

# **JLIP Command Manual**

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# 1.SYSTEM COMMAND

## Baud rate set

Command number #001001

[ Group ] SYSTEM COMMAND

[ Meaning ] Communication speed (baud rate) setting

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	40h	60h,70h	00h	00h	00h	00h
data contents	System command table	Baud rate set	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h,01h	00h	00h	00h	00h	00h
data contents	Command status	System Standard Data Set #1	System Standard Data Set #2	System Standard Data Set #3	System Standard Data Set #4	System Standard Data Set #5	System Standard Data Set #6

### [Command description]

Set the baud rate.

This command is used as a broadcast command.

There is no response from a specific slave to this command.

Meaning of 6th parameter is : 60h: 9600bps

70h: 19200bps

If command is not used for broadcast, but used with a specific designated ID, the return data are returned as an ordinary system command. The 4th return data are command status, and the 5th through the 10th are system standard return data.

# ID number set

Command number # 001002

[ Group ] SYSTEM COMMAND

[ Meaning ] ID number Setting

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	41h	01h-6Bh	00h	00h	00h	00h
data contents	System command table	ID set command	parameter (1-107)				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h.01h	00h	00h	00h	00h	00h
data contents	Command status	System Standard Data Set #1	System Standard Data Set #2	System Standard Data Set #3	System Standard Data Set #4	System Standard Data Set #5	System Standard Data Set #6

## [Command description]

Command for changing ID or setting ID group. The 6th data is for changing internal ID. If ID setting parameter is between 1 and 99, It changes to this value.

ID setting parameter between 100 and 107 is for group ID setting. 100: group A, 101: group B, ... 107: group H. The initial group (without any setting) is A. And this parameter between 100 and 107, the current ID is not changed, but only the group is set.

Do not use 0 or 108 - 127 as command parameters.

# Machine category request

Command number # 001003

[ Group ] SYSTEM COMMAND

[ Meaning ] Get Machine category code and sub-device codes

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	49h	00h	00h	00h	00h	00h
data contents	System command table	Machine category request command					

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	(7Fh)
data contents	Command status	Machine category code	sub-device code	sub-device code	sub-device code	sub-device code	(end data)

## [Command description]

Command for getting the machine type.

Machine category code is the general function in the JLIP machine category code table.

Since SYS and ASD (all sub-device) are essential for each JLIP machine, they are not included in the return data. All other sub-devices are in the return data.

Sub-device codes are the same as the JLIP command selector table.

If the sub-device codes are four or less, the remain return data are 7Fh (end data).

If there are five sub-devices, the 10th data are also sub-device data.

If six sub-devices or more, the remain data are given by Remain data request command (command #001007).

# Remote control disable

Command number # 001004

[ Group ] SYSTEM COMMAND

[ Meaning ] Remote controller signal receive enable/inhibit.

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	43h	60h-70h	00h	00h	00h	00h
data contents	System command table	Remote control disable command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h.01h	00h	00h	00h	00h	00h
data contents	Command status	System Standard Data Set #1	System Standard Data Set #2	System Standard Data Set #3	System Standard Data Set #4	System Standard Data Set #5	System Standard Data Set #6

[Command description]

Wireless remote controller signal receive enable/inhibit.

6th parameter meaning is as follows.

60h: Enable (receive enable)

70h: Inhibit (receive inhibit)



# AV machine remote controller code control

Command number # 001005

[ Group ] SYSTEM COMMAND

[ Meaning ] Control by Remote controller code

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	44h	00h-2Fh	00h-2Fh	00h-2Fh	00h-2Fh	00h
data contents	System command table	AV machine remote controller code control command	parameter	parameter	parameter	parameter	

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h.01h	00h	00h	00h	00h	00h
data contents	Command status	System Standard Data Set #1	System Standard Data Set #2	System Standard Data Set #3	System Standard Data Set #4	System Standard Data Set #5	System Standard Data Set #6

## [Command description]

For controlling by wireless remote controller code format.

During this command control, the machine internal status can not be returned as return data. This command can be used to compose applications that do not require checking the machine internal status from the return data. In order for the command to continuously operate in the machine (e.g., VTR search operation), it designs necessarily to consider the continuous operation until the next arrival of the same command. The remote controller code is not common to all machines.

The following type of parameters are specified for a remote control code system composed of an 8 bit custom code and an 8 bit data code.

In the JVC remote controller code, the upper 4 bits of the parameter data (6th - 9th) are 2 X h.

The lower 4 bits are as follows.

6th: Custom code upper 4 bits

7th: Custom code lower 4 bits

8th: Operation code upper 4 bits

9th: Operation code lower 4 bits

The following type of parameters are specified for a remote control code system composed of a 4 bit custom code and an 8 bit data code.

The upper 4 bits of the parameter data (6th - 8th) are 0 X h. The lower 4 bits are as follows.

6th: Custom code 4 bits

7th: Operation code upper 4 bits

8th: Operation code lower 4 bits

9th: 00h

# Machine name request

Command number # 001006

[ Group ] SYSTEM COMMAND

[ Meaning ] Get machine name data of the machine

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	4Ch	00h	00h	00h	00h	00h
data contents	System command table	Machine name request command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	Xxh	xxh	xxh	xxh	(7Fh)
data contents	Command status	Machine name data	Machine name data	Machine name data	Machine name data	Machine name data	(end data)

## [Command description]

Getting the name data of the machine. The 6th byte of the command is set 00h.

The return data consists of that machine name data returned as ASCII code.

If the machine name is 5 characters or less, the rest data are 7Fh (end data).

If the machine name is 6 characters, the 10th data are the machine name data.

If the machine name is 7 or more characters, the remaining data are given by the remain data request command (command #001007).

The machine name in the return data is composed of alphanumeric characters and symbols only.

# Remain data request

Command number # 001007

[ Group ] SYSTEM COMMAND

[ Meaning ] Get the rest data in machine

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	4Dh	00h	00h	00h	00h	00h
data contents	System command table	Remain data request command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	Xxh	xxh	xxh	xxh	(7Fh)
data contents	Command status	device rest data	Device rest data	device rest data	device rest data	device rest data	(end data)

## [Command description]

If all data are not by the previous data request command, this command is used to get the rest data. If same data still exist, this command is used again. The 6th byte of the command is set 00h. If the machine receives a command except this command, all data generated by the previous data request command are lost.

If less than 5 data bytes exist, the following data are 7Fh.

If no data exist, 5th - 10th are all 7Fh.

# NOP

Command number # 001008

[ Group ] SYSTEM COMMAND

[ Meaning ] Not affect the machine operate

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	4Eh	20h	00h	00h	00h	00h
data contents	System command table	NOP command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h.01h	00h	00h	00h	00h	00h
data contents	Command status	System Standard Data Set #1	System Standard Data Set #2	System Standard Data Set #3	System Standard Data Set #4	System Standard Data Set #5	System Standard Data Set #6

## [Command description]

This command does not affect the machine operating status.

The 6th parameter is always set 20h.

The bit D0 in the 5th return data indicates the ability of returning the information of communication in spite of the status of the power.

The meaning of the bit D0 in the 5th data is as follows.

D0 = 1: The information data of communication is available at either power on or off.

D0 = 0: The information data of communication is available only at power on.

6th - 10th return data are 00h.

The NOP command must be supported by all machines in spite of the status of power.

# Baud rate ability request

Command number # 001009

[ Group ] SYSTEM COMMAND

[ Meaning ] Get baud rate upper limit supported by machine

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	48h	20h	00h	00h	00h	00h
data contents	System command table	Baud rate ability request command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	20h,21h	00h	00h	00h	00h	00h
data contents	Command status	baud rate upper limit					

## [Command description]

Getting the upper limit of the machine baud rate.

This command does not affect the machine operating status.

The 6th parameter is set 20 h.

The return data meaning is as follows.

5th data

20h: 9600bps

21h: 19200bps

# Special command permit

Command number # 001010

[ Group ] SYSTEM COMMAND

[ Meaning ] Permit to use a special command supported by machine

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	46h	00h,,,	00h,,,	00h,,,	00h,,,	00h,,,
data contents	System command table	Special command permit command	parameter	parameter	parameter	parameter	parameter

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h.01h	00h	00h	00h	00h	00h
data contents	Command status	System Standard Data Set #1	System Standard Data Set #2	System Standard Data Set #3	System Standard Data Set #4	System Standard Data Set #5	System Standard Data Set #6

## [Command description]

Permit to use a special command supported by the machine.

Special commands are permitted to use in each command table.

Special commands in the machine cannot be permitted initially.

When the use of the special command is not permitted, the response to the special command is the same as the command does not exist in the machine.

Parameter meanings are as follows.

6th data: command table code provided for special command

7th - 10th data: 4 character password for this command

The password must match the code in the machine to enable a special command. The password consists of 4 characters data defined for each machine.

# Special command inhibit

Command number # 001011

[ Group ] SYSTEM COMMAND

[ Meaning ] Inhibit the use of a special command supported by machine

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	47h	3Eh	00h	00h	00h	00h
data contents	System command table	Special command Inhibit Command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h.01h	00h	00h	00h	00h	00h
data contents	Command status	System Standard Data Set #1	System Standard Data Set #2	System Standard Data Set #3	System Standard Data Set #4	System Standard Data Set #5	System Standard Data Set #6

[Command description]

Inhibit the use of a special command supported by the machine.

This command inhibits the use of the special commands in all command tables in the machine.

The 6th parameter is set 3Eh.

