



Projector  
Control Command  
Reference Manual

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# Introduction

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This manual describes the commands used to control an NEC-made projector from a PC or other external device. A projector can be controlled by exchanging commands with an external device connected via a serial port or network. The manual assumes basic knowledge of projectors. For information about the functions of the model in use and how to adjust the device, see the operation manual of the projector. For information about the connection between the projector and an external device, see "1 Connecting an External Device" (page 5). Connect an external device as appropriate for the usage environment of the projector.

## Models for which the control commands are available

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See the Appendix "Connecting an External Device".

## Conventions

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For information about how commands and responses are expressed in this manual, see "2.1 Understanding command details" (page 10).

## NOTES

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# 1. Connecting an External Device

This chapter describes how to connect the projector to an external device and communication conditions.

## 1.1 Connection interface

The projector can be connected to a PC or other external device using the methods mentioned below.

For information about the connection method supported by the model in use, see the Appendix "Connecting an External Device".

- Connection using a serial port
- Connection via a network

### Connection using a serial port

This method connects a PC and the projector using a serial cable (cross cable).

Connect the serial cable to the PC CONTROL port of the projector. The pin assignment of the serial cable is shown below.

<Connection between the PC CONTROL port (D-SUB 9P) and external device>

| Pin number | Projector  | External device |
|------------|------------|-----------------|
| 1          | (Not used) | (Not used)      |
| 2          | RxD        | TxD             |
| 3          | TxD        | RxD             |
| 4          | (Not used) | (Not used)      |
| 5          | GND        | GND             |
| 6          | (Not used) | (Not used)      |
| 7          | RTS        | CTS             |
| 8          | CTS        | RTS             |
| 9          | (Not used) | (Not used)      |

## Connection via a network

### Information

- Before connecting an external device via a network, check with the network administrator.
- Some models cannot receive commands in standby mode. See Appendix "Standby Mode setting for receiving commands".

### ▶ Connection using a wired LAN

This method connects a PC and the projector using a LAN cable. For information about the type of LAN cable to be used (straight or cross), contact the network administrator. The pin assignment of the LAN port is shown below.

<LAN port (RJ-45 8-pin connector)>

| Pin number | Function | Description       |
|------------|----------|-------------------|
| 1          | TD+      | Transmit Data (+) |
| 2          | TD-      | Transmit Data (-) |
| 3          | RD+      | Receive Data (+)  |
| 4          | —        | Not used          |
| 5          | —        | Not used          |
| 6          | RD-      | Receive Data (-)  |
| 7          | —        | Not used          |
| 8          | —        | Not used          |

### ▶ Connection using a wireless LAN

This method connects a PC via a wireless LAN by connecting a wireless LAN unit to the projector. For information about the available wireless LAN units, see the operation manual of the model in use.

## 1.2 Communication conditions

For information about the connection methods available for the model in use, see the Appendix "Connecting an External Device".

### Serial connection

The RS-232C-compliant communication method is supported. Specify the communication settings of the software used to send and receive commands, as shown below.

| Item               | Detail                           |
|--------------------|----------------------------------|
| Baud rate          | 115200/38400/19200/9600/4800 bps |
| Data length        | 8 bits                           |
| Parity bit         | None                             |
| Stop bit           | 1 bit                            |
| Communication mode | Full duplex                      |

### LAN connection

#### ▶ Wired LAN

| Item               | Detail  |
|--------------------|---|
| Data rate          | Auto switchable (10/100 Mbps)                                     |
| Supported standard | IEEE802.3 (10BASE-T)<br>IEEE802.3u (100BASE-TX, Auto-Negotiation) |

#### ▶ Wireless LAN

See the operation manual of the wireless LAN unit to be used.

#### ▶ Port number

Use TCP port number "7142" for sending and receiving commands.

## 2. Command List

| Command                                   | Description  | Page to see |
|---|--|-------------|
| 009. ERROR STATUS REQUEST                 | Gets information about errors occurring in the projector.      | 13          |
| 015. POWER ON                             | Turns on the power of the projector.                           | 15          |
| 016. POWER OFF                            | Turns off the power of the projector.                          | 16          |
| 018. INPUT SW CHANGE                      | Switches the input terminal or entry list.                     | 17          |
| 020. PICTURE MUTE ON                      | Turns the picture mute on.                                     | 19          |
| 021. PICTURE MUTE OFF                     | Turns the picture mute off.                                    | 20          |
| 022. SOUND MUTE ON                        | Turns the sound mute on.                                       | 21          |
| 023. SOUND MUTE OFF                       | Turns the sound mute off.                                      | 22          |
| 024. ONSCREEN MUTE ON                     | Turns the onscreen mute on.                                    | 23          |
| 025. ONSCREEN MUTE OFF                    | Turns the onscreen mute off.                                   | 24          |
| 030-1. PICTURE ADJUST                     | Adjusts the picture.   | 25          |
| 030-2. VOLUME ADJUST                      | Adjusts the sound volume.                                      | 27          |
| 030-12. ASPECT ADJUST                     | Adjusts the aspect.  | 29          |
| 030-15. OTHER ADJUST                      | Adjusts the various gains.                                     | 30          |
| 037. INFORMATION REQUEST                  | Gets the information of the projector.                         | 32          |
| 037-3. FILTER USAGE INFORMATION REQUEST   | Gets filter usage information such as usage time.              | 33          |
| 037-4. LAMP INFORMATION REQUEST 3         | Gets lamp information such as usage time and remaining life.   | 34          |
| 037-6. CARBON SAVINGS INFORMATION REQUEST | Gets the Carbon Saving values on the projector.                | 36          |
| 050. REMOTE KEY CODE                      | Sends the key code for remote control.                         | 38          |
| 051. SHUTTER CLOSE                        | Closes the lens shutter.                                       | 40          |
| 052. SHUTTER OPEN                         | Opens the lens shutter.  | 41          |
| 053. LENS CONTROL                         | Adjusts the lens position.                                     | 42          |
| 053-1. LENS CONTROL REQUEST               | Gets adjusted values of the lens position.                     | 44          |
| 053-2. LENS CONTROL 2                     | Adjusts the lens position.                                     | 46          |
| 053-3. LENS MEMORY CONTROL                | Controls the lens memory.                                      | 48          |
| 053-4. REFERENCE LENS MEMORY CONTROL      | Controls the reference lens memory.                            | 50          |
| 053-5. LENS MEMORY OPTION REQUEST         | Gets the value set for the lens memory.                        | 52          |
| 053-6. LENS MEMORY OPTION SET             | Sets the lens memory.  | 53          |
| 053-7. LENS INFORMATION REQUEST           | Gets information about the lens of the projector.              | 55          |
| 053-10. LENS PROFILE SET                  | Selects the profile number of the reference lens memory.       | 56          |
| 053-11. LENS PROFILE REQUEST              | Gets the selected profile number of the reference lens memory. | 57          |
| 060-1. GAIN PARAMETER REQUEST 3           | Gets adjusted values of the picture, volume, and backlight.    | 58          |



| Command                                  | Description   | Page to see |
|--|---|-------------|
| 078-1. SETTING REQUEST                   | Gets information of the projector.                                    | 60          |
| 078-2. RUNNING STATUS REQUEST            | Gets the information about the operation status of the projector.     | 61          |
| 078-3. INPUT STATUS REQUEST              | Gets the information about the input signal status of the projector.  | 62          |
| 078-4. MUTE STATUS REQUEST               | Gets the mute status of the projector.                                | 64          |
| 078-5. MODEL NAME REQUEST                | Gets the model name of the projector.                                 | 66          |
| 078-6. COVER STATUS REQUEST              | Gets the status of the mirror cover or lens cover.                    | 67          |
| 079. FREEZE CONTROL                      | Controls whether to turn the freeze function on or off.               | 68          |
| 084. INFORMATION STRING REQUEST          | Gets information strings (English) displayed on the projector.        | 69          |
| 097-8. ECO MODE REQUEST                  | Gets the value set for the eco mode.                                  | 70          |
| 097-45. LAN PROJECTOR NAME REQUEST       | Gets the projector name.  | 71          |
| 097-155. LAN MAC ADDRESS STATUS REQUEST2 | Gets the MAC address of the projector.                                | 72          |
| 097-198. PIP/PICTURE BY PICTURE REQUEST  | Gets the value set for the picture in picture and picture by picture. | 73          |
| 097-243-1. EDGE BLENDING MODE REQUEST    | Gets the value set for the edge blending.                             | 75          |
| 098-8. ECO MODE SET                      | Sets the eco mode.  | 76          |
| 098-45. LAN PROJECTOR NAME SET           | Sets the projector name.  | 77          |
| 098-198. PIP/PICTURE BY PICTURE SET      | Sets the picture in picture or picture by picture.                    | 78          |
| 098-243-1. EDGE BLENDING MODE SET        | Sets the edge blending.   | 80          |
| 305-1. BASE MODEL TYPE REQUEST           | Gets the base model type of the projector.                            | 81          |
| 305-2. SERIAL NUMBER REQUEST             | Gets the serial number of the projector.                              | 82          |
| 305-3. BASIC INFORMATION REQUEST         | Gets the operation status of the projector.                           | 83          |
| 319-10. AUDIO SELECT SET                 | Sets the audio select.  | 85          |

