

# **TK-C676**

## **COMMAND GUIDE**

**VERSION 1.00/APRIL 2002**

**VICTOR COMPANY OF JAPAN, LIMITED**  
**PROFESSIONAL PRODUCTS, SYSTEM & NETWORK SECTOR**

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## MEMO

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# **1      *PREFACE***

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This manual defines the communication protocol and commands used for remote control operation of the TK-C676U and TK-C676E (referred to simply as “camera” below) from a controller.

To ensure proper understanding, be sure to read this manual after reading the instruction manual for each camera and the “CCV Camera Programmer’s Manual.”

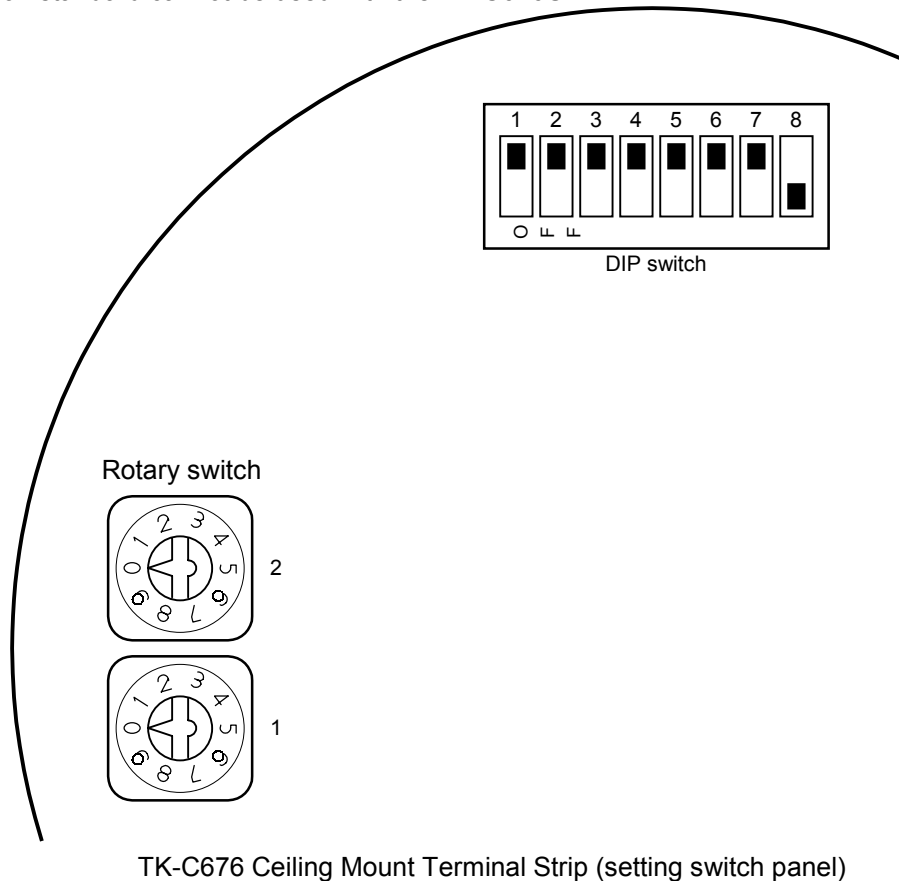
This manual includes supplements and additions to the CCV Camera Programmer’s Manual in Chapter 2 as well as detailed descriptions of commands in Chapters 3 through 7.

## 2 SUPPLEMENTS AND ADDITIONS

### 2.1 Serial Interface

#### 2.1.1 Communications Settings

With the TK-C676U/E, DIP switches 4, 5 and 8 (for setting the communication system, connection type, and termination) and rotary switches 1 and 2 (for setting the communication ID) on the ceiling mount terminal strip setting switch panel are used to make communication settings. The RS-232C communication standard cannot be used with the TK-C676U/E.



TK-C676 Ceiling Mount Terminal Strip (setting switch panel)

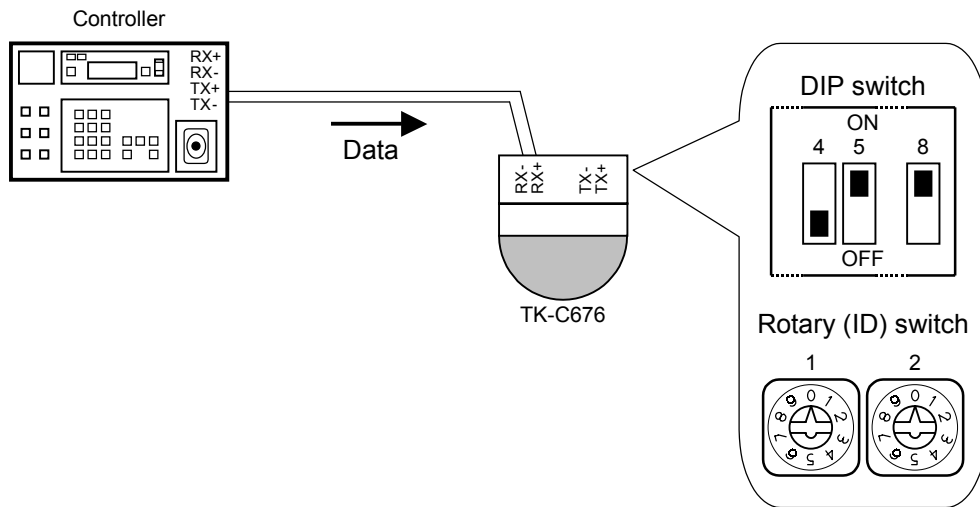
Switch name	Setting items	Settings	Factory default
DIP switch 4	Communications system	OFF: Point-to-point (RS-422A standard) ON: Multi-drop (RS-485 standard)	OFF
DIP switch 5	Connection type	OFF: Full duplex (DUPLEX) ON: Simplex (SIMPLEX)	OFF
Rotary switch 1	10's digit for the ID number	Point-to-point: Setting not required (00) Multi-drop: 01–32	00
Rotary switch 2	1's digit for the ID number		
DIP switch 8	RX+ and RX– terminals	OFF : OPEN    ON : 110 Ω	ON

**NOTE** Communication settings are only detected when the power is turned on. If settings are changed, always be sure to activate them by turning the power off and then on again.

### 2.1.2 Connections and Settings

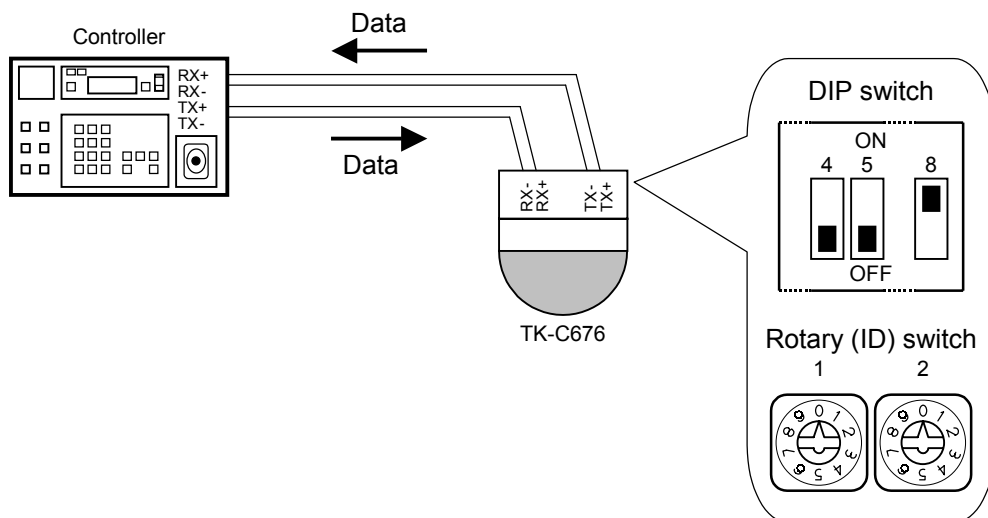
#### (1) Point-to-Point Simplex Communications Model (JCCP-S)

When making communication settings for the camera, set DIP switch 4 to OFF and DIP switches 5 and 8 to ON. It is not necessary to set the rotary switches because an ID number is not needed.