## Remain data set

Command number # 001012

[ Group ] SYSTEM COMMAND

[ Meaning ] Set continued parameters for the other command

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	4Bh	xxh	xxh	xxh	xxh	(7Fh)
data contents	System command table	Remain data set command					(end data)

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h.01h	00h	00h	00h	00h	00h
data contents	Command status	System Standard Data Set #1	System Standard Data Set #2	System Standard Data Set #3	System Standard Data Set #4	System Standard Data Set #5	System Standard Data Set #6

### [Command description]

Set remaining parameters for the other command.

When there are more parameters after setting in this command, this command is used again.

If there are less than 4 data bytes, the rest data are 7Fh.

If there is no data, 5th - 10th parameter are all 7Fh.

If the machine accepts the other command, all received data in the machine are invalid.



# Machine code request

Command number # 001013

[ Group ] SYSTEM COMMAND

[ Meaning ] Get machine code data

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	45h	00h	00h	00h	00h	00h
data contents	System command table	Machine code request command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	Xxh	xxh
data contents	Command status	Machine code data #1	Machine code data #2	Machine code data #3	Machine code data #4	Machine code data #5	Machine code data #6

## [Command description]

Getting machine code data.

The 6th byte of the command is set 00h.

Machine code data #1 and #2 are the JLIP machine vendor code (vendor producing the machine internally JLIP implemented). The vendor code is obtained by registering with the JLIP machine vendor managing group. Machine data #3, #4, #5 and #6 are machine codes managed by each JLIP machine vendor. The code set from #1 to #6 is managed not to overlap.

Machine code data #1 and #2 are respectively in the range of 00h - 63h (0 - 99).

JVC codes are #1 = 00h and #2 = 01h.

## Note

The JLIP machine vendor is a manufacturer designing and producing a JLIP machine or an organization determining the JLIP command implementing specifications of the machine. The machine implementing specifications are the same as another vendor's, the JLIP machine code data may not necessarily coincide with the machine vendor brand.

# Remain data request (data hold type)

Command number # 001014

[ Group ] SYSTEM COMMAND

[ Meaning ] Get rest data in machine

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	52h	00h	00h	00h	00h	00h
data contents	System command table	Remain data request (hold type) command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	(7Fh)
data contents	Command status	device rest data	device rest data	device rest data	device rest data	device rest data	(end data)

## [Command description]

If all data are not given by the previous data request command, this command is used to get the rest data. If some data still exist, this command is used again.

The 6th byte of the command is set 00h.

Even if the other command is received, the rest data of some special data request command in the machine. (Also refer to Command #001007.) The rest data are canceled only if the same or other special data request command is accepted.

If less than 5 data bytes exist, the following data are 7Fh.

If no data exist, 5th - 10th are all 7Fh.

# Panel operation inhibit

Command number # 001015

[ Group ] SYSTEM COMMAND

[ Meaning ] Inhibit the panel switch operation of the machine

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	42h	60h,70h	00h	00h	00h	00h
data contents	System command table	Panel operation inhibit command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h.01h	00h	00h	00h	00h	00h
data contents	Command status	System Standard Data Set #1	System Standard Data Set #2	System Standard Data Set #3	System Standard Data Set #4	System Standard Data Set #5	System Standard Data Set #6

## [Command description]

Inhibit the panel switch operation of the machine.

The 6th parameter meaning is as follows.

60h:valid the operation switch with the machine (permit the operation)

70h:invalid the operation switch with the machine (inhibit the operation)

The kind of the panel operation switch which is affected by this command depends on the machine.

# Processing command task status request

Command number # 001017

[ Group ] SYSTEM COMMAND

[ Meaning ] Get current processing task data of command

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	51h	20h	00h	00h	00h	00h
data contents	System command table	Processing command status request command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command status	processing command task data #1	processing command task data #2	processing command task data #3	processing command task data #4	processing command task data #5	processing command task data #6

## [Command description]

Getting current processing command task status data.

Processing of some commands is not completed immediately. If the command processing has not been completed immediately, it is specified the command task processing status and, the command process number that is applied to the processing command task status (number from 1 to 6) by this command.

The 6th parameter is set 20h.

The 5th - 10th return data are as follows.

00h:no task

10h:continue

20h:completed

01h:abort by other command

02h:abort by overtime

03h:abort by shutdown

04h:abort by emergency

# Processing command task abort

Command number # 001018

[ Group ] SYSTEM COMMAND

[ Meaning ] Abort the command processing

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	50h	20h	00h	00h	00h	00h
data contents	System command table	Processing command task abort command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h.01h	00h	00h	00h	00h	00h
data contents	Command status	System Standard Data Set #1	System Standard Data Set #2	System Standard Data Set #3	System Standard Data Set #4	System Standard Data Set #5	System Standard Data Set #6

[Command description]

Abort the current process of command task.

The 6th parameter is as follows.

20h:ALL task abort

21h:task#1 abort

22h:task#2 abort

23h:task#3 abort

24h:task#4 abort

25h:task#5 abort

26h:task#6 abort

Some processes can not be aborted.

# Receiving data invalidate mode set

Command number # 001020

[ Group ] SYSTEM COMMAND

[ Meaning ] Set receive data invalidate mode

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	4Fh	01h-78h	00h	00h	00h	00h
data contents	System command table	Receiving data invalidate mode set command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h.01h	00h	00h	00h	00h	00h
data contents	Command status	System Standard Data Set #1	System Standard Data Set #2	System Standard Data Set #3	System Standard Data Set #4	System Standard Data Set #5	System Standard Data Set #6

## [Command description]

Setting the receiving data invalidate.

After this command is received, following receive data are invalid for the period of time.

The receiving data invalidate mode is released if the machine power is off, or any data are not received during the period of time set in this command. When some data are received during the period, the data are invalid and the data invalid period is restarted at that moment.

The receiving data invalid period is set by the 6th parameter.

6th data: 01h - 78h (1 - 120 s)

This command must be used as a broadcast command. If received as a command by a specific ID number (that is not a broadcast command format), the command status code "101: not executable condition" is returned. And the machine also returns the other return data as system standard return data.

# Receiving data invalidate mode set inhibit

Command number # 001021

[ Group ] SYSTEM COMMAND

[ Meaning ] Inhibit receive data invalidate mode setting

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	7Ch	56h	60h-70h	00h	00h	00h	00h
data contents	System command table	Receiving data invalidate mode set inhibit command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h.01h	00h	00h	00h	00h	00h
data contents	Command status	System Standard Data Set #1	System Standard Data Set #2	System Standard Data Set #3	System Standard Data Set #4	System Standard Data Set #5	System Standard Data Set #6

## [Command description]

Ignore the Receiving data invalidate mode set command (Command #001020).

After this command is received, the Receiving data invalidate mode set command is invalid, so the receiving data invalidate mode is never set.

The receiving data invalidate mode setting is validated by also this command or cutting off the power supply to the machine. Initially the Receiving data invalidate mode set command is acceptable.

The 6th parameter meaning is as follows.

60h: Receiving data invalidate mode setting command is acceptable

70h: Receiving data invalidate mode setting command is inhibited

## 2.ALL SUBDEVICE COMMAND

### ASD mode request

Command number #002000

[ Group ] ASD COMMAND

[ Meaning ] Inquire overall machine status

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	3Eh	4Eh	20h	00h	00h	00h	00h
data contents	ASD command table	ASD mode request command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h,01h	00h	00h	00h	00h	00h
data contents	Command Status	ASD standard data set #1	ASD standard data set #2	ASD standard data set #3	ASD standard data set #4	ASD standard data set #5	ASD standard data set #6

#### [Command description]

Getting mainly the overall machine power supply status.

This command does not affect the machine operating status.

The 6th parameter is set 20h.

The 5th return data bit D0 indicates the machine power supply status.

D0=1: Power on

D0=0: Power off

Other data are not presently specified.



# Power control

Command number #002001

[ Group ] ASD COMMAND

[ Meaning ] Machine power on/off, etc.

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	3Eh	40h	60h,70h	00h	00h	00h	00h
data contents	ASD command table	Power control command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h,01h	00h	00h	00h	00h	00h
data contents	Command Status	ASD standard data set #1	ASD standard data set #2	ASD standard data set #3	ASD standard data set #4	ASD standard data set #5	ASD standard data set #6

## [Command description]

The 6th data parameter is as follows.

60h: Power off

70h: Power on

This command controls the overall machine power on/off. Power supply control for each sub-device is supported by the command of the sub-device command table.

# Source select (synchronous) execute

Command number #002002

[ Group ] ASD COMMAND

[ Meaning ] Select input source applied to function block

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	3Eh	5Bh	20h	00h	00h	00h	00h
data contents	ASD command table	Source select (synchronous) execute command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	00h,01h	00h	00h	00h	00h	00h
data contents	Command Status	ASD standard data set #1	ASD standard data set #2	ASD standard data set #3	ASD standard data set #4	ASD standard data set #5	ASD standard data set #6

## [Command description]

Select input source to affected function block.

The 6th parameter is set 20h.

This command is for executing the source select (synchronous) command (command #700002).

This command is used for synchronous switching multiple source select blocks in the machine.

The command can also be used for synchronous source switching with other machine. In this case, use with the group or broadcast ID.

### 3.VIDEO TAPE RECORDER

#### VTR mode request

Command number #003000

[ Group ] VTR COMMAND

[ Meaning ] Get the general status of VTR

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	08h,09h	4Eh	20h	00h	00h	00h	00h
data contents	VTR command table	VTR mode request command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

#### [Command description]

Getting the general status of VTR like an operating mode and a tape counter data.