## 2.1 Understanding command details

In this manual, commands and responses are expressed as follows.

```
20h 88h <ID1> <ID2> 0Ch <DATA01> - <DATA12> <CKS>
```

|                  |  |
|------------------|--|
| Command/response | A series of strings enclosed in a frame represents a command or response (in hexadecimal notation).  |
| Parameter        | A character string in italic enclosed in brackets represents a parameter.<br>For information about the parameters that are common to the control commands (ID1, ID2, CKS, LEN, ERR1, and ERR2), see "2.2 Parameters" (page 10). For information about those parameters whose content varies from command to command (DATA), see the description of the relevant command. |

## 2.2 Parameters

The parameters that are used in the control commands are listed below.

| Parameter name |                      | Description  |
|----------------|----------------------|--|
| ID1            | Control ID           | The value of the "control ID" set for the projector is used.   |
| ID2            | Model code           | This varies depending on the model in use.   |
| CKS            | Checksum             | The checksum is calculated as follows.<br>① Add all preceding bytes of data.<br>② Use the value of the low-order one byte (eight bits) of the addition result obtained in ① as the checksum. |
| LEN            | Data length          | This indicates the data length of the data part (DATA??) following LEN (in bytes).   |
| DATA??         | Variable length data | This varies depending on the character string stored.  |
| ERR1<br>ERR2   | Response error       | The cause of an error is represented by a combination of error codes.<br>For information about error codes, see "2.4 Error code list" (page 12).   |

### Example of checksum calculation

```
20h 81h 01h 60h 01h 00h <CKS>
```

- ① Add all the data preceding the checksum.

$$"20h + 81h + 01h + 60h + 01h + 00h = 103h"$$

- ② Use the low-order one byte "03h" of the addition result obtained in ① as the checksum.

## 2.3 Responses

After a command is sent to the projector, its result is returned as a response. How a response is returned differs depending on the execution result of the command.

### When the execution of a command succeeds

---

When the command does not request data, a response is returned with no data part.

When the command requests data, a response is returned with data added to data parts.

### When the execution of a command fails

---

A response is returned with the cause of the failed command execution indicated in <ERR1> and <ERR2>.

(Example) POWER ON

#### ▶ Command

```
02h 00h 00h 00h 00h 02h
```

#### ▶ Response

```
A2h 00h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 2.4 Error code list

The following table lists the combinations of error codes (ERR1 and ERR2) and describes the error indicated by each combination.

| ERR1 | ERR2 | Error description  |
|------|------|--|
| 00h  | 00h  | The command cannot be recognized.                        |
| 00h  | 01h  | The command is not supported by the model in use.        |
| 01h  | 00h  | The specified value is invalid.                          |
| 01h  | 01h  | The specified input terminal is invalid.                 |
| 01h  | 02h  | The specified language is invalid.                       |
| 02h  | 00h  | Memory allocation error                                  |
| 02h  | 02h  | Memory in use  |
| 02h  | 03h  | The specified value cannot be set.                       |
| 02h  | 04h  | Forced onscreen mute on                                  |
| 02h  | 06h  | Viewer error   |
| 02h  | 07h  | No signal  |
| 02h  | 08h  | A test pattern or filer is displayed.                    |
| 02h  | 09h  | No PC card is inserted.                                  |
| 02h  | 0Ah  | Memory operation error                                   |
| 02h  | 0Ch  | An entry list is displayed.                              |
| 02h  | 0Dh  | The command cannot be accepted because the power is off. |
| 02h  | 0Eh  | The command execution failed.                            |
| 02h  | 0Fh  | There is no authority necessary for the operation.       |
| 03h  | 00h  | The specified gain number is incorrect.                  |
| 03h  | 01h  | The specified gain is invalid.                           |
| 03h  | 02h  | Adjustment failed.                                       |

## 3. Command details

---

### 3.1 [ 009. ERROR STATUS REQUEST ]

Gets information about errors occurring in the projector.

#### Command

---

```
00h 88h 00h 00h 00h 88h
```

#### Response

---

▶ When the command succeeds

```
20h 88h <ID1> <ID2> 0Ch <DATA01> - <DATA12> <CKS>
```

▶ When the command fails

```
A0h 88h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

---

---

#### Data part

---

---

- DATA1 - DATA12.....Error information is provided. A bit set to "0" indicates that the data is normal, and a bit set to "1" indicates an error. For an error information list, see the next page.

<Error information list>

| Item        | Description             |  |      |  |
|-------------|-------------------------|--|------|--|
| DATA01      | Error status (1)        |  |      |  |
|             | Bit0                    | Cover error                                    | Bit4 | Fan error                                    |
|             | Bit1                    | Temperature error (bi-metallic strip)          | Bit5 | Power error                                  |
|             | Bit2                    | None (fixed to 0)                              | Bit6 | Lamp (or lamp 1) off or backlight off        |
|             | Bit3                    | Fan error                                      | Bit7 | Lamp (or lamp 1) in a replacement moratorium |
| DATA02      | Error status (2)        |  |      |  |
|             | Bit0                    | Lamp (or lamp 1) usage time exceeded the limit | Bit4 | None (fixed to 0)                            |
|             | Bit1                    | Formatter error                                | Bit5 | None (fixed to 0)                            |
|             | Bit2                    | Lamp 2 off                                     | Bit6 | None (fixed to 0)                            |
|             | Bit3                    | None (fixed to 0)                              | Bit7 | Refer to the extend status.                  |
| DATA03      | Error status (3)        |  |      |  |
|             | Bit0                    | None (fixed to 0)                              | Bit4 | Lamp (or lamp 1) data error                  |
|             | Bit1                    | FPGA error                                     | Bit5 | Mirror cover error                           |
|             | Bit2                    | Temperature error (temperature sensor)         | Bit6 | Lamp 2 in a replacement moratorium           |
|             | Bit3                    | Lamp (or lamp 1) not present                   | Bit7 | Lamp 2 usage time exceeded the limit         |
| DATA04      | Error status (4)        |  |      |  |
|             | Bit0                    | Lamp 2 not present                             | Bit4 | None (fixed to 0)                            |
|             | Bit1                    | Lamp 2 data error                              | Bit5 | Ballast communication error                  |
|             | Bit2                    | Temperature error due to dust                  | Bit6 | Iris calibration error                       |
|             | Bit3                    | Foreign matter sensor error                    | Bit7 | The lens is not installed properly.          |
| DATA05 - 08 | Reserved for the system |  |      |  |
| DATA09      | Extended status         |  |      |  |
|             | Bit0                    | The portrait cover side is up                  | Bit4 | None (fixed to 0)                            |
|             | Bit1                    | The interlock switch is open.                  | Bit5 | None (fixed to 0)                            |
|             | Bit2                    | System error has occurred. (Slave CPU)         | Bit6 | None (fixed to 0)                            |
|             | Bit3                    | System error has occurred (Formatter)          | Bit7 | None (fixed to 0)                            |
| DATA10 - 12 | Reserved for the system |  |      |  |

## 3.2 [ 015. POWER ON ]

Turns on the power of the projector.

### Information

While this command is turning on the power, no other command can be accepted.

### Command

---

```
02h 00h 00h 00h 00h 02h
```

### Response

---

#### ▶ When the command succeeds

```
22h 00h <ID1> <ID2> 00h <CKS>
```

#### ▶ When the command fails

```
A2h 00h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.3 [ 016. POWER OFF ]

Turns off the power of the projector.

### Information

While this command is turning off the power (including the cooling time), no other command can be accepted.

### Command

---

```
02h 01h 00h 00h 00h 03h
```

### Response

---

#### ▶ When the command succeeds

```
22h 01h <ID1> <ID2> 00h <CKS>
```

#### ▶ When the command fails

```
A2h 01h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```



## 3.4 [ 018. INPUT SW CHANGE ]

Switches the input terminal or entry list.

### Command

```
02h 03h 00h 00h 02h 01h <DATA01> <CKS>
```

### Data part

| Item   | Description    |
|--------|----------------|
| DATA01 | Input terminal |

### Information

For the values of input terminal, see the Appendix "Supplementary Information by Command".

### ▶ Command example

The following command switches the input terminal to a video port (DATA01: 06h).

```
02h 03h 00h 00h 02h 01h 06h 0Eh
```

## Response

---

### ▶ When the command succeeds

22h 03h <ID1> <ID2> 01h <DATA01> <CKS>

---

---

### Data part

---

---

| Item   | Description      |   |
|--------|------------------|---|
| DATA01 | Execution result |   |
|        | 00h              | Ended successfully.                             |
|        | FFh              | Ended with an error (no signal switch is made). |

### ▶ When the command fails

A2h 03h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.5 [ 020. PICTURE MUTE ON ]

Turns the picture mute on.

### Information

If any of the following operations is done, the picture mute is turned off.