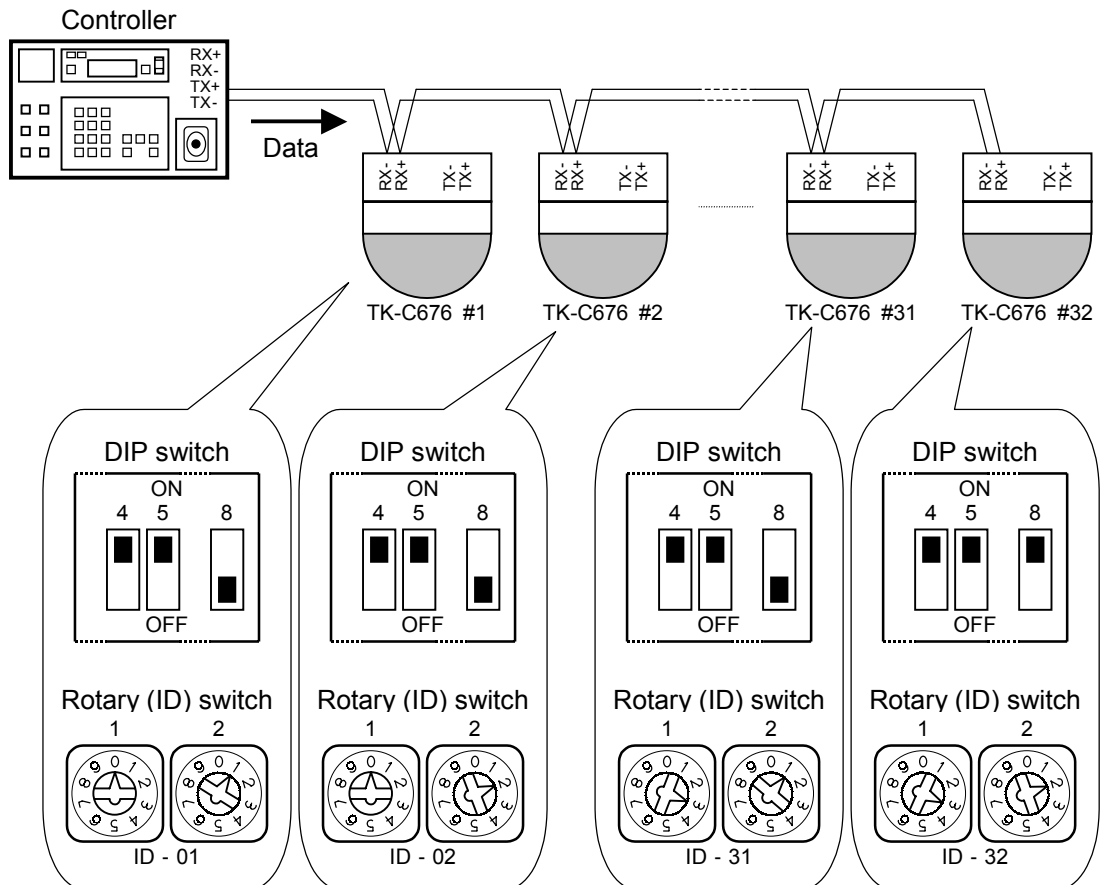
#### (2) Point-to-Point Full Duplex Communications Model (JCCP-F)

When making communication settings for the camera, set DIP switches 4 and 5 to OFF and 8 to ON. It is not necessary to set the rotary switches because an ID number is not needed.



## (3) Multi-Drop Simplex Communications Model (JCBP-S)

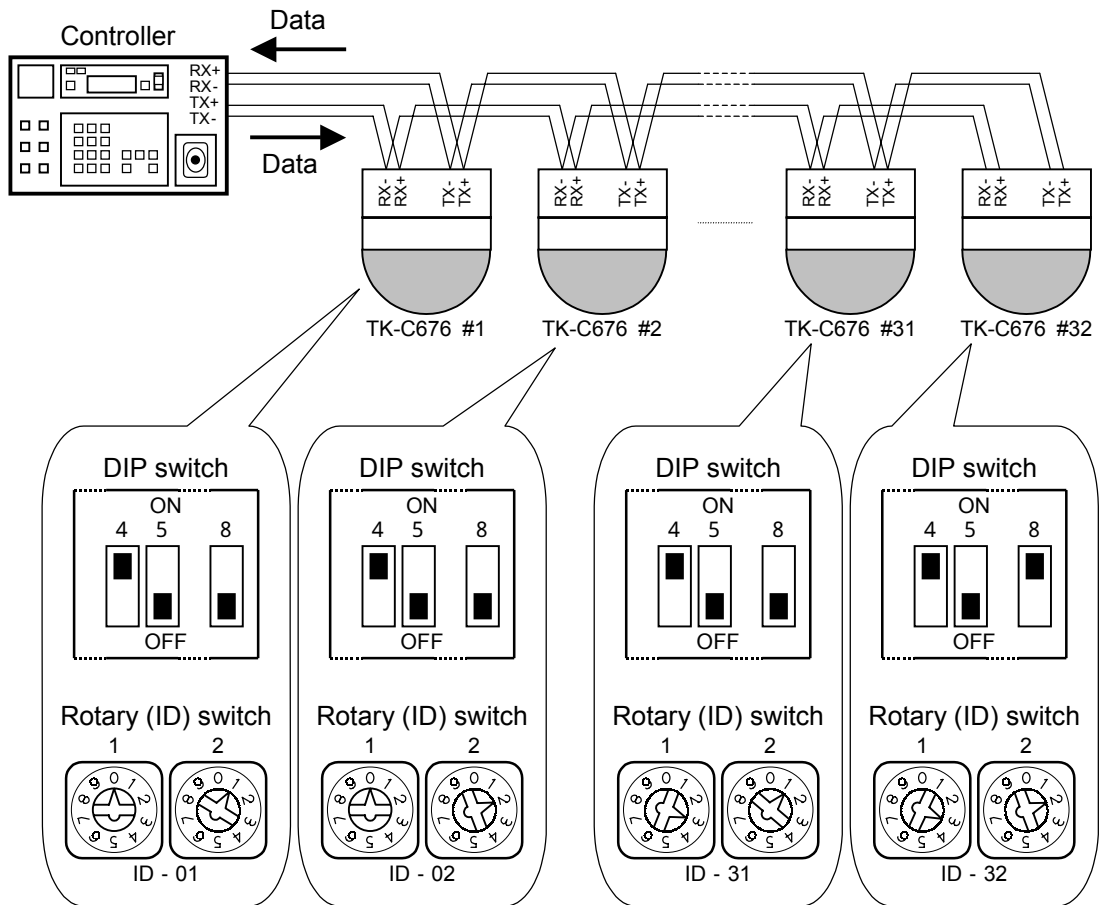
When making communication settings for the camera, set DIP switches 4 and 5 to ON. In addition, be sure to set DIP switch 8 for the last camera connected to ON, while setting DIP switch 8 of all other cameras to OFF. Set the rotary switches to any number from 01 to 32. Note however that no more than one camera may have the same ID number.



This is a sample setting for an ID switch. Control is made easier if IDs are set in the same order as the units are connected.

## (4) Multi-Drop Full Duplex Communications Model (JCBP-F)

When making communication settings for the camera, set DIP switch 4 to ON and DIP switch 5 to OFF. In addition, be sure to set DIP switch 8 for the last camera connected to ON, while setting DIP switch 8 of all other cameras to OFF. Set the rotary switches to any number from 01 to 32. Note however that no more than one camera may have the same ID number.



This is a sample setting for an ID switch. Control is made easier if IDs are set in the same order as the units are connected.

2.2 Supervisory Messages and Commands

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2.2.1 Acknowledge Notification



Since the TK-C676 includes an alarm input terminal (panic alarm signal input terminal) and a motion detection function, alarm start notification and addressed acknowledgment “ACK8” as well as alarm end notification and addressed acknowledgment “ACK9” are sometimes used for acknowledgment under the JCBP-F standard. For details on actual communication, please refer to Section 2.3.4.

2.2.2 User-Defined Codes



With the TK-C676, the user-defined code “USER0” is used for command destruction notification. Command destruction notification is used to notify the controller that a received pan/tilt head control command (used to control the pan/tilt operations, etc.) was destroyed during initial operations of the TK-C676. Command destruction notification is used only under the JCCP-F standard, and consists only of supervisory message “USER0”.

Supervisory Message
“USER0” (D0h)

### 2.2.3 Command Configuration

(1) Send request

As described in Section 3.2.2 in the CCV Camera Programmer's Manual, "limit the use of the variable length send request "ENQv" for commands of 14 or fewer bytes", in the case of the TK-C676, the WRITE request of the TRIGGER ALARM TITLE command uses a variable length send request for 14-byte commands.

(2) Command Code "CMD"

12 types of command codes are used by TK-C676 defined below.

Attributes \ Type		Code	
		READ Command	WRITE commands
Commands Related to Mode and/or Level	VALUE02	02h	42h
	VALUE03	03h	43h
Commands for Starting Operations	TRIGGER		45h
Commands Used to Handle Character Strings	STRING	06h	46h
	STRINGW		47h
Command Used to Transfer Contents of Memory	DUMP64	0Ah	4Ah
General-purpose commands	VALUE-CM	0Bh	4Bh

(3) General-purpose commands that can be used

The following VALUE-CM commands can be used with the TK-C676. For details on each command, see Programmer's Manual (Version 1.01 or later).

VALUE-CM		READ:0Bh WRITE:4Bh	
	Item	Name	VALUE Range
1	00h	DUMP64 ITEM	00h–7Fh
2	01h	DUMP64 READY	00h, 01h
3	02h	DUMP64 START	00h
4	03h	DUMP64 END	00h
5	04h	DUMP64 MAXPKT	00h–3FFFh
6	05h	DUMP64 TIMEOUT	00h–3FFFh
7	06h	DUMP64 CHECK ERROR	00h, 01h

## 2.3 Command Transmission Procedures

### 2.3.1 JCCP-S

#### (1) Command destruction

Under the JCCP-S standard, in addition to those cases described in the CCV Camera Programmer's Manual, received commands are also destroyed when a pan/tilt head control command (for pan/tilt operations, etc.) is received during initial operations.

