**Controlling the projector via RS-232C connection**

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1. Introduction
This projector can be controlled by connecting a personal computer with RS-232C terminal. In addition, by connecting multiple projectors to each other in a daisy chain configuration, you can control each projector from one personal computer.

PC-controllable functions:
• Turning the power ON or OFF
• Changing input signals
• Inputting commands by pressing the buttons on the control panel and remote control
• Menu setting

[Compatibility with the former models]
To use the RS-232C commands designed for the former models of Mitsubishi projector, by inputting “00COMMAND0”, the projector responds in the same way as the former models. (No NAK is returned. For NAK response, see page 4. ID code cannot be designated at command sending.)
(For the recommended procedure to use the former command systems, see “Controlling the projector using a personal computer” for FL7000U.)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Function</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Character</td>
<td>ASCII code</td>
</tr>
<tr>
<td>Changing the RS-232C command system</td>
<td>COMMAND</td>
<td>43h 4Fh 4Dh 4Dh 41h 4Eh 44h</td>
</tr>
</tbody>
</table>

1.1 Connection

Important:
• Make sure that your computer and projector are turned off before connection.
• Boot up the computer first, and then plug the power cord of the projector.
  (If you do not follow this instruction, the COM port may not function.)
• To use a daisy chain configuration, make sure to use Mitsubishi projectors supporting RS-232C communication. If the projectors or other devices made by other manufacturers are connected, operation is not guaranteed.

To connect with one projector:

To connect with multiple projectors (in a daisy chain configuration):
• Example of ID setting (When Group A, which performs multi-projection with two projectors, and Group B, which performs multi-projection with three projectors, are connected.)

You can assign the ID code to the control command.
• When the command having the PROJECTOR ID is sent, only the projector having the corresponding ID returns the response.
  (When the PROJECTOR ID is set to ALL on the projector, the projector responds to all the PROJECTOR ID numbers assigned to the commands.)
• When the command having the GROUP ID is sent, all the projectors having the corresponding ID return the response.
• When the command having no ID code is sent, all the projectors return response.

When the projectors are connected in a daisy chain configuration, you are recommended to set the PROJECTOR ID to other than “ALL” and assign the PROJECTOR ID differently for each projector to communicate with each projector individually. Refer to the operation manual of the projector for setting the PROJECTOR ID.

When you use a daisy chain configuration, set the STANDBY MODE to “STANDARD.” Refer to the operation manual of the projector for setting the STANDBY MODE.

Important:
• Adapters may be necessary depending on the PC connected to this projector. Contact your dealer for details.

1.2 Interface
1.2.1 Pin assignment of SERIAL IN and SERIAL OUT terminals (D-SUB 9-pin)

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Name</th>
<th>I/O</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OPEN</td>
<td>I/O</td>
</tr>
<tr>
<td>2</td>
<td>RXD</td>
<td>IN</td>
</tr>
<tr>
<td>3</td>
<td>TXD</td>
<td>OUT</td>
</tr>
<tr>
<td>4</td>
<td>OPEN</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>OPEN</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>OPEN</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>OPEN</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>OPEN</td>
<td></td>
</tr>
</tbody>
</table>

1.2.2 Communications format

<table>
<thead>
<tr>
<th>Protocol</th>
<th>RS-232C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baud Rate</td>
<td>9600 [bps]</td>
</tr>
<tr>
<td>Data Length</td>
<td>8 [bits]</td>
</tr>
<tr>
<td>Parity Bit</td>
<td>NONE</td>
</tr>
<tr>
<td>Stop Bit</td>
<td>1 [bit]</td>
</tr>
<tr>
<td>Flow Control</td>
<td>NONE</td>
</tr>
</tbody>
</table>

This projector uses RXD, TXD and GND lines for RS-232C control. For RS-232C cable, the supplied cable (crossover cable) should be used.
2. Control command configuration
The command consists of the address code, ID code, function code, data code, ACK/NAK, and end code. The length of the command varies among the functions.

<table>
<thead>
<tr>
<th>Address code</th>
<th>ID code</th>
<th>Function code</th>
<th>Data code</th>
<th>ACK/NAK</th>
<th>End code</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASCII code</td>
<td>Character</td>
<td>‘30h’ '30h'</td>
<td>‘3Bh’ ID '3Bh'</td>
<td>Function</td>
<td>Data</td>
</tr>
</tbody>
</table>

- **[Address code]** Fixed to 00. ('30h' '30h' in the ASCII code)
- **[ID code]** Code specifying the projector to be controlled (For ID, specify either the PROJETOR ID (00 to 63) or GROUP ID (0A to 0Z). When the code is not specified, all the connected projectors are controlled.)
- **[Function code]** Code unique to each control operation.
- **[Data code]** Data (value) unique to each control operation (Not always indicated.)
- **[ACK/NAK]** Code indicating the NAK return as described below
  - Fixed to :N ('3Ah' '4Eh' in the ASCII code. Not added to ACK.)
- **[End code]** Fixed to 0Dh (’0Dh’ in the ASCII code)

3. Control sequence

**[Example]** When the personal computer and two projectors are daisy-chained:

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Send the command from the personal computer to the projector.</td>
</tr>
<tr>
<td>2</td>
<td>The command input from the SERIAL IN terminal is sent to the projector connected to the SERIAL OUT terminal.</td>
</tr>
<tr>
<td>3</td>
<td>After receiving the end code, the projector sends the return command to the device connected to the SERIAL IN terminal. If the projector does not receive commands normally, that is, if the projector is not connected physically or unable to receive commands, it does not send out a return command. In addition, when the ID code of the command is not corresponded to that of the projector, the projector doesn't send a return command. The projector sends out a return command within one second at the latest. When the received command cannot be executed, NAK is returned (as described below).</td>
</tr>
<tr>
<td>4</td>
<td>The return command input from the SERIAL OUT terminal is sent to the device connected to the SERIAL IN terminal. The personal computer receives the commands as many as the number of the projectors that send the returned commands. However, the receiving order of the returned commands may vary depending on the projector status.</td>
</tr>
<tr>
<td>5</td>
<td>The personal computer checks the command and confirms if the sent command has been received or not.</td>
</tr>
<tr>
<td>6</td>
<td>Use the check command to see if the projector has executed the command. This projector sends various codes other than the return code. When having a control sequence by RS-232C, reject other codes from the personal computer.</td>
</tr>
</tbody>
</table>

- **NAK return**
  In the following cases, the projector returns the command with “:N” added.
  1. Though the command sent from the computer is received by the projector successfully, it cannot be executed because the projector is in the operation prohibition state.
  2. The data length of the sent command is incorrect or the command is invalid.
  3. The ID assigned to the command is out of the valid range (other than 00 to 63 or 0A to 0Z).
  4. The signal length of the command is 48 bytes or longer.
- **When a command is sent out during the following operations, it may not be executed.**
  1. During signal switching
  2. In the process of the auto position
  3. After the power is turned on.
     After the power is turned on, no command is received until the image is displayed. (Usually, it takes about 20 seconds. However, when the lamp illumination takes time, more time will be required accordingly.) In this case, the projector returns the received command with NAK added.
- **The return command is sent out within 1 second at the latest.**
- **When sending commands successively, wait to receive the return command of the current command before sending a next command.**
The projector may not receive a command when the splash screen is being displayed immediately after turning on the power. Use command “00r10” to cancel the splash screen.

While using the LAN terminals, the LAN functions take precedence.

For the LAN terminals, the same commands as those for connecting with the TCP/IP (port number 63007) are available. Note, however, that the response becomes slightly slower than when using the RS-232C terminals. For the use of LAN terminals, refer to “4. Execution procedure of RS-232C commands via LAN”.

When the NAK isn’t returned, check the RS-232C command system (00COMMAND).

[Example 1] Turning ON the power. (Values enclosed in quotation marks are ASCII codes.):

- When ID is not specified:

<table>
<thead>
<tr>
<th>Command sent from the PC</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>’30’ ’30’ ’21’ ’0D’ 00!</td>
<td>’30’ ’30’ ’21’ ’0D’ 00!</td>
<td>Command for POWER ON (ID command is omitted.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Command sent from the PC</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>’30’ ’30’ ’5F’ ’76’ ’31’ ’0D’ 00;01;!</td>
<td>’30’ ’30’ ’5F’ ’76’ ’31’ ’0D’ 00;01;!</td>
<td>Command for POWER ON is sent to the projector with the ID of “01” or “ALL.”</td>
</tr>
</tbody>
</table>

The projector with the ID of “01” or “ALL” receives the command. (The status is echoed back from the projector with the ID of “01” or “ALL.”)