This command does not affect the operation of the VTR.

The 6th parameter is usually set 20h.

# Wind

Command number #003001

[ Group ] VTR COMMAND

[ Meaning ] Making operation of fast forward, rewind and stop

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	08h,09h	44h	60h,,,	00h	00h	00h	00h
data contents	VTR command table	Wind command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

[Command description]

This command is for making operation of fast forward, rewind and stop.

The 6th parameter is as follows.

60h: Stop

65h: Reverse (rewind: REW)

75h: Forward (fast forward: FF)

# Play

Command number #003002

[ Group ] VTR COMMAND

[ Meaning ] Playback control of VTR

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	08h,09h	43h	20h,,,	xxh	xxh	xxh	00h
data contents	VTR command table	Play command	parameter	parameter	parameter	parameter	

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

## [Command description]

Operating the playback control of VTR.

The 6th parameter is for the playback direction and speed.

20h: Slow (Playback forward at the machine-oriented speed slower than normal playback speed)

21h: Fast (Playback forward at the machine-oriented speed faster than normal playback speed)

24h: Slow back

(Playback backward at the machine-oriented speed slower than normal playback speed)

25h: Fast back

(Playback backward at the machine-oriented speed faster than normal playback speed)

65h: Reverse (-1x speed)

6Dh: Pause (temporary stop mechanically)

75h: Forward (1x speed : normal playback speed)

67h: Backward at speed (Playback backward at a speed specified by parameters)

77h: Forward at speed (Playback forward at a speed specified by parameters)

The playback speed at Slow, Fast, Slow back or Fast back is according to the machine-oriented.

When the 6th parameter is 67h or 77h, the 7th - 9th parameters are for the playback speed data.

Playback speed = (7th data) x 128 + (8th data) + (9th data)/n

n = 120 (NTSC) or 100 (PAL, SECAM)

If there is not such speed of setting parameter, it playbacks at the machine-oriented speed near it.

# Record

Command number #003003

[ Group ] VTR COMMAND

[ Meaning ] Making operation of recording

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	08h,09h	42h	6Dh,70h	00h	00h	00h	00h
data contents	VTR command table	Record command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

## [Command description]

This command is for making operation of Recording.

The 6th parameter is as follow.

6Dh: Pause (Record Pause)

70h: On (Record)

The other various recording parameters of functions are set by other commands.

# Medium

Command number #003004

[ Group ] VTR COMMAND

[ Meaning ] Making operation of loading cassette tape

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	08h,09h	41h	60h,70h	00h	00h	00h	00h
data contents	VTR command table	Medium command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

[Command description]

This command is for loading operation of a cassette tape.

The 6th parameter is as follows.

60h: Eject

70h: Load

# Source select data request

Command number #003005

[ Group ] VTR COMMAND

[ Meaning ] Get input source selection data applied to function block

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	08h,09h	58h	20h	00h	00h	00h	00h
data contents	VTR command table	Source select data request command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	7Fh
data contents	Command Status	Source select available data	Source select data Video 1	Source select data Audio 1	Source select data Video 2	Source select data Audio 2	end data

## [Command description]

Getting the kind of the current input source supplied to the affected function block.

This command is for getting the information of recording source of VTR.

Its return data is according to the command parameter format of the same function. The 6th parameter is as follows.

20h: standard format (selection format #1)

The 5th data of the return data is 00h, in the machine of indicating the source selection status. It is 7Fh in the machine without this function. The 6th to 9th data indicate the current source selection status. The 10th data is 7Fh for no other data. It is 00h for some other data. The remain data are given by remain data request command (command #001007).

The 6th to 9th parameter of the return data are the information of the source of the record function of VTR. The information consists of video source and audio. They are the same parameter of source select command in VTR command table (command #003006).



# Source select (asynchronous)

Command number #003006

[ Group ] VTR COMMAND

[ Meaning ] Select input source applied to function block

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	08h,09h	59h	xxh	xxh	xxh	xxh	7Fh
data contents	VTR command table	Source select (asynchronous) command	Source select parameter Video 1	Source select parameter Audio 1	Source select parameter Video 2	Source select parameter Audio 2	end data

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	7Fh
data contents	Command Status	Source select available data	Source select data Video 1	Source select data Audio 1	Source select data Video 2	Source select data Audio 2	end data

## [Command description]

Selecting the input source of the affected function block.

This command selects the video source and the attached audio source of recording input. The command can select up to 2 groups of video lines, and if the 10th parameter data is not the end data, more than 3 groups can be selected. In this case, it is able to select by Remain data set command (command #001012).

If the setting groups are odd numbers, 00h is padded to the each left parameter.

The command executes at the timing of receiving the end data. If the end data are not applied, and moreover a command except Remain data set is received, then the all setting data are invalid.

Normally, when selecting video source and audio are from same source, it is the same parameter as video and audio.

The source selection parameters are as follows.

00h: mute (no input source)

7Eh: hold present source

7Fh: end data

The parameters from 01h to 7Dh are defined in Input source select number table.

The return data is current input source. Refer the document of Source select data request command in the VTR command table (command #003005).

# iLINK source select data request

Command number #003007

[ Group ] VTR COMMAND

[ Meaning ] Get input source selection data of iLINK applied to function block  
Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	08h,09h	5Bh	20h	00h	00h	00h	00h
data contents	VTR command table	iLINK source select data request command	parameter				

## Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	7Fh
data contents	Command Status	Source select data #1	Source select data #2	Source select data #3	Source select data #4	Source select data #5	end data

## [Command description]

Getting the kind of the current input source of iLINK supplied to the affected function block.

This command is for getting the information of recording source of VTR.

Its return data is according to the command parameter format of the same function.

The 6th parameter is as follows.

20h: standard format (selection format #1)

The 7th, 8th, 9th and 10th parameter of command are all 00h.

The 5th data of the return data indicates the device management number in the machine of indicating the source selection status. It is one of number from 1(01h) to 63(3Fh). And if It is 00h in the machine without this function. And if it is 64(40h), it means no connection.

The 6th data indicate the kind of current source device as follows.

D3 D2 D1 D0

0 0 0 0 : Tuner

0 0 0 1 : DV(digital video)

0 0 1 0 : D-VHS

1 1 1 1 : other device

The 7th, 8th and 9th data of return data are all 00h.

The 10th data of return data is always 7Fh.

# iLINK source select (asynchronous)

Command number #003008

[ Group ] VTR COMMAND

[ Meaning ] Select input source of iLINK applied to function block

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	08h,09h	5Ch	xxh	00h	00h	00h	7Fh
data contents	VTR command table	iLINK source select (async) command	Source select parameter (device number)	(reserved)	(reserved)	(reserved)	end data

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	7Fh
data contents	Command Status	Source select data #1	Source select data #2	Source select data #3	Source select data #4	Source select data #5	end data

## [Command description]

Selecting the input source of iLINK to the affected function block.

This command selects the iLINK video source and the attached audio source of recording input.

The 6th parameter of command is iLINK source selection data that is source device management number.

The 7th, 8th and 9th parameters are set all 00h.

The 10th parameter is set 7Fh.

The return data is current input source information of iLINK. Refer the document of iLINK source select data request command in the VTR command table (command #003007).

## 4.VIDEO TAPE RECORDER EXTENDED

### Frame advance

Command number #004002

[ Group ] ext-VTR COMMAND

[ Meaning ] Frame advance control at playback

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	46h	65h,75h	01h-78h	00h	00h	00h
data contents	ext-VTR command table	Frame advance command	parameter	parameter			

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

#### [Command description]

This command is for making operation of frame advance at playback.

The 6th parameter is for the direction as follow.

75h: Forward

65h: Reverse

The 7th parameter is for the number of frame at the range of 1 (01h ) to 120 (78h).

# Frame Record

Command number #004003

[ Group ] ext-VTR COMMAND

[ Meaning ] Making operation of recording according to frames

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	47h	01h-78h	00h	00h	00h	00h
data contents	ext-VTR command table	Frame Record command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

[Command description]

This command is for making operation of recording according to frames.

The 6th parameter is for the number of recording frames.

The parameter is at the range of 1 (01h) to 120 (78h).

# Tape position counter set

Command number #004004

[ Group ] ext-VTR COMMAND

[ Meaning ] Set tape position counter data

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	4Dh	20h,,,	xxh	xxh	xxh	xxh
data contents	ext-VTR command table	Tape position counter set command	parameter	parameter	parameter	parameter	parameter

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

## [Command description]

This command is for setting tape position counter data.

The available counter format is supported by the machine.

The 6th parameter is for the counter mode.

20h: Frame counter (non-drop frame)

21h: Frame counter (drop frame)

22h: Absolute track number (base 16) for DVC

23h: Normal counter (base 10)

The 7th - 10th data indicate parameters. The format is same to the return data.

# Tape position counter select

Command number #004005

[ Group ] ext-VTR COMMAND

[ Meaning ] Select counter format to get

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	4Ch	20h,,,	00h	00h	00h	00h
data contents	ext-VTR command table	Tape position counter select command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

## [Command description]

This command is for selecting the counter format to get.

The 6th parameter is for the kind of the counter format.

20h: Frame counter (non-drop frame)

21h: Frame counter (drop frame)

22h: Absolute track number (base 16) of DV

23h: Normal counter (base 10)

The data of the selected counter format is used a part of the VTR standard data set.