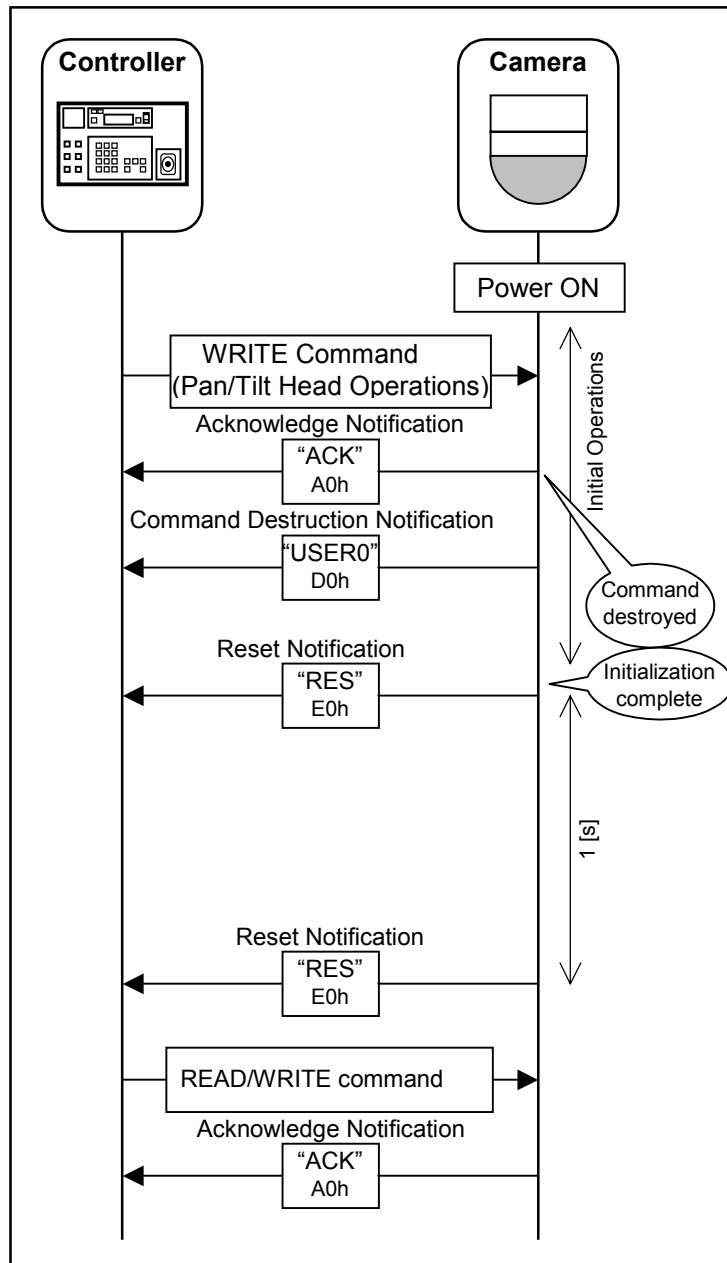
### 2.3.2 JCCP-F

#### (1) When the controller does not send an acknowledge notification

Under the JCCP-F standard, the resend timeout of the TK-C676 when the controller does not return an acknowledge notification is approximately 140 [ms].

#### (2) Operations during power-on

The camera performs initial operations when its power is turned on. The pan/tilt head cannot be moved freely during initial operations. If the camera receives a command that specifies pan/tilt head operations during initial operations, since that operation cannot be performed, "USER0" is returned to notify the controller that the command has been destroyed. Once initial operations have ended, reset notification "RES" is sent to notify the controller that initial operations have ended. "RES" is sent repeatedly once every second until a command is received from the controller.



### 2.3.3 JCBP-S

#### (1) Command destruction

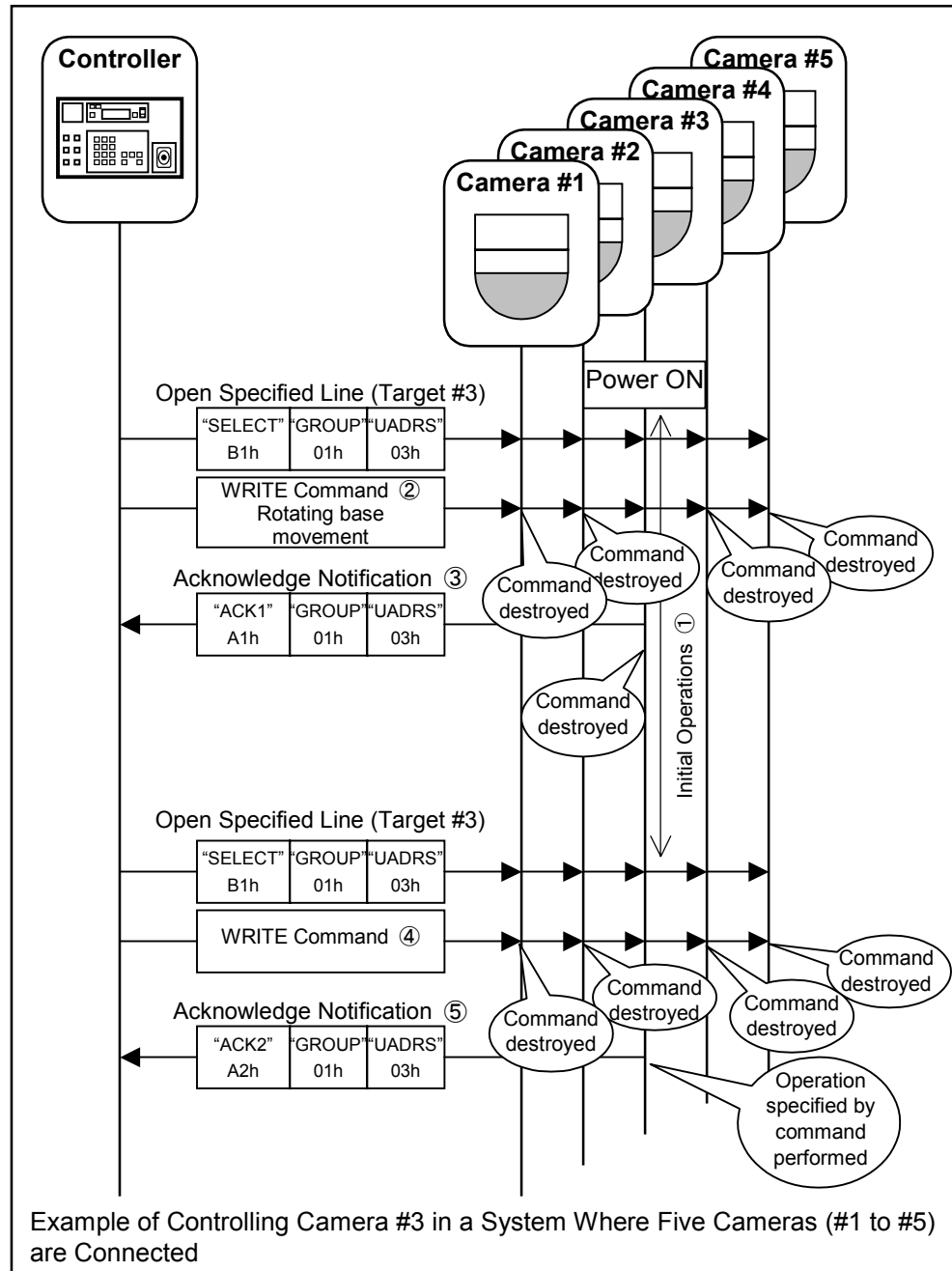
Under the JCBP-S standard, in addition to those cases described in the CCV Camera Programmer's Manual, received commands are also destroyed when a pan/tilt head control command (for pan/tilt operations, etc.) is received during initial operations.