[Example 2] Selecting VIDEO as the input signal during auto positioning (Values enclosed in quotation marks are ASCII codes.):

- When ID is not specified:

<table>
<thead>
<tr>
<th>Command sent from the PC</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>’30’ ’30’ ’5F’ ’76’ ’31’ ’0D’ 00_v1</td>
<td>’30’ ’30’ ’5F’ ’76’ ’31’ ’0D’ 00_v1</td>
<td>(During auto positioning) Command for selecting VIDEO as the input signal is sent out.</td>
</tr>
</tbody>
</table>

The command is received by the projector but cannot be executed. (NAK return)

- When ID is specified (when the command is sent to the projector with the ID of “01” or “ALL”):

<table>
<thead>
<tr>
<th>Command sent from the PC</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>’30’ ’30’ ’3B’ ’30’ ’31’ ’3B’ ’5F’ ’76’ ’31’ ’0D’ 00;01;_v1</td>
<td>’30’ ’30’ ’3B’ ’30’ ’31’ ’3B’ ’5F’ ’76’ ’31’ ’0D’ 00;01;_v1</td>
<td>(During auto positioning) Command for selecting VIDEO as the input signal is sent to the projector with the ID of “01” or “ALL.”</td>
</tr>
</tbody>
</table>

The projector with the ID of “01” or “ALL” receives the command, but cannot execute it. (NAK return)

The flowchart on the next page shows the recommended operating sequence for your reference to create a program.
[RS-232C control flowchart]

START

Sending out command

No NAK returned

Awaiting response from projector

NAK returned

Command is sent successfully.
Command is executed successfully.

Command is sent successfully.
Command execution fails.

Command sending fails.

Checking execution of command (sending out check command)

NG

OK

END

No NAK returned

No response for 1 second or longer

Checking the following.
• The ID code is out of the valid range.
• Check that the function code is correct.
• Check that the data code is correct.
• Check that the projector is able to issue the return command.

→ Check the projector's operation using the 00vST command.

Note: In the following cases, NAK is returned even when the projector is in normal condition.
• Immediately after the power is turned on (For status read commands) approximately for 10 seconds (For other commands) approximately for 1 minute
• During input switching
• During auto positioning
• During password lock

[Method of checking state of projector]

Sending “00vST”

To normal operation

0–3

Checking response to “00vST”

4

Projector error
Send out “00vER” to check error details.
Recover from error state.

Enter password.
Send out “00PASS****.”

Projetor is functioning.
Use “00FNCOFF” to cancel the current function.
4. Execution procedure of RS-232C commands via LAN

- When you use the LAN function, set the STANDBY MODE to STANDARD or LAN.
- When you execute RS-232C commands via LAN, check that the CONTROL SYSTEM in the NETWORK menu is set to STANDARD.
- You can change the certification password using the NETWORK PASSWORD in the NETWORK menu. The default password is "admin."
- You can skip the certification process by setting the NETWORK CERTIFICATION in the NETWORK menu to OFF. When you skip the certification process, Steps 2 to 4 described below can be skipped and you can send RS-232C commands without adding a certification data.

Example:
Sending the PON command (00!) while the NETWORK CERTIFICATION is set to OFF

00!-

For the procedure to set the menu, refer to the User Manual supplied with the projector.

To execute the RS-232C command via LAN while the NETWORK CERTIFICATION is set to ON, a 32-byte connection certification data must be added before the RS-232C command.

To create a 32-byte certification data, the following information and procedure are required.

- Random character string for creating the certification data that is acquired from the projector (8 characters)
- Network password of the projector (1 to 32 characters)
- MD5 hash calculation

Based on the above, the execution procedures to connect to the projector and send the RS-232C commands while the NETWORK CERTIFICATION is set to ON are described below.

1. Connect to Port 63007 of the projector from the PC as a TCP/IP client.
2. After completing the connection, send the acquisition request for the certification data ("$AKw") (ASCII code: 24 41 4B 0D) from the PC to the projector.
3. Acquire "$AK****w" on the PC as the response of the request sent in Step 2. (****w: Random character string for creating the certification data)
4. Create the certification data on the PC.
   - Create the key of the certification data by linking the data acquired in Step 3 with the network character string.
     For example, when the random character string is 12345678 and the password is ABCD, the key of the certification data is 12345678ABCD (character string in ASCII code).
   - Run MD5 hash on the key of the certification data.
   - Create the certification data by converting the hash-calculated 16-byte data into the ASCII code character string.
     Example:
     Calculation result: [4f][3c][5d][a1][7b][4f][b5][ed][2c][99][4e][bb][f6][57][67][54] (hexadecimal numeral)
     Certification data: 4f 3c 5d a1 7b 4f b5 ed 2c 99 4e bb f6 57 67 54 (character string in ASCII code)
5. Send the RS-232C command with the certification data from the PC to the projector.
   Example:
   To send the PON command (00!) using the certification data created in Step 4:
   4f3c5da17bb4f5ed2c994ebbf657675400
6. Receive the response from the projector on the PC.
   Response data has the following patterns.
   Normal: 00! (Parameter is added depending on the command.)
   Error in the certification data: PRV=ERRA
   Command error: 00!N
5. Command list

5.1 General control commands

The general control commands are used for the basic operation setting of this projector. They may not be executed while the signals are changed. The general control commands have no data codes. (When the commands for input select are sent while the splash screen is being displayed, the splash screen is only canceled.)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Function</th>
<th>Character</th>
<th>ASCII code</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER ON</td>
<td>!</td>
<td>21h</td>
<td>This command is invalid for 2 minutes after the power is turned off.</td>
<td></td>
</tr>
<tr>
<td>POWER OFF</td>
<td>*</td>
<td>22h</td>
<td>This command is invalid for 1 minute after the power is turned on.</td>
<td></td>
</tr>
<tr>
<td>INPUT COMPUTER 1</td>
<td>r1</td>
<td>5Fh 72h 31h</td>
<td>This command is not received during stand-by, BLANK, and input switch control with the contact control.</td>
<td></td>
</tr>
<tr>
<td>INPUT COMPUTER 2</td>
<td>r2</td>
<td>5Fh 72h 32h</td>
<td>This command is not received during stand-by, BLANK, and input switch control with the contact control.</td>
<td></td>
</tr>
<tr>
<td>INPUT HDMI</td>
<td>d1</td>
<td>5Fh 64h 31h</td>
<td>This command is not received during stand-by, BLANK, and input switch control with the contact control.</td>
<td></td>
</tr>
<tr>
<td>INPUT DVI</td>
<td>d2</td>
<td>5Fh 64h 32h</td>
<td>This command is not received during stand-by, BLANK, and input switch control with the contact control.</td>
<td></td>
</tr>
<tr>
<td>INPUT VIDEO</td>
<td>v1</td>
<td>5Fh 76h 31h</td>
<td>This command is not received during stand-by, BLANK, and input switch control with the contact control.</td>
<td></td>
</tr>
<tr>
<td>INPUT S-VIDEO</td>
<td>v2</td>
<td>5Fh 76h 32h</td>
<td>This command is not received during stand-by, BLANK, and input switch control with the contact control.</td>
<td></td>
</tr>
</tbody>
</table>

[Example] When setting the input signal to COMPUTER 1. (Values enclosed in quotation marks are ASCII codes.):

- When ID is not specified:

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>'30' '30' '5F' '72' '31' '0D' 00_r1 [έ]</td>
<td>'30' '30' '5F' '72' '31' '0D' 00_r1 [έ]</td>
<td>Command for setting the input signal to COMPUTER 1 (ID command is omitted.)</td>
</tr>
</tbody>
</table>

- When ID is specified (when the command is sent to the projector with the ID of “01” or “ALL”):

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>'30' '30' '3B' '30' '31' '3B' '5F' '72' '31' '0D' 00;01;_r1 [έ]</td>
<td>'30' '30' '3B' '30' '31' '3B' '5F' '72' '31' '0D' 00;01;_r1 [έ]</td>
<td>The projector with the ID of “01” or “ALL” receives the command. (The status is echoed back from the projector with the ID of “01” or “ALL.”)</td>
</tr>
</tbody>
</table>

5.2 Reading commands

5.2.1 Status read commands

The projectors operating status, such as POWER-ON/OFF and the currently selected input terminal, etc. can be monitored.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Function</th>
<th>Data (Receive)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>vP</td>
<td>76h 50h</td>
<td>1 31h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0 30h</td>
</tr>
<tr>
<td>INPUT</td>
<td>vl</td>
<td>76h 49h</td>
<td>r1 72h 31h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>r2 72h 32h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>d1 64h 31h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>d2 64h 32h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>v1 76h 31h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>v2 76h 32h</td>
</tr>
<tr>
<td>P-ON/OFF ENABLED/ DISABLED</td>
<td>vPK</td>
<td>76h 50h 4Bh</td>
<td>0 30h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 31h</td>
</tr>
<tr>
<td>SIGNAL INPUT</td>
<td>vSM</td>
<td>76h 53h 4Dh</td>
<td>0 30h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 31h</td>
</tr>
</tbody>
</table>
5.2.2 Read commands for items in INFORMATION menu