# Audio sampling mode

Command number #004006

[ Group ] ext-VTR COMMAND

[ Meaning ] Set the sampling mode of audio recording

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	4Ah	20h,,,	00h	00h	00h	00h
data contents	ext-VTR command table	Audio sampling mode command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

## [Command description]

This command is for setting sampling mode of audio recording.

The 6th parameter is as follows

20h:32kHz

21h:48kHz

22h:44.1kHz



# Record Medium type select

Command number #004007

[ Group ] ext-VTR COMMAND

[ Meaning ] Set the medium type of recording mode

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	43h	20h,,,	00h	00h	00h	00h
data contents	ext-VTR command table	Record Medium type select command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

## [Command description]

This parameter is for setting the medium type of recording mode.

The 6th parameter is as follows in a VHS.

20h: Normal VHS

21h: S-VHS

22h: D-VHS

76h: Automatic select mode (It is normally recorded in medium originated mode)

# Record speed select

Command number #004008

[ Group ] ext-VTR COMMAND

[ Meaning ] Select the recording speed

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	42h	20h,,,	00h	00h	00h	00h
data contents	ext-VTR command table	Record speed select command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

## [Command description]

This command is for selecting the recording speed.

The 6th parameter is as follows in a VHS.

6Fh: Standard recording mode (Standard mode depends on each machine)

	NTSC	PAL	SECAM	D-VHS
20h	SP (1/1 recording speed )	SP	SP	STD
21h	LP (1/2 recording speed )	LP	LP	LS2
22h	EP (1/3 recording speed )	EP	EP	LS3
24h	SEP (1/5 recording speed)			LS5
26h				LS7
30h				HS

## Record mode select

Command number #004009

[ Group ] ext-VTR COMMAND

[ Meaning ] Select the recording operation of the combination of audio and video

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	40h	20h,,,	00h	00h	00h	00h
data contents	ext-VTR command table	Record mode select command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

### [Command description]

This command is for selecting the recording operation of the combination of audio and video.

The 6th parameter is as follows.

- 20h: Normal recording (Video and Audio, CTL, ITI, etc.)
- 21h: AV insert recording (Video and Audio, without CTL, ITI, etc.)
- 22h: V insert recording (Video only, without CTL, ITI, etc.)
- 23h: A dub (Audio only, without CTL, ITI, etc.)

# Record audio group select

Command number #004010

[ Group ] ext-VTR COMMAND

[ Meaning ] Select the recording audio group

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	41h	xxh	xxh	xxh	xxh	00h
data contents	ext-VTR command table	Record audio group select command	parameter	parameter	parameter	parameter	

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

## [Command description]

This command is for selecting the recording audio group.

The 6th - 9th parameter selects the recording audio group.

6th parameter: group #1, 7th: group #2, 8th: group #3, 9th: group #4.

Group data bits indicate the channels in the group.

bit0:ch1

bit1:ch2

bit2:ch3

bit3:ch4

bit4:ch5

bit5:ch6

The data bit is 1 for recording, and it is 0 for not recording.

Set the bit 6 to 1 to hold the group setting. To change kind of the setting, set the bit to 0.

The recording audio group is as follow in each system.

	6th parameter Group #1	7th Group #2	8th Group #3	9th Group #4
VHS(S-VHS)	Normal	Hi-fi	PCM	-
W-VHS	PCM	Hi-fi	Normal	-
DV	PCM#1 (32kHz)	PCM#2 (48k/44.1kHz)	-	-

# Playback audio group select

Command number #004011

[ Group ] ext-VTR COMMAND

[ Meaning ] Select the playback audio group

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	48h	xxh	xxh	xxh	xxh	00h
data contents	ext-VTR command table	Playback audio group select command	parameter	parameter	parameter	parameter	

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

## [Command description]

This command is for selecting the playback audio group.

The 6th - 9th parameter selects the playback audio group.

6th parameter: group #1, 7th: group #2, 8th: group #3, 9th: group #4.

Group data bits indicate the channels in the group.

bit0:ch1

bit1:ch2

bit2:ch3

bit3:ch4

bit4:ch5

bit5:ch6

The data bit is 1 for operation of playback, and it is 0 for not operating of it.

Set the bit 6 to 1 to hold the group setting. To change the setting, set the bit to 0.

A kind of the playback audio is as follows.

	6th parameter	7th	8th	9th
	Group #1	Group #2	Group #3	Group #4
VHS(S-VHS)	Normal	Hi-fi	PCM	-
W-VHS	PCM	Hi-fi	Normal	-
DV	PCM#1 (32kHz)	PCM#2 (48k/44.1kHz)	-	-

If even one of these parameters cannot be executed, all the parameters are invalid.

# Remote Pause control

Command number #004012

[ Group ] ext-VTR COMMAND

[ Meaning ] Operate pause output control connector

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	50h	60h,70h	00h	00h	00h	00h
data contents	ext-VTR command table	Remote Pause control command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

## [Command description]

Operating VTR pause output control connector.

The 6th parameter is as follows.

60h: Pause mode

70h: Pause release

This command must be used with the 6th parameter-60h at the first.

# Playback audio output mode select

Command number #004014

[ Group ] ext-VTR COMMAND

[ Meaning ] Select playback audio output mode

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	49h	20h,,,	00h	00h	00h	00h
data contents	ext-VTR command table	Playback audio output mode select command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

## [Command description]

This command is for selecting the playback audio output mode.

The 6th parameter is for selecting the playback audio output mode.

The command is capable only for selecting two channel output mode in two channels input source.

The 6th parameter is as follows.

	CH 1 output	CH 2 output
20h : L and R independent (stereo)	L	R
21h : L (main) only	L	L
22h : R (sub) only	R	R
23h : L+R (mono)	L+R	L+R

It is used for selecting mode of more than three channels in other command.

# 'Photo' scene search

Command number #004015

[ Group ] ext-VTR COMMAND

[ Meaning ] Search 'Photo' scene

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	51h	65h,75h	00h	00h	00h	00h
data contents	ext-VTR command table	'Photo' scene search command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

## [Command description]

This command is for searching the position of 'photo' scene. A 'photo' scene is recorded as a still picture in the specified recording mode.

The 6th parameter is for the search direction.

75h: Forward

65h: Reverse

When this command is executed, the VTR operates in fast playback mode to find the nearest 'photo' scene, then makes a pause at that position.



# ‘Photo’ scene search information request

Command number #004016

[ Group ] ext-VTR COMMAND

[ Meaning ] Get ‘photo’ search status data

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	52h	20h	00h	00h	00h	00h
data contents	ext-VTR command table	‘photo’ scene search information request command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	‘photo’ scene search information					

## [Command description]

This command is for getting the ‘photo’ scene search status data during ‘photo’ scene searching.

The 6th parameter is set to 20h.

The lower 3 bits of the 5th return data is for the ‘photo’ scene search status.

D2 = 1: Search failed (search stopped)

D1 = 1: Search completed

D0 = 1: Searching

# Playback speed request

Command number #004017

[ Group ] ext-VTR COMMAND

[ Meaning ] Get VTR playback speed data

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	4Eh	20h	00h	00h	00h	00h
data contents	ext-VTR command table	Playback speed request command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	00h	00h
data contents	Command Status	playback speed data #1	playback speed data #2	playback speed data #3	playback speed data #4		

## [Command description]

This command is for getting playback speed data in the playback mode.

The 5th parameter of return data is the playback direction and speed.

6Dh: Pause

75h: Forward (1 x speed: standard playback)

67h: Reverse playback at indicated speed

77h: Forward playback at indicated speed

7Fh: Not playback mode

If the 5th parameter is 67h or 77h, the playback speed data are indicated in the 6th - 8th parameters.

$$\text{Playback speed} = (\text{6th data}) \times 128 + (\text{7th data}) + (\text{8th data})/n$$

$$n = 120 \text{ (NTSC) or } 100 \text{ (PAL, SECAM)}$$

The data is the precise playback speed data or nearly.

If the machine cannot confirm the playback speed, the 6th - 8th parameters is all 00h.

# Tracking

Command number #004018

[ Group ] ext-VTR COMMAND

[ Meaning ] Operate the tracking control

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	44h	60h,,,	00h	00h	00h	00h
data contents	ext-VTR command table	Tracking command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

## [Command description]

This command is for operating the tracking control in playback.

The 6th parameter is the tracking mode and control of adjusting.

70h: Auto mode

60h: Manual mode (stop)

73h: + direction (slow adjust, or 1 step)

63h: - direction (slow adjust, or 1 step)

74h: + direction (rapid adjust, or fixed steps)

64h: - direction (rapid adjust, or fixed steps)

In Manual tracking mode, the adjustment parameter is valid.

In the 6th parameter of 74h or 64h, the value of adjustment depends on the machine.

# Index

Command number #004019

[ Group ] ext-VTR COMMAND

[ Meaning ] Index data write control

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	45h	60h,,,	00h	00h	00h	00h
data contents	ext-VTR command table	Index command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

## [Command description]

This command is for Index data write control in playback or record mode.

The 6th parameter is for the index control operation.

71h: Mark (write)

61h: Erase

60h: Release the reserve

When the 6th parameter is 71h in the playback ( or record) mode, index data is written immediately. In the Pause (or Record Pause) mode, index data is not written immediately, but only reserved. When reserved, the index data will be written in the next playback (or record) mode.

The reserve mode is released to receive the command with 6th parameter-60h. It is also released to be in the other mode except playback (or record).

When the 6th parameter is 61h in the playback or pause mode, it is automatically operated to the fast playback mode for detecting the index data, and the index data is erased. The index data is only erased.