### 2.3.4 JCBP-F

#### (1) Operations during power-on

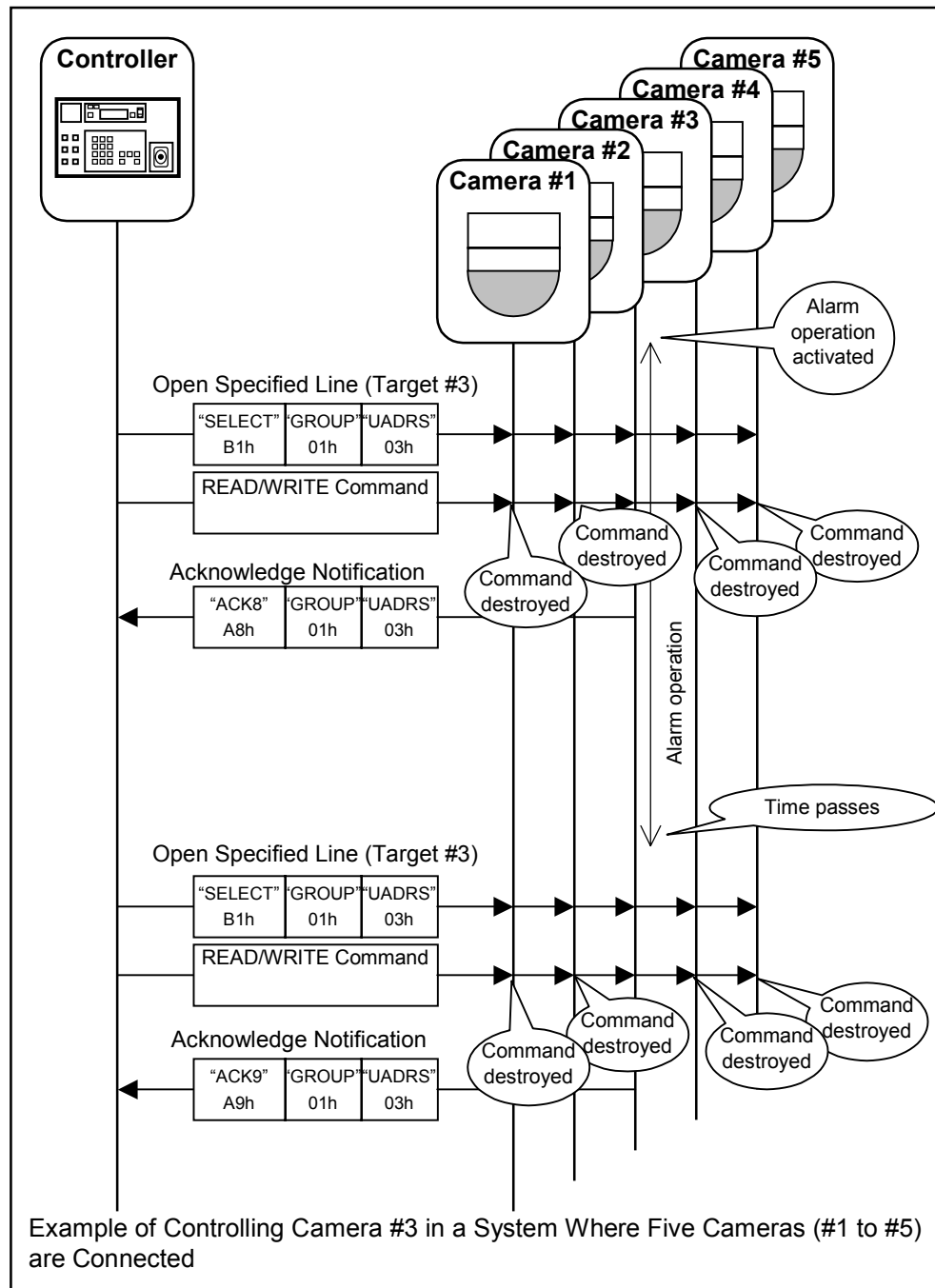
The camera performs initial operations ① when its power is turned on. The pan/tilt head cannot be moved freely during initial operations. If the camera receives a command ② that specifies pan/tilt head operations during initial operations, since that operation cannot be performed, an acknowledge notification ③ is returned, but the received command is destroyed. Once initial operations have ended, a reset notification and addressed acknowledge notification "ACK2" are used for the acknowledge notification ⑤ of the first received command ④ to notify the controller that initial operations have ended.



## (2) Alarm operations caused by panic alarm input or the motion detection function

If a command (or line confirmation) is received during alarm operations caused by panic alarm input or the motion detection function, alarm start notification and addressed acknowledge notification "ACK8" is used as an acknowledge notification in response to the first command (or line confirmation) to notify the controller that alarm operations have started.

In addition, after an alarm operation is cancelled due to the passing of time, an alarm end notification and addressed acknowledge notification "ACK9" is used as an acknowledge notification in response to the first command (or line confirmation) to notify the controller that the alarm operation has ended. Alarm end notification and addressed acknowledge notification "ACK9" is not used when an alarm operation is cancelled by the controller.



### 3 VALUE02 COMMANDS

VALUE02 is primarily used to control mode-related parameters.

		Command Code CMD	
VALUE02		READ: 02h WRITE: 42h	
	Item	Name	VALUE Range
1	00h	PRESET POSITION SELECT	00h–63h
2	03h	ALARM DISPLAY SELECT	00h–0Ah, F6h–FFh
3	0Bh	ExDR MODE	00h, 03h
4	0Dh	SENSE UP MODE	00h–06h
5	0Eh	ALC PRIORITY	00h, 01h
6	11h	IRIS MODE	00h–03h
7	12h	WHITE BALANCE MODE	01h, 04h
8	13h	AGC MODE	00h–03h
9	14h	MANUAL SHUTTER SPEED	00h, 01h, 03h–08h
10	15h	BACK LIGHT COMPENSATION(BLC)	00h–04h
11	19h	AUTO PAN	00h–03h
12	1Ah	AUTO PAN SPEED	00h–02h
13	1Bh	POSITION SPEED	00h–03h
14	1Dh	ALARM CHARACTER SIZE	00h, 01h
15	1Eh	POSITION TITLE LOCATION	00h–05h
16	1Fh	AUTO PAN DIRECTION	00h–02h
17	22h	VARIABLE PAN/TILT SPEED MODE	00h, 01h
18	23h	AUTO FLIP MODE	00h–02h
19	24h	INFORMATION DISPLAY MODE	00h–02h
20	25h	EASY AF	00h, 01h
21	26h	AUTO PATROL	00h, 01h
22	27h	AUTO PATROL PATTERN	00h–02h
23	29h	AUTO PATROL NUMBER SELECT	00h–63h
24	2Ah	AUTO PATROL POSITION SELECT	00h–63h
25	2Bh	AUTO PATROL DWELL SELECT	00h–04h, 07h, 08h
26	2Ch	AREA TITLE DISPLAY	00h, 01h
27	2Dh	PANIC ALARM DURATION	01h–0Ah
28	2Eh	PANIC ALARM POLARITY	00h, 01h
29	39h	DIGITAL ZOOM MAX	00h–05h
30	3Bh	INTERNAL ALARM STATUS	00h, 01h
31	3Dh	ALARM MODE	00h, 01h
32	3Eh	LAST ALARM POSITION	00h–63h
33	42h–44h	PORT OUTPUT 1–3 SELECT	00h–06h
34	47h	IR LIGHT	00h, 01h
35	48h	B&W MODE	00h–06h
36	49h	AUTO BLACK CONTROL MODE	00h, 01h
37	4Ah	AUTO PAN KEY	00h–02h
38	4Bh	AUTO PATROL KEY	00h–02h
39	4Ch	MOTION DETECT MODE	00h, 01h
40	4Dh	MOTION DETECT ALARM DISPLAY TIME	00h–06h
41	4Eh	PRIVETE MASKING MODE	00h, 01h
42	51h	ALARM REPORT	00h, 01h
43	54h	TITLE COLOR AT ALARM	00h–03h

## (1) PRESET POSITION SELECT

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:00h**

**APPLICATION** This command is used when selecting a preset (home) position or when checking the preset (home) position number currently selected.

The following information is registered for the preset (home) position.

Pan/tilt head	PAN position, TILT position
Lens	ZOOM position, FOCUS position, IRIS operational mode and IRIS level during MANUAL operations
Video	BLC area, WHITE BALANCE operational mode and MANUAL value
Other	Position title

**VALUE** Represents the position. (00h–63h)

00h Home position

01h–63h Preset position Nos. 1 to 99

At power on 00h (home position) is selected.

**USAGE** ◎ When selecting a preset (home) position

Specify the preset (home) position number to be selected using VALUE.

CONT

CAM

ENQ	CMD	ITEM	VALUE
83h	42h	00h	00h–63h



The camera will move to the position specified by VALUE.

◎ When checking the preset (home) position number currently selected (not available under JCCP-S or JCBP-S)

Request the current position number.

CONT

CAM

ENQ	CMD	ITEM
82h	02h	00h



The camera will notify the controller of the position number.

CAM

CONT

ENQ	CMD	ITEM	VALUE
83h	42h	00h	00h–63h

### REMARKS

- ◎ Details regarding preset (home) positions can be stored using the TRIGGER **ENTER** or **SAVE AS POSITION** command.
- ◎ Stored information regarding preset (home) positions can be deleted using the TRIGGER **CLEAR** or **EXTEND POSITION CLEAR** command.
- ◎ If an unregistered position is specified, the physical position of the camera will not change.
- ◎ The TRIGGER **SHIFT POSITION** or **EXTEND SHIFT POSITION** command can also be used to select preset (home) positions.
- ◎ The motion speed (for PAN and TILT) between preset (home) positions can be set using the VALUE02 **POSITION SPEED** command.
- ◎ The TRIGGER **ALL STOP** command will not stop motion during motion between positions.
- ◎ AUTO PAN operations will start after the motion is completed if the VALUE02 **AUTO PAN** command is set to AUTO during motion between positions.

## (2) ALARM DISPLAY SELECT

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:03h**

**APPLICATION** This command is used when displaying alarm characters or when checking the alarm display status.

**VALUE** Represents the alarm display character string. (00h–0Ah, F6h–FFh)

00h	No display
01h	Alarm character string No. 1: “ alarm”
02h	Alarm character string No. 2: “ ALARM”
03h	Alarm character string No. 3: “ A”
04h	Alarm character string No. 4: “ TROUBLE”
05h	Alarm character string No. 5: “ OPEN DOOR”
06h	Alarm character string No. 6: “ WARNING”
07h	Alarm character string No. 7: “ CALL”
08h	Alarm character string No. 8: “ ABNORMAL”
09h	Alarm character string No. 9: “ SENSOR”
0Ah	Alarm character string No. 10: “ INVADER”
F6h–FFh	Alarm character string Nos. 246 to 255

At power on      00h (no display) is set.

Factory setting   00h (no display) is set.

**USAGE**      © When selecting an alarm display character string for display  
Specify the alarm display character string using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	03h	00h–0Ah

ENQ	CMD	ITEM	VALUE	
84h	42h	03h	01h	76h–7Fh



The camera will display the character string specified by VALUE.