Use the following commands to obtain the values of the items in the INFORMATION menu.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Function</th>
<th>Data (Receive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAMP 1 TIME (LOW)</td>
<td>vLE1L 76h 4Ch 45h 31h 4Ch</td>
<td>hhhhhmm</td>
</tr>
<tr>
<td>LAMP 2 TIME (LOW)</td>
<td>vLE2L 76h 4Ch 45h 32h 4Ch</td>
<td>hhhhhmm</td>
</tr>
<tr>
<td>LAMP illuminating status (an icon displayed at the right of the lamp operating time)</td>
<td>vLST 76h 4C 53h 54h</td>
<td>ab</td>
</tr>
<tr>
<td>NEXT LAMP RELAY</td>
<td>vNLR 76h 4Eh 4Ch 52h</td>
<td>dhh</td>
</tr>
<tr>
<td>FILTER TIME</td>
<td>vLTT 76h 46h 4Ch 54h 54h</td>
<td>hhhhh</td>
</tr>
<tr>
<td>SERIAL NUMBER</td>
<td>vS/N 76h 53h 2Fh 4Eh</td>
<td>******(within 7 characters)</td>
</tr>
<tr>
<td>RESOLUTION</td>
<td>vRESO 76h 52h 45h 53h 4Fh</td>
<td>HHHHxVVV</td>
</tr>
<tr>
<td>VERTICAL FREQUENCY</td>
<td>vVFREQ 76h 56h 46h 52h 45h 51h</td>
<td>*<strong>.</strong></td>
</tr>
<tr>
<td>HORIZONTAL FREQUENCY</td>
<td>vHFREQ 76h 48h 46h 52h 45h 51h</td>
<td>*<strong>.</strong></td>
</tr>
<tr>
<td>SYNC. TYPE</td>
<td>vSYNCT 76h 53h 59h 4Eh 43h 54h</td>
<td>0 (NO SIGNAL), 1 (Invalid), 3 (3wire), 4 (4wire), 5 (5wire), 6 (SCART)</td>
</tr>
</tbody>
</table>

“hhhh” and “mm” represent hours and minutes respectively.
“d” and “hh” represent days and hours respectively.
“a” and “b” represent the lamp illuminating status of the LAMP 1 and LAMP 2 respectively.
“hhhh” represents the operating time.
“HHHH” and “VVVV” represent the horizontal and vertical resolutions respectively.
“***.**” represents the vertical frequency (in Hz) or the horizontal frequency (in kHz).

5.2.3 Read commands for other information

Use the following commands to obtain other information.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Function</th>
<th>Data (Receive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model name</td>
<td>vMDL 76h 4Dh 44h 4Ch</td>
<td>****************(within 16 characters)</td>
</tr>
<tr>
<td>Contact control</td>
<td>vRMT 76h 52h 4Dh 54h</td>
<td>0 (Normal operation), 1 (Contact control)</td>
</tr>
<tr>
<td>Input source</td>
<td>vSOUCE 76h 53h 4Fh 55h 43h 45h</td>
<td>r1 r2 v1 v2 d1 d2</td>
</tr>
<tr>
<td>Projector status</td>
<td>vST 76h 53h 54h</td>
<td>0 (Stand-by mode), 1 (Within 1 minute after POWER-ON (warm-up mode)), 2 (POWER-ON mode (including state of warning)), 3 (Cooling mode), 4 (Abnormal state (including shutdown due to an error)), 5 (State of functioning (menu display, dialog display, BLANK, PIP, MAGNIFY, FREEZE, etc.), 6 (Awaiting password entry)</td>
</tr>
<tr>
<td>Error status</td>
<td>vER 76h 45h 52h</td>
<td>Reading of the error status data (3 digits, hexadecimal numbers, total 9 bits) (MSB) xb1, xb2..., xb8, xb9, 0, 0, 0 (LSB) xb1(800): Fan error xb2(400): Lamp error (The lamp goes out or does not light.) xb3(200): Lamp warning 1 (The lamp life has expired.) xb4(100): Lamp warning 2 (The lamp life is expiring.) xb5(080): Temperature error xb6(040): The temperature warning is being indicated. xb7(020): Lamp cover open error xb8(010): Filter/Filter cover open error xb9(008): States of other component abnormality When only one error occurs, value shown in parentheses is returned. When multiple errors occur at the same time, the bits of all the occurred error are set. Example) C00: When fan error and lamp error occur at the same time 180: When lamp warning 2 and temperature error occur at the same time</td>
</tr>
</tbody>
</table>

The PC sends the command without attaching the data code to it. On the other hand, the projector attaches to the received command its current operating status as the data code and send it back to the PC.
When checking the currently selected input terminal (when the INPUT VIDEO is being selected).

(Values enclosed in quotation marks are ASCII codes:)

- **When ID is not specified:**

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘30’ ‘30’ ‘76’ ‘49’ ‘0D’ 00vl</td>
<td>‘30’ ‘30’ ‘76’ ‘49’ ‘76’ ‘31’ ‘0D’ 00vlv1</td>
<td>Command for checking the input terminal (ID command is omitted.)</td>
</tr>
</tbody>
</table>

**Check result (VIDEO)**

- **When ID is specified (when the command is sent to the projector with the ID of “01” or “ALL”):**

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘30’ ‘30’ ‘3B’ ‘30’ ‘31’ ‘3B’ ‘76’ ‘49’ ‘0D’ 00;01;vI</td>
<td>‘30’ ‘30’ ‘3B’ ‘30’ ‘31’ ‘3B’ ‘76’ ‘49’ ‘76’ ‘31’ ‘0D’ 00;01;vIv1</td>
<td>Command for checking the input terminal is sent to the projector with the ID of “01” or “ALL.”</td>
</tr>
</tbody>
</table>

**Check result (VIDEO)**

(The status is echoed back from the projector with the ID of “01” or “ALL.”)

### 5.3 Remote control key commands

(Not executable in stand-by mode. When the remote control key commands are sent while the splash screen is being displayed, the splash screen is only canceled.)

The remote control key commands allow the computer to control the projector in the same way as by the remote control. (The CONTROLLER ID cannot be set. And some operations cannot be controlled.) The remote control key commands have no data codes.

<table>
<thead>
<tr>
<th>Button's name on remote control</th>
<th>Function</th>
<th>Character</th>
<th>ASCII code</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>r06</td>
<td>72h 30h 36h</td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>r07</td>
<td>72h 30h 37h</td>
<td></td>
</tr>
<tr>
<td>ZOOM/FOCUS</td>
<td>r0f</td>
<td>72h 30h 66h</td>
<td></td>
</tr>
<tr>
<td>LENS SHIFT</td>
<td>r47</td>
<td>72h 34h 37h</td>
<td></td>
</tr>
<tr>
<td>GEOMETRY</td>
<td>r43</td>
<td>72h 34h 33h</td>
<td></td>
</tr>
<tr>
<td>MAGNIFY</td>
<td>r02</td>
<td>72h 30h 32h</td>
<td></td>
</tr>
<tr>
<td>PinP/SPLIT (SPLIT only)</td>
<td>r04</td>
<td>72h 30h 34h</td>
<td></td>
</tr>
<tr>
<td>BLANK</td>
<td>ra6</td>
<td>72h 61h 36h</td>
<td></td>
</tr>
<tr>
<td>▲</td>
<td>r53</td>
<td>72h 35h 33h</td>
<td></td>
</tr>
<tr>
<td>▼</td>
<td>r2b</td>
<td>72h 32h 62h</td>
<td></td>
</tr>
<tr>
<td>◄</td>
<td>r4f</td>
<td>72h 34h 66h</td>
<td></td>
</tr>
<tr>
<td>►</td>
<td>r59</td>
<td>72h 35h 39h</td>
<td></td>
</tr>
<tr>
<td>MENU</td>
<td>r54</td>
<td>72h 35h 34h</td>
<td></td>
</tr>
<tr>
<td>ENTER</td>
<td>r10</td>
<td>72h 31h 30h</td>
<td></td>
</tr>
<tr>
<td>AUTO POSITION</td>
<td>r09</td>
<td>72h 30h 39h</td>
<td></td>
</tr>
<tr>
<td>FREEZE</td>
<td>ra4</td>
<td>72h 61h 34h</td>
<td></td>
</tr>
<tr>
<td>ASPECT</td>
<td>re2</td>
<td>72h 65h 32h</td>
<td></td>
</tr>
<tr>
<td>CE</td>
<td>re7</td>
<td>72h 65h 37h</td>
<td></td>
</tr>
<tr>
<td>TEST PATTERN</td>
<td>r50</td>
<td>72h 35h 30h</td>
<td></td>
</tr>
<tr>
<td>SUPER RESOLUTION</td>
<td>r96</td>
<td>72h 39h 36h</td>
<td></td>
</tr>
<tr>
<td>1 (numeric keypad)</td>
<td>r49</td>
<td>72h 34h 39h</td>
<td></td>
</tr>
<tr>
<td>2 (numeric keypad)</td>
<td>r4a</td>
<td>72h 34h 61h</td>
<td></td>
</tr>
<tr>
<td>3 (numeric keypad)</td>
<td>r4b</td>
<td>72h 34h 62h</td>
<td></td>
</tr>
<tr>
<td>4 (numeric keypad)</td>
<td>r4c</td>
<td>72h 34h 63h</td>
<td></td>
</tr>
<tr>
<td>5 (numeric keypad)</td>
<td>r4d</td>
<td>72h 34h 64h</td>
<td></td>
</tr>
<tr>
<td>6 (numeric keypad)</td>
<td>r4e</td>
<td>72h 34h 65h</td>
<td></td>
</tr>
<tr>
<td>7 (numeric keypad)</td>
<td>r88</td>
<td>72h 38h 38h</td>
<td></td>
</tr>
<tr>
<td>8 (numeric keypad)</td>
<td>r58</td>
<td>72h 35h 38h</td>
<td></td>
</tr>
<tr>
<td>9 (numeric keypad)</td>
<td>r89</td>
<td>72h 38h 39h</td>
<td></td>
</tr>
<tr>
<td>0 (numeric keypad)</td>
<td>r48</td>
<td>72h 34h 38h</td>
<td></td>
</tr>
<tr>
<td>ALL</td>
<td>r5a</td>
<td>72h 35h 61h</td>
<td></td>
</tr>
</tbody>
</table>
When displaying the MENU selection bar. (Values enclosed in quotation marks are ASCII codes.):