# TBC

Command number #004020

[ Group ] ext-VTR COMMAND

[ Meaning ] TBC control

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	48h,49h	53h	60h,70h	00h	00h	00h	00h
data contents	ext-VTR command table	TBC command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTR standard data set#1	VTR standard data set#2	VTR standard data set#3	VTR standard data set#4	VTR standard data set#5	VTR standard data set#6

[Command description]

This command is for operating of Time base corrector (TBC) control.

The 6th parameter is for operating.

70h: On

60h: Off

## 5. VIDEO PRINTER

### VPR mode request

Command number #005000

[ Group ] VPR COMMAND

[ Meaning ] Get the general status of video printer

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	14h,15h	4Eh	20h	00h	00h	00h	00h
data contents	VPR command table	VPR mode request command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

#### [Command description]

This command is for getting the general status of a video printer.

The 6th parameter is usually set 20h.

The return data of this command is as VPR standard data sets. The 5th parameter of return data is the status of the video printer. The other parameters of return data are not specified, so returns all 00h.

# Print

Command number #005001

[ Group ] VPR COMMAND

[ Meaning ] Video printer print control

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	14h,15h	43h	60h,,,	00h	00h	00h	00h
data contents	VPR command table	print command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

[Command description]

This command is for controlling of start and stop of video printer.

The 6th parameter is as follows

70h: Print start

60h: Print abort and feed out the paper.

6Dh: Print pause

# Video memory

Command number #005002

[ Group ] VPR COMMAND

[ Meaning ] Video memory writing control

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	14h,15h	42h	60h,,,	00h	00h	00h	00h
data contents	VPR command table	video memory command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

## [Command description]

This command is for controlling the video memory of printer.

The 6th parameter is as follows.

71h: Write video memory.

61h: Erase video memory.

It is effected at the selected position in case of the input multi-screen picture mode.



# Video output select

Command number #005003

[ Group ] VPR COMMAND

[ Meaning ] Video output source select control

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	14h,15h	47h	60h,,,	00h	00h	00h	00h
data contents	VPR command table	Video output select command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

## [Command description]

This command is for selecting source of video output.

The 6th parameter is as follows

60h: External input

70h: Video memory

# Field mode select

Command number #005004

[ Group ] VPR COMMAND

[ Meaning ] Select field/frame picture of printing mode

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	14h,15h	4Ch	60h,,,	00h	00h	00h	00h
data contents	VPR command table	Field mode select command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

## [Command description]

This command is for selecting field picture or frame of printing.

The 6th parameter is as follows

60h: Frame picture

70h: Field picture

# Input multi-screen

Command number #005005

[ Group ] VPR COMMAND

[ Meaning ] Select the input multi-screen picture mode

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	14h,15h	48h	60h,,,	00h	00h	00h	00h
data contents	VPR command table	Input multi-screen command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

## [Command description]

This command is for selecting the input multi-screen picture mode.

The 6th parameter is as follows

60h: Single picture input mode

20h: divided 2

21h: divided 4

22h: divided 6

23h: divided 9

24h: divided 12

25h: divided 16

26h: divided 24

# Output multi-screen

Command number #005006

[ Group ] VPR COMMAND

[ Meaning ] Select the output multi-screen picture mode

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	14h,15h	49h	60h,,,	00h	00h	00h	00h
data contents	VPR command table	Output multi-screen command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

## [Command description]

This command is for selecting the output multi-screen picture mode.

The 6th parameter is as follows

60h: Single picture output mode

20h: divided 2

21h: divided 4

22h: divided 6

23h: divided 9

24h: divided 12

25h: divided 16

26h: divided 24

# Multi-screen position

Command number #005007

[ Group ] VPR COMMAND

[ Meaning ] Select the position of divided memory

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	14h,15h	4Ah	60h,,,	00h	00h	00h	00h
data contents	VPR command table	Multi-screen position command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

## [Command description]

This command is for selecting the position of divided memory in the input multi-screen picture mode.

The 6th parameter is as follows

65h: Previous position (Same function of "-" button)

75h: Next position (Same function of "+" button)

20h: Upper left side corner

21h: Next position (Right next to previous position)

22h:

23h: Upper right corner at divided 16, lower right corner at divided 4.

:

:

2Fh: Lower right corner at divided 16.

# Print direction

Command number #005008

[ Group ] VPR COMMAND

[ Meaning ] Select orientation of printing

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	14h,15h	44h	60h,,,	00h	00h	00h	00h
data contents	VPR command table	Print direction command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

[Command description]

This command is for selecting print layout direction as portrait or landscape.

The 6th parameter is as follows

60h: Landscape layout

70h: Portrait layout

# Copy number set

Command number #005009

[ Group ] VPR COMMAND

[ Meaning ] Set the number of copy for printing

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	14h,15h	46h	01h,,,	00h	00h	00h	00h
data contents	VPR command table	copy number command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

## [Command description]

This command is for setting the number of copy for print.

Generally this command setting is effective before executing PRINT command. And it can not be changed while printing. When received this command while printing, its setting is effective in executing next PRINT command.

The 6th parameter is the number of copy as follows

01h: 1 sheet

02h: 2 sheets

:

7Fh: 127 sheets

## 6. VIDEO PRINTER EXTENDED

### Strobe mode

Command number #006001

[ Group ] ext-VPR COMMAND

[ Meaning ] Set strobe mode

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	54h,55h	48h	60h,,,	00h	00h	00h	00h
data contents	ext-VPR command table	Strobe mode command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

#### [Command description]

This command is for setting interval time of strobe function of video printer.

The 6th parameter is as follows

60h: off

20h: Set - parameter#1 (long interval ; depended on the machine)

21h: Set - parameter#2 (short interval ; depended on the machine)



# Title mode

Command number #006002

[ Group ] ext-VPR COMMAND

[ Meaning ] Set title mode

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	54h,55h	4Ah	60h,,,	00h	00h	00h	00h
data contents	ext-VPR command table	Title mode command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

[Command description]

This command is for setting the title mode of video printer.

The 6th parameter is as follows

60h: off

70h: Title mode is set

# Title color (plane A)

Command number #006003

[ Group ] ext-VPR COMMAND

[ Meaning ] Select title color for plane A

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	54h,55h	4Bh	20h,,,	00h	00h	00h	00h
data contents	ext-VPR command table	Title color(A) command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

[Command description]

This command is for selecting title color for plane A.

The 6th parameter is as follows

- 21h: Black
- 22h: Blue
- 23h: Red
- 24h: Green
- 25h: Magenta
- 26h: Cyan
- 27h: Yellow
- 28h: White

# Title reverse mode (plane A)

Command number #006004

[ Group ] ext-VPR COMMAND

[ Meaning ] Set title reverse mode for plane A

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	54h,55h	4Ch	65h,,,	00h	00h	00h	00h
data contents	ext-VPR command table	Title reverse mode(A) command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

## [Command description]

This command is for setting the title reverse output mode for plane A.

The 6th parameter is as follows

75h: Normal (Dark part is as title picture)

65h: Reverse (Light part is as title picture)

# Contrast adjust

Command number #006005

[ Group ] ext-VPR COMMAND

[ Meaning ] Set contrast adjust

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	54h,55h	42h	60h,,,	00h	00h	00h	00h
data contents	ext-VPR command table	Contrast adjust command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

[Command description]

This command is for setting the contrast adjustment of video printer.

The 6th parameter is as follows

60h: off

70h: on

# Brightness adjust

Command number #006006

[ Group ] ext-VPR COMMAND

[ Meaning ] Set brightness adjust

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	54h,55h	43h	6Fh,,,	00h	00h	00h	00h
data contents	ext-VPR command table	Brightness adjust command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

## [Command description]

This command is for selecting the brightness adjust value for printing.

The 6th parameter is as follows

- 6Fh: Standard (standard ; depended on the machine)
- 21h: Preset value #1 (Dark ; depended on the machine)
- 22h: Preset value #2 (Slightly dark ; depended on the machine)
- 23h: Preset value #3 (Slightly light ; depended on the machine)
- 24h: Preset value #4 (Light ; depended on the machine)

# Aperture

Command number #006008

[ Group ] ext-VPR COMMAND

[ Meaning ] Aperture set

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	54h,55h	45h	60h,,,	00h	00h	00h	00h
data contents	ext-VPR command table	Aperture command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

[Command description]

This command is for setting the aperture control of video printer.

The 6th parameter is as follows

60h: off

70h: on

# Title mix

Command number #006009

[ Group ] ext-VPR COMMAND

[ Meaning ] Title mix display control

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	54h,55h	4Dh	60h,,,	00h	00h	00h	00h
data contents	ext-VPR command table	Title mix command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

[Command description]

This command is for operating the title mix display control of video printer.

The 6th parameter is as follows

60h: off (not mixed)

70h: on (mixed)

# Title pattern select (plane A)

Command number #006010

[ Group ] ext-VPR COMMAND

[ Meaning ] Select title pattern for plane A

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	54h,55h	4Eh	20h,,,	00h	00h	00h	00h
data contents	ext-VPR command table	Title pattern select(A) command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

## [Command description]

This command is for selecting a pattern of title for plane A of video printer.

The 6th parameter is as follows

20h: External input (video in)

21h: Title pattern #1

22h: Title pattern #2

23h: Title pattern #3

24h: Title pattern #4

25h: Title pattern #5

When the title mode is on, the title is displayed with picture.



