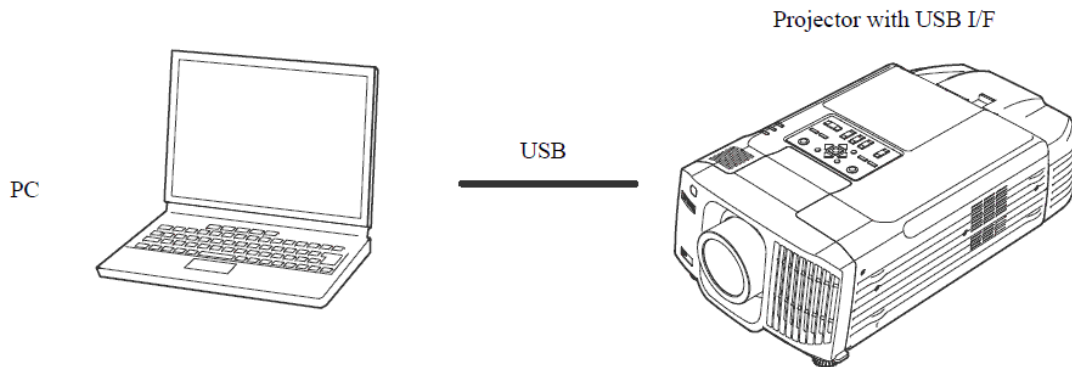
### \* Serial connection

A/V controller normally use as serial connection to control projectors. Refer to Appendix for details.



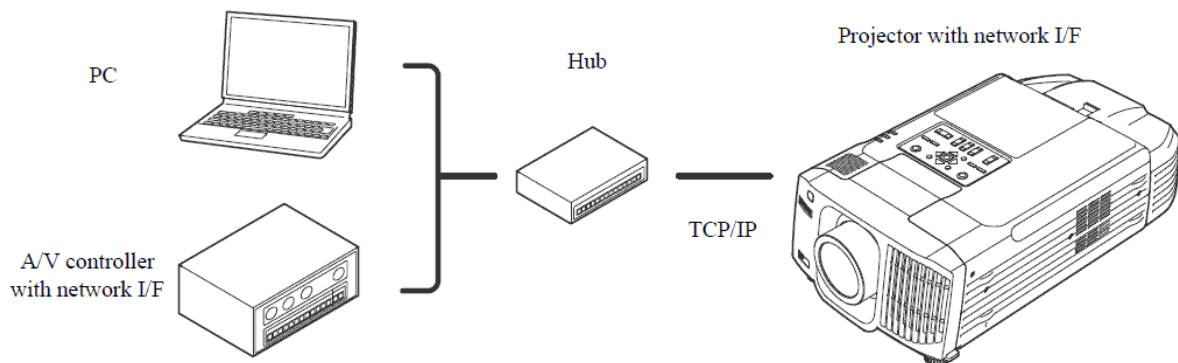
### \* USB connection

A USB interface can be used to control a projector. Refer to Appendix for details.



### \* Network connection

After establishing a TCP session, ESC/VP21 commands can be sent to projectors. Refer to ESC/VP.net protocol manual



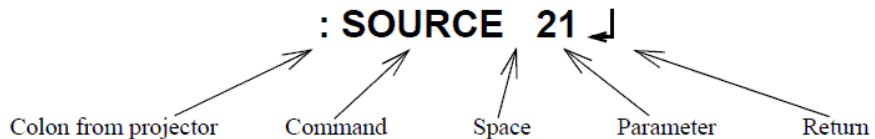
## 2. ESC/VP21 Command Formats

### 2.1. Set command format

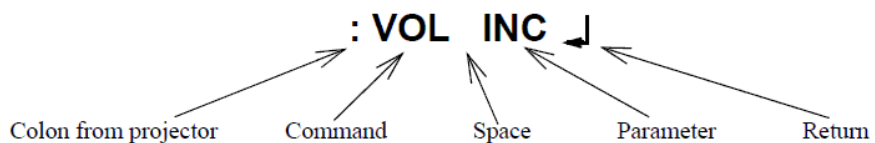
A set command consists of a command and a parameter. Projector returns a colon after executing the command. There are two types of parameters. One is fixed such as ON, OFF, or 21. Other is a step parameter such as INC, DEC or INIT.

INC: increments the parameter by one.  
 DEC: decrements the parameter by one.  
 INIT: initializes the parameter.

Set command example 1



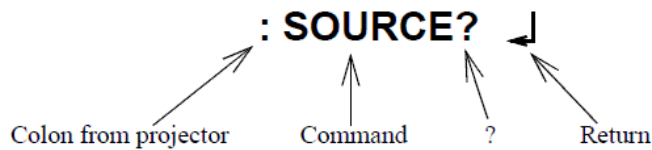
Set command example 2



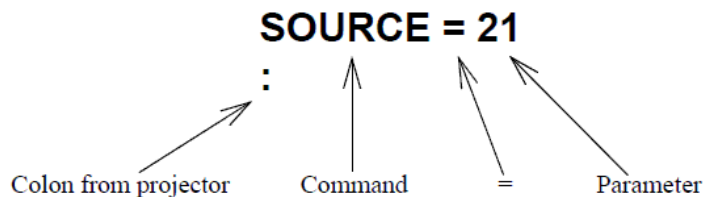
### 2.2. Get command format

A get command consists of a command and ?. Projector returns a response parameter after executing the command.

Get command example



Response parameter example



### 2.3. Null command

The null command is as command code of the return key code (Hex 0D). Projector returns a colon. The null command can be used to confirm that the projector is in operation.

### 2.4. Illegal commands

Projector returns "ERR" and a return key code (Hex 0D) and a colon when it receives invalid commands.

**ERR**  
 :

## 3. Applicable models

EMP-600/800/8110/811/820, 30/52, 720/730/520, 73/83/74/54, 735, 8300/9300, 7800/7850, S1/S1H, 61/81, 830/835, 740/745/732/737, 821/828, 7900/7950, S3/S4, 765/760, 755/750, 62/82/X3, 1715/1710/1705/1700, 6000/6100, 1815/1810, S5/X5/83/822, 260/280, 6010/6110, 400W/410W, 83+/822+, 1825/, EX90, G5350/G5300/G5150/G5100/G5200W/G5000, S6/X6/W6, 1735W/1730W/1725/1720, Z80000WU/Z8050W,S7/X7/W7, S8/X8/W8, 1830/1900/1910/1915/1920W/1925W, 440W, 450W/We/Wi, 460/e/i, 84H/He/L, 85H/HV,824H, 825H/HV, 826WH/WHV, 84+, 85+, 825+/826W+, S10/W10/X10, S9/X9/W9, S92/X92, 1760W/1770W/1775W/1750, G5950/G5900/G5800/G5650W/G5600/G5500/G5750WU/G5450WU, 455Wi/465i/465T, 93/95/96W/900/910W/905/915W/925

## 4. Projector state and commands

### 4.1. Standby state (Operation indicator is in orange)

When a projector is in a standby state, executable commands depends on projector models and standby configuration (network on, network off). Refer to the following table.

| Models  | Configuration        | Executable commands                           |
|---|----------------------|---|
| 61/81, 830/835, 821/828<br>740/745/732/737, 760/765<br>S3/S4, 765/760/755/750<br>62/82/X3(76), 6100/6000<br>1715/1710/1705/1700<br>1815/1810/1825<br>S5/X5/83/822/823/83+/822+,<br>260/280, 400W/410W<br>G5350/G5300/G5100/G5200W/<br>G5150/G5000, 6110/6010,<br>1735W/1730W/1725/1720<br>84/85/824/825/826W<br>Z8000WU/Z8050W<br>S7/X7/W7, S8/X8/W8<br>1900/1910/1915/1920W/1925W<br>84H/85H/825H/826H<br>440W/450W/460<br>, and later model | Network on/off       | PWR ON<br>PWR?<br>LAMP?                       |
| (note1)<br>7800/7850<br>8300/8350/9300  | Network on           | PWR ON, PWR?, SOURCE?,<br>Null command(note1) |
|   | 7900/7950<br>(note3) | Network off                                   |
| Others  | -                    |   |

EMP-61/81/830/835/740/745/821/828 returns "ERR" when it received commands other than PWR ON, PWR?, LAMP? and Null commands.