- Input terminal switch
- Video signal switch

### Command

```
02h 10h 00h 00h 00h 12h
```

### Response

#### ▶ When the command succeeds

```
22h 10h <ID1> <ID2> 00h <CKS>
```

#### ▶ When the command fails

```
A2h 10h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.6 [ 021. PICTURE MUTE OFF ]

Turns the picture mute off.

### Command

---

```
02h 11h 00h 00h 00h 13h
```

### Response

---

#### ▶ When the command succeeds

```
22h 11h <ID1> <ID2> 00h <CKS>
```

#### ▶ When the command fails

```
A2h 11h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.7 [ 022. SOUND MUTE ON ]

Turns the sound mute on.

### Information

If any of the following operations is done, the sound mute is turned off.

- Input terminal switch
- Video signal switch
- Sound volume adjustment

### Command

```
02h 12h 00h 00h 00h 14h
```

### Response

#### ▶ When the command succeeds

```
22h 12h <ID1> <ID2> 00h <CKS>
```

#### ▶ When the command fails

```
A2h 12h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.8 [ 023. SOUND MUTE OFF ]

Turns the sound mute off.

### Command

```
02h 13h 00h 00h 00h 15h
```

### Response

#### ▶ When the command succeeds

```
22h 13h <ID1> <ID2> 00h <CKS>
```

#### ▶ When the command fails

```
A2h 13h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.9 [ 024. ONSCREEN MUTE ON ]

Turns the onscreen mute on.

### Information

If any of the following operations is done, the onscreen mute is turned off.

- Input terminal switch
- Video signal switch

### Command

```
02h 14h 00h 00h 00h 16h
```

### Response

#### ▶ When the command succeeds

```
22h 14h <ID1> <ID2> 00h <CKS>
```

#### ▶ When the command fails

```
A2h 14h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.10 [ 025. ONSCREEN MUTE OFF ]

Turns the onscreen mute off.

### Command

---

```
02h 15h 00h 00h 00h 17h
```

### Response

---

#### ▶ When the command succeeds

```
22h 15h <ID1> <ID2> 00h <CKS>
```

#### ▶ When the command fails

```
A2h 15h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```



## 3.11 [ 030-1. PICTURE ADJUST ]

Adjusts the picture.

### Command

```
03h 10h 00h 00h 05h <DATA01> FFh <DATA02> - <DATA04> <CKS>
```

### Data part

| Item   | Description                          |                           |
|--------|--------------------------------------|---------------------------|
| DATA01 | Adjustment target                    |                           |
|        | 00h                                  | Brightness                |
|        | 01h                                  | Contrast                  |
|        | 02h                                  | Color                     |
|        | 03h                                  | Hue                       |
|        | 04h                                  | Sharpness                 |
| DATA02 | Adjustment mode                      |                           |
|        | 00h                                  | Specify an absolute value |
|        | 01h                                  | Specify a relative value  |
| DATA03 | Adjustment value (low-order 8 bits)  |                           |
| DATA04 | Adjustment value (high-order 8 bits) |                           |

### ▶ Command example

- ① The following command sets brightness to "10".

```
03h 10h 00h 00h 05h 00h FFh 00h 0Ah 00h 21h
```

- ② The following command sets brightness to "-10".

```
03h 10h 00h 00h 05h 00h FFh 00h F6h FFh 0Ch
```

## Response

### ▶ When the command succeeds

23h 10h <ID1> <ID2> 02h <DATA01> <DATA02> <CKS>

### Data part

| Item   | Description      |                      |
|--------|------------------|----------------------|
| DATA01 | Execution result |                      |
| DATA02 | 0000h            | Ended successfully.  |
|        | Other than 0000h | Ended with an error. |

### ▶ When the command fails

A3h 10h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.12 [ 030-2. VOLUME ADJUST ]

Adjusts the sound volume.

### Command

```
03h 10h 00h 00h 05h 05h 00h <DATA01> - <DATA03> <CKS>
```

### Data part

| Item   | Description                          |                           |
|--------|--------------------------------------|---------------------------|
| DATA01 | Adjustment mode                      |                           |
|        | 00h                                  | Specify an absolute value |
|        | 01h                                  | Specify a relative value  |
| DATA02 | Adjustment value (low-order 8 bits)  |                           |
| DATA03 | Adjustment value (high-order 8 bits) |                           |

### ▶ Command example

The following command set the sound volume to "10".

```
03h 10h 00h 00h 05h 05h 00h 00h 0Ah 00h 27h
```

## Response

---

### ▶ When the command succeeds

|   |
|---|
| 23h 10h <ID1> <ID2> 02h <DATA01> <DATA02> <CKS> |
|---|

---

---

### Data part

---

---

| Item   | Description      |                      |
|--------|------------------|----------------------|
| DATA01 | Execution result |                      |
| DATA02 | 0000h            | Ended successfully.  |
|        | Other than 0000h | Ended with an error. |

### ▶ When the command fails

|   |
|---|
| A3h 10h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS> |
|---|

## 3.13 [ 030-12. ASPECT ADJUST ]

Adjusts the aspect.

### Command

```
03h 10h 00h 00h 05h 18h 00h 00h <DATA01> 00h <CKS>
```

#### Data part

| Item   | Description              |
|--------|--------------------------|
| DATA01 | Value set for the aspect |

#### Information

For information about the values set for the aspect, see the Appendix "Supplementary Information by Command".

### Response

#### ▶ When the command succeeds

```
23h 10h <ID1> <ID2> 02h <DATA01> <DATA02> <CKS>
```

#### Data part

| Item   | Description                           |
|--------|---------------------------------------|
| DATA01 | Execution result                      |
| DATA02 | 0000h Ended successfully.             |
|        | Other than 0000h Ended with an error. |

#### ▶ When the command fails

```
A3h 10h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.14 [ 030-15. OTHER ADJUST ]

Adjusts the various gains.

### Command

```
03h 10h 00h 00h 05h <DATA01> - <DATA05> <CKS>
```

### Data part

| Item   | Description                          |                           |                            |
|--------|--------------------------------------|---------------------------|----------------------------|
| DATA01 | DATA01                               | DATA02                    | Adjustment target          |
| DATA02 | 96h                                  | FFh                       | LAMP ADJUST / LIGHT ADJUST |
| DATA03 | Adjustment mode                      |                           |                            |
|        | 00h                                  | Specify an absolute value |                            |
|        | 01h                                  | Specify a relative value  |                            |
| DATA04 | Adjustment value (low-order 8 bits)  |                           |                            |
| DATA05 | Adjustment value (high-order 8 bits) |                           |                            |

## Response

### ▶ When the command succeeds

23h 10h <ID1> <ID2> 02h <DATA01> <DATA02> <CKS>

### Data part

| Item   | Description      |                      |
|--------|------------------|----------------------|
| DATA01 | Execution result |                      |
| DATA02 | 0000h            | Ended successfully.  |
|        | Other than 0000h | Ended with an error. |

### ▶ When the command fails

A3h 10h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.15 [ 037. INFORMATION REQUEST ]

Gets the information of the projector.

### Command

```
03h 8Ah 00h 00h 00h 8Dh
```

### Response

#### ▶ When the command succeeds

```
23h 8Ah <ID1> <ID2> 62h <DATA01> - <DATA98> <CKS>
```

#### Data part

| Item        | Description   |
|-------------|---|
| DATA01 - 49 | Projector name (NUL: termination character string). |
| DATA50 - 82 | Reserved for the system                             |
| DATA83 - 86 | Lamp usage time (seconds)                           |
| DATA87 - 90 | Filter usage time (seconds)                         |
| DATA91 - 98 | Reserved for the system                             |

#### ▶ When the command fails

```
A3h 8Ah <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

#### ▶ Response example

When the lamp usage time is 18000 seconds (5 hours)

```
23h 8Ah <ID1> <ID2> 62h <DATA01> - <DATA82> 50h 46h 00h 00h  
<DATA87> - <DATA98> <CKS>
```

Lamp usage time (DATA83 – DATA86) = 18000 / 3600 = 5 hours

#### Information

While the usage time can be obtained in one-second units, the information is updated at one-minute intervals.



## 3.16 [ 037-3. FILTER USAGE INFORMATION REQUEST ]

Gets filter usage information such as usage time.

### Command

```
03h 95h 00h 00h 00h 98h
```

### Response

#### ▶ When the command succeeds

```
23h 95h <ID1> <ID2> 08h <DATA01> - <DATA08> <CKS>
```

#### Data part

| Item        | Description                       |
|-------------|-----------------------------------|
| DATA01 - 04 | Filter usage time (seconds)       |
| DATA05 - 08 | Filter alarm start time (seconds) |

#### Information

If no time is defined, "-1" is returned.

#### ▶ When the command fails

```
A3h 95h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.17 [ 037-4. LAMP INFORMATION REQUEST 3 ]

Gets lamp usage information such as usage time or remaining life. When the eco mode is enabled, the values in the obtained information reflect the eco mode.

### Command

```
03h 96h 00h 00h 02h <DATA01> <DATA02> <CKS>
```

### Data part

| Item   | Description |                           |
|--------|-------------|---------------------------|
| DATA01 | Target      |                           |
|        | 00h         | Lamp 1                    |
|        | 01h         | Lamp 2                    |
| DATA02 | Content     |                           |
|        | 01h         | Lamp usage time (seconds) |
|        | 04h         | Lamp remaining life (%)   |

### Information

"01h" (Lamp 2) in DATA01 is effective only for two-lamp projector models.

### ► Command example

The following command gets the lamp usage time.

