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Control Commands for NEC Projector VT60, VT70, VT80, VT90, LT170, VT700,
NP600, NP610, NP3200, NP-M350/P420, NP-ME360 series,
NP-UM330 series, NP-M361 series

No.BDT120015

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This file contains information about NEC projector control commands.

Model Name

NP: (NP600 series)

NP600/NP500/NP400/NP300

NP500W

NP600S

NP500WS

NP: (NP610 series)

NP610/NP510/NP410/NP405/NP310/NP305

NP510W/NP410W

NP610S

NP510WS

NP420/NP430/NP530/NP630

NP: (NP3200 series)

NP3200/NP2200/NP1200

NP: (NP-M350/P420 series)

NP-M230X/M260X/M300X/M350X

NP-M260W/M300W

NP-M260XS/M300XS/M350XS

NP-M260WS/M300WS

NP-M420XV/M420X

NP-P350X/P420X/P350W

NP: (NP-ME360 series)

NP-ME270X/ME310X/ME360X

NP: (NP-UM330 series)

NP-UM330X/UM280X/UM280W/UM330W

NP: (NP-M361 series)

NP-M361X/M311W/M271X/M311X/M271W

VT: (VT60 series)

VT460/VT560/VT660

VT465/VT460K/VT660K

GS40/GX50/GX60

VT46

GS45/VT46RU

(VT70 series)

VT47/VT470/VT470JY/VT570/VT670/VT575/VT676/VT37

(VT80 series)

VT48/VT480/VT58/VT580

(VT90 series)

VT49/VT59/VT490/VT491/VT590/VT595/VT695

(VT700 series)

VT700

LT: LT170

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1. Projector Control

NEC projector control commands allow you to control the functions of the projector via connection with a personal computer or another device.

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2. Connection Method

The following 2 kinds of connection methods are available for sending and receiving control commands.

1. Serial connection using the serial port on the projector
A serial cable is required.

2. LAN connection

2-1. LAN connection using the LAN port on the projector

A LAN cable is required.

2-2. LAN connection using a wireless LAN unit

A wireless LAN unit is required.

Status of supported connection

	(1)	(2-1)	(2-2)	
	Serial	Wired	Wireless	
	port	LAN port	LAN port	
LT170	Yes	No	No	
VT60 series	Yes	No	No	
VT70 series	Yes	No	No	
VT80 series	Yes	No	No	
VT90 series	Yes	No	No	
VT700 series	Yes	No	No	
NP600 series	Yes	Yes	No	
NP610 series	Yes	Yes	No	
NP3200 series	Yes	Yes	No	
NP-M350/P420 series	Yes	Yes	Yes	
NP-ME360 series	Yes	No	No	
NP-UM330 series	Yes	Yes	Yes	

+-----+-----+-----+-----+				
NP-M361 series	Yes	Yes	Yes	
+-----+-----+-----+-----+				

Yes: Supported

No : Not supported

* The serial cable and LAN cable are separately sold.

(CAUTION) (!1)

Before making connections, be sure to select [NORMAL] for [STANDBY MODE].

Setting method : From the projector's menu, select [SETUP] --> [OPTIONS(2)] --> [STANDBY MODE]--> [NORMAL].

(CAUTION) (!2)

The projector accept the "POWER ON" command during [POWER-SAVING] mode for [STANDBY MODE].

Supplement:

(!1) Only the NP600/NP610/NP3200 series is compatible.

(!2) Only the NP-M350/P420 series is compatible.

(!2) Only the NP-ME360 series is compatible.

(!2) Only the NP-UM330 series is compatible.

(!2) Only the NP-M361 series is compatible.

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3. Interface Conditions

Serial connection

The communications method conforms to the RS-232C standard.

Baud rate: 38400(!1)/19200/9600/4800bps
Data length: 8 bits
Parity bit: No parity
Stop bits: 1 bit
Communications mode: Full duplex

(!1) Only the NP-M350/NP-P420/NP-UM330/NP-M361 series is compatible.

The control connector is described below.

[VT60/VT70/VT80/VT90/LT170/VT700 series]

The PC CONTROL connector is a mini DIN 8-pin connector.

- 1 To TxD of PC
- 2
- 3
- 4 To GND of PC
- 5
- 6
- 7 To RxD of PC
- 8

* 2, 3, 5, 6, and 8 are used inside the projector.

[NP600/NP610/NP3200/NP-M350/NP-P420/NP-ME360/NP-UM330/NP-M361 series]

The PC CONTROL connector is a D-SUB 9-pin connector.

- 1
- 2 To TxD of PC
- 3 To RxD of PC
- 4
- 5 To GND of PC

- 6
- 7 To CTS of PC
- 8 To RTS of PC
- 9

LAN connection(!1)

[Wired LAN port]

LAN interface

Communication speed : Auto setting (10/100Mbps)

Certified standard : IEEE802.3 (10BASE-T)

IEEE802.3u (100BASE-TX, Auto-Negotiation)

A LAN connector (8 male RJ-45 connector)

- | | | |
|---|-----|-------------------|
| 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 |

[Port Number]

The TCP port number used is "7142".

Supplement:

(!1) Only the NP600/NP610/NP3200/NP-M350/NP-P420/NP-UM330/NP-M361 series is compatible.

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4. List of Commands

* Example for command

Command name	Example
001. POWER ON	02H 00H 00H 00H 00H 02H
002. POWER OFF	02H 01H 00H 00H 00H 03H
003. INPUT SW CHANGE(*5)	02H 03H 00H 00H 02H 01H <DATA> CKS
006. PICTURE MUTE ON	02H 10H 00H 00H 00H 12H
007. PICTURE MUTE OFF	02H 11H 00H 00H 00H 13H
008. SOUND MUTE ON	02H 12H 00H 00H 00H 14H
009. SOUND MUTE OFF	02H 13H 00H 00H 00H 15H
010. ONSCREEN MUTE ON	02H 14H 00H 00H 00H 16H
011. LAMP INFORMATION REQUEST	03H 8CH 00H 00H 00H 8FH
012. MUTE CONTROL	02H 1AH 00H 00H 02H <DATA> CKS
013. VOLUME ADJUST	03H 10H 00H 00H 05H 05H <DATA> CKS
014. BASE MODEL TYPE REQUEST	00H BFH 00H 00H 01H 00H CKS
015. PROJECTOR INFORMATION REQUEST	00H BFH 00H 00H 01H 02H CKS
016. ERROR STATUS REQUEST	00H 88H 00H 00H 00H 88H
017. INFORMATION REQUEST	03H 8AH 00H 00H 00H 8DH
018. FILTER USAGE INFORMATION REQUEST	03H 95H 00H 00H 00H 98H
019. LAMP INFORMATION REQUEST 3	03H 96H 00H 00H 02H <DATA> CKS
020. TEMP INFORMATION REQUEST	03H 99H 00H 00H 01H <DATA> CKS
021. REMOTE KEY CODE	02H 0FH 00H 00H 02H <DATA> CKS
022. FREEZE CONTROL	01H 98H 00H 00H 01H <DATA> CKS
023. ORIENTATION SET	03H B1H 00H 00H 02H 0AH 00H C0H
024. AUTO ADJUST EXECUTE2	03H BAH 00H 00H 01H <DATA> CKS
025. RUNNING SENSE	00H 81H 00H 00H 00H 81H
026. COMMON DATA REQUEST	00H C0H 00H 00H 00H C0H
027. PICTURE ADJUST	03H 10H 00H 00H 05H DATA1 to 5 CKS
028. KEYSTONE ADJUST	03H 10H 00H 00H 05H 15H FFH DATA3 to 5

CKS

029. IMAGE MODE ADJUST	03H 10H 00H 00H 05H DATA1 to 5 CKS
030. LAMP INFORMATION REQUEST 2	03H 94H 00H 00H 00H 97H
031. GAIN PARAMETER REQUEST 2	03H 04H 00H 00H 03H DATA1 to 3 CKS
032. SETTING REQUEST	00H 85H 00H 00H 01H 00H CKS
033. RUNNING STATUS REQUEST	00H 85H 00H 00H 01H 01H CKS
034. INPUT STATUS REQUEST	00H 85H 00H 00H 01H 02H CKS
035. MUTE STATUS REQUEST	00H 85H 00H 00H 01H 03H CKS
036. MODEL NAME REQUEST	00H 85H 00H 00H 01H 04H CKS
037. INFORMATION STRING REQUEST	00H D0H 00H 00H 03H 00H 00H 00H

CKS

038. LAMP MODE REQUEST	03H B0H 00H 00H 01H 07H BBH
039. LAMP MODE SET	03H B1H 00H 00H 02H 07H 00H BDH
040. POWER MANAGEMENT SET	03H B1H 00H 00H 02H 17H 00H CDH
041. KEYSTONE SELECT SET	03H B1H 00H 00H 01H 93H DATA02 CKS
042. OTHER ADJUST	03H 10H 00H 00H 05H DATA1 to 5 CKS
043. SET PROJECTOR NAME	03H 8BH 00H 00H 32H DATA1 to 50 CKS
044. CLOSED CAPTION REQUEST	03H B0H 00H 00H 01H DATA1 CKS
045. FAN MODE REQUEST	03H B0H 00H 00H 01H DATA1 CKS
046. WXGA MODE SETTING REQUEST	03H B0H 00H 00H 01H DATA1 CKS
047. CLOSED CAPTION SET	03H B1H 00H 00H 02H DATA1 to 2 CKS
048. FAN MODE SET	03H B1H 00H 00H 02H DATA1 DATA2 CKS
049. WXGA MODE SETTING SET	03H B1H 00H 00H 02H DATA1 DATA2 CKS
050. LAMP INFORMATION REQUEST 4	03H 9BH 00H 00H 03H DATA1 DATA2

DATA3 CKS

051. CARBON SAVINGS INFORMATION REQUEST	03H 9AH 00H 00H 01H DATA1
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CKS

052. COVER STATUS REQUEST	00H 85H 00H 00H 01H 05H CKS
053. VERSION INFORMATION REQUEST	00H BFH 00H 00H 02H 01H <DATA>

CKS

* Availability by Model

Model No. Meaning of Symbol

01 : LT170	* : Supported
02 : VT60 series	! : Is available depending on the model's version
03 : VT70 series	- : Not supported
04 : VT80 series	
05 : VT90 series	
06 : VT700 series	
07 : NP600 series	
08 : NP610 series	
09 : NP3200 series	
10 : NP-M350/P420 series	
11 : NP-ME360 series	
12 : NP-UM330 series	
13 : NP-M361 series	