(note2) EMP-7800/7850 returns "ERR" when it received commands other than PWR ON, PWR?, SOURCE? and Null commands.

(note3) EMP-8300/9300 returns "ERR" when it received commands other than PWR ON, SOURCE xx, PWR?, SOURCE? and Null commands

All projectors returns "ERR" when the command format is not good. All projectors returns "ERR" when the projector is not ready to reply the command. A null command is command name for "ENTER" or "RETURE" key of the keyboard the reply is ":".

### 4.2. Power on state (Operation indicator is in green)

All commands are executable.

## 5. Command transmission timing

### 5.1. Standby state

1). For all mode with the standby configuration of "network on"

The first command can be sent anytime and the subsequent commands should be sent after receiving a colon from the projector.

2). Other than 1)

PWR ON can be sent any time.

### 5.2. Power on state

A command should be sent after receiving the colon of the previous command from the projector. The following is an exception. When the PWR OFF command is sent to 7800/7850/8300/9300 with the standby configuration of "network off", the subsequent command should be sent 10 seconds after the colon is received.

In case that you can not wait for the colon and send a command after receiving it, instead send a command after the execution time listed in the following table.

| Command         | Models  | Execution time   |
|-----------------|---|------------------|
| PWR ON          | Others  | 40seconds        |
|                 | 830/835(note5)<br>7900/7950/740/745   | 20seconds        |
|                 | 61/81/821/S3/S4   | 25seconds        |
| PWR OFF (note4) | 600/800/810/811/820   | 130seconds       |
|                 | Others  | 50seconds        |
|                 | 740745, 732/737, 821  | 20seconds        |
|                 | S3/S4, 765/760/755/750, 830/835<br>82, 6100, 1715/1710/1705/1700,<br>1815/1810/1825, X5/822/823,<br>400W/410W, G5350/G5100/G5200W<br>S6/X6/W6,1735W/1730W/1725/1720,<br>84/85/824/825/826W, and later model | 10seconds        |
| SOURCE (note3)  | -   | 5seconds (note2) |
| All others      | -   | 3seconds         |

(note1) When a projector receives the PWR ON command, it tries to ignite the lamp by activating the ballast unit. In case that the lamp fails to be ignited, it tries to ignite the lamp three times at maximum. When the lamp fails to be ignited three times, it is a lamp failure.

The projector returns a colon within 40, 70 and 100 seconds when successful in the first, second and third times respectively.

(note2) When the input vide sync signal is stable, a colon is returned within 5 seconds. However, it may take more than 5 seconds when the input video sync signal is unstable.

(note3) Projector initiates the process of the input video signal recognition when it receives a SOURCE command. If the signal of the video input is changing (for example, from SVGA to XGA by A/V controller) during the process of the input video signal recognition, the projector returns "ERR".

(note4) Projectors execute the PWR OFF command after they start completely.

(note5) Projectors might return "ERR" when "Quick Setup" and "Auto Focus" functions are set to ON.

### 5.3. Warning and abnormal cases

Projector executes commands normally while a warning indicator such as a high temperature warning is on.

Projector does not execute commands nor return a colon when the projector is in an abnormal state such as a lamp failure and abnormal high temperature.

As for EMP-6100/6000, EMP-1715/1710/1705/1700, EMP-1815/1810, EMP-S5/X5/83/822 and the following models, when an abnormal state is continued for 130 seconds after, PWR ON command becomes possible.

## 6. Error Status

A projector returns the error status when a projector receives "ERR?" command.

The following projectors can return the error status while the projectors become the error status after cooling down.

EMP-1700/1705/1710/1715, 6000/6100/6110/6010, 1815/1810/1825, S5/X5/83/  
EB-G5000/G5100/G5150/G5200W/G5300/G5350

And later models.

[The other models except the above models]

The models except the above models can return the error status while the projectors

The following table shows the return codes and the meaning of error status.

| Command                          | Return code  |
|----------------------------------|--|
| ERR?                             | 00 : There is no error or the error is recovered     |
|                                  | 01 : Fan error                                       |
|                                  | 03 : Lamp failure at power on                        |
|                                  | 04 : High internal temperature error                 |
|                                  | 06 : Lamp error                                      |
|                                  | 07 : Open Lamp cover door error                      |
|                                  | 08 : Cinema filter error                             |
|                                  | 09 : Electric dual-layered capacitor is disconnected |
|                                  | 0A : Auto iris error                                 |
|                                  | 0B : Subsystem Error                                 |
|                                  | 0C : Low air flow error                              |
|                                  | 0D : Air filter air flow sensor error                |
|                                  | 0E : Power supply unit error (Ballast)               |
|                                  | 0F : Shutter error                                   |
|                                  | 10 : Cooling system error (peltiert element)         |
| 11 : Cooling system error (Pump) |  |

## 7. Command list and applicable models

### 7.1. Command table 1 (Fixed parameter)

(O: Supported - : Not supported)

| Function         | Command      | 600/800/<br>810/811/<br>820 | 720/<br>730/<br>520/<br>735 | 30/<br>52 | 73/<br>53/<br>74/<br>54 | 8300/<br>8350/<br>9300 | 7800/<br>7850/<br>7900/<br>7950 | S1/<br>S1H | 61/<br>81 | 830/<br>835 |
|------------------|--------------|-----------------------------|-----------------------------|-----------|-------------------------|------------------------|---------------------------------|------------|-----------|-------------|
| Power            | PWR          | O                           | O                           | O         | O                       | O                      | O                               | O          | O         | O           |
| Input source     | SOURCE       | O                           | O                           | O         | O                       | O                      | O                               | O          | O         | O           |
| PinP setting     | PINP         | O                           | -                           | -         | -                       | O                      | O                               | -          | -         | O           |
| A/V Mute Screen  | MSEL         | O                           | O                           | O         | O                       | O                      | O                               | O          | O         | O           |
| Auto Keystone    | AUTOKEYSTONE | -                           | O                           | -         | O                       | -                      | O                               | -          | O         | O           |
| Aspect setting   | ASPECT       | -                           | -                           | -         | O                       | O                      | O                               | O          |           | O           |
| Color mode       | CMODE        | O                           | O                           | O         | O                       | O                      | O                               | O          | O         | O           |
| Lamp hour        | LAMP?        | O                           | O                           | O         | O                       | O                      | O                               | O          | O         | O           |
| Brightness level | LUMINANCE    | -                           | -                           | -         | O                       | O                      | O                               | -          | O         | O           |
| A/V Mute         | MUTE         | O                           | O                           | O         | O                       | O                      | O                               | O          | O         | O           |
| Freeze           | FREEZE       | -                           | O                           | O         | O                       | O                      | O                               | O          | O         | O           |
| Rear projection  | HREVERSE     | O                           | O                           | O         | O                       | O                      | O                               | O          | O         | O           |
| Ceiling          | VREVERSE     | O                           | O                           | O         | O                       | O                      | O                               | O          | O         | O           |
| Audio input      | AUDIO        | O                           | -                           | O         | O                       | -                      | O                               | -          | -         | -           |
| Key operation    | KEY          | O                           | O                           | O         | O                       | O                      | O                               | O          | O         | O           |