# Title pattern select (plane B)

Command number #006011

[ Group ] ext-VPR COMMAND

[ Meaning ] Select title pattern for plane B

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	54h,55h	50h	20h,,,	00h	00h	00h	00h
data contents	ext-VPR command table	Title pattern select(B) command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

## [Command description]

This command is for selecting a pattern of title for plane B of video printer.

The 6th parameter is as follows

20h: External input (video in)

21h: Title pattern #1

22h: Title pattern #2

23h: Title pattern #3

24h: Title pattern #4

25h: Title pattern #5

When the title mode is on, the title is displayed with picture.

# Title memory (plane A)

Command number #006012

[ Group ] ext-VPR COMMAND

[ Meaning ] Control title memory for plane A

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	54h,55h	4Fh	60h,,,	00h	00h	00h	00h
data contents	ext-VPR command table	Title memory(A) command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

## [Command description]

This command is controlling the title memory for plane A.

The 6th parameter is as follows

60h: off - Title plane A

70h: on - Title plane A

61h: Erase the title memory of plane A

71h: Write the title memory of plane A

## Title memory (plane B)

Command number #006013

[ Group ] ext-VPR COMMAND

[ Meaning ] Control title memory for plane B

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	54h,55h	51h	60h,,,	00h	00h	00h	00h
data contents	ext-VPR command table	Title memory(B) command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

### [Command description]

This command is for controlling the title memory for plane B.

The 6th parameter is as follows

60h: off - Title plane B

70h: on - Title plane B

61h: Erase the title memory of plane B

71h: Write the title memory of plane B

# Title color (plane B)

Command number #006014

[ Group ] ext-VPR COMMAND

[ Meaning ] Select title color for plane B

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	54h,55h	52h	20h,,,	00h	00h	00h	00h
data contents	ext-VPR command table	Title color(B) command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

## [Command description]

This command is for selecting title color for plane B.

The 6th parameter is as follows

- 21h: Black
- 22h: Blue
- 23h: Red
- 24h: Green
- 25h: Magenta
- 26h: Cyan
- 27h: Yellow
- 28h: White

## Title reverse mode (plane B)

Command number #006015

[ Group ] ext-VPR COMMAND

[ Meaning ] Set title reverse mode for plane B

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	54h,55h	53h	65h,,,	00h	00h	00h	00h
data contents	ext-VPR command table	Title reverse mode(B) command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	00h	00h	00h	00h	00h
data contents	Command Status	VPR standard data set#1	VPR standard data set#2	VPR standard data set#3	VPR standard data set#4	VPR standard data set#5	VPR standard data set#6

### [Command description]

This command is for setting the title reverse output mode for plane B.

The 6th parameter is as follows

75h: Normal (Dark part is as title picture)

65h: Reverse (Light part is as title picture)

## 7. VIDEO CAMERA

### Camera mode request

Command number #007000

[ Group ] CAM COMMAND

[ Meaning ] Get the general status of camera

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	0Eh,0Fh	4Eh	20h	00h	00h	00h	00h
data contents	CAM command table	Camera mode request command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	00h	00h	00h
data contents	Command Status	CAM standard data set#1	CAM standard data set#2	CAM standard data set#3	CAM standard data set#4	CAM standard data set#5	CAM standard data set#6

#### [Command description]

This command is for getting the general status of video camera.

The 6th parameter is usually set 20h.

The return data is as CAM standard data set. Some machines may not have the defined return data set. In this case, all data of CAM standard data set are 00h.

# Zoom

Command number #007001

[ Group ] CAM COMMAND

[ Meaning ] Camera zooming control

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	0Eh,0Fh	40h	60h,,,	00h	00h	00h	00h
data contents	CAM command table	Zoom command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	00h	00h	00h
data contents	Command Status	CAM standard data set#1	CAM standard data set#2	CAM standard data set#3	CAM standard data set#4	CAM standard data set#5	CAM standard data set#6

## [Command description]

This command is for zooming control for video camera.

The 6th parameter is as follows

60h :NOP (stop)

62h :WIDE at lowest speed

63h :WIDE at low speed

64h :WIDE at middle speed

65h :WIDE at fast speed

72h :TELE at lowest speed

73h :TELE at low speed

74h :TELE at middle speed

75h :TELE at fast speed

This command operates for just a little time. If you want to keep zooming without stopping, the command must be send repeatedly.

# Focus

Command number #007002

[ Group ] CAM COMMAND

[ Meaning ] Camera focusing control

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	0Eh,0Fh	41h	60h,,,	00h	00h	00h	00h
data contents	CAM command table	Focus command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	00h	00h	00h
data contents	Command Status	CAM standard data set#1	CAM standard data set#2	CAM standard data set#3	CAM standard data set#4	CAM standard data set#5	CAM standard data set#6

## [Command description]

This command is for operating of focusing control for video camera.

The 6th parameter is as follows

- 60h :MANUAL mode (stop)
- 76h :AUTO mode
- 62h :NEAR at lowest speed
- 63h :NEAR at low speed
- 64h :NEAR at middle speed
- 65h :NEAR at fast speed
- 72h :FAR at lowest speed
- 73h :FAR at low speed
- 74h :FAR at middle speed
- 75h :FAR at fast speed

The parameter : 62h-65h,72h-75h of focusing control is in effect only in the manual focus control mode, and its command operates for just a little time. If you want to keep focusing without stopping, the command must be sent repeatedly.



# Electric zoom (relative)

Command number #007012

[ Group ] CAM COMMAND

[ Meaning ] Camera electric zooming control

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	0Eh,0Fh	4Bh	60h,,,	00h	00h	00h	00h
data contents	CAM command table	Electric zoom command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	00h	00h	00h	00h
data contents	Command Status	magnification data	magnification data				

## [Command description]

This command is for electric zooming control for video camera.

This command controls both vertical and horizontal magnifying at same rate.

The 6th parameter is as follows

- 60h :Electric zoom off
- 70h :Electric zoom on
- 62h :WIDE at lowest speed
- 63h :WIDE at standard speed
- 64h :WIDE at middle speed
- 65h :WIDE at fast speed
- 72h :TELE at lowest speed
- 73h :TELE at standard speed
- 74h :TELE at middle speed
- 75h :TELE at fast speed
- 7Eh :NOP (stop)

The return data of this command gives the magnification rate of electric zoom.

Magnification rate =  $256/n$

$n = (5\text{th data}) \times 128 + (6\text{th data})$

## 8.VIDEO TUNER

### VTU mode request

Command number #011000

[ Group ] VTU COMMAND

[ Meaning ] Get video tuner general information

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	0Ah,0Bh 10h,11h	4Eh	20h,,,	00h	00h	00h	00h
data contents	VTU command table	VTU mode request command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTU standard data set#1	VTU standard data set#2	VTU standard data set#3	VTU standard data set#4	VTU standard data set#5	VTU standard data set#6

#### [Command description]

This command is for getting the information of a video tuner. The information is selectable by the 6th parameter of this command.

The 6th parameter is as follows.

20h: Real channel number request

21h: Receiving frequency request

22h: Preset memory number request

23h: Receiving status request

It is still returned the same data set until it is changed by this command with the 6th parameter. The return data set is called VTU standard data set. It is also returned by some other VTU command. The return data contents are according to the machine. Some machines may not have the defined return data set. In this case, the return data is 00h.

# Band select

Command number #011001

[ Group ] VTU COMMAND

[ Meaning ] Select the receiving band of a video tuner

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	0Ah,0Bh 10h,11h	40h	63h,,,	20h,,,	00h	00h	00h
data contents	VTU command table	Band select command	parameter	parameter			

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTU standard data set#1	VTU standard data set#2	VTU standard data set#3	VTU standard data set#4	VTU standard data set#5	VTU standard data set#6

## [Command description]

This command is for selecting the receiving band for video tuner.

There are two control methods. One is a direct (absolute) band setting, the other is a relative band setting from the present one.

The 6th parameter is as follows.

- 71h: Band direct set
- 63h: Band down
- 73h: Band up
- 7Eh: Hold the current selection

When the 6th parameter is 71h for Band direct set, the 7th parameter is as follows with it.

- 00h: depend on each machine
- 20h: FM
- 28h: AM
- 30h: AIR (terrestrial TV broadcasting)
- 38h: CATV (terrestrial TV broadcasting)
- 40h: BS1
- 48h: BS2
- 50h: CS1
- 58h: CS2

The bit 0 of the 7th parameter is used as control parameter for AFC.

- bit 0 = 0 : standard
- = 1 : off

The bit 2 and bit 1 of the 7th parameter are used as control parameter for antenna input selection.

- |      |      |              |
|------|------|--------------|
| bit2 | bit1 |              |
| 0    | 0    | : AUTO       |
| 0    | 1    | : input 1    |
| 1    | 0    | : input 2    |
| 1    | 1    | : (reserved) |

# Real channel select

Command number #011003

[ Group ] VTU COMMAND

[ Meaning ] Select the real channel of a video tuner

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	0Ah,0Bh 10h,11h	42h	61h,,,	00h-7Fh	00h-63h	00h-7Eh	00h,01h
data contents	VTU command table	Real channel select command	parameter	parameter	parameter	parameter	parameter

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTU standard data set#1	VTU standard data set#2	VTU standard data set#3	VTU standard data set#4	VTU standard data set#5	VTU standard data set#6

## [Command description]

This command is for the real channel of a video tuner. The real channel is the number of channel defined in the band.

There are three control methods. One is a direct (absolute) channel setting, the other one is a relative channel setting from the present one, and another one is a seeking.

The 6th parameter is as follows.