```
03h 96h 00h 00h 02h 00h 01h 9Ch
```

## Response

### ▶ When the command succeeds

```
23h 96h <ID1> <ID2> 06h <DATA01> - <DATA06> <CKS>
```

#### Data part

| Item        | Description          |                           |
|-------------|----------------------|---------------------------|
| DATA01      | Target               |                           |
|             | 00h                  | Lamp 1                    |
|             | 01h                  | Lamp 2                    |
| DATA02      | Content              |                           |
|             | 01h                  | Lamp usage time (seconds) |
|             | 04h                  | Lamp remaining life (%)   |
| DATA03 - 06 | Obtained information |                           |

### ▶ When the command fails

```
A3h 96h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

### ▶ Response example

When the lamp usage time is 18000 seconds (5 hours)

```
23h 96h <ID1> <ID2> 06h 00h 01h 50h 46h 00h 00h <CKS>
```

Lamp usage time (DATA03 - DATA06) = 18000 / 3600 = 5 hours

#### Information

- While the lamp usage time can be obtained in one-second units, the information is updated at one-minute intervals.
- If the lamp replacement deadline is exceeded, a negative value is returned as the lamp remaining life (%).

## 3.18 [ 037-6. CARBON SAVINGS INFORMATION REQUEST ]

Gets the Carbon Saving values on the projector.

### Command

```
03h 9Ah 00h 00h 01h <DATA01> <CKS>
```

### Data part

| Item   | Description |                                 |
|--------|-------------|---------------------------------|
| DATA01 | Target      |                                 |
|        | 00h         | Total Carbon Savings            |
|        | 01h         | Carbon Savings during operation |

## Response

### ▶ When the command succeeds

```
23h 9Ah <ID1> <ID2> 09h <DATA01> - <DATA09> <CKS>
```

#### Data part

| Item        | Description               |                                 |
|-------------|---------------------------|---------------------------------|
| DATA01      | Target                    |                                 |
|             | 00h                       | Total Carbon Savings            |
|             | 01h                       | Carbon Savings during operation |
| DATA02 - 05 | Carbon Savings (Kilogram  | Maximum: 99999[kg])             |
| DATA06 - 09 | Carbon Savings (Milligram | Maximum:999999[mg])             |

### ▶ When the command fails

```
A3h 9Ah <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

### ▶ Response example

When the Carbon Savings value is 2460.06375[kg].

```
23h 9Ah <ID1> <ID2> 09h 00h 9Ch 90h 00h 00h 06h F9h 00h 00h  
<CKS>
```

## 3.19 [ 050. REMOTE KEY CODE ]

Sends the key code for remote control.

### Command

02h 0Fh 00h 00h 02h <DATA01> <DATA02> <CKS>

### Data part

| Item   | Description   |
|--------|---|
| DATA01 | Key code (WORD type)  |
| DATA02 | For the combinations of key codes, see Table "Key code list". |

<Key code list>

| Key code | DATA01 | DATA02 | Key name     |
|----------|--------|--------|--------------|
| 2        | 02h    | 00h    | POWER ON     |
| 3        | 03h    | 00h    | POWER OFF    |
| 5        | 05h    | 00h    | AUTO         |
| 6        | 06h    | 00h    | MENU         |
| 7        | 07h    | 00h    | UP           |
| 8        | 08h    | 00h    | DOWN         |
| 9        | 09h    | 00h    | RIGHT        |
| 10       | 0Ah    | 00h    | LEFT         |
| 11       | 0Bh    | 00h    | ENTER        |
| 12       | 0Ch    | 00h    | EXIT         |
| 13       | 0Dh    | 00h    | HELP         |
| 15       | 0Fh    | 00h    | MAGNIFY UP   |
| 16       | 10h    | 00h    | MAGNIFY DOWN |
| 19       | 13h    | 00h    | MUTE         |
| 41       | 29h    | 00h    | PICTURE      |
| 75       | 4Bh    | 00h    | COMPUTER1    |
| 76       | 4Ch    | 00h    | COMPUTER2    |
| 79       | 4Fh    | 00h    | VIDEO1       |
| 81       | 51h    | 00h    | S-VIDEO1     |
| 132      | 84h    | 00h    | VOLUME UP    |
| 133      | 85h    | 00h    | VOLUME DOWN  |
| 138      | 8Ah    | 00h    | FREEZE       |
| 163      | A3h    | 00h    | ASPECT       |

| Key code | DATA01 | DATA02 | Key name      |
|----------|--------|--------|---------------|
| 215      | D7h    | 00h    | SOURCE        |
| 238      | EEh    | 00h    | LAMP MODE/ECO |

▶ **Command example**

The following command sends the key code "AUTO".

|                                 |
|---------------------------------|
| 02h 0Fh 00h 00h 02h 05h 00h 18h |
|---------------------------------|

**Response**

▶ **When the command succeeds**

|  |
|--|
| 22h 0Fh <ID1> <ID2> 01h <DATA01> <CKS> |
|--|

**Data part**

| Item   | Description      |                      |
|--------|------------------|----------------------|
| DATA01 | Execution result |                      |
|        | 00h              | Ended successfully.  |
|        | FFh              | Ended with an error. |

▶ **When the command fails**

|   |
|---|
| A2h 0Fh <ID1> <ID2> 02h <ERR1> <ERR2> <CKS> |
|---|

## 3.20 [ 051. SHUTTER CLOSE ]

Closes the lens shutter.

### Command

---

```
02h 16h 00h 00h 00h 18h
```

### Response

---

#### ▶ When the command succeeds

```
22h 16h <ID1> <ID2> 00h <CKS>
```

#### ▶ When the command fails

```
A2h 16h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```



## 3.21 [ 052. SHUTTER OPEN ]

Opens the lens shutter.

### Command

---

```
02h 17h 00h 00h 00h 19h
```

### Response

---

#### ▶ When the command succeeds

```
22h 17h <ID1> <ID2> 00h <CKS>
```

#### ▶ When the command fails

```
A2h 17h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.22 [ 053. LENS CONTROL ]

Adjusts the lens position.

### Command

```
02h 18h 00h 00h 02h <DATA01> <DATA02> <CKS>
```

### Data part

| Item   | Description |  |
|--------|-------------|--|
| DATA01 | Target      |  |
|        | 00h         | Zoom   |
|        | 01h         | Focus  |
|        | 02h         | Lens Shift (H)                                   |
|        | 03h         | Lens Shift (V)                                   |
| DATA02 | Content     |  |
|        | 00h         | Stop   |
|        | 01h         | Drives for 1 second in the direction of plus     |
|        | 02h         | Drives for 0.5 second in the direction of plus   |
|        | 03h         | Drives for 0.25 second in the direction of plus  |
|        | 7Fh         | Drives in the direction of plus                  |
|        | 81h         | Drives in the direction of minus                 |
|        | FDh         | Drives for 0.25 second in the direction of minus |
|        | FEh         | Drives for 0.5 second in the direction of minus  |
|        | FFh         | Drives for 1 second in the direction of minus    |

### Information

After sending "7Fh" (Drives in the direction of plus) or "81h" (Drives in the direction of minus) in DATA02, you can stop driving lens by sending "00h".

## Response

### ▶ When the command succeeds

```
22h 18h <ID1> <ID2> 01h <DATA01> <CKS>
```

#### Data part

| Item   | Description      |                      |
|--------|------------------|----------------------|
| DATA01 | Execution result |                      |
|        | 00h              | Ended successfully.  |
|        | FFh              | Ended with an error. |

### ▶ When the command fails

```
A2h 18h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

#### Information

While the lens is being driven, you can control the lens position without a stop by issuing the same command.

## 3.23 [ 053-1. LENS CONTROL REQUEST ]

Gets adjusted values of the lens position.

### Command

```
02h 1Ch 00h 00h 02h <DATA01> 00h <CKS>
```

### Data part

| Item   | Description |                |
|--------|-------------|----------------|
| DATA01 | Target      |                |
|        | 00h         | Zoom           |
|        | 01h         | Focus          |
|        | 02h         | Lens Shift (H) |
|        | 03h         | Lens Shift (V) |

## Response

### ▶ When the command succeeds

22h 1Ch <ID1> <ID2> 08h <DATA01> 00h <DATA02> - <DATA07> <CKS>

### Data part

| Item   | Description   |                |
|--------|---|----------------|
| DATA01 | Target  |                |
|        | 00h   | Zoom           |
|        | 01h   | Focus          |
|        | 02h   | Lens Shift (H) |
|        | 03h   | Lens Shift (V) |
| DATA02 | Upper limit of the adjustment range (low-order 8 bits)  |                |
| DATA03 | Upper limit of the adjustment range (high-order 8 bits) |                |
| DATA04 | Lower limit of the adjustment range (low-order 8 bits)  |                |
| DATA05 | Lower limit of the adjustment range (high-order 8 bits) |                |
| DATA06 | Current value (low-order 8 bits)                        |                |
| DATA07 | Current value (high-order 8 bits)                       |                |

### ▶ When the command fails

A2h 1Ch <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.24 [ 053-2. LENS CONTROL 2 ]

Adjusts the lens position.