| Function               | Command      | 740/745<br>732/737<br>760/765<br>755/750 | 821<br>828 | S3<br>X3<br>S4 | 62<br>82 | 6100<br>6000 | 1715/<br>1710/<br>1705/<br>1700 | 1812/<br>1810/<br>1825 | S5/X5<br>83/822<br>83+/<br>822+<br>EX90 | 260<br>280  |
|------------------------|--------------|--|------------|----------------|----------|--------------|---------------------------------|------------------------|---|-------------|
| Power                  | PWR          | O  | O          | O              | O        | O            | O                               | O                      | O                                       | O           |
| Input source           | SOURCE       | O  | O          | O              | O        | O            | O                               | O                      | O                                       | O           |
| PinP setting           | PINP         | -  | -          | -              | -        | -            | -                               | -                      | -                                       | -           |
| A/V Mute Screen        | MSEL         | O  | O          | O              | O        | O            | O                               | O                      | O                                       | O           |
| Auto Keystone          | AUTOKEYSTONE | O  | O          |                | O        | -            | -                               | -                      | O<br>no S5                              | O<br>no 260 |
| Aspect setting         | ASPECT       | O  | -O         | O              | O        | O            | O                               | O                      | O                                       | O           |
| Color mode             | CMODE        | O  | O          | O              | O        | O            | O                               | O                      | O                                       | O           |
| Lamp hour              | LAMP?        | O  | O          | O              | O        | O            | O                               | O                      | O                                       | O           |
| Brightness level       | LUMINANCE    | O  | O          | O              | O        | O            | O                               | O                      | O                                       | O           |
| A/V Mute               | MUTE         | O  | O          | O              | O        | O            | O                               | O                      | O                                       | O           |
| Freeze                 | FREEZE       | O  | O          | O              | O        | O            | O                               | O                      | O                                       | O           |
| Rear projection        | HREVERSE     | O  | O          | O              | O        | O            | O                               | O                      | O                                       | O           |
| Ceiling                | VREVERSE     | O  | O          | O              | O        | O            | O                               | O                      | O                                       | O           |
| Audio input            | AUDIO        | -  | -          | -              | -        | O            | -                               | -                      | -                                       | -           |
| Key operation          | KEY          | O  | O          | O              | O        | O            | O                               | O                      | O                                       | O           |
| Closed Caption         | CCAP         | -  | -          | -              | -        | O            | -                               | -                      | -                                       | -           |
| Air filter alarm timer | FLWARNING    | -  | -          | -              | -        | O            | -                               | -                      | -                                       | -           |
| Air filter timer       | FLTIME       | -  | -          | -              | -        | O            | -                               | -                      | -                                       | -           |
| Air filter usage time  | FILTER       | -  | -          | -              | -        | O            | -                               | -                      | -                                       | -           |



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| Function               | Command      | G5350<br>G5300<br>G5200W<br>G5150<br>G5100<br>G5000 | S6/S62<br>X6/<br>W6 | 1735W/<br>1730W/<br>1725/<br>1720 | 84/85/<br>824/825<br>826W | Z8000WU<br>Z8050W | S7/X7/<br>W7<br>S8 | X8/ W8 | 1910/<br>1915/<br>1920W/<br>1925W |
|------------------------|--------------|---|---------------------|-----------------------------------|---------------------------|-------------------|--------------------|--------|-----------------------------------|
| Power                  | PWR          | ○   | ○                   | ○                                 | ○                         | ○                 | ○                  | ○      | ○                                 |
| Input source           | SOURCE       | ○   | ○                   | ○                                 | ○                         | ○                 | ○                  | ○      | ○                                 |
| PinP setting           | PINP         | -   | -                   | -                                 | -                         | -                 | -                  | -      | -                                 |
| A/V Mute Screen        | MSEL         | ○   | ○                   | ○                                 | ○                         | ○                 | ○                  | ○      | ○                                 |
| Auto Keystone          | AUTOKEystone | -   | ○<br>X6,W6<br>Only  | ○                                 | ○                         | -                 | -                  | ○      | ○                                 |
| Aspect setting         | ASPECT       | ○   | ○                   | ○                                 | ○                         | ○                 | ○                  | ○      | ○                                 |
| Color mode             | CMODE        | ○   | ○                   | ○                                 | ○                         | ○                 | ○                  | ○      | ○                                 |
| Lamp hour              | LAMP?        | ○   | ○                   | ○                                 | ○                         | ○                 | ○                  | ○      | ○                                 |
| Brightness level       | LUMINANCE    | ○   | ○                   | ○                                 | ○                         | ○                 | ○                  | ○      | ○                                 |
| A/V Mute               | MUTE         | ○   | ○                   | ○                                 | ○                         | ○                 | ○                  | ○      | ○                                 |
| Freeze                 | FREEZE       | ○   | ○                   | ○                                 | ○                         | ○                 | ○                  | ○      | ○                                 |
| Rear projection        | HREVERSE     | ○   | ○                   | ○                                 | ○                         | ○                 | ○                  | ○      | ○                                 |
| Ceiling                | VREVERSE     | ○   | ○                   | ○                                 | ○                         | ○                 | ○                  | ○      | ○                                 |
| Audio input            | AUDIO        | -   | -                   | -                                 | -                         | -                 | -                  | -      | -                                 |
| Key operation          | KEY          | ○   | ○                   | ○                                 | ○                         | ○                 | ○                  | ○      | ○                                 |
| Closed Caption         | CCAP         |   |                     |                                   |                           |                   |                    |        |                                   |
| Air filter alarm timer | FLWARNING    | -   | -                   | -                                 | -                         | -                 | -                  | -      | -                                 |
| Air filter timer       | FLTIME       | -   | -                   | -                                 | -                         | -                 | -                  | -      | -                                 |
| Air filter usage time  | FILTER       | -   | -                   | -                                 | -                         | -                 | -                  | -      | -                                 |
| Serial Number          | SNO?         | -   | -                   | -                                 | ○                         | ○                 | -                  | -      | ○                                 |

| Function               | Command      | 460/e/i<br>450W/e/i<br>440W<br>455Wi<br>465i<br>465T | 825H/HV,<br>826WH/W<br>HV, 85+,<br>825+,<br>824H<br>84H/He/L<br>84+ | S10 | W10/X10 | S9/X9/W9<br>S92/X92 | 1760W<br>1770W<br>1775W<br>1750<br>1750G | G5950<br>G5900<br>G5800<br>G5650W<br>G5600<br>G5500<br>G5750WU<br>G5450WU | 93<br>95<br>96W<br>900<br>910W<br>905<br>915W<br>925 |
|------------------------|--------------|--|---|-----|---------|---------------------|--|---|--|
| Power                  | PWR          | ○  | ○   | ○   | ○       | ○                   | ○  | ○   | ○  |
| Input source           | SOURCE       | ○  | ○   | ○   | ○       | ○                   | ○  | ○   | ○  |
| A/V Mute Screen        | MSEL         | ○  | ○   | ○   | ○       | ○                   | ○  | ○   | ○  |
| Auto Keystone          | AUTOKEystone | -  | ○   | -   | ○       | -                   | ○  | -   | ○  |
| Aspect setting         | ASPECT       | ○  | ○   | ○   | ○       | ○                   | ○  | ○   | ○  |
| Color mode             | CMODE        | ○  | ○   | ○   | ○       | ○                   | ○  | ○   | ○  |
| Lamp hour              | LAMP?        | ○  | ○   | ○   | ○       | ○                   | ○  | ○   | ○  |
| Brightness level       | LUMINANCE    | ○  | ○   | ○   | ○       | ○                   | ○  | ○   | ○  |
| A/V Mute               | MUTE         | ○  | ○   | ○   | ○       | ○                   | ○  | ○   | ○  |
| Freeze                 | FREEZE       | ○  | ○   | ○   | ○       | ○                   | ○  | ○   | ○  |
| Rear projection        | HREVERSE     | ○  | ○   | ○   | ○       | ○                   | ○  | ○   | ○  |
| Ceiling                | VREVERSE     | -  | ○   | ○   | ○       | ○                   | ○  | ○   | ○  |
| Audio input            | AUDIO        | ○  | -   | ○   | ○       | ○                   | ○  | ○<br>w/o<br>5800/5500   | ○  |
| Key operation          | KEY          | ○  | ○   | ○   | ○       | ○                   | ○  | ○   | ○  |
| Closed Caption         | CCAP         | ○  | ○   | -   | -       | ○                   | ○  | ○   | ○  |
| Air filter alarm timer | FLWARNING    | -  | -   | -   | -       | -                   | -  | -   | -  |
| Air filter timer       | FLTIME       | -  | -   | -   | -       | -                   | -  | -   | -  |
| Air filter usage time  | FILTER       | -  | -   | -   | -       | -                   | -  | -   | -  |
| Serial Number          | SNO?         | ○  | ○   | -   | -       | -                   | ○  | ○   | ○  |