71h: Channel direct set

63h: Channel down

73h: Channel up

64h: Channel seek down

74h: Channel seek up

61h: Channel seek stop

7Eh: Hold current selecting

When the 6th parameter is 71h for Channel direct set, the channel is set by both the 7th parameter and 8th. The channel number is as follows.

Channel number = (7th data) \* 100 + (8th data)

The 9th parameter is for setting of a broadcasting system and a band .

Broadcasting system selection:

D6 D5 D4

0 0 0 depend on machine

0 0 1 BG

0 1 0 DK

0 1 1 L

1 0 0 M

1 0 1 N

1 1 0 I

1 1 1 Hold present status

Band selection:

D3 D2 D1 D0

0 0 0 0 depend on machine

0 0 0 1 FM

0 0 1 0 AM

0 1 0 0 AIR

0 1 0 1 CATV

1 0 0 0 BS1

1 0 0 1 BS2

1 1 0 0 CS1

1 1 0 1 CS2

1 1 1 0 Hold present status

The bit 0 of the 10th parameter is for the audio mute control while selecting the channel.

bit 0 = 0 :depend on machine

= 1 :mute control is still continued after selecting the channel

# Preset memory channel select

Command number #011005

[ Group ] VTU COMMAND

[ Meaning ] Select the preset memory channel of a video tuner

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	0Ah,0Bh 10h,11h	44h	61h,,,	00h-6Eh	00h-63h	00h-7Eh	00h,01h
data contents	VTU command table	Preset memory channel select command	parameter	parameter	parameter	parameter	parameter

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	VTU standard data set#1	VTU standard data set#2	VTU standard data set#3	VTU standard data set#4	VTU standard data set#5	VTU standard data set#6

## [Command description]

This command is for selecting the preset memory channel of a video tuner.

There are three control methods. One is a direct preset memory number setting, the other is a relative preset memory setting from the present one, and another one is a seeking.

The 6th parameter is as follows.

- 71h: Set the number of Preset memory channel
- 63h: Previous(less) of the number of Preset memory channel
- 73h: Next(more) of the number of Preset memory channel
- 64h: Seeking the number of Preset memory channel downward
- 74h: Seeking the number of Preset memory channel upward
- 61h: Stop seeking ( Hold present status )

When the 6th parameter is 71h, the number of preset memory is set by both the 7th and 8th parameter. The 7th parameter is set by the sequential number type or the bank type. The bank means groups of sequential numbers.

7th data = 00h-63h : Preset memory number (sequential number)

Preset memory number (Preset number) = 7th data x 100 + 8th data

7th data = 65h-6Eh : Preset memory number (Bank)

Preset memory number (Bank number) = 7th data (65h:Bank#1,66h:Bank#2,,,6Eh:Bank#10)

Preset memory number (Preset number) = 8th data

The 9th parameter is for setting of a broadcasting system and a band .

The bit 0 of the 10th parameter is for the audio mute control while selecting the channel.

The 9th parameter and the 10th parameter are same as the Real channel select command.

## 9.VIDEO EFFECTER

### Wipe source select

Command number #019000

[ Group ] VEF COMMAND

[ Meaning ] Select input source for video wipe function.

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	18h,19h	40h	00h,,,	00h,,,	00h	00h	00h
data contents	VEF command table	Wipe source select command	parameter	parameter			

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	00h	00h	00h
data contents	Command Status	VEF standard data set#1	VEF standard data set#2	VEF standard data set#3	VEF standard data set#4	VEF standard data set#5	VEF standard data set#6

#### [Command description]

This command is for selecting an input source for video wipe function.

The 6th parameter is for wipe source A, and the 7th parameter is for wipe source B as the other one.

Each parameter is as follows.

00h: Preset function

10h: Memory

20h: Video source

7Eh: Hold the current selection

Generally, the 6th parameter is set for an external input and the 7th parameter is set for preset function of an internal effect block as the fader. So it is usually set Video source to A, and set Memory or preset color (wipe color) to B.

When the 7th parameter is 00h (preset function), the function settings are from another command.

The wipe color is set by the command, or it is the fixed preset one in the machine.

# Wipe mode select

Command number #019001

[ Group ] VEF COMMAND

[ Meaning ] Select the wipe mode of a video equipment

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	18h,19h	41h	20h,,,	00h-7Fh	40h,,,70h	00h-7Fh	40h,,,70h
data contents	VEF command table	Wipe mode select command	parameter	parameter	parameter	parameter	parameter

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	00h	00h	00h
data contents	Command Status	VEF standard data set#1	VEF standard data set#2	VEF standard data set#3	VEF standard data set#4	VEF standard data set#5	VEF standard data set#6

## [Command description]

This command is for setting wipe function type and parameter of a Video equipment.

The 6th parameter is as follows.

- 20h: corner wipe #1 ( Source A is always on the part of upper left corner of screen.)
- 21h: corner wipe #2 ( Source A is always on the part of upper right corner of screen.)
- 22h: corner wipe #3 ( Source A is always on the part of down left corner of screen.)
- 23h: corner wipe #4 ( Source A is always on the part of down right corner of screen.)
- 24h: window wipe #1
- 25h: basic wipe #1 (vertical dividing line)
- 26h: basic wipe #2 (horizontal dividing line)
- 27h: door wipe #1
- 28h: shutter wipe #1
- :
- :

The 7th parameter and 8th are for the dividing horizontal position.

The horizontal position : 7th parameter (D6-D0), 8th parameter (D6-D5)

The 9th parameter and 10th are for the dividing vertical position.

The vertical position : 9th parameter (D6-D0), 10th parameter (D6-D5)

The bit of control parameter is designated in the equipment, and used from MSB. The MSB bit is D6 of the 7th parameter or 9th. The LSB bit is D5 of the 8th parameter or 10th.

The normal setting for automatic wipe operation is 0 or 511. The 0 is value of wipe in that means Source A appears, and the 511 is value of wipe out that means Source A disappears.

In window wipe mode, the upper left corner of the window is designated for the parameter. If the window wipe center is not same as the screen's, it is set by another command.

# Wipe border

Command number #019002

[ Group ] VEF COMMAND

[ Meaning ] Set the wipe border function control of a video equipment

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	18h,19h	42h	20h,21h	00h-7Fh	00h-3Fh	00h	00h
data contents	VEF command table	Wipe border command	parameter	parameter	parameter		

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	00h	00h	00h
data contents	Command Status	VEF standard data set#1	VEF standard data set#2	VEF standard data set#3	VEF standard data set#4	VEF standard data set#5	VEF standard data set#6

## [Command description]

This command is for setting the wipe border function.

The 6th parameter is for selecting the border edge process.

20h: soft border mode

21h: apply border mode

When the 6th parameter is 20h, the 7th parameter is for the soft border level as follows.

00h: soft level 0

01h: soft level 1

02h: soft level 2

03h: soft level 3

The number of soft level means an overlapped width of each picture. So, the soft level 0 means no overlapping of picture.

When the 6th parameter is 21h, the 7th parameter is for border edge width as follow.

00h-7Fh: border width

The 8th parameter is for the border color. The parameter consists of 6bits (2bits of green, 2bits of red, and 2bits of blue).

G: D5-D4, R: D3-D2, B: D1-D0

It is 00h for black, and 3Fh for white.



# Wipe execute

Command number #019003

[ Group ] VEF COMMAND

[ Meaning ] Execute wipe function of a video equipment

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	18h,19h	43h	60h,,,	00h	00h	00h	00h
data contents	VEF command table	Wipe execute command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	00h	00h	00h
data contents	Command Status	VEF standard data set#1	VEF standard data set#2	VEF standard data set#3	VEF standard data set#4	VEF standard data set#5	VEF standard data set#6

## [Command description]

This command is for the execution of wipe function of video equipment.

The 6th parameter is as follows.

60h: Quit & A-output : Wipe quits and source A outputs

70h: Quit & B-output : Wipe quits and source B outputs

75h: Wipe execute A to B : Wipe operates towards source B

65h: Wipe execute B to A : Wipe operates towards source A

7Dh: PAUSE : hold executing the wipe

7Eh: kept the current operation

The wipe speed is set by other commands or defined in each machine.

In normal wipe executing, the start source is first set by the command of 6th parameter as 60h(70h), and the command of the 6th parameter as 75h (65h) is executed.

# Fade source select

Command number #019004

[ Group ] VEF COMMAND

[ Meaning ] Select the input source of a fade function of vide equipment

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	18h,19h	44h	00h,,,	00h,,,	00h	00h	00h
data contents	VEF command table	Fade source select command	parameter	parameter			

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	00h	00h	00h
data contents	Command Status	VEF standard data set#1	VEF standard data set#2	VEF standard data set#3	VEF standard data set#4	VEF standard data set#5	VEF standard data set#6

## [Command description]

This command is for selecting the input source of a fade function if video equipment.

The 6th parameter and 7th specify the source A and source B of a fade function.

00h: Preset function

10h: Memory

20h: Video source

7Eh: hold present status

Generally, the 6th parameter is set for an external input, and the 7th parameter is set for the preset function of an internal effect block for the fade function. So it is usually set Video source to source A, and set the memory or a preset function as fade color to source B.

When the 7th parameter is 00h (preset function), the color of a fade that is one of preset functions is set by another command, or it is the fixed preset one in the machine.