© When checking the current alarm display status (not available under JCCP-S or JCBP-S)

Request the alarm display status.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	03h



The camera will notify the controller of the alarm display status.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	03h	00h–0Ah

VALUE  
00h–0Ah

ENQ	CMD	ITEM	VALUE	
84h	42h	03h	01h	76h–7Fh

VALUE  
F6h–FFh

### REMARKS

- © The alarm display character string will be displayed in the upper right portion of the screen. (For details on the display position, see Appendix 2.)
- © The alarm display will disappear if a preset (home) position is selected using the VALUE02 **PRESET POSITION SELECT**, **TRIGGER SHIFT POSITION** or **TRIGGER EXTEND SHIFT POSITION** command.
- © The character size used when displaying alarm text can be set using the VALUE02 **ALARM CHARACTER SIZE** command.
- © The color used when displaying alarm text can be set using the VALUE02 **TITLE COLOR AT ALARM** command.

- ◎ Do not use alarm character string Nos. 11 to 245 (VALUE 0Bh to F5h) as they are reserved.
- ◎ Alarm character string Nos. 246 to 255 can be checked and set using the TRIGGER **EDITING ALARM SELECT** command and the STRING/STRINGW **ALARM TITLE** command.

### (3) ExDR MODE

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:0Bh**

**APPLICATION** This command is used when changing or checking the extended dynamic range (ExDR) operational mode.

**NOTE** ExDR is a function for shooting two subjects at once, one of high brightness and one of low brightness, by varying the shutter speed used on the bright area so that the two subjects can both be shot under appropriate conditions.

**VALUE** Represents the ExDR operational mode. (00h, 03h)  
 00h OFF  
 03h ON (As part of lens operations, the shutter speed for the high brightness area is automatically varied according to the image contrast.)

At power on The setting saved as CAMERA DATA is set.

Factory setting 00h (OFF) is set.

**USAGE** ◎ When changing the ExDR operational mode  
 Specify the ExDR operational mode using VALUE.

CONT

CAM

ENQ	CMD	ITEM	VALUE
83h	42h	0Bh	00h, 03h



ExDR will function in the mode specified for the camera by VALUE.

◎ When checking the ExDR operational mode (not available under JCCP-S or JCBP-S)

Request the ExDR operational mode.

CONT

CAM

ENQ	CMD	ITEM
82h	02h	0Bh



The camera will notify the controller of the ExDR operational mode.

CAM

CONT

ENQ	CMD	ITEM	VALUE
83h	42h	0Bh	00h, 03h

**REMARKS** ◎ This setting can be saved as **CAMERA DATA** using the TRIGGER **ENTER** command.

◎ The ExDR operation level when turned ON can be set using the VALUE03 **ExDR LEVEL** command.

## (4) SENSE UP MODE

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:0Dh**

**APPLICATION** This command is used when changing or checking the operational mode of the SENSE UP function.

**VALUE** This indicates the operational mode of the SENSE UP function. (00h–06h)

00h	OFF (SENSE UP function not operational)
01h	x2 AUTO (SENSE UP of up to 2x is performed automatically according to the image brightness.)
02h	x4 AUTO (SENSE UP of up to 4x is performed automatically according to the image brightness.)
03h	x8 AUTO (SENSE UP of up to 8x is performed automatically according to the image brightness.)
04h	x16 AUTO (SENSE UP of up to 16x is performed automatically according to the image brightness.)
05h	x32 AUTO (SENSE UP of up to 32x is performed automatically according to the image brightness.)
06h	x24 AUTO (SENSE UP of up to 24x is performed automatically according to the image brightness.)

At power on    The setting saved as CAMERA DATA is set.

Factory setting   00h (OFF) is set.

**USAGE**    © When changing the SENSE UP operational mode  
Specify the SENSE UP operational mode using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	0Dh	00h–06h



The SENSE UP will function in the mode specified for the camera by VALUE.

© When checking the SENSE UP operational mode (not available under JCCP-S or JCBP-S)

Request the SENSE UP operational mode.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	0Dh



The camera will notify the controller of the SENSE UP operational mode.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	0Dh	00h–06h

**REMARKS**

© This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

© The operational priority of AGC and SENSE UP operations can be set using the VALUE02 **ALC PRIORITY** command.

## (5) ALC PRIORITY

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:0Eh**

**APPLICATION** This command is used when changing or checking the ALC operation priority.

**VALUE** Represents the priority of ALC operation. (00h, 01h)  
           00h        Motion priority (AGC operates first if the image darkens.)  
           01h        Picture quality priority (SENSE UP operates first if the image darkens.)  
 At power on    The setting saved as CAMERA DATA is set.  
 Factory setting 00h (motion priority) is set.

**USAGE**    © When changing the ALC operation priority.  
               Specify the ALC operation priority using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	0Eh	00h, 01h



The ALC will function in the priority specified for the camera by VALUE.

© When checking the ALC operation priority (not available under JCCP-S or JCBP-S)

Request the ALC operation priority.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	0Eh



The camera will notify the controller of the ALC operation priority.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	0Eh	00h, 01h

**REMARKS**    © This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.



## (6) IRIS MODE

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:11h**

**APPLICATION** This command is used when changing or checking the iris operational mode.

**VALUE** Represents the iris operational mode. (00h–03h)

00h	MANUAL	The iris is changed manually.
01h	AUTO	The iris is automatically changed so that the brightness level of the image remains constant.
02h	AUTO (+)	The iris is automatically changed so that the brightness level of the image remains constant. (A higher brightness level is used than with AUTO.)
03h	AUTO (–)	The iris is automatically changed so that the brightness level of the image remains constant. (A lower brightness level is used than with AUTO.)

At power on    The mode saved with the home position is set.

Factory setting   01h (AUTO) is set.

**USAGE**

- ◎ When changing the iris operational mode  
Specify the iris operational mode using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	11h	00h–03h



The iris will function in the mode specified for the camera by VALUE.

- ◎ When checking the iris operational mode (not available under JCCP-S or JCBP-S)

Request the iris operational mode.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	11h



The camera will notify the controller of the iris operational mode.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	11h	00h–03h

**REMARKS**

- ◎ This setting can be saved as **POSITION DATA** using the **TRIGGER ENTER** or **SAVE AS POSITION** command.
- ◎ When the iris is in MANUAL mode, it can be controlled using the VALUE03 **MANUAL IRIS LEVEL** command and **TRIGGER IRIS OPEN/CLOSE/STOP** commands.
- ◎ When AUTO, AUTO (+) or AUTO (–) is used, the convergence level can be changed using the **TRIGGER IRIS OPEN/CLOSE/STOP** commands. The convergence level at this time is only temporary and cannot be saved. (The convergence value setting will return to default when the mode is set to MANUAL or when a registered preset (home) position is selected using the VALUE02 **PRESET POSITION SELECT**, **TRIGGER SHIFT POSITION** or **TRIGGER EXTEND SHIFT POSITION** command is used.)

## (7) WHITE BALANCE MODE

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:12h**

**APPLICATION** This command is used when changing or checking the WHITE BALANCE operational mode.

**VALUE** Represents the WHITE BALANCE operational mode. (01h, 04h)

01h      AUTO (ATW)  
             WHITE BALANCE is automatically changed so that the average color of the video image is white.

04h      AWC (MANUAL)  
             The operation associated with one-push auto white balance results. It is possible to manually adjust the white balance (R-B, Mg-G).

At power on      The mode saved with the home position is set.

Factory setting      01h (AUTO) is set.

**USAGE**      ◎ When changing the WHITE BALANCE operational mode  
                     Specify the WHITE BALANCE operational mode using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	12h	01h, 04h

↪ WHITE BALANCE will function in the mode specified for the camera by VALUE.

◎ When checking the WHITE BALANCE operational mode (not available under JCCP-S or JCBP-S)

Request the WHITE BALANCE operational mode.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	12h

↪ The camera will notify the controller of the WHITE BALANCE operational mode.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	12h	01h, 04h

- REMARKS**
- ◎ This setting can be saved as **POSITION DATA** using the TRIGGER **ENTER** or **SAVE AS POSITION** command.
  - ◎ One-push auto white balance can be executed using the TRIGGER **ONE PUSH AUTO WHITE BALANCE** command.
  - ◎ The white balance during AWC (manual) can be adjusted using the VALUE03 **MANUAL WHITE BALANCE (R-B)** or **MANUAL WHITE BALANCE (Mg-G)** command.
  - ◎ Under JCCP-F, an acknowledge send request is not returned even if VALUE is specified as 02h, 03h. (The white balance operational mode is not changed.)

(8) AGC MODE

VALUE02 command    **CMD**    **READ:02h**    **WRITE:42h**    **ITEM:13h**

**APPLICATION**    This command is used when changing or checking the maximum gain during AGC operations.

**VALUE**    Represents the maximum gain during AGC operations. (00h–03h)

00h	0 dB (AGC OFF)
01h	10 dB
02h	20 dB
03h	SUPER

At power on    The gain setting saved as CAMERA DATA is set.  
Factory setting 01h (10 dB) is set.

**USAGE**    © When changing the maximum gain during AGC operations  
Specify the maximum gain during AGC operations using VALUE.

**CONT**    **CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	13h	00h–03h

AGC will function limited by the maximum gain specified for the camera by VALUE.

© When checking the maximum gain during AGC operations (not available under JCCP-S or JCBP-S)

Request the maximum gain during AGC operations.

**CONT**    **CAM**

ENQ	CMD	ITEM
82h	02h	13h

The camera will notify the controller of the maximum gain during AGC operations.