| Function   | Command   | 825H/HV,<br>826WH/WHV,<br>85+, 825+,<br>824H<br>84H/He/L<br>84+ | S10 | W10<br>X10 | S9/X9/W9<br>S92/X92 | 1760W<br>1770W<br>1775W<br>1750<br>1750G | G5950<br>G5900<br>G5800<br>G5650W<br>G5600<br>G5500<br>G5750WU<br>G5450WU | 93<br>95<br>96W<br>900<br>910W<br>905<br>915W<br>925 |
|--|-----------|---|-----|------------|---------------------|--|---|--|
| Adjust the volume                                      | VOL       | ○   | ○   | ○          | ○                   | ○  | ○<br>w/o<br>5800/5500   | ○  |
| Adjust the treble setting<br>(Adjust the tone setting) | TONEH     | -   | -   | -          | -                   | -  | -   | -  |
| Adjust the bass setting                                | TONEL     | -   | -   | -          | -                   | -  | -   | -  |
| Set brightness   | BRIGHT    | ○   | ○   | ○          | ○                   | ○  | ○   | ○  |
| Set contrast   | CONTRAST  | ○   | ○   | ○          | ○                   | ○  | ○   | ○  |
| Set tint   | TINT      | ○   | ○   | ○          | ○                   | ○  | ○   | ○  |
| Set vertical keystone value                            | VKEYSTONE | ○   | ○   | ○          | ○                   | ○  | ○   | ○  |
| Set horizontal keystone value                          | HKEYSTONE | -   | -   | -          | -                   | ○  | ○   | -  |
| Adjust the zoom  | ZOOM      | -   | ○   | -          | ○<br>S9 only        | -  | -   | -  |
| Adjust the focus                                       | FOCUS     | -   | -   | -          | -                   | ○<br>1775W<br>only                       | -   | -  |
| Adjust the vertical lens shift                         | LENS      | -   | -   | -          | -                   | -  | -   | -  |
| Adjust the horizontal lens shift                       | HLENS     | -   | -   | -          | -                   | -  | -   | -  |

8. Command Details

8.1. Command table 1 (Fixed parameter)

| Set commands | Get commands                              | Parameter for set<br>(Return code for get)   | Models  | Function  |
|--------------|---|--|---|---|
| PWR xx       | -   | ON   | All models  | Power ON/OFF  |
|              | -   | OFF  |   |   |
|              | PWR?                                      | 00: "Standby" as the time of "Network off"   | 61/81, 830/835, 740/745/732/737<br>760/765, 821/828, 7900/7950. S3/S4<br>755/750, 400W/410W, 6100/6000,<br>6110/6010, 1715/1710/1705/1700<br>1815/1810/1825, S5/X5/83/822/83+/822+<br>G5350/G5300/G5150/<br>G5100/G5000/G5200W<br>S6/S62/X6/W6, 1735W/1730W/1725/1720<br>84/85/824/825/826W<br>Z8000WU/Z8050W<br>S7/SX7/W7/S8/X8/W8<br>1900/1910/1915/1920W/1925W/1830<br>440W/450W/460, 84H/He/L, 85H/HV,824H,<br>825H/HV, 826WH/WHV, 84+, 85+,<br>825+,826W+<br>S10/X10/W10, S9/X9/W9/S92/X92<br>1760W/1770W/1775W/1750,<br>G5950/G5900/G5800/G5650W/G5600<br>G5500/G5750WU/G5450WU,455Wi/465i/465T,<br>93/95/96W/900/910W/905/915W/925 | Return the "Standby"<br>at the time of "Network<br>off" status check. |
|              |   | 01: Power on   | All models  | Return the power<br>status check                                      |
|              |   | 02: Warm up  | 6100/6000, 6110/6010,<br>1715/1710/1705/1700, 1815/1810/1825<br>S5/X5/83/822/83+/822+, 260/280,<br>S6/S62/X6/W6<br>G5350/G5300/G5150/G5100/G5000/G5200W<br>1735W/1730W/1725/1720,<br>84/85/824/825/826W<br>Z8000WU/Z8050W, S7/X7/W7/S8/X8/W8<br>1900/1910/1915/1920W/1925W/1830<br>440W/450W/460, 84H/He/L, 85H/HV,824H,<br>825H/HV, 826WH/WHV, 84+, 85+,<br>825+,826W+<br>S10/X10/W10, S9/X9/W9/S92/X92<br>1760W/1770W/1775W/1750,<br>G5950/G5900/G5800/G5650W/G5600<br>G5500/G5750WU/G5450WU,455Wi/465i/465T,<br>93/95/96W/900/910W/905/915W/925  | Return the warm up<br>status check                                    |
|              | 03: Cooling down                          | 6100/6000, 6110/6010,<br>1715/1710/1705/1700, 1815/1810/1825<br>S5/X5/83/822/83+/822+, 260/280,<br>S6/S62/X6/W6<br>G5350/G5300/G5150/G5100/G5000/G5200W<br>1735W/1730W/1725/1720,<br>84/85/824/825/826W<br>Z8000WU/Z8050W, S7/X7/W7/S8/X8/W8<br>1900/1910/1915/1920W/1925W/1830<br>440W/450W/460, 84H/He/L, 85H/HV,824H,<br>825H/HV, 826WH/WHV, 84+, 85+,<br>825+,826W+<br>S10/X10/W10, S9/X9/W9/S92/X92<br>1760W/1770W/1775W/1750,<br>G5950/G5900/G5800/G5650W/G5600<br>G5500/G5750WU/G5450WU,455Wi/465i/465T,<br>93/95/96W/900/910W/905/915W/925                               | Return the cooling<br>down status check   |   |
|              | 04: "Standby" at the time of "Network on" | 7800/7850/7900/7950<br>8300/8350/9300, 61/81<br>830/835, 740/745, 760/765, 821/828<br>755/750, 82, 6100/6000, 1715/1705<br>1815/1810/1825, 83/822/83+/822+<br>G5350/G5300/G5150/G5100/G5000/G5200W<br>1735W/1725, 84/85/824/825/826W<br>Z8000WU/ Z8050W, S7/X7/W7/S8/X8/W8<br>1900/1910/1915/1920W/1925W/1830<br>440W/450W/460, 84H/He/L, 85H/HV,824H,<br>825H/HV, 826WH/WHV, 84+, 85+,<br>825+,826W+<br>S10/X10/W10, S9/X9/W9/S92/X92<br>1760W/1770W/1775W/1750,<br>G5950/G5900/G5800/G5650W/G5600<br>G5500/G5750WU/G5450WU,455Wi/465i/465T,<br>93/95/96W/900/910W/905/915W/925 | Return the "Standby"<br>at the time of "Network<br>on " status check  |   |

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|  |  |                      |   |  |
|--|--|----------------------|---|--|
|  |  | 05: Abnormal standby | 6100/6000, 1715/1710/1705/1700<br>1815/1810/1825, X5/822/823<br>G5350/G5300/G5150/G5100/G5000/G5200W<br>S6/S62/X6/W6, 1735W/1730W/1725/1720<br>84/85/824/826W<br>Z8000WU/ Z8050W, S7/X7/W7/S8/X8/W8<br>1900/1910/1915/1920W/1925W/1830<br>440W/450W/460, 84H/He/L, 85H/HV,824H,<br>825H/HV, 826WH/WHV, 84+, 85+,<br>825+,826W+<br>S10/X10/W10, S9/X9/W9/S92/X92<br>1760W/1770W/1775W/1750,<br>G5950/G5900/G5800/G5650W/G5600<br>G5500/G5750WU/G5450WU,455Wi/465i/465T,<br>93/95/96W/900/910W/905/915W/925 | After the fixed time passes, an abnormal standby is returned after this machine is abnormally generated. |
|--|--|----------------------|---|--|