Availability by Model

Command Name	01	02	03	04	05	06	07	08	09	10	11	12	13
--------------	----	----	----	----	----	----	----	----	----	----	----	----	----

001. POWER ON	*	*	*	*	*	*	*	*	*	*	*	*	*
002. POWER OFF	*	*	*	*	*	*	*	*	*	*	*	*	*
003. INPUT SW CHANGE(*5)			*	*	*	*	*	*	*	*	*	*	*
006. PICTURE MUTE ON	*	*	*	*	*	*	*	*	*	*	*	*	*
007. PICTURE MUTE OFF	*	*	*	*	*	*	*	*	*	*	*	*	*
008. SOUND MUTE ON	*	*	*	*	*	*	*	*	*	*	*	*	*
009. SOUND MUTE OFF	*	*	*	*	*	*	*	*	*	*	*	*	*
010. ONSCREEN MUTE ON	*	*	*	*	*	*	*	*	*	*	*	*	*
011. LAMP INFORMATION REQUEST					*	*	*	*	*	*	*	*	*
012. MUTE CONTROL	*	*	*	*	*	*	*	*	*	*	*	*	*
013. VOLUME ADJUST	-	-	-	*	*	*	*	*	*	*	*	*	*
Volume	-	-	-	*	*	*	*	*	*	*	*	*	*
Bass	-	-	-	-	-	-	*	-	-	-	-	-	-
Treble	-	-	-	-	-	-	*	-	-	-	-	-	-
Balance	-	-	-	-	-	-	*	-	-	-	-	-	-

014. BASE MODEL TYPE REQUEST	- - - * * * * * * * * *
015. PROJECTOR INFORMATION REQUEST	- - - * * * * * * * * *
016. ERROR STATUS REQUEST	- - - - * * * * * * * * *
017. INFORMATION REQUEST	- - - - * * * * * * * * *
018. FILTER USAGE INFORMATION REQUEST	- - - - * * * * * * * * *
019. LAMP INFORMATION REQUEST 3	- - - - * * * * * * * * *
020. TEMP INFORMATION REQUEST	- - - - * * * * * * * * *
021. REMOTE KEY CODE	- - - * * * * * * * * *
022. FREEZE CONTROL	- - - ! * * * * * * * * *
023. ORIENTATION SET	- - - - * * * * * * * * *
024. AUTO ADJUST EXECUTE2	- - - - ! * * * * * * * * *
025. RUNNING SENSE	- - - - - * * * * * * * *
026. COMMON DATA REQUEST	- - - - - * * * * * * * *
027. PICTURE ADJUST	- - - - - * * * * * * * *
028. KEYSTONE ADJUST	- - - - - * * * * * * * *
029. IMAGE MODE ADJUST	- - - - - * * * * * * * *
030. LAMP INFORMATION REQUEST 2	- - - - - * * * * * * * *
031. GAIN PARAMETER REQUEST 2	- - - - - * * * * * * * *
032. SETTING REQUEST	- - - - - * * * * * * * *
033. RUNNING STATUS REQUEST	- - - - - * * * * * * * *
034. INPUT STATUS REQUEST	- - - - - * * * * * * * *
035. MUTE STATUS REQUEST	- - - - - * * * * * * * *
036. MODEL NAME REQUEST	- - - - - * * * * * * * *
037. INFORMATION STRING REQUEST	- - - - - * * * * * * * *
038. LAMP MODE REQUEST	- - - - - * * * * * * * *
039. LAMP MODE SET	- - - - - * * * * * * * *
040. POWER MANAGEMENT SET	- - - - - * * * * * * * *
041. KEYSTONE SELECT SET	- - - - - * * * * * * _ *
042. OTHER ADJUST	- - - - - * * * * * * *
043. SET PROJECTOR NAME	- - - - - * * * * * * *
044. CLOSED CAPTION REQUEST	- - - - - * * * * _ * *
045. FAN MODE REQUEST	- - - - - * * * * * * *
046. WXGA MODE SETTING REQUEST	- - - - - * * * * * * *
047. CLOSED CAPTION SET	- - - - - * * * * _ * *
048. FAN MODE SET	- - - - - * * * * * * *

049. WXGA MODE SETTING SET	- - - - - * * * * *
050. LAMP INFORMATION REQUEST 4	- - - - - * * * * *
051. CARBON SAVINGS INFORMATION REQUEST	- - - - - * * * * *
052. COVER STATUS REQUEST	- - - - - * - * *
053. VERSION INFORMATION REQUEST	- - - - * * * * *

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5. Command Descriptions

Description of Terms:

(*1) Control ID

This refers to the Control ID.

(*2) Model code : "xxH" inscription

This will differ depending on the projector.

In case of LT series 20H

In case of VT series 40H

In case of NP600 series 40H

In case of NP610 series 40H

In case of NP3200 series 40H

In case of NP-M350 series 40H

In case of NP-P420 series 40H

In case of NP-ME360 series 40H

In case of NP-UM330 series 70H

In case of NP-M361 series 40H

(*3) Checksum : "CKS" inscription

This is the value of the lower 1 byte (8 bits) of the resulting amount from adding all the data up to the immediately preceding data in terms of bytes.

Example)

20H 81H 01H 60H 01H 00H CKS

$20H + 81H + 01H + 60H + 01H + 00H = 103H$

CKS = 03H

(*4) Response error number

This is the value of the error number at the time of an error.

See "NAK" of "6. Table of Response Error Codes".

(*5) Term "COMPUTER" and "RGB"

On the VT60 series the term "computer" for the connector is represented by "RGB".

001. POWER ON

Function:

This command switches on the main power of the projector.

Command:

02H 00H 00H 00H 00H 02H

Response: At the time of a success

22H 00H 01H xxH 00H CKS

(*1) (*2) (*3)

Response: At the time of a failure

A2H 00H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

Supplement:

The projector does not accept the other command during power on processing.

002. POWER OFF

Function:

This command switches off the main power of the projector.

Command:

02H 01H 00H 00H 00H 03H

Response: At the time of a success

22H 01H 01H xxH 00H CKS

(*1) (*2) (*3)

Response: At the time of a failure

A2H 01H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

Supplement:

* The projector doesn't accept the other command during power off processing.(It contains a cooling period.)

003. INPUT SW CHANGE (*5)

Function:

This command switches the input terminal list.

Command:

02H 03H 00H 00H 02H 01H DATA01 CKS

(*3)

Data Portion Contents

DATA01 Terminal number

+-----+-----+-----+-----+-----+-----+-----

+-----+

Terminal number	Terminal name	(1)	(2)	(3)	(4)	(5)	(6)
+-----+-----+-----+-----+-----+-----+-----+							
+-----+							
01H	Computer/Computer1	*	*	*	*	*	*
02H	Computer2(Analog)	*	*	x	*	*	x
1AH	Computer2(Digital)/HDMI/HDMI1	x	*	x	*	x	*
1BH	HDMI2	x	x	x	x	x	*
06H	Video	*	*	*	*	*	*
0BH	S-Video	*	*	*	*	x	*
1FH	Viewer	x	x	x	*	x	*
20H	Network	x	x	x	*	x	*
22H	USB Display	x	x	x	*	x	*
+-----+-----+-----+-----+-----+-----+-----+							
+-----+							

* : Supported

x : Not supported

(1) VT470/VT470JY/VT570/VT670/VT575/VT676/VT480/VT580/VT490/VT491

NP405/NP305 series

(2) VT595/VT695/VT700/NP600/NP500/NP500W/NP400/NP300/NP600S/NP500WS

NP610/NP510/NP410/NP310/NP510W/NP410W/NP610S/NP510WS/NP3200/NP2200/NP1200

NP420/NP430/NP530/NP630

(3)

GS40/GX50/GX60/GS45/VT460/VT560/VT660/VT465/VT460K/VT660K/VT46/VT46RU
VT47/VT37/VT48/VT58/VT49/VT59/VT590/LT170

(4) NP-M350/NP-P420/NP-M361 series

(5) NP-ME360 series

(6) NP-UM330 series

Response: At the time of a success

22H 03H 01H xxH 01H DATA01 CKS

(*1) (*2)

(*3)

Data Portion Contents

DATA01 Results

00H : Normal

FFH : Error (Signal select was not executed)

Response: At the time of a failure

A2H 03H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

Command example:

* When switch to the Video connector

02H 03H 00H 00H 02H 01H 06H 0EH

006. PICTURE MUTE ON

Function:

This command mutes a picture.

Command:

02H 10H 00H 00H 00H 12H

Response: At the time of a success

22H 10H 01H xxH 00H CKS

(*1) (*2) (*3)

Response: At the time of a failure

A2H 10H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

Supplement:

* Picture mute is cancelled for the following:

Input connector switching

Video signal switching

007. PICTURE MUTE OFF

Function:

This command cancels the picture muting.

Command:

02H 11H 00H 00H 00H 13H

Response: At the time of a success

22H 11H 01H xxH 00H CKS

(*1) (*2) (*3)

Response: At the time of a failure

A2H 11H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

008. SOUND MUTE ON(!1)

Function:

This command mutes the sound.

Command:

02H 12H 00H 00H 00H 14H

Response: At the time of a success

22H 12H 01H xxH 00H CKS

(*1) (*2) (*3)

Response: At the time of a failure

A2H 12H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

Supplement:

* Sound mute is cancelled for the following:

Input connector switching

Video signal switching

Volume adjustment

(!1) NP-M420XV : This function is not supported.

009. SOUND MUTE OFF(!1)

Function:

This command cancels the sound muting.

Command:

02H 13H 00H 00H 00H 15H

Response: At the time of a success

22H 13H 01H xxH 00H CKS

(*1) (*2) (*3)

Response: At the time of a failure

A2H 13H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

Supplement:

(!1) NP-M420XV : This function is not supported.

010. ONSCREEN MUTE ON

Function:

This command mutes the on-screen display.

Command:

02H 14H 00H 00H 00H 16H

Response: At the time of a success

22H 14H 01H xxH 00H CKS

(*1) (*2) (*3)

Response: At the time of a failure

A2H 14H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

Supplement:

* This is available only during on-screen display.

011. LAMP INFORMATION REQUEST

Function:

This command acquires the lamp information (in terms of Normal mode values) of projector.