**CAM**    **CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	13h	00h–03h

**REMARKS**    © This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

## (9) MANUAL SHUTTER SPEED

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:14h**

**APPLICATION** This command is used when changing or checking the SHUTTER SPEED.

**VALUE** Represents the SHUTTER SPEED. (00h, 01h, 03h–08h)

00h	1/60 (NTSC), 1/50 (PAL)
01h	1/100 (NTSC), 1/120 (PAL)
03h	1/250
04h	1/500
05h	1/1000
06h	1/2000
07h	1/4000
08h	1/10000

At power on    The SHUTTER SPEED setting saved as CAMERA DATA is set.

Factory setting 00h (NTSC 1/60, PAL 1/50) is set.

### USAGE

◎ When changing the SHUTTER SPEED

Specify the SHUTTER SPEED using VALUE.

CONT

CAM

ENQ	CMD	ITEM	VALUE
83h	42h	14h	00h, 01h 03h–08h



The camera will operate at the SHUTTER SPEED specified by VALUE.

◎ When checking the SHUTTER SPEED (not available under JCCP-S or JCBP-S)

Request the SHUTTER SPEED.

CONT

CAM

ENQ	CMD	ITEM
82h	02h	14h



The camera will notify the controller of the SHUTTER SPEED.

CAM

CONT

ENQ	CMD	ITEM	VALUE
83h	42h	14h	00h, 01h 03h–08h

### REMARKS

◎ This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

◎ Under JCCP-F, an acknowledge send request is not returned even if VALUE is specified as 02h. (The shutter speed is not changed.)

## (10) BACK LIGHT COMPENSATION (BLC)

**VALUE02 command CMD READ:02h WRITE:42h**

**ITEM:15h**

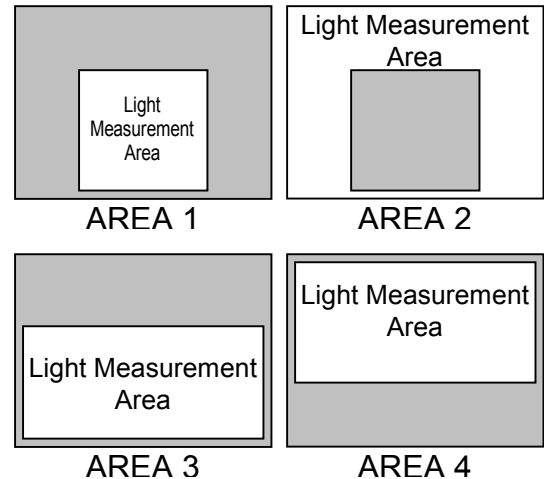
**APPLICATION** This command is used when changing or checking the auto iris light measurement area mode.

**VALUE** Represents the auto iris light measurement area. (00h–04h)

- 00h OFF (measure the light across the entire screen)
- 01h PRESET AREA1
- 02h PRESET AREA2
- 03h PRESET AREA3
- 04h PRESET AREA4

At power on The mode saved with the home position is set.

Factory setting 00h (OFF) is set.



### USAGE

- ◎ When changing the auto iris light measurement area mode  
Specify the auto iris light measurement area mode using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	15h	00h–04h



The camera will measure light for the auto iris using the area mode specified by VALUE.

- ◎ When checking the auto iris light measurement area mode (not available under JCCP-S or JCBP-S)

Request the auto iris light measurement area mode.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	15h



The camera will notify the controller of the auto iris light measurement area mode.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	15h	00h–04h

### REMARKS

- ◎ This setting can be saved as **POSITION DATA** using the TRIGGER ENTER or SAVE AS POSITION command.
- ◎ The auto iris light measurement area mode is in effect when the operational mode of the iris is set to AUTO, AUTO (+) or AUTO (–). (The iris operational mode can be set using the VALUE02 IRIS MODE command.)
- ◎ Although auto iris light measurement area mode functions even during AGC/SENSE UP operations, it does not function during ExDR operations.

## (11) AUTO PAN

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:19h**

**APPLICATION** This command is used when changing or checking the AUTO PAN operational mode (horizontal rotation of the pan/tilt head).

**VALUE** Represents the AUTO PAN operational mode. (00h–03h)


00h	MANUAL PAN (AUTO PAN OFF)
	The horizontal position of the pan/tilt head is moved manually.
01h	AUTO PAN (AUTO PAN ON)
	The pan/tilt head is automatically rotated horizontally.
02h	START POINT
	The pan/tilt head moves to the AUTO PAN START POINT and stops.
03h	RETURN POINT
	The pan/tilt head moves to the AUTO PAN RETURN POINT and stops.

At power on    00h (MANUAL PAN) is set.

Factory setting   00h (MANUAL PAN) is set.


**USAGE**    © When changing the AUTO PAN operational mode  
Specify the AUTO PAN operational mode using VALUE.    CONT    CAM

ENQ	CMD	ITEM	VALUE
83h	42h	19h	00h–03h

 The camera will perform PAN operations according to the mode specified by VALUE.

© When checking the AUTO PAN operational mode (not available under JCCP-S or JCBP-S)  
Request the AUTO PAN operational mode.    CONT    CAM

ENQ	CMD	ITEM
82h	02h	19h

 The camera will notify the controller of the AUTO PAN operational mode.    CAM    CONT

ENQ	CMD	ITEM	VALUE
83h	42h	19h	00h, 01h

**REMARKS**

- © The AUTO PAN operational mode cannot be saved.
- © VALUE 02h and 03h cannot be used when notifying the controller of the AUTO PAN operational mode.
- © When MANUAL PAN mode is set, the horizontal position of the pan/tilt head can be controlled using the VALUE03 **PAN POSITION** command or TRIGGER **PAN RIGHT/LEFT/STOP** commands.
- © The following settings are used during AUTO PAN ON.
 

IRIS MODE	AUTO
WHITE BALANCE	AUTO
BACK LIGHT COMPENSATION	OFF
TILT, ZOOM, FOCUS	Position stored as the START POINT
- © The rotation direction during AUTO PAN can be set using the VALUE02 **AUTO PAN DIRECTION** command.
- © The rotation speed to use for AUTO PAN mode can be set using the VALUE02 **AUTO PAN SPEED** command.
- © The START/RETURN POSITION can be stored using the TRIGGER **AUTO PAN POSITION SET** command.
- © If auto patrol is currently operating, sure to stop auto patrol operations before starting auto pan.

- ◎ If auto trace is currently operating, sure to stop auto trace operations before starting auto pan.
- ◎ If the START/RETURN POINT is specified during AUTO PAN operations, the camera will move to the START/RETURN POINT and the camera will enter MANUAL PAN mode.
- ◎ The TRIGGER **PAN RIGHT/LEFT/STOP** commands and **ALL STOP** command cannot be used to control PAN operations during AUTO PAN mode. Put the camera into MANUAL PAN mode in order to use these commands to control PAN operations.
- ◎ MANUAL PAN mode will result if the VALUE02 **PRESET POSITION SELECT** command or VALUE03 **PAN POSITION** command are used to control PAN operations during AUTO PAN mode.
- ◎ Auto patrol and auto trace can be made as the target of this command by using the VALUE02 **AUTO PAN KEY** command.

## (12) AUTO PAN SPEED

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:1Ah**

**APPLICATION** This command is used when changing or checking the rotation speed to use for AUTO PAN mode.

**VALUE** Represents the rotation speed to use for AUTO PAN operational mode. (00h–02h)

00h	NORMAL (rotates at approximately 3 °/sec.)
01h	HIGH (rotates at approximately 12 °/sec.)
02h	LOW (rotates at approximately 0.5 °/sec.)

At power on    The rotation speed saved as CAMERA DATA is set.

Factory setting   00h (NORMAL) is set.

**USAGE**    ◎ When changing the AUTO PAN rotation speed  
Specify the AUTO PAN rotation speed using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	1Ah	00h–02h



The camera will rotate in the AUTO PAN operational mode at the speed specified by VALUE.

◎ When checking the AUTO PAN rotation speed (not available under JCCP-S or JCBP-S)

Request the AUTO PAN rotation speed.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	1Ah



The camera will notify the controller of the AUTO PAN rotation speed.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	1Ah	00h–02h

**REMARKS**

- ◎ This setting can be saved as **CAMERA DATA** using the TRIGGER **ENTER** command.
- ◎ Set AUTO PAN mode using the VALUE02 **AUTO PAN** command.
- ◎ The rotation direction during AUTO PAN can be set using the VALUE02 **AUTO PAN DIRECTION** command.

## (13) POSITION SPEED

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:1Bh**

**APPLICATION** This command is used when changing or checking the setting for motion speed between preset (home) positions.

**VALUE** Represents the motion speed between preset (home) positions. (00h–03h)

00h    PAN: Approx. 1°/sec, TILT: Approx. 1°/sec  
 01h    PAN: Approx. 3°/sec, TILT: Approx. 3°/sec  
 02h    PAN: Approx. 12°/sec, TILT: Approx. 7°/sec  
 03h    PAN: Approx. 300°/sec, TILT: Approx. 180°/sec

At power on    The motion speed saved as CAMERA DATA is set.

Factory setting 03h (PAN: Approx. 300°/sec, TILT: Approx. 180°/sec) is set.

**USAGE**    © When changing the motion speed between preset (home) positions setting  
                  Specify the motion speed between preset (home) positions setting using  
                  VALUE.

**CONT**    **CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	1Bh	00h–03h



The camera will move between positions at the speed specified by VALUE.

© When checking the motion speed between preset (home) positions setting (not available under JCCP-S or JCBP-S)

Request the motion speed between preset (home) positions setting.