- **When ID is not specified:**

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>'30' '30' '72' '35' '34' '0D' 00r54</td>
<td>'30' '30' '72' '35' '34' '0D' 00r54</td>
<td>Command operating the same as the MENU button (ID command is omitted.)</td>
</tr>
<tr>
<td>'30' '30' '72' '35' '34' '0D' 00r54</td>
<td>Command receipt confirmation (The statuses are echoed back as many as the number of the connected projectors.)</td>
<td></td>
</tr>
</tbody>
</table>

- **When ID is specified** (when the command is sent to the projector with the ID of “01” or “ALL”):

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>'30' '30' '3B' '30' '31' '3B' '72' '35' '34' '0D' 00;01;r54</td>
<td>'30' '30' '3B' '30' '31' '3B' '72' '35' '34' '0D' 00;01;r54</td>
<td>Command operating the same as the MENU button is sent to the projector with the ID of “01” or “ALL.”</td>
</tr>
<tr>
<td>'30' '30' '3B' '30' '31' '3B' '72' '35' '34' '0D' 00;01;r54</td>
<td>Command receipt confirmation (The status is echoed back from the projector with the ID of “01” or “ALL.”)</td>
<td></td>
</tr>
</tbody>
</table>

### 5.4 Direct commands

(Not executable in stand-by mode. Possible only to read during BLANK.)

The direct commands are used to numerically adjust the geometrical correction and bright uniformity correction. When the computer sends the command without adding the setting value, the projector returns the received command with the current setting value added as a data code.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Function</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEYSTONE (vertical)</td>
<td>KS</td>
<td>±40 With CURVED-adjustment : ±10</td>
</tr>
<tr>
<td>KEYSTONE (horizontal)</td>
<td>KSH</td>
<td>±25 With CURVED-adjustment : ±10</td>
</tr>
<tr>
<td>KEYSTONE reset</td>
<td>KSRST</td>
<td>±50</td>
</tr>
<tr>
<td>CORNERSTONE LOWER RIGHT (vertical)</td>
<td>CNLRV</td>
<td>±50</td>
</tr>
<tr>
<td>CORNERSTONE LOWER RIGHT (horizontal)</td>
<td>CNLRH</td>
<td>±50</td>
</tr>
<tr>
<td>CORNERSTONE LOWER LEFT (vertical)</td>
<td>CNLLV</td>
<td>±50</td>
</tr>
<tr>
<td>CORNERSTONE LOWER LEFT (horizontal)</td>
<td>CNLLH</td>
<td>±50</td>
</tr>
<tr>
<td>CORNERSTONE UPPER RIGHT (vertical)</td>
<td>CNUMR</td>
<td>±50</td>
</tr>
<tr>
<td>CORNERSTONE UPPER RIGHT (horizontal)</td>
<td>CNUMRH</td>
<td>±50</td>
</tr>
<tr>
<td>CORNERSTONE UPPER LEFT (vertical)</td>
<td>CNUMLV</td>
<td>±50</td>
</tr>
<tr>
<td>CORNERSTONE UPPER LEFT (horizontal)</td>
<td>CNUMLH</td>
<td>±50</td>
</tr>
<tr>
<td>CORNERSTONE reset</td>
<td>CKSRST</td>
<td>±99 With KEYSTONE- or CORNERSTONE-adjustment : ±30</td>
</tr>
<tr>
<td>HORIZ. CURVED ARC (vertical)</td>
<td>CVAH</td>
<td>±99 With KEYSTONE- or CORNERSTONE-adjustment : ±30</td>
</tr>
<tr>
<td>HORIZ. CURVED ORIGIN (vertical)</td>
<td>CVHOV</td>
<td>±10</td>
</tr>
<tr>
<td>HORIZ. CURVED ORIGIN (horizontal)</td>
<td>CVHOH</td>
<td>±10</td>
</tr>
<tr>
<td>VERT. CURVED ARC</td>
<td>CVAV</td>
<td>±10</td>
</tr>
<tr>
<td>VERT. CURVED ORIGIN (vertical)</td>
<td>CVVOV</td>
<td>±10</td>
</tr>
<tr>
<td>VERT. CURVED ORIGIN (horizontal)</td>
<td>CVVOH</td>
<td>±10</td>
</tr>
<tr>
<td>CURVED reset</td>
<td>CVRST</td>
<td>±10</td>
</tr>
<tr>
<td>BRIGHT UNIFORMITY CORRECTION (level)</td>
<td>BUCL</td>
<td>050 to 100 (Changeable in five increments)</td>
</tr>
<tr>
<td>BRIGHT UNIFORMITY CORRECTION (correcting position) (vertical)</td>
<td>BUCV</td>
<td>1 to 7</td>
</tr>
<tr>
<td>BRIGHT UNIFORMITY CORRECTION (correcting position) (horizontal)</td>
<td>BUCH</td>
<td>1 to 7</td>
</tr>
</tbody>
</table>

#### How to set the value

Use the character or ASCII code as shown below to set the value.

<table>
<thead>
<tr>
<th>Character</th>
<th>ASCII code</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>2Bh</td>
</tr>
<tr>
<td>-</td>
<td>2Dh</td>
</tr>
<tr>
<td>0</td>
<td>30h</td>
</tr>
<tr>
<td>1</td>
<td>31h</td>
</tr>
<tr>
<td>2</td>
<td>32h</td>
</tr>
<tr>
<td>3</td>
<td>33h</td>
</tr>
<tr>
<td>4</td>
<td>34h</td>
</tr>
<tr>
<td>5</td>
<td>35h</td>
</tr>
<tr>
<td>6</td>
<td>36h</td>
</tr>
<tr>
<td>7</td>
<td>37h</td>
</tr>
<tr>
<td>8</td>
<td>38h</td>
</tr>
<tr>
<td>9</td>
<td>39h</td>
</tr>
</tbody>
</table>

11
5.5 Function commands (Not executable in stand-by mode. When the mute commands are sent while the splash screen is being displayed, the splash screen is only canceled.)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Function</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLANK</td>
<td>MUTE</td>
<td>4Dh 55h 54h 45h 0 (OFF), 1 (ON)</td>
</tr>
<tr>
<td>PinP</td>
<td>PIP</td>
<td>50h 69h 50h 0 (OFF), 1 (ON)</td>
</tr>
<tr>
<td>MAGNIFY</td>
<td>MGNFY</td>
<td>4Dh 47h 4Eh 46h 59h 0 (OFF), 1 (ON)</td>
</tr>
<tr>
<td>FREEZE</td>
<td>FRZ</td>
<td>46h 52h 5Ah 0 (OFF), 1 (ON)</td>
</tr>
<tr>
<td>Function canceling</td>
<td>FNCOFF</td>
<td>46h 4Eh 43h 4Fh 46h 46h</td>
</tr>
</tbody>
</table>

| TEST PATTERN  | TP | 54h 50h 0 (OFF), 1 (CROSS HATCH R), 2 (CROSS HATCH G), 3 (CROSS HATCH B), 4 (WHITE), 5 (BLACK), 6 (H. COLOR BARS), 7 (V. COLOR BARS) |

| Change of the initial value of ASPECT | SCDEF | 53h 43h 44h 45h 46h 0: NORMAL, 1: FULL |

5.6 Menu setting commands (Not executable in stand-by mode except some commands. Possible only to read during BLANK except some commands.)

The menu setting commands are used for the menu setting of this projector. If the personal computer sends the command without attaching the data code, the projector attaches to the received command its current setting value as the data code and send it back to the PC.