Command:

03H 8CH 00H 00H 00H 8FH

Response: At the time of a success

23H 8CH 01H xxH 10H DATA01 to DATA16 CKS

(*1) (*2) (*3)

Data Portion Contents

DATA01 to 04 Lamp Hour Meter(Normal mode) (second)

DATA05 to 08 Reserved

DATA09 to 12 Lamp Use Warning Starting Time(Normal mode) (second)

DATA13 to 16 Lamp Use Prohibited Time(Normal mode) (second)

Response: At the time of a failure

A3H 8CH 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

Supplement:

Example for acquiring remaining lamp time
(in terms of Normal mode values)

: Lamp Hour Meter (Normal mode)

DATA01 DATA02 DATA03 DATA04

30H 2AH 00H 00H : 10800 second

: Starting time for lamp usage warning message

(in terms of Normal mode values)

DATA09 DATA10 DATA11 DATA12

00H DDH 6DH 00H : 7200000 second

Lamp remaining time (in terms of Normal mode values)

= (7200000 - 10800) / 3600 = 1997 hour

012. MUTE CONTROL

Function:

This command controls the mute of picture, sound and on-screen.

Command:

02H 1AH 00H 00H 02H DATA01 DATA02 CKS

(*3)

Data Portion Contents

DATA01 Setting Items

00H : Picture

01H : Sound (!1)

02H : On-Screen (DATA2 can be specified only for "On")

DATA02 Setting Value

00H : OFF

01H : ON

Response: At the time of a success

22H 1AH 01H xxH 01H DATA01 CKS

(*1) (*2) (*3)

Data Portion Contents

DATA01 Results

00H : Normal

01H : Error

Response: At the time of a failure

A2H 1AH 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

Supplement:

* Sound mute is cancelled in the following cases:

Input connector switching

Video signal switching

Volume adjustment

(!1) NP-M420XV : This function is not supported.

Function:

This command sets the volume.

Command:

03H 10H 00H 00H 05H DATA01 to DATA05 CKS

(*3)

Data Portion Contents

DATA01 05H fixed

DATA02 Setting items

00H : Volume

01H : Bass

02H : Treble

03H : Balance

DATA03 Setting mode

00H : Absolute value specification

01H : Relative value specification

DATA04 Setting Value (Lower ranking 8 bits)

DATA05 Setting Value (Upper ranking 8 bits)

Response: At the time of a success

23H 10H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2)

(*3)

Data Portion Contents

DATA01 to 02 Results

0000H : Normal

0000H Other : Error

Response: At the time of a failure

A3H 10H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2)

(*4)

(*3)

Supplement:

Command example:

* Setting Volume to "10"

03H 10H 00H 00H 05H 05H 00H 00H 0AH 00H 27H

(!1) NP-M420XV : This function is not supported.

014. BASE MODEL TYPE REQUEST

Function:

This command acquires the projector type.

Command:

00H BFH 00H 00H 01H 00H C0H

Response: At the time of a success

20H BFH 01H xxH 10H DATA01 to DATA16 CKS

(*1) (*2) (*3)

Data Portion Contents

DATA01 00H fixed

DATA02 to 03 Projector type

See DATA13 to 14

DATA04 to 12 Model name (NULL termination character string)