# Fade mode select

Command number #019005

[ Group ] VEF COMMAND

[ Meaning ] Select fade function of video equipment

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	18h,19h	45h	20h,,,	00h-7Fh	00h,01h,,,	00h-7Fh	00h,01h
data contents	VEF command table	Fade mode select command	parameter	parameter	parameter	parameter	parameter

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	00h	00h	00h
data contents	Command Status	VEF standard data set#1	VEF standard data set#2	VEF standard data set#3	VEF standard data set#4	VEF standard data set#5	VEF standard data set#6

## [Command description]

This command is for selecting fade function of video equipment.

The 6th parameter is as follows.

20h : Fade #1 : Plane color (black, white or a single color)

21h : Fade #2 : Monotone (reducing color)

22h : Fade #3 : Mosaic

23h : Fade #4 : Zoom

When the 6th parameter is 20h (Fade #1), the fade mode is Plane color (black, white or single color). The 7th parameter and the 8th specify the source B fade level against the source A's.

The fade level = 7th parameter(D6-D0) + 8th parameter(D0) x 128

(In the equipment, the parameter is used from MSB according to the control resolution.)

The parameter for auto fade operation is 0 or 255 normally.

Fade #2 is for monotone fade. The luminance fade level specified by the 7th parameter and the 8th for source A is normally set for maximum value. And the 9th parameter and the 10th are set for the source A color level against the source B's.

Color fade level = 9th parameter(D6-D0) + 10th parameter(D0) x 128

(In the equipment, the parameter is used from MSB according to the control resolution.)

The parameter for auto fade operation is 0 or 255 normally.

White, black, color or monotone fade is performed by setting the parameters of the luminance and the color mixing level of the source A and B with the settings of the source B itself.

In Fade #3 Mosaic, the 7th parameter and the 8th specify the present mosaic level that means the unit of pixels.

Mosaic level = 7th parameter(D6-D0) + 8th parameter(D0) x 128

The parameter of mosaic level is used by the settable units in the equipment.

In Fade #4 Zoom, the parameter is for the zoom magnification rate. The zoom magnification rate is specified by N.

$N = 256/\text{zoom magnification setting (n)}$

$n = 7\text{th parameter(D6-D0)} + 8\text{th parameter(D0)} \times 128$

The parameter of the zoom is used by settable units in the equipment.

# Preset function

Command number #019006

[ Group ] VEF COMMAND

[ Meaning ] Set preset functions of video equipment

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	18h,19h	46h	20h,,,	00h-7Fh	00h-7Fh	00h-7Fh	00h-7Fh
data contents	VEF command table	Preset function command	parameter	parameter	parameter	parameter	parameter

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	00h	00h	00h
data contents	Command Status	VEF standard data set#1	VEF standard data set#2	VEF standard data set#3	VEF standard data set#4	VEF standard data set#5	VEF standard data set#6

## [Command description]

This command is for setting the parameter of preset function of video equipment.

This command is available only if the equipment supports fade function or wipe.

The 6th parameter is for selecting the preset function.

20h: Preset function #1

Preset function #1 is the source generator of a plane color.

The 7th,,,10th parameters in Preset Function #1 are for setting luminance and color value.

Y = 7th parameter (D6-D0)x2+10th parameter (D2)

R-Y = 8th parameter (D6-D0)x2+10th parameter (D1)

B-Y = 9th parameter (D6-D0)x2+10th parameter (D0)

All parameters are not used in some equipment. In that case , it is used from MSB.

# Fade execute

Command number #019007

[ Group ] VEF COMMAND

[ Meaning ] Execute fade function of a video equipment

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	18h,19h	47h	60h,,,	00h	00h	00h	00h
data contents	VEF command table	Fade execute command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	00h	00h	00h
data contents	Command Status	VEF standard data set#1	VEF standard data set#2	VEF standard data set#3	VEF standard data set#4	VEF standard data set#5	VEF standard data set#6

## [Command description]

This command is for the execution of fade function of video equipment.

The 6th parameter is as follows.

60h: Quit & A – output : fade quits and source A outputs.

70h: Quit & B – output : fade quits and source B outputs.

75h: Fade execute A to B : fade operates towards B.

65h: Fade execute B to A : fade operates towards A.

7Dh: Pause.

7Eh: Kept the current operation.

The fade speed is set by other commands or defined in each machine.

In normal fade executing, the start source is first set by the command if the 6th parameter as 60h(70h), and the command of the 6th parameter as 75h(65h) is executed.

# Special effect select

Command number #019008

[ Group ] VEF COMMAND

[ Meaning ] Select special effects of a video function

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	18h,19h	48h	20h,,,	00h-7Fh	00h-7Fh	00h	00h
data contents	VEF command table	Special effect select command	parameter	parameter	parameter		

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	00h	00h	00h
data contents	Command Status	VEF standard data set#1	VEF standard data set#2	VEF standard data set#3	VEF standard data set#4	VEF standard data set#5	VEF standard data set#6

## [Command description]

This command is for selecting special effects function of a video equipment.

The 6th parameter is as follows

- 60h : off
- 20h : SFX #1 strobe
- 21h : SFX #2 cinema (drop frame)
- 22h : SFX #3 trail (ghost)
- 23h : SFX #4 mosaic
- 24h : SFX #5 electronic zoom
- 25h : SFX #6 monochrome (monotone)
- 26h : SFX #7 sepia

The 7th parameter and the 8th are for the selected special effects. Some equipment may use its preset values.

When the 6th parameter is 20h, the period of writing memory is specified by the number of frames.

period = 7th parameter (D6-D0) frame (1/30s : NTSC, 1/25s: PAL)

+8th parameter (D6-D0) s

When the 6th parameter is 23h, the 7th parameter and the 8th specify the unit of mosaic picture elements. The unit is as the number of pixels forming a single tile of mosaic picture. It is set as the horizontal pixels. The number of the vertical pixels is set automatically in the equipment in order to form a nearly square shape.

Mosaic level = 7th parameter (D6-D0) + 8th parameter (D0) x 128

When the 6th parameter is 24h, the 7th parameter and 8th specify the magnification rate. The magnification rate (N) is as follows.

$N = 256 / \text{magnification rate}(n)$ .

$n = 7\text{th parameter (D6-D0)} + 8\text{th parameter (D0)} \times 128$

## Special effect store

Command number #019009

[ Group ] VEF COMMAND

[ Meaning ] Control special effects memory of a video equipment

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	18h,19h	49h	60h,70h	00h	00h	00h	00h
data contents	VEF command table	Special effect store command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	00h	00h	00h
data contents	Command Status	VEF standard data set#1	VEF standard data set#2	VEF standard data set#3	VEF standard data set#4	VEF standard data set#5	VEF standard data set#6

### [Command description]

This command is for controlling special effects memory of a video equipment.

The 6th parameter is as follows.

60h: memory write and read mode (content is refreshed continuously)

70h: memory read only mode (content is kept)

In memory write and read mode, the bit data of VEF memory available in the VEF standard return data is set to 0 (not available).

In memory read only mode, the bit data of VEF memory available is 1 (available).

# Video effect capability request

Command number #019010

[ Group ] VEF COMMAND

[ Meaning ] Getting information of capability of video effect of equipment

Command Data

	4th	5th	6th	7th	8th	9th	10th
binary code	18h,19h	4Ch	00h,,,	00h	00h	00h	00h
data contents	VEF command table	Video effect capability request command	parameter				

Return Data

	4th	5th	6th	7th	8th	9th	10th
binary code	xxh	xxh	xxh	xxh	xxh	xxh	xxh
data contents	Command Status	data #1	data #2	data #3	data #4	data #5	data #6

## [Command description]

This command is for getting the information of availability of special effects of video equipment.

The 6th parameter is for selecting the video effect except scene changing.

00h : default (not selecting)

01h : sepia

02h : cinema (drop frame)

03h : trail (ghost)

04h : monochrome (monotone)

05h : strobe

It is returned the information data of availability of video effect against the 6th parameter of the command.

The 5th data of return data (data #1) is same as the 6th parameter of the command.

If it is not available against 5th parameter of command then each information bit of 6th through 10th return data is set to 1.

And if the D0 of 10th data of return is set to 0, then the video effect of 6th parameter of the command is not available.

If the bit of the return data is set to 1 when the 6th parameter of command is set to 00h, the equipment does not have the scene change function corresponds to the bit.

In this case, if it is set to the value except 00h in the 6th parameter of the command, the bit in the return data has no mean.

The each information bit of return data means the kind of scene change as follows.

6th : data #2

D6 - D2 : reserved, D1 : overlap, D0 : P shutter wipe

7th : data #3

D6 - D4 : reserved, D3 : P slide wipe, D2 : P scroll wipe, D1 : P window wipe, D0 : P door wipe

8th : data #4

D6 - D4 : reserved, D3 : P corner wipe, D2 : shutter wipe, D1 : slide wipe, D0 : scroll wipe

9th : data #5

D6 - D4 : reserved, D3 : window wipe, D2 : door wipe, D1 : corner wipe, D0 : mosaic wipe

10th : data #6

D6 -D4 : reserved, D3 : black fader, D2 : monotone fader (color reducing), D1: white fader, D0 : default (not available)



## Appendix

### **< Revised item in 5.1.1 from 5.1 >**

**Page 34** : New document added of command #003007.

**Page 35** : New document added of command #003008.

**Page 41** : Parameters added in command #004007.

**Page 42** : Parameters added in command #004008.

**Page 96** : New document added of command #019010.

and some words corrected.

### **< Revised item in 5.1.2 from 5.1.1 >**

**Page 34** : More documents added in the 5th data of the return of command #003007.

**Page 85** : Documents of parameters revised in the command #011005.

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