### Command

02h 1Dh 00h 00h 04h <DATA01> - <DATA04> <CKS>

### Data part

| Item   | Description                          |                           |
|--------|--------------------------------------|---------------------------|
| DATA01 | Target                               |                           |
|        | 00h                                  | Zoom                      |
|        | 01h                                  | Focus                     |
|        | 02h                                  | Lens Shift (H)            |
|        | 03h                                  | Lens Shift (V)            |
|        | FFh                                  | Stop                      |
| DATA02 | Adjustment mode                      |                           |
|        | 00h                                  | Specify an absolute value |
|        | 02h                                  | Specify a relative value  |
| DATA03 | Adjustment value (low-order 8 bits)  |                           |
| DATA04 | Adjustment value (high-order 8 bits) |                           |

### Information

If specifying "Stop" in DATA01, the Adjustment mode and Adjustment value are not referenced.

## Response

### ▶ When the command succeeds

22h 1Dh <ID1> <ID2> 02h <DATA01> <DATA02> <CKS>

### Data part

| Item   | Description     |                           |
|--------|-----------------|---------------------------|
| DATA01 | Target          |                           |
|        | 00h             | Zoom                      |
|        | 01h             | Focus                     |
|        | 02h             | Lens Shift (H)            |
|        | 03h             | Lens Shift (V)            |
|        | FFh             | Stop                      |
| DATA02 | Adjustment mode |                           |
|        | 00h             | Specify an absolute value |
|        | 02h             | Specify a relative value  |

### ▶ When the command fails

A2h 1Dh <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.25 [ 053-3. LENS MEMORY CONTROL ]

Controls the lens memory.

### Information

See [ 053-4. REFERENCE LENS MEMORY CONTROL ] for controlling the reference lens memory.

### Command

02h 1Eh 00h 00h 01h <DATA01> <CKS>

### Data part

| Item   | Description |       |
|--------|-------------|-------|
| DATA01 | Operation   |       |
|        | 00h         | MOVE  |
|        | 01h         | STORE |
|        | 02h         | RESET |



## Response

### ▶ When the command succeeds

22h 1Eh <ID1> <ID2> 02h <DATA01> <DATA02> <CKS>

### Data part

| Item   | Description      |                      |
|--------|------------------|----------------------|
| DATA01 | Operation        |                      |
|        | 00h              | MOVE                 |
|        | 01h              | STORE                |
|        | 02h              | RESET                |
| DATA02 | Execution result |                      |
|        | 00h              | Ended successfully.  |
|        | FFh              | Ended with an error. |

### ▶ When the command fails

A2h 1Eh <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.26 [ 053-4. REFERENCE LENS MEMORY CONTROL ]

Controls the reference lens memory.

### Information

- See [ 053-3. LENS MEMORY CONTROL ] for controlling the lens memory.
- This command controls the profile number specified in [053-10 LENS PROFILE SET ].

### Command

02h 1Fh 00h 00h 01h <DATA01> <CKS>

### Data part

| Item   | Description |       |
|--------|-------------|-------|
| DATA01 | Operation   |       |
|        | 00h         | MOVE  |
|        | 01h         | STORE |
|        | 02h         | RESET |

## Response

### ▶ When the command succeeds

22h 1Fh <ID1> <ID2> 02h <DATA01> <DATA02> <CKS>

#### Data part

| Item   | Description      |                      |
|--------|------------------|----------------------|
| DATA01 | Operation        |                      |
|        | 00h              | MOVE                 |
|        | 01h              | STORE                |
|        | 02h              | RESET                |
| DATA02 | Execution result |                      |
|        | 00h              | Ended successfully.  |
|        | FFh              | Ended with an error. |

### ▶ When the command fails

A2h 1Fh <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.27 [ 053-5. LENS MEMORY OPTION REQUEST ]

Gets the value set for the lens memory.

### Command

02h 20h 00h 00h 01h <DATA01> <CKS>

#### Data part

| Item   | Description |                |
|--------|-------------|----------------|
| DATA01 | Target      |                |
|        | 00h         | LOAD BY SIGNAL |
|        | 01h         | FORCED MUTE    |

### Response

#### ▶ When the command succeeds

22h 20h <ID1> <ID2> 02h <DATA01> <DATA02> <CKS>

#### Data part

| Item   | Description   |                |
|--------|---------------|----------------|
| DATA01 | Target        |                |
|        | 00h           | LOAD BY SIGNAL |
|        | 01h           | FORCED MUTE    |
| DATA02 | Setting value |                |
|        | 00h           | OFF            |
|        | 01h           | ON             |

#### ▶ When the command fails

A2h 20h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.28 [ 053-6. LENS MEMORY OPTION SET ]

Sets the lens memory.

### Command

02h 21h 00h 00h 02h <DATA01> <DATA02> <CKS>

### Data part

| Item   | Description   |                |
|--------|---------------|----------------|
| DATA01 | Target        |                |
|        | 00h           | LOAD BY SIGNAL |
|        | 01h           | FORCED MUTE    |
| DATA02 | Setting value |                |
|        | 00h           | OFF            |
|        | 01h           | ON             |

## Response

### ▶ When the command succeeds

22h 21h <ID1> <ID2> 02h <DATA01> <DATA02> <CKS>

#### Data part

| Item   | Description      |                      |
|--------|------------------|----------------------|
| DATA01 | Target           |                      |
|        | 00h              | LOAD BY SIGNAL       |
|        | 01h              | FORCED MUTE          |
| DATA02 | Execution result |                      |
|        | 00h              | Ended successfully.  |
|        | 01h              | Ended with an error. |

### ▶ When the command fails

A2h 21h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.29 [ 053-7. LENS INFORMATION REQUEST ]

Gets information about the lens of the projector.

### Command

```
02h 22h 00h 00h 01h 00h 25h
```

### Response

#### ▶ When the command succeeds

```
22h 22h <ID1> <ID2> 02h 00h <DATA01> <CKS>
```

#### Data part

| Item   | Description |                  |                  |      |                         |                  |
|--------|-------------|------------------|------------------|------|-------------------------|------------------|
| DATA01 | Target      |                  |                  |      |                         |                  |
|        | Bit0        | Lens memory      |                  | Bit4 | Lens Shift (V)          |                  |
|        |             | 0                | Stop             |      | 0                       | Stop             |
|        |             | 1                | During operation |      | 1                       | During operation |
|        | Bit1        | Zoom             |                  | Bit5 | Reserved for the system |                  |
|        |             | 0                | Stop             |      |                         |                  |
|        |             | 1                | During operation |      |                         |                  |
|        | Bit2        | Focus            |                  | Bit6 | Reserved for the system |                  |
|        |             | 0                | Stop             |      |                         |                  |
|        |             | 1                | During operation |      |                         |                  |
|        | Bit3        | Lens Shift (H)   |                  | Bit7 | Reserved for the system |                  |
|        |             | 0                | Stop             |      |                         |                  |
| 1      |             | During operation |                  |      |                         |                  |

#### ▶ When the command fails

```
A2h 22h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

### 3.30 [ 053-10. LENS PROFILE SET ]

Selects the profile number of the reference lens memory.

#### Command

02h 27h 00h 00h 01h <DATA01> <CKS>

#### Data part

| Item   | Description    |           |
|--------|----------------|-----------|
| DATA01 | Profile number |           |
|        | 00h            | Profile 1 |
|        | 01h            | Profile 2 |

#### Response

##### ▶ When the command succeeds

22h 27h <ID1> <ID2> 02h <DATA01> <DATA02> <CKS>

#### Data part

| Item   | Description      |                      |
|--------|------------------|----------------------|
| DATA01 | Profile number   |                      |
|        | 00h              | Profile 1            |
|        | 01h              | Profile 2            |
| DATA02 | Execution result |                      |
|        | 00h              | Ended successfully.  |
|        | 01h              | Ended with an error. |

##### ▶ When the command fails

A2h 27h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>



## 3.31 [ 053-11. LENS PROFILE REQUEST ]

Gets the selected profile number of the reference lens memory.

### Command

02h 28h 00h 00h 00h 2Ah

### Response

#### ▶ When the command succeeds

22h 28h <ID1> <ID2> 02h <DATA01> <DATA02> <CKS>

#### Data part

| Item   | Description             |           |
|--------|-------------------------|-----------|
| DATA01 | Profile number          |           |
|        | 00h                     | Profile 1 |
|        | 01h                     | Profile 2 |
| DATA02 | Reserved for the system |           |

#### ▶ When the command fails

A2h 28h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.32 [ 060-1. GAIN PARAMETER REQUEST 3 ]

Gets adjusted values of the picture, volume, and so on.

### Command

```
03h 05h 00h 00h 03h <DATA01> 00h 00h <CKS>
```

### Data part

| Item   | Description         |                            |
|--------|---------------------|----------------------------|
| DATA01 | Adjusted value name |                            |
|        | 00h                 | PICTURE / BRIGHTNESS       |
|        | 01h                 | PICTURE / CONTRAST         |
|        | 02h                 | PICTURE / COLOR            |
|        | 03h                 | PICTURE / HUE              |
|        | 04h                 | PICTURE / SHARPNESS        |
|        | 05h                 | VOLUME                     |
|        | 96h                 | LAMP ADJUST / LIGHT ADJUST |

### ▶ Command example

The following command gets the adjusted value of the picture (brightness).