DATA13 to 14 Projector type

```
+-----+-----+-----+-----+-----+
| DATA02 | DATA03 | DATA13 | DATA14 |      |
+-----+-----+-----+-----+-----+
| 01H | 03H | 00H | 06H | VT80 series |
+-----+-----+-----+-----+-----+
| 01H | 03H | 00H | 07H | VT90 series |
+-----+-----+-----+-----+-----+
| 01H | 10H | 00H | 08H | VT700 series |
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+-----+-----+-----+-----+-----+-----+										
	FFH		10H		00H		09H		NP600	
	FFH		10H		01H		09H		NP500	
	FFH		10H		02H		09H		NP500W	
	FFH		10H		03H		09H		NP400	
	FFH		10H		04H		09H		NP300	
	FFH		10H		09H		09H		NP600S	
	FFH		10H		0AH		09H		NP500WS	
+-----+-----+-----+-----+-----+-----+										
	FFH		10H		00H		10H		NP610	
	FFH		10H		01H		10H		NP510	
	FFH		10H		02H		10H		NP510W	
	FFH		10H		03H		10H		NP410	
	FFH		10H		04H		10H		NP405	
	FFH		10H		05H		10H		NP310	
	FFH		10H		06H		10H		NP305	
	FFH		10H		07H		10H		NP610S	
	FFH		10H		08H		10H		NP610WS	
	FFH		10H		09H		10H		NP410W	
+-----+-----+-----+-----+-----+-----+										
	FFH		10H		00H		11H		NP3200	
	FFH		10H		01H		11H		NP2200	
	FFH		10H		02H		11H		NP1200	
+-----+-----+-----+-----+-----+-----+										
	FFH		13H		00H		10H		NP-M350X	
	FFH		13H		01H		10H		NP-M300X	
	FFH		13H		02H		10H		NP-M300W	
	FFH		13H		03H		10H		NP-M300XS	
	FFH		13H		04H		10H		NP-M300WS	
	FFH		13H		05H		10H		NP-M260X	
	FFH		13H		06H		10H		NP-M260W	
	FFH		13H		07H		10H		NP-M260XS	
	FFH		13H		08H		10H		NP-M260WS	
	FFH		13H		09H		10H		NP-M230X	
	FFH		13H		0AH		10H		NP-M420X	

FFH	13H	0BH	10H	NP-M420XV
FFH	13H	0CH	10H	NP-M350XS
+-----+-----+-----+-----+-----+				
FFH	10H	00H	12H	NP420
FFH	10H	01H	12H	NP430
FFH	10H	02H	12H	NP530
FFH	10H	03H	12H	NP630
+-----+-----+-----+-----+-----+				
FFH	10H	00H	13H	NP-ME360X
FFH	10H	01H	13H	NP-ME310X
FFH	10H	02H	13H	NP-ME270X
+-----+-----+-----+-----+-----+				
FFH	13H	00H	11H	NP-P420X
FFH	13H	01H	11H	NP-P350X
FFH	13H	02H	11H	NP-P350W
+-----+-----+-----+-----+-----+				
FFH	13H	00H	12H	NP-UM330X
FFH	13H	01H	12H	NP-UM280X
FFH	13H	02H	12H	NP-UM280W
FFH	13H	03H	12H	NP-UM330W
+-----+-----+-----+-----+-----+				
FFH	13H	00H	13H	NP-M361X
FFH	13H	01H	13H	NP-M311W
FFH	13H	02H	13H	NP-M271X
FFH	13H	03H	13H	NP-M311X
FFH	13H	04H	13H	NP-M271W
+-----+-----+-----+-----+-----+				

DATA15 to 16 Reserved

Response: At the time of a failure

A0H BFH 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

015. PROJECTOR INFORMATION REQUEST

Function:

This command acquires basic operation states of projector.

Command:

00H BFH 00H 00H 01H 02H C2H

Response: At the time of a success

20H BFH 01H xxH 10H DATA01 to DATA16 CKS

(*1) (*2)

(*3)

Data Portion Contents

DATA01 02H fixed

DATA02 Projector Processing Status

00H : Idle

04H : Power On

05H : Cooling

06H : Idle(Error Standby)

0FH : Power-Saving(!2)

Other : Not Supported

Other than above : (nondisclosure)

internal use of code during a state transition period

DATA03 Indicate Contents

00H : Picture signal displaying

01H : No Signal

02H : Viewer displaying

03H : Test Pattern displaying

04H : LAN displaying

05H : Test Pattern (User) displaying

10H : Signal selection in progress

Other : Not Supported

DATA04 Select source input type 1

01H : 1

02H : 2

03H : 3

04H : 4

05H : 5

Other : Not Supported

DATA05 Select source input type 2

01H : COMPUTER (*5)

02H : VIDEO

03H : S-VIDEO

04H : COMPONENT

05H : Reserved

06H : DIGITAL

07H : VIEWER

08H : SLOT1

09H : SLOT2

0AH : SLOT3

0BH : SLOT4

0CH : DIGITAL2

0DH : SCART

10H : AUTO

FFH : Not Source Input

Other : Not Supported

DATA06 Indication signal type

(Effective only when Select source input type 2 is 02H or 03H)

x0H : NTSC3.58

x1H : NTSC4.43

x2H : PAL

x3H : PAL60

x4H : SECAM

x5H : B/W60

x6H : B/W50

x7H : PALNM

x8H : NTSC3.58 LBX

x9H : NTSC3.58 SQZ

xAH : COMPONENT(60Hz)

xBH : COMPONENT(50Hz)
 xCH : Un known
 xDH : NTSC
 xEH : PAL-M
 xFH : PAL-N
 FFH : Not Video Input
 Other : Not Supported
 * "x" means indefinite

DATA07 Picture Mute

00H : OFF

01H : ON

DATA08 Sound Mute(!3)

00H : OFF

01H : ON

DATA09 On-screen mute

00H : OFF

01H : ON

DATA10 Freeze Status(!1)

00H : OFF

01H : ON

DATA11 to DATA16 Reserved

Response: At the time of a failure

A0H BFH 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

Supplement:

(!1) Only the NP600/NP610/NP-M350/NP-P420/NP-ME360/NP-UM330/NP-M361 series is compatible.

(!2) Only the NP-M350/NP-P420/NP-ME360/NP-UM330/NP-M361 series is compatible.

(!3) Only the NP-M420XV, this parameter becomes FFH .

016. ERROR STATUS REQUEST

Function:

This command acquires the error information occurring with the projector.

Command:

00H 88H 00H 00H 00H 88H

Response: At the time of a success

20H 88H 01H xxH 0CH DATA01 to DATA12 CKS
(*1) (*2) (*3)

Data Portion Contents

* A "0" bit means normal and "1" means error.

* "None" means the bit is fixed to "0".

DATA01 Error Status(1)

bit0 : Lamp cover error
bit1 : Temperature error(Bimetal)
bit2 : None
bit3 : Fan error
bit4 : Fan error
bit5 : Power error
bit6 : Lamp(or Lamp1) error
bit7 : Lamp(or Lamp1) has reached its end of life

DATA02 Error Status(2)

bit0 : Lamp(or Lamp1) has been used beyond its limit
bit1 : Formatter error
bit2 : Lamp2 error
bit3 : None
bit4 : None
bit5 : None
bit6 : None

bit7 : None

DATA03 Error Status(3)

bit0 : None

bit1 : FPGA error

bit2 : Temperature error(Sensor)

bit3 : Lamp(or Lamp1) housing error (!)

bit4 : Lamp(or Lamp1) data error (!)

bit5 : Mirror cover error

bit6 : Lamp2 has reached its end of life

bit7 : Lamp2 has been used beyond its limit

DATA04 Error Status(4)

bit0 : Lamp2 housing error

bit1 : Lamp2 data error

bit2 : High temperature due to dust pile-up

bit3 : A foreign object sensor error

bit4 : None

bit5 : Ballast Communication Error

bit6 : Iris Calibration Error

bit7 : None

DATA05 to 12 Reserved

Response: At the time of a failure

A0H 88H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

017. INFORMATION REQUEST

Function:

This command acquires the projector information.

Command:

03H 8AH 00H 00H 00H 8DH

Response: At the time of a success

23H 8AH 01H xxH 62H DATA01 to DATA98 CKS

(*1) (*2)

(*3)

Data Portion Contents

DATA01 to 49 Projector name (NULL termination character string)

DATA50 to 82 Reserved

DATA83 to 86 Lamp Hour Meter (second) (!)

DATA87 to 90 Filter Usage (second)

DATA91 to 94 Panel Usage (second)

DATA95 to 98 Projector Usage (second)

Response: At the time of a failure

A3H 8AH 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2)

(*4)

(*3)

Supplement:

(!) Lamp Hour Meter

This is the timer for normal lamp mode conversion.

Lamp Timer Acquisition Examples

DATA83 DATA84 DATA85 DATA86 : Lamp Timer

00H 00H 00H 00H : Total 0 seconds

C0H 65H 52H 00H : Total 5400000 seconds = 1500 hours

00H E4H 57H 00H : Total 5760000 seconds = 1600 hours

* The projector's hours of use is not converted to Normal mode values.

The projector's hours of use is truncated after decimal point.

018. FILTER USAGE INFORMATION REQUEST

Function:

This command acquires the information about the projector's filter.

Command:

03H 95H 00H 00H 00H 98H

Response: At the time of a success

23H 95H 01H xxH 08H DATA01 to DATA08 CKS

(*1) (*2) (*3)

Data Portion	Contents
--------------	----------

DATA01 to 04	Filter usage time (second)
--------------	----------------------------

DATA05 to 08	Starting time for filter usage warning message (second)(!)
--------------	--

Response: At the time of a failure

A3H 95H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

Supplement:

(!) If the model does not have filter, "-1" will be sent.

019. LAMP INFORMATION REQUEST 3

Function:

This command acquires the information on the projector lamp.

Command:

03H 96H 00H 00H 02H DATA01 DATA02 CKS

(*3)

Data Portion	Contents
--------------	----------

DATA01 Target

00H : Lamp1

01H : Lamp2

DATA02 Item

00H : Lamp Hour Meter (second)(!3)

01H : Lamp usage time (second)(!4)

04H : lamp remaining amount until lamp warning message
(100% to -X%(!2))

05H : Lamp usage time (Normal mode)(second)

06H : Lamp usage time (Eco mode)(second)

07H : Lamp usage time (Eco2 mode)(second)(!5)

08H : Remaining time until lamp warning message starts
to appear (in terms of specified values)

09H : Remaining time until lamp warning message starts
to appear (in terms of Normal mode values)

0AH : Remaining time until lamp warning message starts
to appear (in terms of Eco mode values)

0BH : Remaining time until lamp warning message starts
to appear (in terms of Eco2 mode values)(!5)

10H : Remaining time until inhibition of lamp usage
(in terms of specified values)

11H : Remaining time until inhibition of lamp usage
(in terms of Normal mode values)

12H : Remaining time until inhibition of lamp usage
(in terms of Eco mode values)

13H : Remaining time until inhibition of lamp usage
(in terms of Eco2 mode values)(!5)

14H : Lamp usage time (Auto mode)(second)(!6)

15H : Remaining time until lamp warning message starts
to appear (in terms of Auto mode values)(!6)

16H : Remaining time until inhibition of lamp usage
(in terms of Auto mode values)(!6)

Response: At the time of a success

23H 96H 01H xxH 06H DATA01 to DATA06 CKS
(*1) (*2) (*3)

Data Portion Contents

DATA01 same values as DATA01 of the command
DATA02 same values as DATA02 of the command
DATA03 to 06 Acquired information(!1)

Response: At the time of a failure

A3H 96H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

Supplement:

* In case of acquiring lamp's use of hours

03H 96H 00H 00H 02H 00H 01H 9CH

Example of acquisition

DATA03 DATA04 DATA05 DATA06 : lamp's use of hours
50H 46H 00H 00H : 18000 seconds

Lamp Usage = $18000 / 3600 = 5$ hour

* In case of acquiring the remaining time until lamp warning