5.6.1 IMAGE menu

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Function</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLOR ENHANCER</td>
<td>CE</td>
<td>43h 45h 0 (AUTO), 1 (PRESENTATION), 2 (STANDARD), 3 (THEATER), 4 (sRGB), 5 (CLEAR BASE), 6 (BLUE BASE), 7 (USER), 8 (MULTI-SCREEN)</td>
</tr>
<tr>
<td>COLOR ENHANCER-USER-GAMMA MODE</td>
<td>CEU1GS</td>
<td>43h 45h 55h 31h 46h 53h 0 (DYNAMIC), 1 (NATURAL), 2 (DETAIL)</td>
</tr>
<tr>
<td>COLOR ENHANCER-USER-DYNAMIC CONTRAST</td>
<td>CEU1B</td>
<td>43h 45h 55h 31h 42h 0 - 10</td>
</tr>
<tr>
<td>COLOR ENHANCER-MULTI-SCREEN-GAMMA MODE</td>
<td>CEU2GS</td>
<td>43h 45h 55h 32h 47h 53h 0 (1.8), 1 (2.0), 2 (2.2)</td>
</tr>
<tr>
<td>COLOR ENHANCER-MULTI-SCREEN-BrilliantColor™</td>
<td>CEU2B</td>
<td>43h 45h 55h 32h 42h 00 to 10</td>
</tr>
<tr>
<td>SUPER RESOLUTION</td>
<td>DHD</td>
<td>44h 48h 44h 0 (OFF), 1 (ON)</td>
</tr>
<tr>
<td>SUPER RESOLUTION-LEVEL</td>
<td>DHDLV</td>
<td>44h 48h 44h 4Ch 56h 1 to 5</td>
</tr>
<tr>
<td>CONTRAST</td>
<td>PP</td>
<td>50h 50h ±30 ±30 ±30 (R, G, B)</td>
</tr>
<tr>
<td>BRIGHTNESS</td>
<td>QQ</td>
<td>51h 51h ±30 ±30 ±30 (R, G, B)</td>
</tr>
<tr>
<td>COLOR MATRIX</td>
<td>CMT</td>
<td>43h 4Dh 54h 1 (COMPUTER), 2 (VIDEO), 3 (FLAT), 4 (USER)</td>
</tr>
<tr>
<td>COLOR MATRIX -USER-BASE</td>
<td>CMTBASE</td>
<td>43h 4Dh 54h 42h 41h 53h 45h 1 (COMPUTER), 2 (VIDEO), 3 (FLAT)</td>
</tr>
<tr>
<td>COLOR MATRIX -USER-R/G/B</td>
<td>MRGB</td>
<td>40h 52h 47h 42h ± 30 ± 30 ± 30 (R+G+B)</td>
</tr>
<tr>
<td>COLOR MATRIX -USER-Y/C/M</td>
<td>MYCM</td>
<td>4Dh 59h 43h 4Dh ± 30 ± 30 ± 30 (Y+C+M)</td>
</tr>
<tr>
<td>COLOR MATRIX -USER-SATURATION</td>
<td>MSAT</td>
<td>4Dh 53h 41h 54h ± 05</td>
</tr>
<tr>
<td>COLOR MATRIX -USER-RGB-TINT</td>
<td>MT</td>
<td>4Dh 54h ± 15</td>
</tr>
<tr>
<td>COLOR TEMP.</td>
<td>A</td>
<td>41h 1 (STANDARD), 2 (HIGH), 3 (LOW), 4 (USER)</td>
</tr>
<tr>
<td>COLOR TEMP-USER-CONTRAST</td>
<td>P</td>
<td>50h ±30 ±30 ±30 (R, G, B)</td>
</tr>
<tr>
<td>COLOR TEMP-USER-BRIGHTNESS</td>
<td>Q</td>
<td>51h ±30 ±30 ±30 (R, G, B)</td>
</tr>
<tr>
<td>COLOR</td>
<td>T</td>
<td>54h ±10</td>
</tr>
<tr>
<td>TINT</td>
<td>S</td>
<td>53h ±10</td>
</tr>
<tr>
<td>SHARPNESS</td>
<td>R</td>
<td>52h ±05</td>
</tr>
</tbody>
</table>
### 5.6.2 INSTALLATION 1 menu

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Function</th>
<th>Character</th>
<th>ASCII code</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOISE REDUCTION</td>
<td>NR</td>
<td>4Eh 52h</td>
<td>0 (OFF), 1 (ON)</td>
<td></td>
</tr>
<tr>
<td>CTI</td>
<td>CTI</td>
<td>43h 54h 49h</td>
<td>0 (OFF), 1 (ON)</td>
<td></td>
</tr>
<tr>
<td>INPUT LEVEL</td>
<td>IPL</td>
<td>49h 50h 4Ch</td>
<td>±5, For DVI input: +0 (NORMAL), +1 (ENHANCED) For HDMI input: +0 (AUTO), +1 (NORMAL), +2 (ENHANCED)</td>
<td></td>
</tr>
<tr>
<td>CLOSED CAPTION</td>
<td>CC</td>
<td>43h 43h</td>
<td>0 (OFF), 1 (CC1), 2 (CC2)</td>
<td></td>
</tr>
<tr>
<td>DEMO MODE</td>
<td>DM</td>
<td>44h 4Dh</td>
<td>0 (OFF), 1 (ALL), 2 (DYNAMIC CONTRAST), 3 (SUPER RESOLUTION), 4 (COLOR MATRIX)</td>
<td></td>
</tr>
<tr>
<td>LAMP MODE</td>
<td>LM</td>
<td>4Ch 4Dh</td>
<td>0 (STANDARD), 1 (LOW)</td>
<td></td>
</tr>
<tr>
<td>LAMP SELECT</td>
<td>LS</td>
<td>4Ch 53h</td>
<td>0 (DUAL), 1 (SINGLE), 2 (LAMP 1), 3 (LAMP 2)</td>
<td></td>
</tr>
<tr>
<td>LAMP RELAY</td>
<td>LR</td>
<td>4Ch 52h</td>
<td>xdhh: Lamp relay interval When DUAL is selected: 0 (OFF), 1 (1H/24H), 2 (2H/1W) When SINGLE is selected: 0 (OFF), 1 (24H), 2 (1WEEK) dh: Next lamp relay time (d: days, hh: hours) DUAL-OFF: Fixed to 0 days 00 hours DUAL-1H/24H: Max. 0 days and 23 hours DUAL-2H/1W: Max. 6 days and 22 hours SINGLE-OFF: Fixed to 0 days 00 hours SINGLE-1H/24H: Max. 0 days and 24 hours SINGLE-1WEEK: Max. 7 days and 00 hours</td>
<td></td>
</tr>
<tr>
<td>STANDBY MODE</td>
<td>STBY</td>
<td>53h 54h 42h 59h</td>
<td>0 (STANDARD), 1 (LOW)</td>
<td></td>
</tr>
<tr>
<td>IMAGE REVERSE</td>
<td>IR</td>
<td>49h 52h</td>
<td>0 (OFF), 1 (MIRROR), 2 (INVERT), 3 (MIRROR INVERT)</td>
<td></td>
</tr>
<tr>
<td>HIGH ALTITUDE MODE</td>
<td>ALTI</td>
<td>41h 4Ch 54h 49h</td>
<td>0 (STANDARD), 1 (HIGH ALTITUDE)</td>
<td></td>
</tr>
<tr>
<td>ZOOM/FOCUS LOCK</td>
<td>F2L</td>
<td>46h 5Ah 4Ch</td>
<td>0 (OFF), 1 (ON)</td>
<td></td>
</tr>
<tr>
<td>LENS SHIFT LOCK</td>
<td>LSL</td>
<td>4Ch 53h 4Ch</td>
<td>0 (OFF), 1 (ON)</td>
<td></td>
</tr>
<tr>
<td>LENS SHIFT RESET</td>
<td>LSRST</td>
<td>4Ch 53h 52h 53h 54h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 5.6.3 INSTALLATION 2 menu