```
03h 05h 00h 00h 03h 00h 00h 00h 0Bh
```

## Response

### ▶ When the command succeeds

23h 05h <ID1> <ID2> 10h <DATA01> - <DATA16> <CKS>

### Data part

| Item             | Description   |                                    |
|------------------|---|------------------------------------|
| DATA01           | Adjusted value status                                   |                                    |
|                  | 00h   | Display not possible               |
|                  | 01h   | Adjustment not possible            |
|                  | 02h   | Adjustment possible                |
|                  | FFh   | The specified gain does not exist. |
| DATA02           | Upper limit of the adjustment range (low-order 8 bits)  |                                    |
| DATA03           | Upper limit of the adjustment range (high-order 8 bits) |                                    |
| DATA04           | Lower limit of the adjustment range (low-order 8 bits)  |                                    |
| DATA05           | Lower limit of the adjustment range (high-order 8 bits) |                                    |
| DATA06           | Default value (low-order 8 bits)                        |                                    |
| DATA07           | Default value (high-order 8 bits)                       |                                    |
| DATA08           | Current value (low-order 8 bits)                        |                                    |
| DATA09           | Current value (high-order 8 bits)                       |                                    |
| DATA10           | Wide adjustment width (low-order 8 bits)                |                                    |
| DATA11           | Wide adjustment width (high-order 8 bits)               |                                    |
| DATA12           | Narrow adjustment width (low-order 8 bits)              |                                    |
| DATA13           | Narrow adjustment width (high-order 8 bits)             |                                    |
| DATA14           | Whether the default value is valid or invalid           |                                    |
|                  | 00h   | The default value is invalid.      |
|                  | 01h   | The default value is valid.        |
| DATA15<br>DATA16 | Reserved for the system                                 |                                    |

### ▶ When the command fails

A3h 05h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

### 3.33 [ 078-1. SETTING REQUEST ]

Gets information of the projector.

#### Command

00h 85h 00h 00h 01h 00h 86h

#### Response

##### ▶ When the command succeeds

20h 85h <ID1> <ID2> 20h <DATA01> - <DATA32> <CKS>

#### Data part

| Item        | Description             |   |
|-------------|-------------------------|---|
| DATA01 - 03 | Base model type         |   |
| DATA04      | Sound function          |   |
|             | 00h                     | Not available                           |
|             | 01h                     | Available                               |
| DATA05      | Profile number          |   |
|             | 00h                     | Not available                           |
|             | 01h                     | Clock function                          |
|             | 02h                     | Sleep timer function                    |
|             | 03h                     | Clock function and Sleep timer function |
| DATA06 - 32 | Reserved for the system |   |

#### Information

For the values of the base model types, see the Appendix "Supplementary Information by Command".

##### ▶ When the command fails

A0h 85h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

### 3.34 [ 078-2. RUNNING STATUS REQUEST ]

Gets the information about the operation status of the projector.

#### Command

00h 85h 00h 00h 01h 01h 87h

#### Response

##### ▶ When the command succeeds

20h 85h <ID1> <ID2> 10h <DATA01> - <DATA16> <CKS>

#### Data part

| Item        | Description             |                  |     |                        |
|-------------|-------------------------|------------------|-----|------------------------|
| DATA01 - 02 | Reserved for the system |                  |     |                        |
| DATA03      | Power status            |                  |     |                        |
|             | 00h                     | Standby          | FFh | Not supported          |
|             | 01h                     | Power on         | —   | —                      |
| DATA04      | Cooling process         |                  |     |                        |
|             | 00h                     | Not executed     | FFh | Not supported          |
|             | 01h                     | During execution | —   | —                      |
| DATA05      | Power On/Off process    |                  |     |                        |
|             | 00h                     | Not executed     | FFh | Not supported          |
|             | 01h                     | During execution | —   | —                      |
| DATA06      | Operation status        |                  |     |                        |
|             | 00h                     | Standby (Sleep)  | 0Fh | Standby (Power saving) |
|             | 04h                     | Power on         | 10h | Network standby        |
|             | 05h                     | Cooling          | FFh | Not supported          |
|             | 06h                     | Standby (error)  | —   | —                      |
| DATA07 - 16 | Reserved for the system |                  |     |                        |

##### ▶ When the command fails

A0h 85h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

### 3.35 [ 078-3. INPUT STATUS REQUEST ]

Gets the information about the input signal status of the projector.

#### Command

00h 85h 00h 00h 01h 02h 88h

#### Response

##### ▶ When the command succeeds

20h 85h <ID1> <ID2> 10h <DATA01> - <DATA16> <CKS>

#### Data part

| Item   | Description             |                         |     |                  |
|--------|-------------------------|-------------------------|-----|------------------|
| DATA01 | Signal switch process   |                         |     |                  |
|        | 00h                     | Not executed            | FFh | Not supported    |
|        | 01h                     | During execution        | —   | —                |
| DATA02 | Signal list number      |                         |     |                  |
|        | 00h – C7h               | Signal list number - 1  | FFh | Not supported    |
| DATA03 | Selection signal type 1 |                         |     |                  |
|        | 01h                     | 1                       | 04h | 4                |
|        | 02h                     | 2                       | 05h | 5                |
|        | 03h                     | 3                       | —   | —                |
| DATA04 | Selection signal type 2 |                         |     |                  |
|        | 01h                     | COMPUTER                | 20h | DVI-D            |
|        | 02h                     | VIDEO                   | 21h | HDMI             |
|        | 03h                     | S-VIDEO                 | 22h | DisplayPort      |
|        | 04h                     | COMPONENT               | 23h | VIEWER(6-10)     |
|        | 05h                     | Reserved for the system | FFh | Not Source Input |
|        | 07h                     | VIEWER(1-5)             | —   | —                |

| Item        | Description             |                        |     |                        |
|-------------|-------------------------|------------------------|-----|------------------------|
| DATA05      | Signal list type        |                        |     |                        |
|             | 00h                     | Default                | FFh | Not supported          |
|             | 01h                     | User                   | —   | —                      |
| DATA06      | Test pattern display    |                        |     |                        |
|             | 00h                     | Not displayed          | FFh | Not supported          |
|             | 01h                     | Displayed              | —   | —                      |
| DATA07 - 08 | Reserved for the system |                        |     |                        |
| DATA09      | Content displayed       |                        |     |                        |
|             | 00h                     | Video signal displayed | 03h | Test pattern displayed |
|             | 01h                     | No signal              | 04h | LAN displayed          |
|             | 02h                     | Viewer displayed       | FFh | Not supported          |
| DATA10 - 16 | Reserved for the system |                        |     |                        |

#### Information

- A value which is "1" smaller than a practical value will be returned as a signal list number. For finding out a practical number, add "1" to the returned value.
- For information about the Selection signal type, see the Appendix "Supplementary Information by Command".

#### ▶ When the command fails

|   |
|---|
| A0h 85h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS> |
|---|

#### ▶ Response example

When the signal list number is 10.

|  |
|--|
| 20h 85h <ID1> <ID2> 10h <DATA01> 09h <DATA03> - <DATA16> <CKS> |
|--|

## 3.36 [ 078-4. MUTE STATUS REQUEST ]

Gets the mute status of the projector.

### Command

00h 85h 00h 00h 01h 03h 89h

### Response

#### ▶ When the command succeeds

20h 85h <ID1> <ID2> 10h <DATA01> - <DATA16> <CKS>

#### Data part

| Item   | Description   |               |
|--------|---------------|---------------|
| DATA01 | Picture mute  |               |
|        | 00h           | Off           |
|        | 01h           | On            |
|        | FFh           | Not supported |
| DATA02 | Sound mute    |               |
|        | 00h           | Off           |
|        | 01h           | On            |
|        | FFh           | Not supported |
| DATA03 | Onscreen mute |               |
|        | 00h           | Off           |
|        | 01h           | On            |
|        | FFh           | Not supported |



| Item        | Description             |               |
|-------------|-------------------------|---------------|
| DATA04      | Forced onscreen mute    |               |
|             | 00h                     | Off           |
|             | 01h                     | On            |
|             | FFh                     | Not supported |
| DATA05      | Onscreen display        |               |
|             | 00h                     | Not displayed |
|             | 01h                     | Displayed     |
|             | FFh                     | Not supported |
| DATA06 - 16 | Reserved for the system |               |

► **When the command fails**

|   |
|---|
| A0h 85h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS> |
|---|

### 3.37 [ 078-5. MODEL NAME REQUEST ]

Gets the model name of the projector.

#### Command

00h 85h 00h 00h 01h 04h 8Ah

#### Response

##### ▶ When the command succeeds

20h 85h <ID1> <ID2> 20h <DATA01> - <DATA32> <CKS>

#### Data part

| Item        | Description                                    |
|-------------|--|
| DATA01 - 32 | Model name (NUL: termination character string) |

##### ▶ When the command fails

A0h 85h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

### 3.38 [ 078-6. COVER STATUS REQUEST ]

Gets the status of the mirror cover or lens cover.

#### Command

00h 85h 00h 00h 01h 05h 8Bh

#### Response

##### ▶ When the command succeeds

20h 85h <ID1> <ID2> 01h <DATA01> <CKS>

#### Data part

| Item   | Description |                       |
|--------|-------------|-----------------------|
| DATA01 | Status      |                       |
|        | 00h         | Normal (cover opened) |
|        | 01h         | Cover closed          |

##### ▶ When the command fails

A0h 85h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.39 [ 079. FREEZE CONTROL ]

Controls whether to turn the freeze function on or off.

### Command

01h 98h 00h 00h 01h <DATA01> <CKS>

#### Data part

| Item   | Description |                                |
|--------|-------------|--------------------------------|
| DATA01 | Operation   |                                |
|        | 01h         | Turns the freeze function on.  |
|        | 02h         | Turns the freeze function off. |

### Response

#### ▶ When the command succeeds

21h 98h <ID1> <ID2> 01h <DATA01> <CKS>

#### Data part

| Item   | Description      |                      |
|--------|------------------|----------------------|
| DATA01 | Execution result |                      |
|        | 00h              | Ended successfully.  |
|        | 01h              | Ended with an error. |

#### ▶ When the command fails

A1h 98h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.40 [ 084. INFORMATION STRING REQUEST ]

Gets the information strings (English) displayed on the projector.

### Command