| Set commands   | Get commands | Parameter for set<br>(Return code of get)   | Models  | Function  |
|--|--------------|---|---|---|
| SOURCE xx  | SOURCE?      | 00-FF<br>Refer the "Source code" of attached file "ESC/VP21 all commands list".   | All mode that the ESC/VP21 support.   | Change the source   |
| PINP<br>[source posX posy size]<br>(Ex)<br>PINP 42_1_2_1 | —            | Source: Video source of sub-screen (Video or S-video)<br>posX: X coordinate (0-15) of sub-screen from left Horizontal is divided into 16 (default value is used when omitted)<br>posY: Y coordinate (0-15) of sub-screen from top vertical is divided into 16 (default value is used when omitted)<br>size: Size of sub-screen 0-4 incremental zoom (default value is used when 0 or omitted) | 600/800/810/811/820<br>7800/7850<br>8300/8350/9300<br>830/835*<br>7900/7950   | Set PinP<br>**830/835" cannot specify a sub-screen. Size should put in "0". |
| PINP xx  | —            | OFF   |   | End PinP  |
| MSEL xx  | MSEL?        | 00: Black screen<br>01: Blue screen<br>02: User logo  | 600/800/810/811/820<br>720/730/520,/735<br>7800/7850, 8300/9300<br>61/81, 830/835, 740/745<br>821, 7900/7950, 732/737<br>S3/S4, 760/765, 755/750<br>6100/6000, 6110/6010,<br>1715/1710/1705/1700,<br>1815/810/1825<br>S5/X5/83/822/83+/822+, 260/280,<br>G5350/G5300/G5150/G5100/G5200W/<br>G5000, S6/S62/X6/W6<br>1735W/1730W/1725/1720<br>84/85/824/825/826W<br>S7/X7/W7/S8/X8/W8<br>1915/1925W/1910/1920W<br>440W/450W/460, 84H/He/L,<br>85H/HV,824H, 825H/HV,<br>826WH/WHV, 84+, 85+,<br>825+,826W+, 455Wi/465i/465T,<br>S10/X10/W10, S9/X9/W9/S92/X92<br>1760W/1770W.1775W/1750/1750<br>G<br>G5950/G5900/G5800/G5650W/G5 | Set A/V mute Screen   |

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|                    |               |   |  |                                |
|--------------------|---------------|---|--|--------------------------------|
|                    |               |   | 600<br>G5500/G5750WU/G5450WU,455<br>Wi/465i/465T,<br>93/95/96W/900/910W/905/915W/9<br>25   |                                |
| AUTOKEYSTONE<br>xx | AUTOKEYSTONE? | ON: Auto keystone ON<br>OFF: Auto keystone OFF  | 73/53/74/54, 735<br>7800/7850, 61/81, 830/835<br>740/745/732/737, 821/828<br>7900/7950, 760/765, 755/750,<br>62/82, 1715/1710/1705/1700<br>1815/1810/1825<br>X5/822/83/83+/822+, 280, X6/W6<br>1735W1730W1725/1720<br>84/85/824/825/826W, X8/W8,<br>1915/1925W/1910W/1920W/1830<br>X10/W10, X9/W9/X92<br>93/95/96W/900/910W/905/915W/9<br>25 | Set auto keystone on<br>or off |
| ASPECT xx          | ASPECT?       | 10:4:3<br>12: zoom 4:3<br>20: 16:9  | 74/54, 7800/7850<br>8300/9300<br>S1/S1H, 830/835<br>7900/7950  | Set aspect ratio               |
|                    |               | 10:4:3<br>20: 16:9  | 73/53, 735, 740/745, 732/737,<br>S3/S4, 760/765, 755/750, 82,<br>1715/1710/1705/1700   |                                |
|                    |               | Input signal is PC<br>00: Normal<br>10: 4:3<br>20: 16:9<br>Input signal is Component/S-Video.<br>21: 16:9 (Up)<br>22: 16:9 (Down) | 6100/6000, 1815/1810/1825<br>S5/X5/822/83/822+/83+<br>S6/X6  |                                |
|                    |               | 00: Normal<br>20: 16:9<br>30: Auto<br>40: Full<br>50: Zoom<br>60: Through/Real  | G5200W<br>W6/W7/W8<br>1925W<br>400W/410W<br>Z8000WU/Z8050W<br>1760W/1770W/1775W<br>W10<br>G5650W/G5450WU/G5750WU<br>96W/910W/915W  |                                |
|                    |               | 00: Normal<br>10: 4:3<br>20: 16:9<br>60: Real   | G5000  |                                |
|                    |               | 00: Normal<br>20: 16:9<br>40: Full<br>50: Zoom<br>60: Through/Real  | 1735W/1730W<br>826W<br>1920W<br>440W/450W/450WT/450Wi<br>W8/W9<br>455Wi  |                                |
|                    |               | Input signal is PC<br>00: Normal<br>10: 4:3<br>20: 16:9<br>Input signal is video<br>10: 4:320: 16:9                               | 84/85/824/825<br>S7/X7/S8/<br>1910   |                                |
|                    |               | 00: Normal<br>10: 4:3<br>20: 16:9   | 1720/1725<br>824/84/85/825<br>84H/He/L, 85H/HV,824H,<br>825H/HV<br>1830/1900/1910<br>S8  |                                |

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|          |        |  |  |                |
|----------|--------|--|--|----------------|
|          |        |  | 460/460T/460i/460e 1750<br>S9/S10/X9/S92/X92<br>455Wi/465i/465T      |                |
|          |        | 00: Normal<br>10: 4:3<br>20: 16:9<br>30: Auto<br>60: Real  | G5100/G5300/ G5350<br>G5500/G5600/G5800/G5900/<br>G5950              |                |
|          |        | 00: Normal<br>10: 4:3<br>20: 16:9<br>30: Auto  | 1915<br>X8/X10<br>93/95/900/905/925                                  |                |
| CMODE xx | CMODE? | 01: sRGB<br>02: Normal<br>03: Meeting<br>04: Presentation<br>05: Theatre<br>06: Game   | 30/52, 73/53, 720/730/520<br>735, 600/800/810/811/820                | Set color mode |
|          |        | 01: sRGB<br>04: Presentation<br>05: Theatre<br>08: Dynamic   | 7800/7850<br>8300/9300   |                |
|          |        | 01: sRGB<br>04: Presentation<br>05: Theatre<br>06: Living Room<br>08: Dynamic  | S1/S1H<br>830/835<br>7900/7950                                       |                |
|          |        | 01: sRGB<br>04: Presentation<br>05: Theatre<br>08: Dynamic<br>11: Black Board  | 54/74<br>61/81<br>740/745/732/737<br>821/828, 760/765<br>755/750     |                |
|          |        | 01: sRGB<br>04: Presentation<br>05: Theatre<br>06: Game<br>08: Sports<br>11: Black Board<br>14: Photo                                    | S3/S4<br>62/82<br>6100/6000<br>S5/X5/83/822/83+/822+/EX90<br>260/280 |                |
|          |        | 01: sRGB<br>04: Presentation<br>05: Theatre<br>06: Game<br>08: Sports<br>10: Custom<br>11: Black Board<br>14: Photo                      | 1715/1710/1705/1700<br>1815/1810/1825                                |                |
|          |        | 01: sRGB<br>03: Presentation2<br>04: Presentation<br>05: Theatre<br>06: Game<br>08: Sports<br>10: Custom<br>11: Black Board<br>14: Photo | 400W/410W<br>G5350/G5300/G5150/<br>G5100/G5200W/G5000<br>6110/6010   |                |