message starts to appear (in terms of specified values)

03H 96H 00H 00H 02H 00H 08H A3H

Example of acquisition

DATA03 DATA04 DATA05 DATA06 : Remaining time
40H 7EH 05H 00H : 360000 seconds

Remaining time until lamp warning message starts to appear
= $360000 / 3600 = 100$ hours

(!1) If "time" is specified for "Options for acquisition",

values in seconds will be returned.

But, the value to acquire is updated only by the minute unit.

(!2) $X = 100 - ((\text{Lamp Use Prohibited Time} * 100) / \text{Lamp Use Warning Starting Time})$

Example) The case of Lamp Use Prohibited Time 2100[H]□

Lamp Use Warning Starting Time 2000[H] Model.

$$X = 100 - ((2100 * 100) / 2000) = -5[\%]$$

(!3) Lamp Hour Meter

This is the timer for normal lamp mode conversion.

(!4) Lamp usage time

This is the lamp total usage. It is displayed in the projector's menu.

(!5) Only the NP-M300X and NP-M260X are compatible.

(!6) Only the NP-M350/NP-P420/NP-UM330/NP-M361 series is compatible.

020. TEMP INFORMATION REQUEST

Function:

This command acquires the information about temperature inside the projector.

Command

03H 99H 00H 00H 01H DATA01 CKS

(*3)

Data Portion	Contents
--------------	----------

DATA01	Target sensor
00H	: Intake (outside air) temperature
01H	: Exhaust (Lamp) temperature

Response: At the time of a success

23H 99H 01H xxH 05H DATA01 to DATA05 CKS

(*1) (*2)

(*3)

Data Portion Contents

DATA01 Setting Items

(Same as DATA01 of the transmit data)

DATA02 to 05 Temperature information

(long type unit: 0.1 degree Celsius/32.18 degrees

Fahrenheit: 0 degree Celsius/32 degrees Fahrenheit

or less will be returned as 0 degree Celsius/32

degrees Fahrenheit)

Response: At the time of a failure

A3H 99H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

Supplement:

Example for Temp

DATA02 DATA03 DATA04 DATA05

CBH 01H 00H 00H : 45.9 degrees Celsius/

114.6 degrees Fahrenheit

021. REMOTE KEY CODE

Function:

This command sends remote control key codes of projector.

Command:

02H 0FH 00H 00H 02H DATA01 DATA02 CKS

(*3)

Data Portion Contents

DATA01 to 02 Remote control key code (Word type)

Key number DATA01 DATA02 Key name

1	01H	00H	POWER(!1)
2	02H	00H	POWER ON(!1)
3	03H	00H	POWER OFF(!1)
4	04H	00H	SOURCE (AUTO)(!1)
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	CANCEL
13	0DH	00H	HELP
15	0FH	00H	MAGNIFY UP(!1)
16	10H	00H	MAGNIFY DOWN(!1)
19	13H	00H	MUTE(!1)
22	16H	00H	ZOOM UP(!2)
23	17H	00H	ZOOM DOWN(!2)
41	29H	00H	PICTURE(!1)
59	3BH	00H	KEYSTONE(!1)
75	4BH	00H	COMPUTER1(*5)(!1)
76	4CH	00H	COMPUTER2(*5)(!1)
79	4FH	00H	VIDEO1(!1)
81	51H	00H	S-VIDEO1(!1)
132	84H	00H	VOLUME UP(!1)
133	85H	00H	VOLUME DOWN(!1)
134	86H	00H	KEYSTONE UP(!1)
135	87H	00H	KEYSTONE DOWN(!1)
138	8AH	00H	FREEZE(!1)
163	A3H	00H	ASPECT(!1)
200	C8H	00H	ZOOM(!2)
215	D7H	00H	SEQSOURCE(source select)(!1)(!3)
232	E8H	00H	D ZOOM UP(WT)(!2)
233	E9H	00H	D ZOOM DOWN(WT)(!2)

238 EEH 00H LAMP MODE(ECO)
263 07H 01H CD_FOCUS_ZOOM(!2)

Response: At the time of a success

22H 0FH 01H xxH 01H DATA01 CKS
(*1) (*2) (*3)

Data Portion Contents

DATA01 Results
00H : Normal
FFH : Error

Response: At the time of a failure

A2H 0FH 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

Example:

Example for acquiring AUTO key code
02H 0FH 00H 00H 02H 05H 00H 18H

Supplement:

(!1) Only the NP600/NP610/NP3200/NP-M350/NP-P420/NP-ME360/NP-UM330/NP-M361 series is compatible.

(!2) Only the NP600S/NP500WS/NP610S/NP510WS is compatible. NP-ME360 series is compatible.

(!3) For NP-M350/NP-P420/NP-ME360/NP-UM330/NP-M361 series only, SEQSOURCE(source select) acts as same as SOURCE (AUTO).

022. FREEZE CONTROL

Function:

This command controls the freeze.

Command:

01H 98H 00H 00H 01H DATA01 CKS
(*3)

Data Portion Contents

DATA01 Target
 01H : Freeze ON
 02H : Freeze OFF

Response: At the time of a success

21H 98H 01H xxH 01H DATA01 CKS
 (*1) (*2) (*3)

Data Portion Contents

DATA01 Results
 00H : Normal
 01H : Error

Response: At the time of a failure

A1H 98H 01H xxH 02H DATA01 DATA02 CKS
 (*1) (*2) (*4) (*3)

023. ORIENTATION SET

Function:

This command sets the orientation of projector.

Command:

03H B1H 00H 00H 02H DATA01 DATA02 CKS
 (*3)

Data Portion Contents

DATA01	0AH fixed
DATA02	Setting Value
	00H : Desktop Front
	01H : Ceiling Rear
	02H : Desktop Rear
	03H : Ceiling Front

Response: At the time of a success

23H	B1H	01H	xxH	02H	DATA01	DATA02	CKS
	(*1)	(*2)			(*3)		

Data Portion	Contents
--------------	----------

DATA01	0AH fixed
DATA02	Results
	00H : Normal
	01H : Error

Response: At the time of a failure

A3H	B1H	01H	xxH	02H	DATA01	DATA02	CKS
	(*1)	(*2)			(*4)		(*3)

024. AUTO ADJUST EXECUTE2

Function:
This command executes the Auto Adjust.

Command:

03H	BAH	00H	00H	01H	00H	BEH
-----	-----	-----	-----	-----	-----	-----

Response: At the time of a success

23H	BAH	01H	xxH	01H	00H	CKS
-----	-----	-----	-----	-----	-----	-----

(*1) (*2) (*3)

Response: At the time of a failure

A3H BAH 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

025. RUNNING SENSE

Function:

This command acquires the operation mode of the projector.

Command:

00H 81H 00H 00H 00H 81H

Response: At the time of a success

20H 81H 01H xxH 01H DATA01 CKS

(*1) (*2) (*3)

Data Portion Contents

DATA01 Status of operation

Bit 7 : Power On/Off processing

0 = No execution(Normal condition)

1 = During execution

Bit 6 : Selecting signal processing

0 = No execution(Normal condition)

1 = During execution

Bit 5 : Cooling processing

0 = No execution(Normal condition)

1 = During execution

Bit 4 : Reserved

Bit 3 : No power-off period

0 = Power-off possible (Normal condition)

1 = Power-off Impossible
 Bit 2 : Reserved
 Bit 1 : Projector status
 0 = Idling
 1 = Power On
 Bit 0 : Reserved

Response: At the time of a failure

A0H 81H 01H xxH 02H DATA01 DATA02 CKS
 (*1) (*2) (*4) (*3)

026. COMMON DATA REQUEST

Function:

This command acquisition of the detailed conditions of the projector.

Command:

00H C0H 00H 00H 00H C0H

Response: At the time of a success

20H C0H 01H xxH 80H DATA01 to DATA128 CKS
 (*1) (*2) (*3)

Data Portion Contents

 DATA01 Projector type

See DATA70 to 71

DATA02 Control ID

1 to 254

FFH : Not Support

DATA03 Reserved

DATA04 Projector status

00H : Idling

01H : Power On
FFH : Not Support

DATA05 Cooling processing
00H : No execution(Normal condition)
01H : During execution
FFH : Not Support

DATA06 Indication signal number(Entry list number - 1)
FFH : Not Support

DATA07 Type 1 of input terminal to be selected (!1)
01H : 1
02H : 2
03H : 3
04H : 4
05H : 5
FFH : Not Support

DATA08 Type 2 of input terminal to be selected (!1)
01H : COMPUTER (*5)
02H : VIDEO
03H : S-VIDEO
04H : COMPONENT
05H : Reserved
06H : DIGITAL
07H : VIEWER
08H : SLOT1
09H : SLOT2
FFH : Not Support

DATA09 Indication signal type
* Valid only when Type 2 of input terminal is 02H or 03H
x0H : NTSC3.58
x1H : NTSC4.43
x2H : PAL
x3H : PAL60
x4H : SECAM
x5H : B/W60
x6H : B/W50

- x7H : PALNM
- x8H : NTSC3.58 LBX
- x9H : NTSC3.58 SQZ
- xDH : NTSC
- xEH : PAL-M
- xFH : PAL-N
- * x: undefined

DATA10 to 12 Reserved (undefined)

DATA13 to 20 Horizontal frequency of the indication signal(string)
 ("000" kHz + NULL(0)+ NULL(0))
 All NULL(0) : Not Support

DATA21 to 28 Vertical frequency of the indication signal(string)
 ("000" Hz + NULL(0)+ NULL(0))
 All NULL(0) : Not Support

DATA29 Picture mute

- 00H : OFF
- 01H : ON
- FFH : Not Support

DATA30 Sound mute

- 00H : OFF
- 01H : ON
- FFH : Not Support

DATA31 Reserved

DATA32 Freeze Status(!2)

- 00H : OFF
- 01H : ON
- FFH : Not Support

DATA33 to 34 Test pattern display

- DATA33 : Test pattern display 1
- 00H : No display(Normal condition)
- DATA34 : Test pattern display 2
- Bit 2 : BLUE pattern
- FFH = No display
- Bit 1 : GREEN pattern
- FFH = No display

Bit 0 : RED pattern

FFH = No display

DATA35 to 50 Reserved

DATA51 to 65 User registration name (14 characters + NULL)

All NULL(0) : Not Support

DATA66 Forced On-screen mute

FFH : Not Support

DATA67 On-screen display

FFH : Not Support

DATA68 Selecting signal processing

00H : No execution(Normal condition)

01H : During execution

DATA69 Status of operation

00H : Idling

04H : Power On

05H : Cooling

06H : Idling(Error occurrence)

FFH : Not Support

Other than above : (nondisclosure)

internal use of code during a state transition period

DATA70 to 71 Projector type

-----+ +-----+-----+-----

DATA01 || DATA70 | DATA71 |

-----+ +-----+-----+-----

03H || 00H | 06H | VT80 series

03H || 00H | 07H | VT90 series

10H || 00H | 08H | VT700 series

10H || 00H | 09H | NP600

10H || 01H | 09H | NP500

10H || 02H | 09H | NP500W

10H || 03H | 09H | NP400

10H || 04H | 09H | NP300

10H || 09H | 09H | NP600S

10H || 0AH | 09H | NP500WS

10H || 00H | 10H | NP610

10H	01H	10H NP510
10H	02H	10H NP510W
10H	03H	10H NP410
10H	04H	10H NP405
10H	05H	10H NP310
10H	06H	10H NP305
10H	07H	10H NP610S
10H	08H	10H NP610WS
10H	09H	10H NP410W
10H	00H	11H NP3200
10H	01H	11H NP2200
10H	02H	11H NP1200
13H	00H	10H NP-M350X
13H	01H	10H NP-M300X
13H	02H	10H NP-M300W
13H	03H	10H NP-M300XS
13H	04H	10H NP-M300WS
13H	05H	10H NP-M260X
13H	06H	10H NP-M260W
13H	07H	10H NP-M260XS
13H	08H	10H NP-M260WS
13H	09H	10H NP-M230X
13H	0AH	10H NP-M420X
13H	0BH	10H NP-M420XV
13H	0CH	10H NP-M350XS
10H	00H	12H NP420
10H	01H	12H NP430
10H	02H	12H NP530
10H	03H	12H NP630
10H	00H	13H NP-ME360X
10H	01H	13H NP-ME310X
10H	02H	13H NP-ME270X
13H	00H	11H NP-P420X
13H	01H	11H NP-P350X
13H	02H	11H NP-P350W

13H	00H	12H	NP-UM330X
13H	01H	12H	NP-UM280X
13H	02H	12H	NP-UM280W
13H	03H	12H	NP-UM330W
13H	00H	13H	NP-M361X
13H	01H	13H	NP-M311W
13H	02H	13H	NP-M271X
13H	03H	13H	NP-M311X
13H	04H	13H	NP-M271W

DATA72 PC Card insertion

FFH : Not Support

DATA73 USB Mouse connection

FFH : Not Support