```
00h D0h 00h 00h 03h 00h <DATA01> 01h <CKS>
```

#### Data part

| Item   | Description      |                                  |
|--------|------------------|----------------------------------|
| DATA01 | Information type |                                  |
|        | 03h              | Horizontal synchronous frequency |
|        | 04h              | Vertical synchronous frequency   |

### Response

#### ▶ When the command succeeds

```
20h D0h <ID1> <ID2> LEN <DATA01> 01h <DATA02> - <DATA??> <CKS>
```

#### Data part

| Item        | Description   |                                  |
|-------------|---|----------------------------------|
| DATA01      | Information type  |                                  |
|             | 03h   | Horizontal synchronous frequency |
|             | 04h   | Vertical synchronous frequency   |
| DATA02      | Label/information string length (excluding NUL characters)    |                                  |
| DATA03 - ?? | Label/information strings (NUL: termination character string) |                                  |

#### ▶ When the command fails

```
A0h D0h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.41 [ 097-8. ECO MODE REQUEST ]

Gets the value set for the eco mode.

### Information

Depending on the projector, the value for the "Light mode" or "Lamp mode" will be returned.

### Command

```
03h B0h 00h 00h 01h 07h BBh
```

### Response

#### ▶ When the command succeeds

```
23h B0h <ID1> <ID2> 02h 07h <DATA01> <CKS>
```

#### Data part

| Item   | Description                |
|--------|----------------------------|
| DATA01 | Value set for the eco mode |

### Information

For information about the values set for the eco mode, see the Appendix "Supplementary Information by Command".

#### ▶ When the command fails

```
A3h B0h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.42 [ 097-45. LAN PROJECTOR NAME REQUEST ]

Gets the projector name.

### Command

```
03h B0h 00h 00h 01h 2Ch E0h
```

### Response

#### ▶ When the command succeeds

```
23h B0h <ID1> <ID2> 12h 2Ch <DATA01> - <DATA17> <CKS>
```

#### Data part

| Item        | Description  |
|-------------|--|
| DATA01 - 17 | Projector name (NUL: termination character string) |

#### ▶ When the command fails

```
A3h B0h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.43 [ 097-155. LAN MAC ADDRESS STATUS REQUEST2 ]

Gets the MAC address of the projector.

### Command

```
03h B0h 00h 00h 02h 9Ah 00h 4Fh
```

### Response

#### ▶ When the command succeeds

```
23h B0h <ID1> <ID2> 08h 9Ah 00h <DATA01> - <DATA06> <CKS>
```

#### Data part

| Item        | Description |
|-------------|-------------|
| DATA01 - 06 | MAC address |

#### ▶ When the command fails

```
A3h B0h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

#### ▶ Response example

When the MAC address of the projector is "01h-23h-45h-67h-89h-ABh", the following response is returned.

```
23h B0h <ID1> <ID2> 08h 9Ah 00h 01h 23h 45h 67h 89h ABh <CKS>
```



## 3.44 [ 097-198. PIP/PICTURE BY PICTURE REQUEST ]

Gets the value set for the picture in picture and picture by picture.

### Command

```
03h B0h 00h 00h 02h C5h <DATA01> <CKS>
```

### Data part

| Item   | Description |                         |
|--------|-------------|-------------------------|
| DATA01 | Target      |                         |
|        | 00h         | MODE                    |
|        | 01h         | START POSITION          |
|        | 02h         | SUB INPUT / SUB INPUT 1 |
|        | 09h         | SUB INPUT 2             |
|        | 0Ah         | SUB INPUT 3             |

## Response

### ▶ When the command succeeds

23h B0h <ID1> <ID2> 03h C5h <DATA01> <DATA02> <CKS>

### Data part

| Item   | Description  |                         |
|--------|--|-------------------------|
| DATA01 | Target   |                         |
|        | 00h  | MODE                    |
|        | 01h  | START POSITION          |
|        | 02h  | SUB INPUT / SUB INPUT 1 |
|        | 09h  | SUB INPUT 2             |
|        | 0Ah  | SUB INPUT 3             |
| DATA02 | Setting value (when DATA01 is 00h "MODE")                              |                         |
|        | 00h  | PIP                     |
|        | 01h  | PICTURE BY PICTURE      |
|        | Setting value (when DATA01 is 01h "START POSITION")                    |                         |
|        | 00h  | TOP-LEFT                |
|        | 01h  | TOP-RIGHT               |
|        | 02h  | BOTTOM-LEFT             |
|        | 03h  | BOTTOM-RIGHT            |
|        | Sub input setting value (when DATA01 is 02h "SUB INPUT / SUB INPUT 1") |                         |
|        | Sub input setting value (when DATA01 is 09h "SUB INPUT 2")             |                         |
|        | Sub input setting value (when DATA01 is 0Ah "SUB INPUT 3")             |                         |

### Information

For the values of the Sub input setting value, see the Appendix "Supplementary Information by Command".

### ▶ When the command fails

A3h B0h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.45 [ 097-243-1. EDGE BLENDING MODE REQUEST ]

Gets the value set for the edge blending.

### Command

03h B0h 00h 00h 02h DFh 00h 94h

### Response

#### ▶ When the command succeeds

23h B0h <ID1> <ID2> 03h DFh 00h <DATA01> <CKS>

#### Data part

| Item   | Description   |     |
|--------|---------------|-----|
| DATA01 | Setting value |     |
|        | 00h           | OFF |
|        | 01h           | ON  |

#### ▶ When the command fails

A3h B0h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.46 [ 098-8. ECO MODE SET ]

Sets the eco mode.

### Information

Depending on the projector, the "Light mode" or "Lamp mode" will be set.

### Command

```
03h B1h 00h 00h 02h 07h <DATA01> <CKS>
```

| Item   | Description                |
|--------|----------------------------|
| DATA01 | Value set for the eco mode |

### Information

For information about the values set for the eco mode, see the Appendix "Supplementary Information by Command".

### Response

#### ▶ When the command succeeds

```
23h B1h <ID1> <ID2> 02h 07h <DATA01> <CKS>
```

#### Data part

| Item   | Description      |                      |
|--------|------------------|----------------------|
| DATA01 | Execution result |                      |
|        | 00h              | Ended successfully.  |
|        | 01h              | Ended with an error. |

#### ▶ When the command fails

```
A3h B1h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.47 [ 098-45. LAN PROJECTOR NAME SET ]

Sets the projector name.

### Command

03h B1h 00h 00h 12h 2Ch <DATA01> - <DATA16> 00h <CKS>

#### Data part

| Item        | Description                     |
|-------------|---------------------------------|
| DATA01 - 16 | Projector name (up to 16 bytes) |

### Response

#### ▶ When the command succeeds

23h B1h <ID1> <ID2> 02h 2Ch <DATA01> <CKS>

#### Data part

| Item   | Description      |                      |
|--------|------------------|----------------------|
| DATA01 | Execution result |                      |
|        | 00h              | Ended successfully.  |
|        | 01h              | Ended with an error. |

#### ▶ When the command fails

A3h B1h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.48 [ 098-198. PIP/PICTURE BY PICTURE SET ]

Sets the picture in picture or picture by picture.

### Command

```
03h B1h 00h 00h 03h C5h <DATA01> <DATA02> <CKS>
```

### Data part

| Item   | Description  |                         |
|--------|--|-------------------------|
| DATA01 | Target   |                         |
|        | 00h  | MODE                    |
|        | 01h  | START POSITION          |
|        | 02h  | SUB INPUT / SUB INPUT 1 |
|        | 09h  | SUB INPUT 2             |
|        | 0Ah  | SUB INPUT 3             |
| DATA02 | Setting value (when DATA01 is 00h "Mode")                              |                         |
|        | 00h  | PIP                     |
|        | 01h  | PICTURE BY PICTURE      |
|        | Setting value (when DATA01 is 01h "START POSITION")                    |                         |
|        | 00h  | TOP-LEFT                |
|        | 01h  | TOP-RIGHT               |
|        | 02h  | BOTTOM-LEFT             |
|        | 03h  | BOTTOM-RIGHT            |
|        | Sub input setting value (when DATA01 is 02h "SUB INPUT / SUB INPUT 1") |                         |
|        | Sub input setting value (when DATA01 is 09h "SUB INPUT 2")             |                         |
|        | Sub input setting value (when DATA01 is 0Ah "SUB INPUT 3")             |                         |

### Information

For the values of the Sub input setting value, see the Appendix "Supplementary Information by Command".