| Set commands | Get commands | Parameter for set<br>(Return code of get)   | Models  | Function       |
|--------------|--------------|---|---|----------------|
| CMODE xx     | CMODE?       | 01: sRGB<br>03: Presentation2<br>04: Presentation<br>05: Theatre<br>06: Dynamic<br>08: Sports<br>10: Custom<br>11: Black Board<br>14: Photo | 1735W/1730W/1725/1720   | Set color mode |
|              |              | 01: sRGB<br>03: Presentation2<br>04: Presentation<br>05: Theatre<br>06: Dynamic<br>08: Sports<br>11: Black Board<br>14: Photo               | X6/W6   |                |
|              |              | 01: sRGB<br>04: Presentation<br>05: Theatre<br>06: Dynamic<br>08: Sports<br>11: Black Board<br>12: White Board<br>14: Photo                 | 84/85/824/825/826W  |                |
|              |              | 01: sRGB<br>04: Presentation<br>05: Theatre<br>06: Dynamic<br>08: Sports<br>10: Custom<br>14: Photo   | Z8000WU/Z8050W  |                |
|              |              | 01: sRGB<br>04: Presentation<br>05: Theatre<br>06: Dynamic<br>08: Sports<br>11: Black Board<br>12: White Board<br>14: Photo                 | S7/X7/W7/S8/X8/W8<br>440W/450W/460, 455Wi/465i/465T,<br>84H/He/L, 85H/HV,824H,<br>825H/HV, 826WH/WHV, 84+, 85+,<br>825+,826W+<br>S10/X10/W10, S9/X9/W9/S92/X92<br>93/95/96W/900/910W/905/<br>915W/925 |                |
|              |              | 01: sRGB<br>04: Presentation<br>05: Theatre<br>06: Dynamic<br>08: Sports<br>10: Custom<br>11: Black Board<br>12: White Board<br>14: Photo   | 1830/1900/1910/1915/<br>1925W/1920W<br>1760W/1770W.1775W/1750/1750G   |                |
|              |              | 01: sRGB<br>04: Presentation<br>05: Theatre<br>06: Dynamic<br>08: Sports<br>0F: DICOM SIM<br>10: Custom<br>14: Photo                        | G5950/G5900/G5800/G5650W/<br>G5600/G5500/G5750WU/G5450WU  |                |



| Set commands | Get commands | Parameter for set<br>(Return code of get)  | Models   | Function   |
|--------------|--------------|--|--|--|
| -            | LAMP?        | 0 ~ 65535<br>Z8000WU/Z8050W:<br>0~65535_065535(*)  | All models   | Return the lamp hour<br>*Z8000WU/Z8050W<br>have 2 lamps.         |
| LUMINANCE xx | LUMINANCE?   | 00: High<br>01: Low  | 73/53/74/54, 7800/7850<br>8300/8350/9300, 61/81<br>830/835, 740/745, 821<br>7900/7950, 732/737, S3/S4<br>760/765, 755/750, 82, 6100<br>1715/1710/1705/1700<br>1815/1810/1825, X5/822/823<br>G5350/G5100/G5200W<br>S6/X6/W6<br>1735W/1730W/1725/1720<br>84/85/824/825/826W  | Ste brightness level   |
|              |              | 00: Normal<br>01: Eco  | Z8000WU/Z8050W<br>S7/X7/W7/S8/X8/W8<br>1910/1915/1920W/1925W<br>440W/450W/460<br>84H/He/L, 85H/HV,824H, 825H/HV,<br>826WH/WHV, 84+, 85+,<br>825+,826W+, 455Wi/465i/465T,<br>S10/X10/W10, S9/X9/W9/S92/X92<br>G5950/G5900/G5800/G5650W/<br>G5600/G5500/G5750WU/G5450WU<br>1760W/1770W.1775W/1750/1750G<br>93/95/96W/900/910W/905/915W/925 |  |
| MUTE xx      | MUTE?        | ON: A/V Mute ON<br>OFF: A/V Mute OFF   | All models   | Set A/V mute.<br>(Set shutter function<br>in Z8000WU,<br>Z8050W) |
| FREEZE xx    | FREEZE?      | ON: FREEZE ON<br>OFF: FREEZE OFF   | All models except 600/800/810<br>/811/820  | Set freeze   |
| HREVERSE xx  | HREVERSE?    | ON: Rear ON<br>OFF: Rear OFF   | All models   | Set rear projection  |
| VREVERSE xx  | VREVERSE?    | ON: Ceiling ON<br>OFF: Ceiling OFF   | All models   | Set ceiling projection   |
| AUDIO xx     | AUDIO?       | 01: Audio 1 (Computer)<br>02: Audio 2 (Video)<br>03: USB                                   | 600/800/810/811/820  | Set audio input  |
|              |              | 01: Audio 1 (Computer)<br>02: Audio 2 (Video)  | 30/52<br>73/83/74/54   |  |
|              |              | 00: Audio 1 (Computer/DVI)<br>01: Audio 2 (Video)<br>02: Audio 3 (DVI)                     | 7800/7850<br>7900/7950   |  |
|              |              | 01: Audio 1<br>02: Audio 2   | 6100   |  |
|              |              | 01: Audio 1(Internal speaker)<br>02: Audio 2(External output)                              | 1715/1705<br>1735W/1725  |  |
| KEY xx       | -            | 4A   | All models except 600/800/810<br>/811/820  | Perform "Auto-sync"<br>of a<br>remote control button             |
|              |              | 47   |  |  |
| CCAP xx      | CCAP?        | 00: OFF<br>11: CC1<br>12: CC2<br>13: CC3<br>14: CC4<br>21: TEXT1<br>22: TEXT2<br>23: TEXT3 | 6100/6110  |  |

|              |            |   |  |   |  |
|--------------|------------|---|--|---|--|
|              |            | 24: TEXT4   |  |   |  |
|              |            | 00: OFF<br>11: CC1<br>12: CC2   | 83/822/83+/822+<br>400W/410W<br>G5350/G5300/G5150/G5100/<br>G5000/G5200W<br>84/85/824/825/826W<br>Z8000WU/Z8050W<br>S7/X7/W7<br>1830/1900/1910/1915/<br>1920W/1925W<br>84H/He/L, 85H/HV,824H, 825H/HV,<br>826WH/WHV, 84+, 85+, 825+,826W+<br>S9/X9/W9/S92/X92<br>G5950/G5900/G5800/G5650W/<br>G5600/G5500/G5750WU/G5450WU<br>1760W/1770W.1775W/1750/1750G<br>93/95/96W/900/910W/905/915W/925 |   |  |
| FLWARNING xx | FLWARNING? | 00: ON<br>01: OFF   | 6100/6110  | Display setting of warning time of Air filter   |  |
| FLTIME x1 x2 |            | x1: Object of setting<br>00: All objects<br>01: Object 1<br>02; Object 2<br>03: Object 3<br>x2: Set time<br>0: 1~ 100(100H)<br>1: 101~ 200 (200H)<br>I<br>14: 1401 ~ 9999 (1500H)*  | 6100/6110  | Setting of use time of air filter<br><br>*The maximum value depends on the kind of the air filter and the upper bound value is different. |  |
|              | FILTER?    | 0 ~ 65535   | 6100   | Acquisition of use time of air filter   |  |
| ZOOM         |            | MIN: Adjusts it to Tel side continuously.<br>MAX: Adjusts it to Wide side continuously.<br>INC: Adjusts it to Wide side by one step.<br>DEC: Adjusts it to Tel side by one step.<br>OFF: A continuous adjustment is stopped.  | Z8000WU/Z8050W   | Electric zoom is adjusted.  |  |
|              | ZOOM?      | VOID  |  |   |  |
| FOCUS        |            | MIN: Adjusts it to short focus side continuously.<br>MAX: Adjusts it to long focus side continuously<br>INC: Adjusts it to long focus side by one step.<br>DEC: Adjusts it to short focus side by one step<br>OFF: A continuous adjustment is stopped.                    | Z8000WU/Z8050W<br>1775W  | Electric focus is adjusted.   |  |
|              | FOCUS?     | VOID  |  |   |  |
| LENS         |            | MIN: Adjusts it to lower side continuously.<br>MAX: Adjusts it to up side continuously<br>INC: Adjusts it to up side by one step.<br>DEC: Adjusts it to lower side by one step<br>OFF: A continuous adjustment is stopped.<br>INIT: The lens position is moved to center. | Z8000WU/Z8050W   | Vertical lens shift is adjusted.  |  |
|              | LENS?      | VOID  |  |   |  |

|       |        |   |                |                                    |
|-------|--------|---|----------------|------------------------------------|
| HLENS |        | MIN: Adjusts it to left side continuously.<br>MAX: Adjusts it to right side continuously<br>INC: Adjusts it to right side by one step.<br>DEC: Adjusts it to left side by one step<br>OFF: A continuous adjustment is stopped.<br>INIT: The lens position is moved to center. | Z8000WU/Z8050W | Horizontal lens shift is adjusted. |
|       | HLENS? | VOID  |                |                                    |