DATA74 Entry list type

FFH : Not Support

DATA75 to 82 Reserved

DATA83 On-screen mute

FFH : Not Support

DATA84 Reserved

DATA85 Indicate Contents

00H : Picture signal displaying

01H : No Signal

02H : Viewr displaying

03H : Test pattern displaying

04H : LAN displaying

10H : Signal selection in progress

FFH : Not Support

DATA86 to 128 Reserved

Response: At the time of a failure

A0H C0H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

Supplement:

(!1)

VT700/NP600/NP610 series

+-----+-----+-----+		
Selected input terminal	DATA07	DATA08
+-----+-----+-----+		
Computer1	1 (01H)	COMPUTER (01H)
Computer2(Analog)	2 (02H)	COMPUTER (01H)
Computer2(Digital)	1 (01H)	COMPUTER (06H)
Video	1 (01H)	VIDEO (02H)
S-Video	1 (01H)	S-VIDEO (03H)
+-----+-----+-----+		

NP-M350/NP-P420/NP-M361 series

+-----+-----+-----+		
Selected input terminal	DATA07	DATA08
+-----+-----+-----+		
Computer1	1 (01H)	COMPUTER (01H)
Computer2	2 (02H)	COMPUTER (01H)
HDMI	1 (01H)	COMPUTER (06H)
Video	1 (01H)	VIDEO (02H)
S-Video	1 (01H)	S-VIDEO (03H)
Viewer	1 (01H)	VIEWER (07H)
Network	2 (02H)	VIEWER (07H)
USB Display	4 (04H)	VIEWER (07H)
+-----+-----+-----+		

NP-ME360 series

+-----+-----+-----+		
Selected input terminal	DATA07	DATA08
+-----+-----+-----+		
Computer1	1 (01H)	COMPUTER (01H)
Computer2	2 (02H)	COMPUTER (01H)
Video	1 (01H)	VIDEO (02H)
+-----+-----+-----+		

NP-UM330 series

+-----+-----+-----+		
Selected input terminal	DATA07	DATA08
+-----+-----+-----+		
Computer	1 (01H)	COMPUTER (01H)
HDMI1	1 (01H)	DIGITAL (06H)
HDMI2	2 (02H)	DIGITAL (06H)
Video	1 (01H)	VIDEO (02H)
S-Video	1 (01H)	S-VIDEO (03H)
Viewer	1 (01H)	VIEWER (07H)
Network	2 (02H)	VIEWER (07H)
USB Display	4 (04H)	VIEWER (07H)
+-----+-----+-----+		

Supplement:

(!2) Only the NP600/NP610/NP3200/NP-M350/NP-P420/NP-ME360/NP-UM330/NP-M361 series is compatible.

027. PICTURE ADJUST

Function:

This command adjusts the Picture.

Command:

03H 10H 00H 00H 05H DATA01 to DATA05 CKS
(*3)

Data Portion Contents

DATA01 Adjustment items
 00H : Brightness
 01H : Contrast

02H : Color
 03H : Hue
 04H : Sharpness
 DATA02 FFH fixed
 DATA03 Adjustment mode
 00H : Absolute value specification
 01H : Relative value specification
 DATA04 Adjustment value (Lower ranking 8 bits)
 DATA05 Adjustment value (Upper ranking 8 bits)

Response: At the time of a success

23H 10H 01H xxH 02H DATA01 DATA02 CKS
 (*1) (*2) (*3)

Data Portion Contents

 DATA01 to 02 Results

0000H : Normal

0000H Other : Error

Response: At the time of a failure

A3H 10H 01H xxH 02H DATA01 DATA02 CKS
 (*1) (*2) (*4) (*3)

Supplement:

Command example:

* Setting Brightness to 10

03H 10H 00H 00H 05H 00H FFH 00H 0AH 00H 21H

* Setting Brightness to -10

03H 10H 00H 00H 05H 00H FFH 00H F6H FFH 0CH

028. KEYSTONE ADJUST

Function:

This command adjusts the Keystone.

Command:

03H 10H 00H 00H 05H 15H 01H DATA03 to DATA05 CKS
(*3)

Data Portion	Contents
--------------	----------

DATA01	15H fixed
DATA02	01H fixed
DATA03	Adjustment mode 00H : Absolute value specification 01H : Relative value specification
DATA04	Adjustment value (Lower ranking 8 bits)
DATA05	Adjustment value (Upper ranking 8 bits)

Response: At the time of a success

23H 10H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*3)

Data Portion	Contents
--------------	----------

DATA01 to 02	Results 0000H : Normal 0000H Other : Error
--------------	--

Response: At the time of a failure

A3H 10H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

Supplement:

Command example:

* Setting Keystone to 10

03H 10H 00H 00H 05H 15H 01H 00H 0AH 00H 38H

* Setting Keystone to -10

03H 10H 00H 00H 05H 15H 01H 00H F6H FFH 23H

029. IMAGE MODE ADJUST

Function:

This command adjusts the Image Mode.

Command:

03H 10H 00H 00H 05H DATA01 to DATA05 CKS
(*3)

Data Portion Contents

DATA01 to 02 Adjustment items

+-----+-----+-----+-----+			
DATA01	DATA02	Adjustment items	
+-----+-----+-----+-----+			
18H	00H	Aspect Ratio	
+-----+-----+-----+-----+			

DATA03 Adjustment mode
 00H fixed(Only absolute value specification)
DATA04 Adjustment value (Lower ranking 8 bits)
DATA05 Adjustment value (Upper ranking 8 bits)

Response: At the time of a success

23H 10H 01H xxH 02H DATA01 DATA02 CKS
 (*1) (*2) (*3)

Data Portion Contents

DATA01 to 02 Results

0000H : Normal

0000H Other : Error

Response: At the time of a failure

A3H 10H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

Supplement:

Command example:

* Setting the Aspect Ratio to Wide Zoom

03H 10H 00H 00H 05H 18H 00H 00H 01H 00H 31H

Adjustment items Adjustment value

Aspect Ratio 0000H : Normal / Auto

0001H : Wide Zoom

0002H : Cinema / 16:9

0003H : Native

0004H : 4:3

0005H : 15:9

0006H : 16:10

0007H : Letter Box

030. LAMP INFORMATION REQUEST 2

Function:

This command acquires lamp remaining amount.

Command:

03H 94H 00H 00H 00H 97H

Response: At the time of a success

23H 94H 01H xxH 05H DATA01 to DATA05 CKS

(*1) (*2) (*3)

Data Portion	Contents
--------------	----------

DATA01 to 04	Reserved
--------------	----------

DATA05	lamp remaining amount (100% to -X%)(!1)
--------	---

Response: At the time of a failure

A3H 94H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

(!1) $X = 100 - ((\text{Lamp Use Prohibited Time} * 100) / \text{Lamp Use Warning Starting Time})$

Example) The case of Lamp Use Prohibited Time 2100[H]□

Lamp Use Warning Starting Time 2000[H] Model.

$X = 100 - ((2100 * 100) / 2000) = -5[\%]$

031. GAIN PARAMETER REQUEST 2

Function:

This command acquires the adjustment values.

Command:

03H 04H 00H 00H 03H DATA01 to DATA03 CKS

(*3)

Data Portion	Contents
--------------	----------

DATA01 to 02	Acquirement items (!)
--------------	-----------------------

DATA03	00H fixed
--------	-----------

Response: At the time of a success

23H 04H 01H xxH 0DH DATA01 to DATA13 CKS

(*1) (*2) (*3)

Data Portion Contents

DATA01	Adjustment status
	00H : Displaying impossible
	01H : Adjustment impossible
	02H : Adjustment possible
	FFH : Selected gain is not available.
DATA02	Maximum adjustment value (Lower ranking 8 bits)
DATA03	Maximum adjustment value (Upper ranking 8 bits)
DATA04	Minimum adjustment value (Lower ranking 8 bits)
DATA05	Minimum adjustment value (Upper ranking 8 bits)
DATA06	Default adjustment value (Lower ranking 8 bits)
DATA07	Default adjustment value (Upper ranking 8 bits)
DATA08	Current value (Lower ranking 8 bits)
DATA09	Current value (Upper ranking 8 bits)
DATA10 to 13	Reserved

Response: At the time of a failure

A3H 04H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

Supplement:

(!1) See the "Acquirement items" for further information about Acquirement items.

[Acquirement items]

+-----+-----+-----+-----+		
DATA01	DATA02	Acquirement name
+-----+-----+-----+-----+		
00H	00H	Picture / Brightness
01H	00H	Picture / Contrast
02H	00H	Picture / Color
03H	00H	Picture / Hue
04H	00H	Picture / Sharpness
05H	00H	Volume

	05H		01H		Sound / Bass	
	05H		02H		Sound / Treble	
	05H		03H		Sound / Balance	
	15H		01H		Keystone V	
	18H		00H		Aspect Ratio / Input Signal	
	62H		00H		Digital Zoom / Zoom	(!1)
	97H		00H		Wall Color	
	9FH		00H		Dynamic Contrast	(!2)
+-----+-----+-----+-----+-----+-----+						

Command example:

In case of acquiring Picture Brightness.

03H 04H 00H 00H 03H 00H 00H 00H 0AH

(!1) Only the NP600S/NP500WS/NP610S/NP510WS is compatible. NP-ME360 series is compatible.

(!2) Only the NP-M350/NP-P420/NP-ME360/NP-UM330/NP-M361 series, NP410/NP310 is compatible.

032. SETTING REQUEST

Function:

This command acquires the function information of projector.

Command:

00H 85H 00H 00H 01H 00H 86H

Response: At the time of a success

20H 85H 01H xxH 20H DATA01 to DATA32 CKS

(*1) (*2)

(*3)

Data Portion Contents

DATA01 to 03 Projector type

-----+ +-----+-----+-----			
DATA01 DATA02 DATA03			
-----+ +-----+-----+-----			
03H	00H	06H	VT80 series
03H	00H	07H	VT90 series
10H	00H	08H	VT700 series
10H	00H	09H	NP600
10H	01H	09H	NP500
10H	02H	09H	NP500W
10H	03H	09H	NP400
10H	04H	09H	NP300
10H	09H	09H	NP600S
10H	0AH	09H	NP500WS
10H	00H	10H	NP610
10H	01H	10H	NP510
10H	02H	10H	NP510W
10H	03H	10H	NP410
10H	04H	10H	NP405
10H	05H	10H	NP310
10H	06H	10H	NP305
10H	07H	10H	NP610S
10H	08H	10H	NP610WS
10H	09H	10H	NP410W
10H	00H	11H	NP3200
10H	01H	11H	NP2200
10H	02H	11H	NP1200
13H	00H	10H	NP-M350X
13H	01H	10H	NP-M300X
13H	02H	10H	NP-M300W
13H	03H	10H	NP-M300XS
13H	04H	10H	NP-M300WS
13H	05H	10H	NP-M260X
13H	06H	10H	NP-M260W
13H	07H	10H	NP-M260XS
13H	08H	10H	NP-M260WS

13H	09H	10H	NP-M230X
13H	0AH	10H	NP-M420X
13H	0BH	10H	NP-M420XV
13H	0CH	10H	NP-M350XS
10H	00H	12H	NP420
10H	01H	12H	NP430
10H	02H	12H	NP530
10H	03H	12H	NP630
10H	00H	13H	NP-ME360X
10H	01H	13H	NP-ME310X
10H	02H	13H	NP-ME270X
13H	00H	11H	NP-P420X
13H	01H	11H	NP-P350X
13H	02H	11H	NP-P350W
13H	00H	12H	NP-UM330X
13H	01H	12H	NP-UM280X
13H	02H	12H	NP-UM280W
13H	03H	12H	NP-UM330W
13H	00H	13H	NP-M361X
13H	01H	13H	NP-M311W
13H	02H	13H	NP-M271X
13H	03H	13H	NP-M311X
13H	04H	13H	NP-M271W

-----+ +-----+-----+-----

DATA04 Sound function

00H : Not available

01H : Available

DATA05 Calender function

00H : No function

01H or 03H : Timer function, sleep timer function
function

02H : Sleep timer function

DATA06 to 32 Reserved

Response: At the time of a failure

A0H 85H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

033. RUNNING STATUS REQUEST

Function:

This command acquires the status of the projector operation.

Command:

00H 85H 00H 00H 01H 01H 87H

Response: At the time of a success

20H 85H 01H xxH 10H DATA01 to DATA16 CKS
(*1) (*2) (*3)

Data Portion Contents

DATA01 to 02 Reserved

DATA03 Projector status

00H : Idling

01H : Power On

FFH : Not Support

DATA04 Cooling processing

00H : No execution(Normal condition)

01H : During execution

FFH : Not Support