## Response

### ▶ When the command succeeds

23h B1h <ID1> <ID2> 03h C5h <DATA01> <DATA02> <CKS>

### Data part

| Item   | Description      |                         |
|--------|------------------|-------------------------|
| DATA01 | Target           |                         |
|        | 00h              | MODE                    |
|        | 01h              | START POSITION          |
|        | 02h              | SUB INPUT / SUB INPUT 1 |
|        | 03h              | SUB INPUT 2             |
|        | 04h              | SUB INPUT 3             |
| DATA02 | Execution result |                         |
|        | 00h              | Ended successfully.     |
|        | 01h              | Ended with an error.    |

### ▶ When the command fails

A3h B1h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>

## 3.49 [ 098-243-1. EDGE BLENDING MODE SET ]

Sets the edge blending.

### Command

03h B1h 00h 00h 03h DFh 00h <DATA01> <CKS>

#### Data part

| Item   | Description   |     |
|--------|---------------|-----|
| DATA01 | Setting value |     |
|        | 00h           | 00h |
|        | 01h           | 01h |

### Response

#### ▶ When the command succeeds

23h B1h <ID1> <ID2> 03h DFh 00h <DATA01> <CKS>

#### Data part

| Item   | Description      |                      |
|--------|------------------|----------------------|
| DATA01 | Execution result |                      |
|        | 00h              | Ended successfully.  |
|        | 01h              | Ended with an error. |

#### ▶ When the command fails

A3h B1h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>



## 3.50 [ 305-1. BASE MODEL TYPE REQUEST ]

Gets the base model type of the projector.

### Command

```
00h BFh 00h 00h 01h 00h C0h
```

### Response

#### ▶ When the command succeeds

```
20h BFh <ID1> <ID2> 10h 00h <DATA01> - <DATA15> <CKS>
```

#### Data part

| Item             | Description                                    |
|------------------|--|
| DATA01<br>DATA02 | Base model type                                |
| DATA03 - 11      | Model name (NUL: termination character string) |
| DATA12<br>DATA13 | Base model type                                |
| DATA14<br>DATA15 | Reserved for the system                        |

#### Information

For the values of the base model types, see the Appendix "Supplementary Information by Command".

#### ▶ When the command fails

```
A0h BFh <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.51 [ 305-2. SERIAL NUMBER REQUEST ]

Gets the serial number of the projector.

### Command

```
00h BFh 00h 00h 02h 01h 06h C8h
```

### Response

#### ▶ When the command succeeds

```
20h BFh <ID1> <ID2> 12h 01h 06h <DATA01> - <DATA16> <CKS>
```

#### Data part

| Item        | Description                                       |
|-------------|---|
| DATA01 - 16 | Serial number (NUL: termination character string) |

#### ▶ When the command fails

```
A0h BFh <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 3.52 [ 305-3. BASIC INFORMATION REQUEST ]

Gets the basic information about the operation status of the projector.

### Command

```
00h BFh 00h 00h 01h 02h C2h
```

### Response

#### ▶ When the command succeeds

```
20h BFh <ID1> <ID2> 10h 02h <DATA01> - <DATA15> <CKS>
```

### Data part

| Item   | Description             |                        |     |                               |
|--------|-------------------------|------------------------|-----|-------------------------------|
| DATA01 | Operation status        |                        |     |                               |
|        | 00h                     | Standby (Sleep)        | 06h | Standby (error)               |
|        | 04h                     | Power on               | 0Fh | Standby (Power saving)        |
|        | 05h                     | Cooling                | 10h | Network standby               |
| DATA02 | Content displayed       |                        |     |                               |
|        | 00h                     | Video signal displayed | 04h | LAN displayed                 |
|        | 01h                     | No signal              | 05h | Test pattern (user) displayed |
|        | 02h                     | Viewer displayed       | 10h | Signal being switched         |
|        | 03h                     | Test pattern displayed | —   | —                             |
| DATA03 | Selection signal type 1 |                        |     |                               |
|        | 01h                     | 1                      | 04h | 4                             |
|        | 02h                     | 2                      | 05h | 5                             |
|        | 03h                     | 3                      | —   | —                             |

| Item        | Description  |                         |     |                  |
|-------------|--|-------------------------|-----|------------------|
| DATA04      | Selection signal type 2  |                         |     |                  |
|             | 01h  | COMPUTER                | 20h | DVI-D            |
|             | 02h  | VIDEO                   | 21h | HDMI             |
|             | 03h  | S-VIDEO                 | 22h | DisplayPort      |
|             | 04h  | COMPONENT               | 23h | VIEWER(6-10)     |
|             | 05h  | Reserved for the system | FFh | Not Source Input |
|             | 07h  | VIEWER(1-5)             | —   | —                |
| DATA05      | Display signal type (effective only when DATA04 is 02h or 03h) |                         |     |                  |
|             | 00h  | NTSC3.58                | 09h | NTSC3.58 SQZ     |
|             | 01h  | NTSC4.43                | 0Ah | COMPONENT(60Hz)  |
|             | 02h  | PAL                     | 0Bh | COMPONENT(50Hz)  |
|             | 03h  | PAL60                   | 0Ch | Unknown          |
|             | 04h  | SECAM                   | 0Dh | NTSC             |
|             | 05h  | B/W60                   | 0Eh | PAL-M            |
|             | 06h  | B/W50                   | 0Fh | PAL-L            |
|             | 07h  | PALNM                   | FFh | Not Video Input  |
| 08h         | NTSC3.58 LBX   | —                       | —   |                  |
| DATA06      | Video mute   |                         |     |                  |
|             | 00h  | Off                     | 01h | On               |
| DATA07      | Sound mute   |                         |     |                  |
|             | 00h  | Off                     | 01h | On               |
| DATA08      | Onscreen mute  |                         |     |                  |
|             | 00h  | Off                     | 01h | On               |
| DATA09      | Freeze status  |                         |     |                  |
|             | 00h  | Off                     | 01h | On               |
| DATA10 - 15 | Reserved for the system  |                         |     |                  |

### Information

For information about which parameters are supported, see the Appendix "Supplementary Information by Command".

### ► When the command fails

|   |
|---|
| A0h BFh <ID1> <ID2> 02h <ERR1> <ERR2> <CKS> |
|---|

## 3.53 [ 319-10. AUDIO SELECT SET ]

Sets the audio select.

### Command

03h C9h 00h 00h 03h 09h <DATA01> <DATA02> <CKS>

### Data part

| Item   | Description    |                                  |     |          |
|--------|----------------|----------------------------------|-----|----------|
| DATA01 | Input terminal |                                  |     |          |
| DATA02 | Setting value  |                                  |     |          |
|        | 00h            | The terminal specified in DATA01 | 02h | COMPUTER |
|        | 01h            | BNC                              | —   | —        |

### Information

For the values of input terminal, see the Appendix "Supplementary Information by Command".

## Response

### ▶ When the command succeeds

```
23h C9h <ID1> <ID2> 03h 09h <DATA01> <DATA02> <CKS>
```

#### Data part

| Item   | Description                                      |
|--------|--|
| DATA01 | Input terminal                                   |
| DATA02 | Execution result                                 |
|        | 00h Ended successfully. 01h Ended with an error. |

#### Information

For the values of input terminal, see the Appendix "Supplementary Information by Command".

### ▶ When the command fails

```
A3h C9h <ID1> <ID2> 02h <ERR1> <ERR2> <CKS>
```

## 4. Revision History

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| Revision | Date              | Description  |
|----------|-------------------|--|
| 7.1      | April 16, 2020    | Corrected the descriptions<br>[037]  |
| 7.0      | July 6, 2018      | Updated the supported command<br>[097-198], [098-198], [319-10]  |
| 6.1      | May 29, 2017      | Corrected the descriptions<br>[053-3], [053-4]   |
| 6.0      | December 6, 2016  | Added the supported commands<br>[051], [052]   |
| 5.0      | January 6, 2016   | Added the Copyright on all pages.  |
| 4.0      | December 11, 2015 | Corrected the supported command<br>[053-6]   |
| 3.0      | June 16, 2015     | Added the supported command<br>[030-15]<br>Updated the supported command<br>[060-1]  |
| 2.0      | May 29, 2015      | Added the supported commands<br>[030-12], [037], [037-6], [053], [053-1], [053-2], [053-3], [053-4], [053-5], [053-6], [053-7],<br>[053-10], [053-11], [078-1], [078-2], [078-3], [078-4], [078-5], [097-198], [097-243-1],<br>[098-8], [098-198], [098-243-1], [319-10]<br>Updated the supported command<br>[009] |
| 1.0      | August 22, 2014   | First version  |