8.2. Command table 2 (Step parameter)

| Set commands | Initial value | Steps    | Models   | Function             |
|--------------|---------------|----------|--|----------------------|
| VOL xx       | 15            | 0 ~ 31   | 600/800/810/811/820<br>9300/8350/9300<br>7800/7850/7900/7950   | Set the volume level |
|              | 10            | 0 ~ 20   | 520/720/730/735, 30/52<br>73/53/74/54, S1/S1H, 61/81<br>740/745/732/737/760/765/755/750<br>821, S3/S4, 82, 6100<br>1715/1710/1705/1700<br>1815/1810/1825, X5/822/823<br>G5350/G5100/G5200W<br>400W/410W, S6/X6/W6<br>84/85/824/825/826W<br>1830/1900/1910/1915/<br>1920W/1925W<br>440W/450W/460, 455Wi/465i/465T,<br>84H/He/L, 85H/HV,824H, 825H/HV,<br>826WH/WHV, 84+, 85+, 825+,826W+<br>G5950/G5900/G5800/G5650W/<br>G5600/G5500/G5750WU/G5450WU<br>1760W/1770W.1775W/1750/1750G<br>93/95/96W/900/910W/905/915W/925 |                      |
|              | 15            | 0 ~ 30   | 830/835  |                      |
|              | 15            | 0 ~ 20   | 1735W/1730W/1725/1720  |                      |
|              | 5             | 0 ~ 10   | S7/X7/W7, S8/X8/W8<br>S10/X10/W10, S9/X9/W9/S92/X92  |                      |
|              |               |          |  |                      |
| TONEH xx     | 0             | -6 ~ 6   | 600/800/910/811/820<br>8300/8350/9300, 830/835<br>7800/7850/7900/7950  | Set bass level       |
|              |               | -8 ~ 8   | 520/720/730/735, 30/52   |                      |
| TONEL xx     | 0             | -6 ~ 6   | 600/800/910/811/820<br>8300/8350/9300<br>7800/7850/7900/7950   | Set bass level       |
| BRIGHT xx    | 0             | -64 ~ 64 | 520/720/730/735<br>30/52, 73/53/74/54  | Set brightness level |
|              |               | -32 ~ 32 | 61/81, 821   |                      |
|              |               | -30 ~ 30 | 600/800/910/811/820<br>8300/8350/9300, 830/835<br>7800/7850/7900/7950  |                      |
|              |               | -24 ~ 24 | S4, 6100, 1715/1710/1705/1700<br>1815/1810/1825, X5/822/823<br>G5350/G5100/G5200W<br>400W/410W, S6/X6/W6<br>1735W/1730W/1725/1720<br>84/85/824/825/826W<br>Z8000WU/Z8050W<br>S7/X7/W7, S8/X8/W8<br>1910/1915/1920W/1925W<br>440W/450W/460/455Wi/465i/465T,<br>84H/He/L, 85H/HV,824H, 825H/HV,<br>826WH/WHV, 84+, 85+, 825+,826W+   |                      |

|             |   |          |   |                    |
|-------------|---|----------|---|--------------------|
|             |   |          | S10/X10/W10, S9/X9/W9/S92/X92<br>G5950/G5900/G5800/G5650W/<br>G5600/G5500/G5750WU/G5450WU<br>1760W/1770W.1775W/1750/1750G<br>93/95/96W/900/910W/905/915W/925  |                    |
|             |   | -20 ~ 20 | S1/S1H  |                    |
|             |   | -12 ~ 12 | 740/745/732/737/760/765/755/750<br>S3, 82   |                    |
| CONTRAST xx | 0 | -32 ~ 32 | 520/720/730/735, 61/81, 821<br>30/52, 73/53/74/54<br>740/745/732/737/760/765/755/750  | Set contrast level |
|             |   | -30 ~ 30 | 600/800/910/811/820<br>8300/8350/9300, 830/835<br>7800/7850/7900/7950<br>S1/S1H,  |                    |
|             |   | -24 ~ 24 | S4, 6100, 1715/1710/1705/1700<br>1815/1810/1825, X5/822/823<br>G5350/G5100/G5200W<br>400W/410W, S6/X6/W6<br>1735W/1730W/1725/1720<br>84/85/824/825/826W<br>Z8000WU/Z8050W<br>S7/X7/W7, S8/X8/W8<br>1910/1915/1920W/1925W<br>440W/450W/460/455Wi/465i/465T,<br>84H/He/L, 85H/HV,824H, 825H/HV,<br>826WH/WHV, 84+, 85+, 825+,826W+<br>S10/X10/W10, S9/X9/W9/S92/X92<br>G5950/G5900/G5800/G5650W/<br>G5600/G5500/G5750WU/G5450WU<br>1760W/1770W.1775W/1750/1750G<br>93/95/96W/900/910W/905/915W/925  |                    |
|             |   | -12 ~ 12 | S3, 82  |                    |
| TINT xx     | 0 | -32 ~ 32 | 30/52, 73/53/74/54<br>S1/S1H, 61/81, S3, 82<br>740/745/732/737/760/765/755/750<br>S4, 6100, 1715/1710/1705/1700<br>1815/1810/1825, X5/822/823<br>G5350/G5100/G5200W<br>400W/410W, S6/X6/W6<br>1735W/1730W/1725/1720<br>84/85/824/825/826W<br>Z8000WU/Z8050W<br>S7/X7/W7, S8/X8/W8<br>1910/1915/1920W/1925W<br>440W/450W/460/455Wi/465i/465T<br>84H/He/L, 85H/HV,824H, 825H/HV,<br>826WH/WHV, 84+, 85+, 825+,826W+<br>S10/X10/W10, S9/X9/W9/S92/X92<br>G5950/G5900/G5800/G5650W/<br>G5600/G5500/G5750WU/G5450WU<br>1760W/1770W.1775W/1750/1750G<br>93/95/96W/900/910W/905/915W/925 | Set tint           |
|             |   | -15 ~ 15 | 600/800/910/811/820<br>520/720/730/735<br>8300/8350/9300, 830/835   |                    |
|             |   | -5 ~ 5   | 7800/7850/7900/7950   |                    |

|              |   |          |  |                               |
|--------------|---|----------|--|-------------------------------|
| VKEYSTONE xx | 0 | -90 ~ 90 | 1815/1810/1825<br>1760W/1770W.1775W/1750/1750G   | Set vertical keystone value   |
|              |   | -80 ~ 80 | G5350/G5300/G5150/G5100/G5200W<br>G5950/G5900/G5800/G5650W/<br>G5600/G5500   |                               |
|              |   | -64 ~ 64 | 8300/8350/9300, 830/835<br>7800/7850/7900/7950   |                               |
|              |   | -60 ~ 60 | S3/S4, 82, 6100, X5/822/823<br>1715/1710/1705/1710<br>1735W/1730W/725/1720<br>S6/X6/W6, 84/85/824/825/826W<br>Z8000WU/Z8050W<br>S7/X7/W7, S8/X8/W8<br>1910/1915/1920W/1925W<br>84H/He/L, 85H/HV,824H, 825H/HV,<br>826WH/WHV, 84+, 85+, 825+,826W+<br>S10/X10/W10, S9/X9/W9/S92/X92<br>93/95/96W/900/910W/905/915W/925<br>G5750WU/G5450WU |                               |
|              |   | -60 ~ 59 | 600/800/910/811/820  |                               |
|              |   | -30 ~ 30 | 520/720/730/735, 30/52   |                               |
|              |   | -10 ~ 10 | 440W/450W/460/455Wi/465i/465T  |                               |
| HKEYSTONE xx | 0 | -64 ~ 64 | 830/835  | Set horizontal keystone value |
|              |   | -60 ~ 60 | 1815/1810/1825<br>1925W/1915<br>1760W/1770W.1775W/1750/1750G<br>93/95/96W/900/910W/905/915W/925  |                               |
|              |   | -40 ~ 40 | G5350/G5100/G5200W<br>Z8000WU/Z8050W<br>G5950/G5900/G5800/G5650W/<br>G5600/G5500/G5750WU/G5450WU   |                               |
|              |   | -39 ~ 39 | 7800/7850/7900/7950  |                               |
|              |   | -29 ~ 29 | 600/800/910/811/820  |                               |