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Function</th>
<th>Character</th>
<th>ASCII code</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO POWER ON</td>
<td>APON</td>
<td>41h 50h 4Fh 4Eh</td>
<td>0 (OFF), 1 (ON)</td>
<td></td>
</tr>
<tr>
<td>AUTO POWER OFF</td>
<td>APOF</td>
<td>41h 50h 4Fh 4Gh</td>
<td>0 (OFF), 1 (5min), 2 (10min), 3 (15min), 4 (30min), 5 (60min), 6 (4hour), 7 (8hour)</td>
<td></td>
</tr>
<tr>
<td>SCREEN</td>
<td>SCR</td>
<td>53h 43h 52h</td>
<td>0 (4:3), 1 (16:9)</td>
<td></td>
</tr>
<tr>
<td>SPLASH SCREEN</td>
<td>SS</td>
<td>53h 53h</td>
<td>0 (OFF), 1 (ON)</td>
<td></td>
</tr>
<tr>
<td>BACK COLOR</td>
<td>BB</td>
<td>42h 42h</td>
<td>0 (BLACK), 1 (BLUE), 2 (IMAGE)</td>
<td></td>
</tr>
<tr>
<td>DVI LONG CABLE</td>
<td>DVIC</td>
<td>44h 56h 49h 43h</td>
<td>0 (AUTO), 1 (MANUAL)</td>
<td></td>
</tr>
<tr>
<td>DVI LONG CABLE</td>
<td>DVICLV</td>
<td>44h 56h 49h 43h 4Ch 56h</td>
<td>0 to 21</td>
<td></td>
</tr>
<tr>
<td>REMOTE 1 MODE (PIN 2)</td>
<td>R1M2P</td>
<td>52h 31h 4Dh 32h 50h</td>
<td>0 (NONE), 1 (POWER)</td>
<td></td>
</tr>
<tr>
<td>REMOTE 1 MODE (PIN 3)</td>
<td>R1M3P</td>
<td>52h 31h 4Dh 33h 50h</td>
<td>0 (NONE), 1 (COMPUTER 1), 2 (COMPUTER 2), 3 (VIDEO), 4 (S-VIDEO), 5 (DVI), 6 (HDMI)</td>
<td></td>
</tr>
<tr>
<td>REMOTE 1 MODE (PIN 4)</td>
<td>R1M4P</td>
<td>52h 31h 4Dh 34h 50h</td>
<td>0 (NONE), 1 (COMPUTER 1), 2 (COMPUTER 2), 3 (VIDEO), 4 (S-VIDEO), 5 (DVI), 6 (HDMI)</td>
<td></td>
</tr>
<tr>
<td>REMOTE 1 MODE (PIN 5)</td>
<td>R1M5P</td>
<td>52h 31h 4Dh 35h 50h</td>
<td>0 (NONE), 1 (COMPUTER 1), 2 (COMPUTER 2), 3 (VIDEO), 4 (S-VIDEO), 5 (DVI), 6 (HDMI)</td>
<td></td>
</tr>
<tr>
<td>REMOTE 1 MODE (PIN 6)</td>
<td>R1M6P</td>
<td>52h 31h 4Dh 36h 50h</td>
<td>0 (NONE), 1 (COMPUTER 1), 2 (COMPUTER 2), 3 (VIDEO), 4 (S-VIDEO), 5 (DVI), 6 (HDMI)</td>
<td></td>
</tr>
<tr>
<td>REMOTE 1 MODE (PIN 7)</td>
<td>R1M7P</td>
<td>52h 31h 4Dh 37h 50h</td>
<td>0 (NONE), 1 (COMPUTER 1), 2 (COMPUTER 2), 3 (VIDEO), 4 (S-VIDEO), 5 (DVI), 6 (HDMI)</td>
<td></td>
</tr>
<tr>
<td>REMOTE 1 MODE (PIN 8)</td>
<td>R1M8P</td>
<td>52h 31h 4Dh 38h 50h</td>
<td>0 (NONE), 1 (BLANK)</td>
<td></td>
</tr>
<tr>
<td>ITEM</td>
<td>Function</td>
<td>Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
<td>------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FILTER MENU† (CLEANUP PERIOD)</td>
<td>FLCP</td>
<td>46h 4Ch 43h 50h</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FILTER MENU† (MANUAL CLEANUP)</td>
<td>FLMC</td>
<td>46h 4Ch 4Dh 43h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*†: This function works only on XD8600U.

### 5.6.4 MULTI-SCREEN menu

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Function</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDJE BLENDING</td>
<td>EB</td>
<td>45h 42h</td>
</tr>
<tr>
<td>EDJE ADJUST (UP)</td>
<td>EBU</td>
<td>45h 42h 55h</td>
</tr>
<tr>
<td>EDJE ADJUST (LOW)</td>
<td>EBD</td>
<td>45h 42h 44h</td>
</tr>
<tr>
<td>EDJE ADJUST (LEFT)</td>
<td>EBLS</td>
<td>45h 42h 4Ch 53h</td>
</tr>
<tr>
<td>EDJE ADJUST (RIGHT)</td>
<td>EBR</td>
<td>45h 42h 52h 53h</td>
</tr>
<tr>
<td>START POSITION (UP)</td>
<td>BSU</td>
<td>42h 53h 55h</td>
</tr>
<tr>
<td>START POSITION (LOW)</td>
<td>BSD</td>
<td>42h 53h 44h</td>
</tr>
<tr>
<td>START POSITION (LEFT)</td>
<td>BSLS</td>
<td>42h 53h 4Ch 53h</td>
</tr>
<tr>
<td>START POSITION (RIGHT)</td>
<td>BSRS</td>
<td>42h 53h 52h 53h</td>
</tr>
<tr>
<td>WIDTH (UP)</td>
<td>BWU</td>
<td>42h 57h 55h</td>
</tr>
<tr>
<td>WIDTH (LOW)</td>
<td>BWD</td>
<td>42h 57h 44h</td>
</tr>
<tr>
<td>WIDTH (LEFT)</td>
<td>BWLS</td>
<td>42h 57h 4Ch 53h</td>
</tr>
<tr>
<td>WIDTH (RIGHT)</td>
<td>BWR</td>
<td>42h 57h 52h 53h</td>
</tr>
<tr>
<td>MARKER (UP)</td>
<td>MKRU</td>
<td>40h 48h 52h 55h</td>
</tr>
<tr>
<td>MARKER (LOW)</td>
<td>MKRD</td>
<td>40h 48h 52h 44h</td>
</tr>
<tr>
<td>MARKER (LEFT)</td>
<td>MKRLS</td>
<td>40h 48h 52h 4Ch 53h</td>
</tr>
<tr>
<td>MARKER (RIGHT)</td>
<td>MKRRS</td>
<td>40h 48h 52h 52h 53h</td>
</tr>
<tr>
<td>BLACK LEVEL (INTERLOCKED)</td>
<td>ILK</td>
<td>49h 4Ch 4Bh</td>
</tr>
<tr>
<td>BLACK LEVEL (RED)</td>
<td>BKLVR</td>
<td>42h 4Bh 4Ch 56h 52h</td>
</tr>
<tr>
<td>BLACK LEVEL (GREEN)</td>
<td>BKLVG</td>
<td>42h 4Bh 4Ch 56h 47h</td>
</tr>
<tr>
<td>BLACK LEVEL (BLUE)</td>
<td>BKLVB</td>
<td>42h 4Bh 4Ch 56h 42h</td>
</tr>
<tr>
<td>EDGE BLENDING (RESET)</td>
<td>EBRST</td>
<td>45h 42h 52h 53h 54h</td>
</tr>
<tr>
<td>COLOR MATCHING</td>
<td>CMC</td>
<td>43h 4Dh 43h</td>
</tr>
<tr>
<td>COLOR MATCHING-MANUAL (GAIN)</td>
<td>MNTG</td>
<td>4Dh 4Eh 54h 47h</td>
</tr>
<tr>
<td>COLOR MATCHING-MANUAL (SATURATION)</td>
<td>MNTS</td>
<td>4Dh 4Eh 54h 53h</td>
</tr>
<tr>
<td>COLOR MATCHING-MANUAL (HUE)</td>
<td>MNTH</td>
<td>4Dh 4Eh 54h 48h</td>
</tr>
<tr>
<td>COLOR MATCHING-MANUAL (WHITE R)</td>
<td>MNTWR</td>
<td>4Dh 4Eh 54h 57h 52h</td>
</tr>
<tr>
<td>COLOR MATCHING-MANUAL (WHITE G)</td>
<td>MNTWG</td>
<td>4Dh 4Eh 54h 57h 47h</td>
</tr>
<tr>
<td>COLOR MATCHING-MANUAL (WHITE B)</td>
<td>MNTWB</td>
<td>4Dh 4Eh 54h 57h 42h</td>
</tr>
</tbody>
</table>

x: Color selection
R (RED), Y (YELLOW), G (GREEN), C (CYAN), B (BLUE), M (MAGENTA)

x±30: Color selection
R (RED), Y (YELLOW), G (GREEN), C (CYAN), B (BLUE), M (MAGENTA)
<table>
<thead>
<tr>
<th>ITEM</th>
<th>Function</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLOR MATCHING-MANUAL (RESET)</td>
<td>MNRST 4Dh 52h 53h 54h</td>
<td>x00050 to 20000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>x: Color selection R (RED), G (GREEN), B (BLUE), W (WHITE)</td>
</tr>
<tr>
<td>COLOR MATCHING-MEASURE-MEASURED DATA (Y(Relative value))</td>
<td>MSML 4Dh 53h 4Dh 4Ch</td>
<td>x: Color selection R (RED), G (GREEN), B (BLUE), W (WHITE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*:**: The range varies depending on x.</td>
</tr>
<tr>
<td>COLOR MATCHING-MEASURE-MEASURED DATA (x)</td>
<td>MSMX 4Dh 53h 4Dh 58h</td>
<td>x: Color selection R (RED), G (GREEN), B (BLUE), W (WHITE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*:**: The range varies depending on x.</td>
</tr>
<tr>
<td>COLOR MATCHING-MEASURE-MEASURED DATA (y)</td>
<td>MSMY 4Dh 53h 4Dh 59h</td>
<td>x: Color selection R (RED), G (GREEN), B (BLUE), W (WHITE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*:**: The range varies depending on x.</td>
</tr>
<tr>
<td>COLOR MATCHING-MEASURE-TARGET DATA (GAIN)</td>
<td>MSTG 4Dh 53h 54h 47h</td>
<td>x: Color selection R (RED), Y (YELLOW), G (GREEN), C (CYAN) B (BLUE), M (MAGENTA), W (WHITE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>:</strong>: The range varies depending on x.</td>
</tr>
<tr>
<td>COLOR MATCHING-MEASURE-TARGET DATA (x)</td>
<td>MSTX 4Dh 53h 54h 58h</td>
<td>x: Color selection R (RED), Y (YELLOW), G (GREEN), C (CYAN) B (BLUE), M (MAGENTA), W (WHITE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>:</strong>: The range varies depending on x.</td>
</tr>
<tr>
<td>COLOR MATCHING-MEASURE-TARGET DATA (y)</td>
<td>MSTY 4Dh 53h 54h 59h</td>
<td>x: Color selection R (RED), Y (YELLOW), G (GREEN), C (CYAN) B (BLUE), M (MAGENTA), W (WHITE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>:</strong>: The range varies depending on x.</td>
</tr>
<tr>
<td>COLOR MATCHING-MEASURE (RESET)</td>
<td>MSRST 4Dh 53h 52h 53h 54h</td>
<td></td>
</tr>
</tbody>
</table>