**CONT**    **CAM**

ENQ	CMD	ITEM
82h	02h	1Bh



The camera will notify the controller of the motion speed setting.

**CAM**    **CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	1Bh	00h–03h

**REMARKS**    © This setting can be saved as **CAMERA DATA** using the TRIGGER **ENTER** command.

© This command does not change the speed of ZOOM and FOCUS operations.

© The motion between preset (home) positions is set using the VALUE02 **PRESET POSITION SELECT**, TRIGGER **SHIFT POSITION** or TRIGGER **EXTEND SHIFT POSITION** command.



## (14) ALARM CHARACTER SIZE

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**

**ITEM:1Dh**

**APPLICATION**   This command is used when changing or checking the alarm character size.

**VALUE**   Represents the alarm character size. (00h, 01h)

00h   Standard Size  
Screen relative size of characters:  
about 1/32 of screen width and about 1/12 of screen height (for NTSC) or  
1/15 of screen height (for PAL)

01h   Double Size  
Both height and width of characters is doubled.

At power on   The size setting saved as CAMERA DATA is set.

Factory setting   01h (double-sized) is set.

**USAGE**   ◎ When changing the alarm character size  
Specify the alarm character size using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	1Dh	00h, 01h



The camera will use the alarm character size specified by VALUE.

◎ When checking the alarm character size (not available under JCCP-S or JCBP-S)

Request the alarm character size.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	1Dh



The camera will notify the controller of the alarm character size.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	1Dh	00h, 01h

**REMARKS**

- ◎ This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.
- ◎ The alarm display can be set using the VALUE02 **ALARM DISPLAY SELECT** command.
- ◎ For details on the display location, see Appendix 2.

## (15) POSITION TITLE LOCATION

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:1Eh**

**APPLICATION** This command is used when changing or checking the display location of the preset (home) position title (and area title).

**VALUE** Represents the display location of the preset (home) position title. (00h–05h)

00h	Upper left portion of screen
01h	Lower left portion of screen
02h	Upper middle portion of screen
03h	Lower middle portion of screen
04h	Upper right portion of screen
05h	Lower right portion of screen

At power on    The title is displayed in the location saved as CAMERA DATA.

Factory setting 00h (upper left of screen) is set.

**USAGE**    © When changing the display location of the preset (home) position title  
Specify the display location of the preset (home) position title using VALUE.

**CONT**    **CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	1Eh	00h–05h



The camera will display the preset (home) position title at the location specified by VALUE.

© When checking the display location of the preset (home) position title (not available under JCCP-S or JCBP-S)  
Request the display location of the preset (home) position title.

**CONT**    **CAM**

ENQ	CMD	ITEM
82h	02h	1Eh



The camera will notify the controller of the display location.

**CAM**    **CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	1Eh	00h–05h

**REMARKS**

- © This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.
- © For details on the display location, see Appendix 2.
- © The preset (home) position title can be set using the STRING/STRINGW **POSITION TITLE** command.

(16) AUTO PAN DIRECTION

VALUE02 command    **CMD**    **READ:02h**    **WRITE:42h**    **ITEM:1Fh**

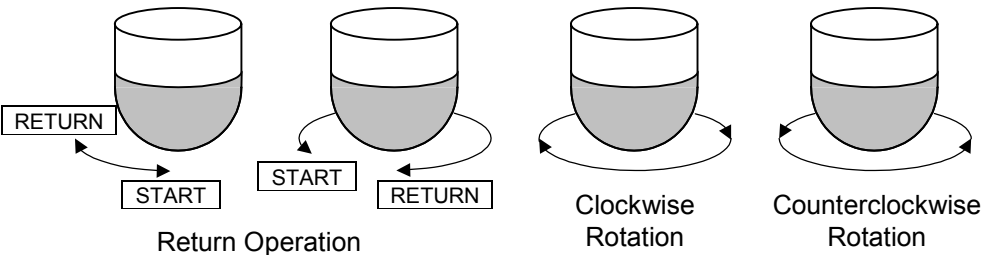
**APPLICATION**    This command is used when changing or checking the AUTO PAN operational mode.

**VALUE**    Represents the AUTO PAN operational mode. (00h–02h)

00h    Return Operation  
The pan/tilt head repeatedly rotates clockwise from the START POINT to the RETURN POINT and back or counterclockwise from the RETURN POINT to the START POINT and back.

01h    Clockwise Rotation  
Continue rotating clockwise regardless of the START and RETURN POINT settings.

02h    Counterclockwise Rotation  
Continue rotating counterclockwise regardless of the START and RETURN POINT settings.



At power on    The operational mode saved as CAMERA DATA is set.  
Factory setting    00h (return operation) is set.

**USAGE**    ◎ When changing the AUTO PAN operational mode  
Specify the AUTO PAN operational mode using VALUE.    **CONT**    **CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	1Fh	00h–02h

↳ The camera will operate in the AUTO PAN mode specified by VALUE.

◎ When checking the AUTO PAN operational mode (not available under JCCP-S or JCBP-S)  
Request the AUTO PAN operational mode.    **CONT**    **CAM**

ENQ	CMD	ITEM
82h	02h	1Fh

↳ The camera will notify the controller of the AUTO PAN operational mode.    **CAM**    **CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	1Fh	00h–02h

**REMARKS**

- ◎ This setting can be saved as **CAMERA DATA** using the **TRIGGER ENTER** command.
- ◎ Set AUTO PAN mode using the VALUE02 **AUTO PAN** command.
- ◎ The rotation speed to use for AUTO PAN mode can be set using the VALUE02 **AUTO PAN SPEED** command.
- ◎ The pan/tilt head and lens status (TILT, ZOOM, FOCUS) during AUTO PAN ON is that registered with the START POINT. Be sure to register a START POINT even if you will be using continuous clockwise or counterclockwise rotation. (The START POINT and RETURN POINT can be registered using the **TRIGGER AUTO PAN POSITION SET** command.)

- © If the START POINT and RETURN POINT are registered as the same position, the camera will perform a return operation where it rotates 360° one way and then back again.

## (17) VARIABLE PAN/TILT SPEED MODE

**VALUE02 command** **CMD** **READ:02h** **WRITE:42h** **ITEM:22h**

**APPLICATION** This command is used when changing or checking the MANUAL PAN/TILT speed correction mode versus the ZOOM position.

**VALUE** Represents the MANUAL PAN/TILT speed correction mode. (00h, 01h)  
 00h OFF.. MANUAL PAN/TILT speed is not corrected.  
 01h ON.... MANUAL PAN/TILT speed is corrected based on the ZOOM position.

• Panning speed (all values approximate)

Correction Mode	ZOOM Position	PAN RIGHT/LEFT Command (TRIGGER) Speed Specification (VALUE)							
		10h,11h	12h,13h	14h,15h	16h,17h	18h,19h	1Ah,1Bh	1Ch,1Dh	1Eh,1Fh
OFF	-	1 °/s	3 °/s	7 °/s	12 °/s	20 °/s	40 °/s	60 °/s	80 °/s
ON	TELE region	0.5 °/s	1 °/s	1 °/s	3 °/s	3 °/s	7 °/s	7 °/s	12 °/s
	MIDDLE region	1 °/s	3 °/s	7 °/s	12 °/s	20 °/s	40 °/s	60 °/s	80 °/s
	WIDE region	3 °/s	7 °/s	20 °/s	60 °/s	80 °/s	100 °/s	120 °/s	140 °/s

• Tilt speed (all values approximate)

Correction Mode	ZOOM Position	TILT UP/DOWN Command (TRIGGER) Speed Specification (VALUE)							
		10h,11h	12h,13h	14h,15h	16h,17h	18h,19h	1Ah,1Bh	1Ch,1Dh	1Eh,1Fh
OFF	-	0.5 °/s	1 °/s	3 °/s	7 °/s	16 °/s	26 °/s	42 °/s	60 °/s
ON	TELE region	0.5 °/s	1 °/s	3 °/s	7 °/s				
	MIDDLE region	0.5 °/s	1 °/s	3 °/s	7 °/s	16 °/s	20 °/s	42 °/s	60 °/s
	WIDE region								

At power on The setting saved as CAMERA DATA is set.

Factory setting 00h (OFF) is set.

### USAGE

- ◎ When changing the MANUAL PAN/TILT speed correction mode  
 Specify the MANUAL PAN/TILT speed correction mode using VALUE.

**CONT** **CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	22h	00h, 01h

↳ The camera will operate in the MANUAL PAN/TILT speed correction mode specified by VALUE.

- ◎ When checking the MANUAL PAN/TILT speed correction mode (not available under JCCP-S or JCBP-S)

Request the MANUAL PAN/TILT speed correction mode.

**CONT** **CAM**

ENQ	CMD	ITEM
82h	02h	22h

↳ The camera will notify the controller of the MANUAL PAN/TILT speed correction mode.

**CAM** **CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	22h	00h, 01h

### REMARKS

- ◎ This setting can be saved as **CAMERA DATA** using the TRIGGER **ENTER** command.
- ◎ MANUAL PAN is performed using the TRIGGER **PAN RIGHT/LEFT/STOP** commands.
- ◎ MANUAL TILT is performed using the TRIGGER **TILT UP/DOWN/STOP** commands.