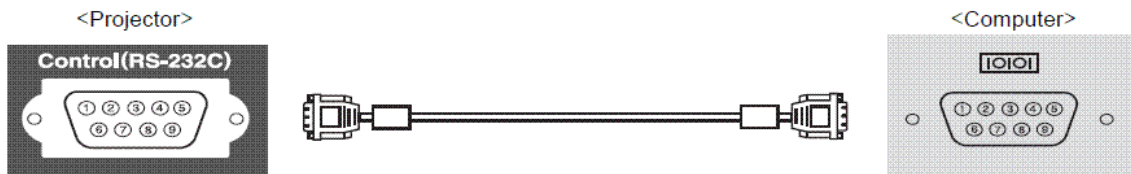
## 9. Appendix

### 9.1. Communication specification

A projector and a computer can be connected using a serial or USB port. The projector can be remotely controlled by sending commands to the projector.

Serial connection (600/800/810/811/820, 30/52, 73/53/74/54, 8300/9300, 7800/7850, S1/S1H, 61/81, 830/835/821, 828/7900/7950, 62/82,6100/6000, 1815/1810/1825, 83/822/83+/822+, 260/280, 6110/6010, 400W/410W, G5350/G5300/G5200W/G5150/G5100/G5000, 84/85/824/825/826W, Z800WU/Z8050W, 1830/1900/1910/1915/1920W/1925W, 440W/450W/450We/450Wi/460/460e/460i, 84H/84He/84L/85H/85HV/824H/825H/825HV/826WH/826WHV, G5650W/C450WH/G5950/C520XH/G5900/C520XB/700KG/G5600/C450XB/600KG/G5800/C520XE/G5500/C450XE/G5750WU/G5450WU, 455Wi/465i/465T, 93/95/96W/900/910W/905/915W/925)

- Select RS-232C at Advanced Setting of the Menu.
- Communication condition
  - Baud rate : 9600bps
  - Data length : 8 bits
  - Parity : No
  - Stop bit : 1 bit
  - Flow control : No
- Connector : D-Sub 9pin
- Projector input : Control(RS-232C)



| Projector |   | PC serial cable | Computer |     |
|-----------|---|-----------------|----------|-----|
| GND       | 5 | —————           | 5        | GND |
| RD        | 2 | ←—————          | 3        | TD  |
| TD        | 3 | —————→          | 2        | RD  |

| Signal name | Function         |
|-------------|------------------|
| GND         | Common ground    |
| TD          | Transmitted data |
| RD          | Received data    |

USB connection (600/800/810/811/820, 720/730/520, 73/53/74/54, 735, 8300/9300, 7800/7850, 61/81, 830/835, 740/745/732/737/760/765, 821/828, 7900/7950, S3/S4, 755/750, 62/82/X3, 1715/1710/1705/1700, S5/X5/EX90,260, G5350/G5150, S6/X6/W6, 1735W/1730W/1725/1720, S7/X7/W7, S8/X8/W8, 1925W/1920W/1915/1910, W10/X10/S10/EB-W9/X9/S9/X92/S92/EX7200/1260/W10+/EX5200/1220/X10+/EX3200/S10+/S9/VS200, 1760W/EB-1770W/1775W/750)

- For 600/800/810/811/820, 74/54, select USB at advanced setting of the Menu.
- For 720/730/520, 73/53, 740/745, 732/737, S3/S4/X3, 760/765, 1715/1710/1705/1700, S5/X5, 260, select Link 21L at Advanced Setting of the Menu.
- For 8300/8350/9300, select USB at Advanced2 setting of the Menu.
- For 61/81, 830/835/821, select USB at Extended setting of the Menu.
- For 1735W/1730W/1725/1720, S6/X6/W6, S7/X7/W7, S8/X8/W8, S9/X9/W9, S10/X10/W10 and 1760W/EB-1770W/1775W/750 select Wireless Mouse and select Link 21L at Extended Setting of the Menu.
- EPSON USB COM Driver has to be installed in your computer to use USB for communication. A COM port is added to your computer, when the projector and your computer is connected by a USB cable. The added COM is listed at PORT (COM/LPT) in the device manager tab of System in Control Panel as EPSON COM Emulation port (COMn).

| USB COM Driver   | Models  |
|------------------|---|
| EMPUSBSetup.exe  | 600/800/810/811/820/720/730/520/73/53/74/54/735   |
| EMPUSB2Setup.exe | 7800/7850/8300/9300/61/81/830/835/740/745/732/737<br>821/828/7900/7950//S3/765/760/755/750/62/82/X3(76)<br>S4/1715/1710/1705/1700/S5/X5/EX90/260/S6/X6/W6<br>1735W/1730W/1725/1720/S7/X7/W7/S8/X8/W8<br>W10/10/S10/EB-W9/X9/S9/X92/S92/EX7200/1260<br>W10+/EX5200/1220/X10+/EX3200/S10+/S9/VS200<br>1760W/1770W/1775W/1750/ |

• Connector



## 10. Revision History

| Revision | Issued date   | Page      | Description  |
|----------|---------------|-----------|--|
| A        | Sep 16, 2005  | All pages | First release.   |
| B        | Oct 19, 2005  | All pages | Correction of disclaimer.<br>Model EMP-755/750 addition  |
| C        | Nov 4, 2005   | All pages | Model EMP-62/82/X3(76) addition  |
| D        | Apr 17, 2006  | All pages | Model EMP-S4 addition  |
| E        | Aug 11, 2006  | All pages | Model EMP-6100/6000 and EMP-1715/1710/1705/1700 addition   |
| F        | Mar 19, 2007  | All pages | Model EMP -1815/1810 and EMP-S5/X5/83/822 addition   |
| G        | Jun 4, 2007   | All pages | Addition of "Applicable Model"   |
| H        | Dec 21, 2007  | All pages | Model EMP-260/280 addition   |
| I        | Apr 23, 2008  | All pages | Model EMP-6110/6010, EMP-400W, EMP-83+/822+/EX90<br>EMP-1825 and EB-G5350/5300/5200W/5150/5100/5000 addition.<br>Addition of Error status.   |
| J        | Sep 19, 2008  | All pages | Model EB-1735W/1730W/1725/1720, EB-S6/X6/W6 addition   |
| K        | Feb 25, 2009  | All pages | Model EB-Z8000WU/Z8050W addition.  |
| L        | Mar 25, 2009  | All pages | Addition of command of EB-Z8000WU/8050W<br>Model EB-410W and EB-84/85/824/825/826W addition.   |
| M        | Oct 9, 2009   | All pages | Addition EB-410W, EB-S7/X7/W7/S8/X8/W8,<br>EB-1830/1900/1915/1920W/125W<br>Addition of command for getting the serial number   |
| N        | Jan. 22, 2010 | All pages | Addition EB-440W, 450W/e/i, 460/e/i, EB-84H/He/L, 85H/HV<br>824H, 825H/HV, 826WH/WHV, 84+, 85+, 825+, 826W+  |
| O        | -             | -         | Unused number  |
| P        | Jan.28, 2011  | All pages | Addition<br>-EB/PL-G5750WU/G5450WU/G5650W/G5950/G5900/G5600/G5800/G5500<br>-EB/PL-W10/X10/S10/EB-W9/X9/S9/X92/S92/EX7200/1260<br>W10+/EX5200/1220/X10+/EX3200/S10+/S9/VS200<br>-EB/PL-1760W/1770W/1775W/1750<br>-EB-455Wi/465i/465T<br>-EB-93/95/96W/900/910W/905/915W/925 |