DATA05 Power On/Off processing

00H = No execution(Normal condition)

01H = During execution

FFH : Not Support

DATA06 Status of operation

00H : Idling

04H : Power On

05H : Cooling

06H : Idling(Error occurrence)

0FH : Power-Saving(!1)

FFH : Not Support

Other than above : (nondisclosure)

internal use of code during a state transition period

DATA07 PC Card insertion

FFH : Not Support

DATA08 USB Mouse connection

FFH : Not Support

DATA09 to 16 Reserved

Response: At the time of a failure

A0H 85H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

(!1) Only the NP-M350/NP-P420/NP-UM330/NP-M361 series is compatible.

034. INPUT STATUS REQUEST

Function:

This command acquires the status of input signal of the projector.

Command:

00H 85H 00H 00H 01H 02H 88H

Response: At the time of a success

20H 85H 01H xxH 10H DATA01 to DATA16 CKS

(*1) (*2) (*3)

Data Portion Contents

DATA01 Selecting signal processing

00H : No execution(Normal condition)

01H : During execution

FFH : Not Support

DATA02 Signal number(Entry list number - 1)

FFH : Not Support

DATA03 to 04 Selected input terminal

+-----+-----+-----+		
Terminal name	DATA03	DATA04
+-----+-----+-----+		
Computer1	01H	01H
Computer2(Analog)	02H	01H
Computer2(Digital)	01H	06H
HDMI/HDMI1	01H	06H
HDMI2	02H	06H
Video	01H	02H
S-Video	01H	03H
Viewer	01H	07H
Network	02H	07H
USB Display	04H	07H
+-----+-----+-----+		

DATA05 Entry list type

FFH : Not Support

DATA06 Test pattern display

00H : No display(Normal condition)

01H : Displaying

FFH : Not Support

DATA07 to 08 Reserved

DATA09 Indicate Contents

00H : Picture signal displaying

01H : No signal

02H : Viewr displaying

03H : Test pattern displaying

04H : LAN displaying

FFH : Not Support

DATA10 to 16 Reserved

Response: At the time of a failure

A0H 85H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

035. MUTE STATUS REQUEST

Function:

This command acquires the status of the mute of projector.

Command:

00H 85H 00H 00H 01H 03H 89H

Response: At the time of a success

20H 85H 01H xxH 10H DATA01 to DATA16 CKS
(*1) (*2) (*3)

Data Portion	Contents
--------------	----------

DATA01	Picture mute
--------	--------------

00H : OFF

01H : ON

FFH : Not Support

DATA02	Sound mute
--------	------------

00H : OFF

01H : ON

FFH : Not Support

DATA03	On-screen mute
--------	----------------

FFH : Not Support

DATA04	Forced on-screen mute
--------	-----------------------

FFH : Not Support

DATA05	On-screen display
--------	-------------------

FFH : Not Support

DATA06 to 16	Reserved
--------------	----------

Response: At the time of a failure

A0H 85H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

036. MODEL NAME REQUEST

Function:

This command acquires the model name of the projector.

Command:

00H 85H 00H 00H 01H 04H 8AH

Response: At the time of a success

20H 85H 01H xxH 20H DATA01 to DATA32 CKS
(*1) (*2) (*3)

Data Portion	Contents
--------------	----------

DATA01 to 32	Model name (NULL termination character string)
--------------	--

Response: At the time of a failure

A0H 85H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

037. INFORMATION STRING REQUEST

Function:

This command acquires information character string displayed from projector.

Command:

00H D0H 00H 00H 03H DATA01 to DATA03 CKS
(*3)

Data Portion	Contents
--------------	----------

DATA01	Resource language selection 00H : English fixed
DATA02	Classification by information type (!1)
DATA03	Selection for character string to be acquired 01H : Acquisition of information character string

Response: At the time of a success

20H D0H 01H xxH ??H DATA01 to DATA?? CKS
(*1) (*2) (*3)

Data Portion	Contents
--------------	----------

DATA01	Classification by information type (!1) (Same as DATA02 of the transmit data)
DATA02	Character string types (Same as DATA03 of the transmit data)
DATA03	String length of label / information (not including NULL character)
DATA04 to DATAxx	Character string of label / information (NULL termination character string)

Response: At the time of a failure

A0H D0H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

Supplement:

(!1)Information

type	Number	Title	Description
------	--------	-------	-------------

3 (03H)	Horizontal Frequency
4 (04H)	Vertical Frequency

038. LAMP MODE REQUEST

Function:

This command acquires the setting of the lamp mode of projector.

Command:

03H B0H 00H 00H 01H 07H BBH

Response: At the time of a success

23H B0H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*3)

Data Portion Contents

DATA01 07H fixed

DATA02 Setting Value

+-----+-----+-----+-----+-----+					
Setting Value (1) (2) (3) (4)					
+-----+-----+-----+-----+-----+					
00H	Normal	Off	Off	Off	
01H	Eco	Auto	Auto	Auto Eco	
02H	x	Eco1	Eco1	Normal	
03H	x	x	Eco2	Eco	
+-----+-----+-----+-----+-----+					
x : Not supported					

- (1) VT60 series, VT70 series, VT80 series, VT90 series, VT700 series, LT170, NP600 series , NP610, NP-ME360X series and NP3200 series.
- (2) NP-M230X, NP-M350X, NP-M260W and NP-M300W.
- (3) NP-M300X and NP-260X.

(4) NP-UM330/NP-M361 series

Response: At the time of a failure

A3H B0H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

039. LAMP MODE SET

Function:

This command sets the lamp mode of projector.

Command:

03H B1H 00H 00H 02H DATA01 DATA02 CKS
(*3)

Data Portion Contents

DATA01 07H fixed

DATA02 Setting Value

+-----+-----+-----+-----+-----+				
Setting Value	(1)	(2)	(3)	(4)
+-----+-----+-----+-----+-----+				
00H	Normal	Off	Off	Off
01H	Eco	Auto	Auto	Auto Eco
02H	x	Eco1	Eco1	Normal
03H	x	x	Eco2	Eco
+-----+-----+-----+-----+-----+				
x : Not supported				

(1) VT60 series, VT70 series, VT80 series, VT90 series, VT700 series, LT170, NP600 series , NP610, NP-ME360X series and NP3200 series.

(2) NP-M230X, NP-M350X, NP-M260W and NP-M300W.

(3) NP-M300X and NP-260X.

(4) NP-UM330/NP-M361 series

Response: At the time of a success

23H B1H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*3)

Data Portion	Contents
--------------	----------

DATA01	07H fixed
--------	-----------

DATA02	Results
	00H : Normal
	01H : Error

Response: At the time of a failure

A3H B1H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

040. POWER MANAGEMENT SET

Function:

This command sets the power management(!1) of projector.

Command:

03H B1H 00H 00H 02H DATA01 DATA02 CKS
(*3)

Data Portion	Contents
--------------	----------

DATA01	17H fixed
--------	-----------

DATA02	Setting Value
	00H : OFF
	01H : 0:05
	02H : 0:10
	03H : 0:20
	04H : 0:30

Response: At the time of a success

23H B1H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*3)

Data Portion	Contents
--------------	----------

DATA01	17H fixed
--------	-----------

DATA02	Results
	00H : Normal
	01H : Error

Response: At the time of a failure

A3H B1H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

Supplement:

(!1) After the NP600 series, "PowerManagement" has been changed to "Auto Power Off".

041. KEYSTONE SELECT SET

Function:

This command sets the Keystone Select.

Command:

03H B1H 00H 00H 02H DATA01 DATA02 CKS
(*3)

Data Portion	Contents
--------------	----------

DATA01	93H fixed
--------	-----------

DATA02	Setting Value
	00H : Auto

01H : Manual

Response: At the time of a success

23H B1H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*3)

Data Portion	Contents
--------------	----------

DATA01	93H fixed
--------	-----------

DATA02	Results
--------	---------

	00H : Normal
--	--------------

	01H : Error
--	-------------

Response: At the time of a failure

A3H B1H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

042. OTHER ADJUST

Function:

This command adjusts the various gains.

Command:

03H 10H 00H 00H 05H DATA01 to DATA05 CKS
(*3)

Data Portion	Contents
--------------	----------

DATA01	Target gain
--------	-------------

	53H : Picture Management (!1)
--	-------------------------------

	53H : Preset (!2)
--	-------------------

	62H : Digital Zoom / Zoom (!3)
--	--------------------------------

	97H : Wall Color
--	------------------

	9FH : Dynamic Contrast (!4)
--	-----------------------------

DATA02	FFH fixed
DATA03	Adjustment mode specification
	00H fixed(Only absolute value specification)
DATA04	Adjustment value (Lower ranking 8 bits)
DATA05	Adjustment value (Upper ranking 8 bits)

Response: At the time of a success

23H	10H	01H	xxH	02H	DATA01	DATA02	CKS
	(*1)	(*2)					(*3)

Data Portion	Contents
--------------	----------

DATA01 to 02	Results
	0000H : Normal
	0000H Other : Error

Response: At the time of a failure

A3H	10H	01H	xxH	02H	DATA01	DATA02	CKS
	(*1)	(*2)		(*4)			(*3)

Supplement:

Command example:

Target gain	Adjustment value
-------------	------------------

Picture Management	0000H : Presentation
--------------------	----------------------

	0001H : sRGB
--	--------------

	0002H : Graphic
--	-----------------

	0003H : Video
--	---------------

	0004H : Movie
--	---------------

	0005H : User
--	--------------

Preset	0000H : Preset1
--------	-----------------

	0001H : Preset2
--	-----------------

	0002H : Preset3
--	-----------------

	0003H : Preset4
--	-----------------

	0004H : Preset5
--	-----------------

0005H : Preset6

Digital Zoom 0000H : Zoom

Wall Color 0000H : Off

0001H : Light blue

0002H : Pink

0003H : Light rose

0004H : Light yellow

0005H : Light green

0006H : Sky blue

0007H : Blackboard

0008H : Blackboard(Gray)

0009H : Whiteboard

- (!1) Only the LT170/VT60/VT70/NP-ME360 series is compatible.
- (!2) Only the VT80/VT90/VT700/NP600/NP610/NP3200/NP-M350/NP-P420/NP-ME360/NP-UM330/NP-M361 series is compatible.
- (!3) Only the NP600S/NP500WS/NP610S/NP510WS is compatible.
- (!4) Only the NP-M350/NP-P420/NP-ME360/NP-UM330/NP-M361 series, NP410/NP310 is compatible.