5.6.5 FEATURE menu

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Function</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROJECTOR ID</td>
<td>PID 50h 49h 44h</td>
<td>00 (ALL), 01 to 63</td>
</tr>
<tr>
<td>GROUP ID</td>
<td>GID 47h 49h 44h</td>
<td>A to Z</td>
</tr>
<tr>
<td>PASSWORD FUNCTION</td>
<td>PSLOCK 50h 53h 4Ch 4Fh 43h 4Bh</td>
<td>0**** (UNLOCK), 1**** (DISPLAY INPUT), 2**** (MENU ACCESS), 3**** (SPLASH ID SCREEN)</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>:</strong> is a 4 to 8-digit password comprised of any figures 1 to 4.</td>
</tr>
<tr>
<td>MENU POSITION</td>
<td>MP 4Dh 50h</td>
<td>0 (Upper left), 1 (Lower right), 4 (Center)</td>
</tr>
<tr>
<td>CINEMA MODE</td>
<td>CINE 43h 49h 4Eh 45h</td>
<td>0 (VIDEO), 1 (AUTO), 2 (FILM)</td>
</tr>
<tr>
<td>LANGUAGE</td>
<td>LG 4Ch 47h</td>
<td>00 (日本語), 01 (English), 02 (Español), 03 (Deutsch), 04 (Français), 05 (Italiano), 06 (中文), 07 (한국어), 08 (Pусский), 09 (PORTUGUES), 11 (SVENSKA), 12 (POLSKI), 16 (Nederlands), 17 (Norsk), 18 (اللغة العربية), 19 (Türkçe), 20 (ภาษาไทย), 21 (Bahasa Indonesia), 22 (Melayu), 23 (Filipino)</td>
</tr>
<tr>
<td>VIDEO SIGNAL (VIDEO only)</td>
<td>VS 56h 53h</td>
<td>0 (AUTO), 1 (NTSC), 2 (PAL), 3 (SECAM), 4 (4.43NTSC), 5 (PAL-M), 6 (PAL-N), 7 (PAL-60)</td>
</tr>
<tr>
<td>SET UP</td>
<td>STU 53h 54h 55h</td>
<td>0 (AUTO), 1 (OFF), 2 (3.75%), 3 (7.5%)</td>
</tr>
<tr>
<td>SCART INPUT</td>
<td>SRT 53h 52h 54h</td>
<td>0 (OFF), 1 (ON)</td>
</tr>
<tr>
<td>LAMP WARNING</td>
<td>LW 4Ch 57h</td>
<td>0 (STANDARD), 1 (SHORT TERM)</td>
</tr>
<tr>
<td>HIDE OSD</td>
<td>HOSD 48h 4Fh 53h 44h</td>
<td>0 (OFF), 1 (ON)</td>
</tr>
<tr>
<td>LAMP 1 TIME RESET</td>
<td>TRST1L 54h 52h 53h 54h 31h 4Ch</td>
<td></td>
</tr>
<tr>
<td>LAMP 2 TIME RESET</td>
<td>TRST2L 54h 52h 53h 54h 32h 4Ch</td>
<td></td>
</tr>
<tr>
<td>FILTER TIME RESET</td>
<td>TRSTFL 54h 52h 53h 54h 46h 4Ch</td>
<td></td>
</tr>
<tr>
<td>RESET ALL</td>
<td>RSTALL 52h 53h 54h 41h 4Ch 4Ch</td>
<td></td>
</tr>
</tbody>
</table>

*1: This function works only on XD8600U.
### 5.6.6 SIGNAL menu

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Character</th>
<th>Function</th>
<th>ASCII code</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMORY CALL MMC</td>
<td>MMC</td>
<td>4Dh 4Dh 43h</td>
<td>0 (AUTO), 1 to 8 (MEMORY 1 to 8)</td>
<td></td>
</tr>
<tr>
<td>HORIZ. POSITION HP</td>
<td>HP</td>
<td>48h 50h</td>
<td>+ (increment), - (decrement)</td>
<td></td>
</tr>
<tr>
<td>VERT. POSITION VP</td>
<td>VP</td>
<td>56h 50h</td>
<td>+ (increment), - (decrement)</td>
<td></td>
</tr>
<tr>
<td>FINE SYNC. FN</td>
<td>FN</td>
<td>46h 4Eh</td>
<td>00–31</td>
<td></td>
</tr>
<tr>
<td>TRACKING TRK</td>
<td>TRK</td>
<td>54h 52h 4Bh</td>
<td>+ (increment), - (decrement)</td>
<td></td>
</tr>
<tr>
<td>COMPUTER INPUT CIN</td>
<td>CIN</td>
<td>43h 49h 4Eh</td>
<td>0 (RGB), 1 (YCbCr/YPbPr), 2 (AUTO)</td>
<td></td>
</tr>
<tr>
<td>OVER SCAN VOS</td>
<td>VOS</td>
<td>56h 4Fh 53h</td>
<td>00 (90%) – 10 (100%)</td>
<td></td>
</tr>
<tr>
<td>HOLD HLD</td>
<td>HLD</td>
<td>48h 4Ch 44h</td>
<td>0 (OFF), 1 (ON)</td>
<td></td>
</tr>
<tr>
<td>HOLD BEGIN HLB</td>
<td>HLB</td>
<td>48h 4Ch 42h</td>
<td>00–99</td>
<td></td>
</tr>
<tr>
<td>HOLD END HLE</td>
<td>HLE</td>
<td>48h 4Ch 45h</td>
<td>00–99</td>
<td></td>
</tr>
<tr>
<td>ASPECT SC</td>
<td>SC</td>
<td>53h 43h</td>
<td>0 (NORMAL), 1 (16:9), 2 (FULL), 3 (USER)</td>
<td></td>
</tr>
<tr>
<td>ASPECT-16:9-POSITION SCP</td>
<td>SCP</td>
<td>53h 43h 50h</td>
<td>0 (CENTER), 1 (UPPER), 2 (LOWER)</td>
<td></td>
</tr>
<tr>
<td>ASPECT-USER-ZOOM(H) ZMH</td>
<td>ZMH</td>
<td>5Ah 4Dh 48h</td>
<td>050 to 500 NAK is returned when the ASPECT setting is other than USER.</td>
<td></td>
</tr>
<tr>
<td>ASPECT-USER-ZOOM(V) ZMV</td>
<td>ZMV</td>
<td>5Ah 4Dh 56h</td>
<td>050 to 500 NAK is returned when the ASPECT setting is other than USER.</td>
<td></td>
</tr>
<tr>
<td>ASPECT-USER-HORIZ. POSITION AHP*</td>
<td>AHP*</td>
<td>41h 48h 50h</td>
<td>*:+, - +:increment -:decriment NAK is returned when the ASPECT setting is other than USER.</td>
<td></td>
</tr>
<tr>
<td>ASPECT-USER-VERT. POSITION AVP*</td>
<td>AVP*</td>
<td>41h 56h 50h</td>
<td>*:+, - +:increment -:decriment NAK is returned when the ASPECT setting is other than USER.</td>
<td></td>
</tr>
<tr>
<td>ASPECT-USER-RASTER POSITION(H) RPH*</td>
<td>RPH*</td>
<td>52h 50h 48h</td>
<td>*:+, - +:increment -:decriment NAK is returned when the ASPECT setting is other than USER.</td>
<td></td>
</tr>
<tr>
<td>ASPECT-USER-RASTER POSITION(V) RPV*</td>
<td>RPV*</td>
<td>52h 50h 56h</td>
<td>*:+, - +:increment -:decriment NAK is returned when the ASPECT setting is other than USER.</td>
<td></td>
</tr>
<tr>
<td>ASPECT-USER-RESET ASRST</td>
<td>ASRST</td>
<td>41h 53h 52h 53h 54h</td>
<td>The setting contents of ASPECT USER are reset. NAK is returned when the ASPECT setting is other than USER.</td>
<td></td>
</tr>
<tr>
<td>CLAMP POSITION CLP</td>
<td>CLP</td>
<td>43h 4Ch 50h</td>
<td>001 to 255</td>
<td></td>
</tr>
<tr>
<td>CLAMP WIDTH CLW</td>
<td>CLW</td>
<td>43h 4Ch 57h</td>
<td>01 to 63</td>
<td></td>
</tr>
<tr>
<td>VERT. SYNC. VSC</td>
<td>VSC</td>
<td>56h 53h 43h</td>
<td>0 (AUTO), 1 (OFF)</td>
<td></td>
</tr>
<tr>
<td>LPF</td>
<td>LPF</td>
<td>4Ch 50h 46h</td>
<td>0 (OFF), 1 (ON)</td>
<td></td>
</tr>
<tr>
<td>SHUTTER(U) SHU</td>
<td>SHU</td>
<td>53h 48h 55h</td>
<td>000 to 126</td>
<td></td>
</tr>
<tr>
<td>SHUTTER(L) SHL</td>
<td>SHL</td>
<td>53h 48h 4Ch</td>
<td>000 to 126</td>
<td></td>
</tr>
<tr>
<td>SHUTTER(LS) SHLS</td>
<td>SHLS</td>
<td>53h 48h 4Ch 53h</td>
<td>000 to 128</td>
<td></td>
</tr>
<tr>
<td>SHUTTER(RS) SHRS</td>
<td>SHRS</td>
<td>53h 48h 52h 53h</td>
<td>000 to 128</td>
<td></td>
</tr>
</tbody>
</table>

*1) Setting range differs depending on the input signals.

### 5.6.7 NETWORK menu

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Character</th>
<th>Function</th>
<th>ASCII code</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROJECTOR NAME NAME</td>
<td>NAME</td>
<td>4Eh 41h 4Dh 45h</td>
<td>Up to 15 single-byte alphanumeric characters Effective only during P-ON.</td>
<td></td>
</tr>
<tr>
<td>NETWORK RESTART NRCN</td>
<td>NRCN</td>
<td>4Eh 52h 43h 4Eh</td>
<td>LAN microcomputer is reset and restarted.</td>
<td></td>
</tr>
</tbody>
</table>

- Some commands are not executed depending on the input signal. The operational restrictions same as those on the menu setting are applied. Refer to “Menu operation” in the User Manual for more details.
How to set the value
Use the character or ASCII code as shown below to set the value.

<table>
<thead>
<tr>
<th>Character</th>
<th>+</th>
<th>-</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASCII code</td>
<td>2Bh</td>
<td>2Dh</td>
<td>30h</td>
<td>31h</td>
<td>32h</td>
<td>33h</td>
<td>34h</td>
<td>35h</td>
<td>36h</td>
<td>37h</td>
<td>38h</td>
<td>39h</td>
</tr>
</tbody>
</table>

[Example 1] When setting the AUTO POWER ON to ON. (Values enclosed in quotation marks are ASCII codes.):
- When ID is not specified:

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘30’ ‘30’ ‘41’ ‘50’ ‘4F’ ‘4E’ ‘31’ ‘0D’ 00APON1</td>
<td>‘30’ ‘30’ ‘41’ ‘50’ ‘4F’ ‘4E’ ‘31’ ‘0D’ 00APON1</td>
<td>Command for setting the AUTO POWER ON to ON (ID command is omitted.)</td>
</tr>
</tbody>
</table>

- When ID is specified (when the command is sent to the projector with the ID of “01” or “ALL”):

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘30’ ‘30’ ‘3B’ ‘30’ ‘31’ ‘3B’ ‘41’ ‘50’ ‘4F’ ‘4E’ ‘31’ ‘0D’ 00;01;APON1</td>
<td>‘30’ ‘30’ ‘3B’ ‘30’ ‘31’ ‘3B’ ‘41’ ‘50’ ‘4F’ ‘4E’ ‘31’ ‘0D’ 00;01;APON1</td>
<td>Command for setting the AUTO POWER ON is sent to the projector with the ID of “01” or “ALL.”</td>
</tr>
</tbody>
</table>

[Example 2] When setting the CONTRAST R of the COLOR TEMP.-USER to +10, the CONTRAST G to 0, and the CONTRAST B to -5. (Values enclosed in quotation marks are ASCII codes.):
- When ID is not specified:

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
</table>

- When ID is specified (when the command is sent to the projector with the ID of “01” or “ALL”):

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘30’ ‘30’ ‘3B’ ‘30’ ‘31’ ‘3B’ ‘50’ ‘2B’ ‘31’ ‘30’ ‘2B’ ‘30’ ‘2D’ ‘30’ ‘35’ ‘0D’ 00;01;P+10+00-05</td>
<td>‘30’ ‘30’ ‘3B’ ‘30’ ‘31’ ‘3B’ ‘50’ ‘2B’ ‘31’ ‘30’ ‘2B’ ‘30’ ‘2D’ ‘30’ ‘35’ ‘0D’ 00;01;P+10+00-05</td>
<td>Command for setting the CONTRAST is sent to the projector with the ID of “01” or “ALL.”</td>
</tr>
</tbody>
</table>

Command receipt confirmation (The statuses are echoed back as many as the number of the connected projectors.)
### Example 3
When checking the TINT setting (when the TINT is set to +10). (Values enclosed in quotation marks are ASCII codes):

- When ID is not specified:

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>'30' '30' '53' '0D' 00S</td>
<td>'30' '30' '53' '2B' '31' '30' '0D' 00S+10</td>
<td>Check result (+10) (The statuses are echoed back as many as the number of the connected projectors.)</td>
</tr>
</tbody>
</table>

- When ID is specified (when the command is sent to the projector with the ID of “01” or “ALL”):

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>'30' '30' '3B' '30' '31' '3B' '53' '0D' 00;01;S</td>
<td>'30' '30' '3B' '30' '31' '3B' '53' '2B' '31' '30' '0D' 00;01;S+10</td>
<td>Check result (+10) (The status is echoed back from the projector with the ID of “01” or “ALL.”)</td>
</tr>
</tbody>
</table>

### Example 4
When setting the GAMMA MODE of the COLOR ENHANCER-USER to DETAIL. (Values enclosed in quotation marks are ASCII codes):

- When ID is not specified:

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>'30' '30' '43' '45' '55' '31' '47' '53' '32' '0D' 00CEU1GS2</td>
<td>'30' '30' '43' '45' '55' '31' '47' '53' '32' '0D' 00CEU1GS2</td>
<td>Command receipt confirmation (The statuses are echoed back as many as the number of the connected projectors.)</td>
</tr>
</tbody>
</table>

- When ID is specified (when the command is sent to the projector with the ID of “01” or “ALL”):

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>'30' '30' '3B' '30' '31' '3B' '43' '45' '55' '31' '47' '53' '32' '0D' 00;01;CEU1GS2</td>
<td>'30' '30' '3B' '30' '31' '3B' '43' '45' '55' '31' '47' '53' '32' '0D' 00;01;CEU1GS2</td>
<td>Command receipt confirmation (The status is echoed back from the projector with the ID of “01” or “ALL.”)</td>
</tr>
</tbody>
</table>
5.7 Password lock commands

The password lock commands control the password lock. The password lock enabling or disabling command is sent with a 4 to 8-digit password comprised of any figures 1 to 4 added to the end of the data code. When the password lock is enabled or disabled successfully, the projector sends a return command comprising the data code, password, and “1” at the end. When enabling or disabling the password lock fails, it sends a return command with “0” at the end. There is no reconfirmation of the password. The password input command is for enabling projection of image when password lock has been set to DISPLAY INPUT. The password input command is sent with a 4 to 8-digit password comprised of any figures 1 to 4 at the end.

**ITEM**

<table>
<thead>
<tr>
<th>Function</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Password lock enabling/disabling</td>
<td>0**** (Disabling), 1**** (DISPLAY INPUT), 2**** (MENU ACCESS), 3**** (SPLASH ID SCREEN)</td>
</tr>
<tr>
<td>Password input</td>
<td>****</td>
</tr>
</tbody>
</table>

**** is a 4 to 8-digit password comprised of any figures 1 to 4.

[Example] When enabling the password lock of DISPLAY INPUT (in the case that the password is 123412).

(Values enclosed in quotation marks are ASCII codes.):

- **When ID is not specified:**

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 30 50 53 4C 4F 43 4B 31 31 32 33 34 31 32 0D</td>
<td>30 30 50 53 4C 4F 43 4B 31 31 32 33 34 31 32 31 0D</td>
<td>Command for enabling the password lock of DISPLAY INPUT (ID command is omitted.)</td>
</tr>
<tr>
<td>00PSLOCK1123412</td>
<td>00PSLOCK11234121</td>
<td>Response informing that the projector succeeded in enabling the password lock of DISPLAY INPUT (The statuses are echoed back as many as the number of the connected projectors.)</td>
</tr>
</tbody>
</table>

- **When ID is specified (when the command is sent to the projector with the ID of “01” or “ALL”):**

<table>
<thead>
<tr>
<th>Command sent from the PC, etc.</th>
<th>Status code returned from the projector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 30 3B 30 31 3B 50 53 4C 4F 43 4B 31 31 32 33 34 31 32 0D</td>
<td>30 30 3B 30 31 3B 50 53 4C 4F 43 4B 31 31 32 33 34 31 32 31 0D</td>
<td>Command for turning on the password lock of DISPLAY INPUT is sent to the projector with the ID of “01” or “ALL.”</td>
</tr>
<tr>
<td>00;01;PSLOCK1123412</td>
<td>00;01;PSLOCK11234121</td>
<td>Response informing that the projector succeeded in enabling the password lock of DISPLAY INPUT (The status is echoed back from the projector with the ID of “01” or “ALL.”)</td>
</tr>
</tbody>
</table>