043. SET PROJECTOR NAME

Function:

This command sets projector name.

Command:

03H 8BH 00H 00H 32H 00H DATA01 to DATA49 CKS
(*3)

Data Portion Contents

DATA01 to 16 Projector name (NULL termination character string)

DATA17 to 49 Reserved

Response: At the time of a success

23H 8BH 01H xxH 02H 00H DATA01 CKS
(*1) (*2) (*3)

Data Portion Contents

DATA01 Results
 00H : Normal
 01H : Error
 02H : Error(Length over)

Response: At the time of a failure

A3H 8BH 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

044. CLOSED CAPTION REQUEST

Function:

This command acquires the setting of the closed caption of projector.

Command:

03H B0H 00H 00H 01H 09H BDH

Response: At the time of a success

23H B0H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*3)

Data Portion Contents

DATA01 09H fixed
DATA02 Setting Value
 00H : OFF

01H : Caption 1
02H : Caption 2
03H : Caption 3
04H : Caption 4
05H : Text 1
06H : Text 2
07H : Text 3
08H : Text 4

Response: At the time of a failure

A3H B0H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

045. FAN MODE REQUEST

Function:

This command acquires the setting of the fan mode of projector.

Command:

03H B0H 00H 00H 01H 1AH CEH

Response: At the time of a success

23H B0H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*3)

Data Portion	Contents
--------------	----------

DATA01	1AH fixed
--------	-----------

DATA02	Setting Value
--------	---------------

00H : AUTO

01H : HIGH SPEED

02H : HIGH ALTITUDE

Response: At the time of a failure

A3H B0H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

046. WXGA MODE SETTING REQUEST

Function:

This command acquires the setting of the WXGA Mode of projector.

Command:

03H B0H 00H 00H 01H C3H 77H

Response: At the time of a success

23H B0H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*3)

Data Portion	Contents
--------------	----------

DATA01	C3H fixed
DATA02	Setting Value
	00H : OFF
	01H : ON

Response: At the time of a failure

A3H B0H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

047. CLOSED CAPTION SET

Function:

This command sets the closed caption of projector.

Command:

03H B1H 00H 00H 02H DATA01 DATA02 CKS
(*3)

Data Portion	Contents
--------------	----------

DATA01	09H fixed
DATA02	Setting Value
	00H : OFF
	01H : Caption 1
	02H : Caption 2
	03H : Caption 3
	04H : Caption 4
	05H : Text 1
	06H : Text 2
	07H : Text 3
	08H : Text 4

Response: At the time of a success

23H B1H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*3)

Data Portion	Contents
--------------	----------

DATA01	09H fixed
DATA02	Results
	00H : Normal
	01H : Error

Response: At the time of a failure

A3H B1H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

048. FAN MODE SET

Function:

This command sets the fan mode of projector.

Command:

03H B1H 00H 00H 02H DATA01 DATA02 CKS
(*3)

Data Portion Contents

DATA01 1AH fixed
DATA02 Setting Value
 00H : AUTO
 01H : HIGH SPEED
 02H : HIGH ALTITUDE

Response: At the time of a success

23H B1H 01H xxH 02H DATA01 DATA02 CKS
 (*1) (*2) (*3)

Data Portion Contents

DATA01 1AH fixed
DATA02 Results
 00H : Normal
 01H : Error

Response: At the time of a failure

A3H B1H 01H xxH 02H DATA01 DATA02 CKS
 (*1) (*2) (*4) (*3)

049. WXGA MODE SETTING SET

Function:

This command sets the WXGA Mode of projector.

Command:

03H B1H 00H 00H 02H DATA01 DATA02 CKS
(*3)

Data Portion	Contents
--------------	----------

DATA01	C3H fixed
DATA02	Setting Value
	00H : OFF
	01H : ON

Response: At the time of a success

23H B1H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*3)

Data Portion	Contents
--------------	----------

DATA01	C3H fixed
DATA02	Results
	00H : Normal
	01H : Error

Response: At the time of a failure

A3H B1H 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

050. LAMP INFORMATION REQUEST 4

Function:

This command acquires the information on the projector lamp.

Command:

03H 9BH 00H 00H 03H DATA01 DATA02 DATA03 CKS
(*3)

Data Portion Contents

DATA01	Target
	00H : Lamp1
	01H : Lamp2
DATA02	Unit(!4)
	00H : Second
	01H : Reserved
	02H : Hour
DATA03	Item
	00H : Lamp Hour Meter (second)(!2)
	01H : Lamp usage time (second)(!3)
	04H : lamp remaining amount until lamp warning message (100% to -X%(!1))
	05H : Lamp usage time (Normal mode)(second)
	06H : Lamp usage time (Eco mode)(second)
	07H : Lamp usage time (Eco2 mode)(second)(!5)
	08H : Remaining time until lamp warning message starts to appear (in terms of specified values)
	09H : Remaining time until lamp warning message starts to appear (in terms of Normal mode values)
	0AH : Remaining time until lamp warning message starts to appear (in terms of Eco mode values)
	0BH : Remaining time until lamp warning message starts to appear (in terms of Eco2 mode values)(!5)
	10H : Remaining time until inhibition of lamp usage (in terms of specified values)
	11H : Remaining time until inhibition of lamp usage (in terms of Normal mode values)

- 12H : Remaining time until inhibition of lamp usage
(in terms of Eco mode values)
- 13H : Remaining time until inhibition of lamp usage
(in terms of Eco2 mode values)(!5)
- 14H : Lamp usage time (Auto mode)(second)(!6)
- 15H : Remaining time until lamp warning message starts
to appear (in terms of Auto mode values)(!6)
- 16H : Remaining time until inhibition of lamp usage
(in terms of Auto mode values)(!6)

Response: At the time of a success

23H 9BH 01H xxH 07H DATA01 to DATA07 CKS
(*1) (*2) (*3)

Data Portion Contents

DATA01 same values as DATA01 of the command
DATA02 same values as DATA02 of the command
DATA03 same values as DATA03 of the command
DATA04 to 07 Acquired information

Response: At the time of a failure

A3H 9BH 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

Supplement:

* In case of acquiring lamp's use of hours

03H 9BH 00H 00H 03H 00H 00H 01H CKS

Example of acquisition

DATA04 DATA05 DATA06 DATA07 : lamp's use of hours
50H 46H 00H 00H : 18000 seconds

Lamp Usage = 18000 / 3600 = 5 hour

(!1) $X = 100 - ((\text{Lamp Use Prohibited Time} * 100) / \text{Lamp Use Warning Starting Time})$

Example) The case of Lamp Use Prohibited Time 2100[H]□

Lamp Use Warning Starting Time 2000[H] Model.

$$X = 100 - ((2100 * 100) / 2000) = -5[\%]$$

(!2) Lamp Hour Meter

This is the timer for normal lamp mode conversion.

(!3) Lamp usage time

This is the lamp total usage. It is displayed in the projector's menu.

(!4) This setting is ignored, if the Item's unit is not time.

(!5) Only the NP-M300X and NP-260X are compatible.

(!6) Only the NP-M350/NP-P420/NP-UM330/NP-M361 series is compatible.

051. CARBON SAVINGS INFORMATION REQUEST

Function:

This command acquires the Carbon Saving values on the projector.

Command:

03H 9AH 00H 00H 01H DATA01 CKS

(*3)

Data Portion	Contents
--------------	----------

DATA01	Acquirement items
--------	-------------------

00H	: Total Carbon Savings
-----	------------------------

01H	: Carbon Savings during operation
-----	-----------------------------------

Response: At the time of a success

23H 9AH 01H xxH 09H DATA01 to DATA09 CKS

(*1) (*2)

(*3)

Data Portion	Contents
--------------	----------

DATA01 Same as DATA01 of the transmit data
DATA02 to 05 Carbon Savings (Kilogram Maximum: 99999[kg])
DATA06 to 09 Carbon Savings (Milligram Maximum:999999[mg])

Response: At the time of a failure

A3H 9AH 01H xxH 02H DATA01 DATA02 CKS
 (*1) (*2) (*4) (*3)

Supplement:

Example for Total Carbon Savings
DATA02 DATA03 DATA04 DATA05 : Kilogram
9CH 09H 00H 00H : 2460 [kg]

DATA06 DATA07 DATA08 DATA09 : Milligram
06H F9H 00H 00H : 63750 [mg]

Total Carbon Savings
= (2460 * 1000) + (63750 / 1000) = 2460063.75 [g]
= 2460 + (63750 / 1000 / 1000) = 2460.06375 [kg]

052. MIRROR COVER STATUS REQUEST

Function:

This command acquires the status of the mirror or lens cover of projector.

Command:

00H 85H 00H 00H 01H 05H 8BH

Response: At the time of a success

20H 85H 01H xxH 01H DATA01 CKS
 (*1) (*2) (*3)

Data Portion Contents

DATA01 Mirror cover

00H : Normal

01H : Mirror or Lens Cover Close

Response: At the time of a failure

A0H 85H 01H xxH 02H DATA01 DATA02 CKS

(*1) (*2) (*4) (*3)

053. VERSION INFORMATION REQUEST

Function:

This command acquires informations of projector.

Command:

00H BFH 00H 00H 02H DATA01 DATA02 CKS

(*3)

Data Portion	Contents
--------------	----------

DATA01	01H : Version Information
--------	---------------------------

DATA02	06H : Serial Number
--------	---------------------

Response: At the time of a success

20H BFH 01H xxH 12H DATA01 □ DATA12 CKS

(*1) (*2) (*3)

Data Portion	Contents
--------------	----------

DATA01	Same as DATA01 of the transmit data
--------	-------------------------------------

DATA02	Same as DATA02 of the transmit data
--------	-------------------------------------

DATA03-DATA18	Serial Number (NULL termination character string)
---------------	---

Response: At the time of a failure

A0H BFH 01H xxH 02H DATA01 DATA02 CKS
(*1) (*2) (*4) (*3)

=====

6. Response

* At the time of a success(ACK)

This returns ACK without adding data portion to the command that does not request data.

This returns ACK with adding data to the data portion for the command that requests data.

* At the time of a failure(NAK)

This adds a cause of not accepting the command to data portion to return it.

(Example) Power On

Command:

02H 00H 00H 00H 00H CKS

Response:

A2H 00H 01H 40H 02H DATA01 DATA02 CKS

=====

7. Table of Response Error Codes

+-----+-----+-----+

DATA01	DATA02	
Error		
Error types	description	Error contents
00H	00H	Unknown command
00H	01H	Unsupported command
01H	00H	Invalid values specified.
01H	01H	Specified terminal is unavailable or
		cannot be selected
02H	03H	Setting not possible
02H	0DH	Power Off inhibited