## (18) AUTO FLIP MODE

**VALUE02 command CMD READ:02h WRITE:42h**
**ITEM:23h**

**APPLICATION** This command is used when changing or checking the AUTO FLIP MODE.

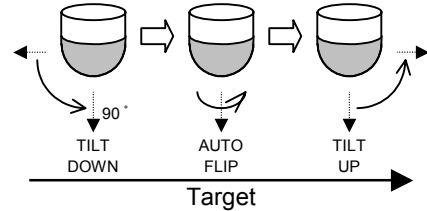
**VALUE** Represents the AUTO FLIP MODE.

(00h–02h)

00h OFF

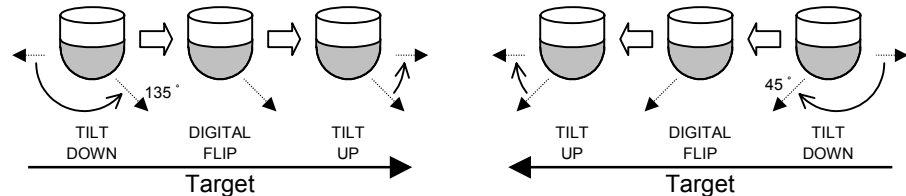
01h AUTO

AUTO FLIP is a function that automatically rotates the PAN position 180° whenever the TILT position reaches 90° (aimed straight down). This allows targets moving underneath the camera to be tracked using only the TILT function.



02h DIGITAL

This automatically reverses the image between the top and bottom and between the left and right when the tilt position is set to 135°. It restores the normal image when the tilt position has returned to 45°. This allows targets moving underneath the camera to be tracked using only the TILT function.



At power on The setting saved as CAMERA DATA is set.

Factory setting 00h (OFF) is set.

### USAGE

◎ When changing the AUTO FLIP MODE

Specify the AUTO FLIP MODE using VALUE.

CONT

CAM

ENQ	CMD	ITEM	VALUE
83h	42h	23h	00h–02h



The camera will operate in the FLIP MODE specified by VALUE.

◎ When checking the AUTO FLIP MODE (not available under JCCP-S or JCBP-S)

Request the AUTO FLIP MODE.

CONT

CAM

ENQ	CMD	ITEM
82h	02h	23h



The camera will notify the controller of the AUTO FLIP MODE.

CAM

CONT

ENQ	CMD	ITEM	VALUE
83h	42h	23h	00h–02h

### REMARKS

◎ This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

◎ AUTO FLIP only activates when the TILT position reaches 90° (aimed straight down) while using the TRIGGER **TILT DOWN** command. It does not activate if this position is reached as a result of the VALUE03 **TILT POSITION** or **TILT UP/DOWN (RELATIVE)** command.

◎ Use the TRIGGER **FLIP START** command if you wish to perform the FLIP operation immediately regardless of the current TILT position.

◎ AUTO FLIP is not operational during AUTO PAN mode.

- © During PAN movement by AUTO FLIP operations the following commands will not change the PAN position.
  - VALUE03 **PAN POSITION** and **PAN RIGHT/LEFT (RELATIVE)** commands
  - TRIGGER **PAN RIGHT/LEFT/STOP** and **ALL STOP** commands.

## (19) INFORMATION DISPLAY MODE

**VALUE02 command CMD WRITE:42h**
**ITEM:24h**

**APPLICATION** This command is used when displaying the information screen.

**VALUE** Represents the information screen to be displayed. (00h–02h)

00h OFF (No display)  
 01h CAMERA STATUS screen  
 02h SERVICE INFORMATION screen

At power on 00h (OFF) is set.

### USAGE

Specify the information screen to be displayed using VALUE.

**CONT**
**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	24h	00h–02h



The camera will display the information screen specified by VALUE.

### REMARKS

◎ The INFORMATION DISPLAY MODE cannot be saved.

◎ The CAMERA STATUS screen displays the following.

```
--CAMERA STATUS--
AGC MODE  OFF
COLOR     5
ENHANCE   HIGH
SHUTTER    1/60
AV/PEAK    8/2
BLC MODE   OFF
IRIS MODE  MANUAL
W.BALANCE  MANUAL
RB GAIN     127
L/L        OFF
V PHASE     127
```

Spelled “COLOUR” under  
PAL system

Displays one side depending  
on the L/L status  
L/L OFF  
L/L ON

◎ The SERVICE INFORMATION screen displays information necessary for inspecting and maintaining the camera.

```
--PROGRAM INFO.--
PROG No.  PLSC****
VERSION   V*.**

--SERVICE INFO.--
STAGE     0
LENS      0
```

PROG No. The camera's control program management number

VERSION The camera's control program version

STAGE (Preset (home) position movement count + AUTO PAN rotation  
(return) count)/100

LENS Preset (home) position movement count/100

◎ The camera title display, position title display, event display, and alarm display cannot be performed while an information screen is being displayed.



**(20) EASY AF**

VALUE02 command	CMD	READ:02h	WRITE:42h	ITEM:25h
-----------------	-----	----------	-----------	----------

**APPLICATION** This command is used to allow auto focus to function during manual PAN/TILT operations.

<b>VALUE</b>	Represents the EASY AF operational mode. (00h, 01h)
00h	EASY AF OFF
01h	EASY AF ON
	At power on The mode saved as CAMERA DATA is set.
	Factory setting 00h (EASY AF OFF) is set.

**USAGE**            © When setting the EASY AF operational mode  
                     Specify the EASY AF operational mode using VALUE.

CONT

CAM

ENQ	CMD	ITEM	VALUE
83h	42h	25h	00h, 01h



➤ The camera will move to the operational mode specified by VALUE.

**REMARKS**      © Use of EASY AF has a relationship to the lifespan of the camera lens. If EASY AF is used constantly, the lifespan of the lens will be drastically reduced compared to using MANUAL ONE-PUSH FOCUS.

## (21) AUTO PATROL

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:26h**

**APPLICATION** This command is used when starting and stopping the AUTO PATROL. This command is also used when checking the AUTO PATROL operation mode.

**VALUE** Represents the AUTO PATROL operational mode. (00h–01h)

00h STOP  
01h START

At power on 00h (STOP mode) is set.

Factory setting 00h (STOP mode) is set.

**USAGE** ◎ When starting and stopping the AUTO PATROL operational mode

Specify the AUTO PATROL operational mode using VALUE. CONT CAM

ENQ	CMD	ITEM	VALUE
83h	42h	26h	00h, 01h



The camera will move to the operational mode specified by VALUE.

◎ When checking the AUTO PATROL operational mode (not available under JCCP-S or JCBP-S)

Request the AUTO PATROL operational mode.

CONT

CAM

ENQ	CMD	ITEM
82h	02h	26h



The camera will notify the controller of the mode.

CAM

CONT

ENQ	CMD	ITEM	VALUE
83h	42h	26h	00h, 01h

**REMARKS**

- ◎ The AUTO PATROL operational mode cannot be saved.
- ◎ The patrol pattern can be selected by using the VALUE02 **AUTO PATROL PATTERN** command.
- ◎ The auto patrol contents are set by using the VALUE02 **AUTO PATROL NUMBER SELECT**, **AUTO PATROL POSITION SELECT** and **AUTO PATROL DWELL SELECT** commands.
- ◎ If AUTO PAN is currently operating, be sure to stop AUTO PAN operations before starting AUTO PATROL.
- ◎ If AUTO TRACE is currently operating, be sure to stop AUTO TRACE operations before starting AUTO PAN.
- ◎ AUTO PAN and AUTO TRACE can be made as the target of this command by using the VALUE02 **AUTO PATROL KEY** command.

## (22) AUTO PATROL PATTERN

VALUE02 command	CMD	READ:02h	WRITE:42h	ITEM:27h
-----------------	-----	----------	-----------	----------

**APPLICATION** This command is used when selecting or checking the auto patrol operational patterns.

<b>VALUE</b>	Represents the AUTO PATROL operational pattern. (00h–02h) 00h–02h      Patterns 1–3
--------------	--

At power on      The saved pattern is set.

Factory setting The pattern 1 is set.

**USAGE**

© When selecting the AUTO PATROL operational pattern  
Specify the operational pattern using VALUE.

CONT

CAM

ENQ	CMD	ITEM	VALUE
83h	42h	27h	00h–02h



\* The camera will change to the pattern specified by VALUE.

© When checking the AUTO PATROL operational pattern (not available under JCCP-S or JCBP-S)

Request the current operational mode.

CONT

CAM

ENQ	CMD	ITEM
82h	02h	27h



The camera will notify the controller of the pattern.

CAM

CONT

ENQ	CMD	ITEM	VALUE
83h	42h	27h	00h-02h

REMARKS

- ◎ This setting can be saved using the TRIGGER **ENTER** command.
- ◎ AUTO PATROL can be started by using the VALUE02 **AUTO PATROL** command.
- ◎ The AUTO PATROL contents are set by using the VALUE02 **AUTO PATROL NUMBER SELECT**, **AUTO PATROL POSITION SELECT** and **AUTO PATROL DWELL SELECT** commands.
- ◎ For examples of actual usage, see Appendix 3.

## (23) AUTO PATROL NUMBER SELECT

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:29h**

**APPLICATION** This command is used when selecting the patrol number in which the auto patrol contents are to be set or when checking the patrol number of the setting target.

**VALUE** Represents the patrol number. (00h–63h)  
00h–63h   Patrol number 1 to 100

At power on   Patrol number 1 is set as the setting target.

**USAGE**   ◎ When selecting the patrol number to be set.  
Specify the patrol number to be set using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	29h	00h–63h



The camera sets the patrol number specified by VALUE as the setting target.

◎ When checking patrol number of the setting target (not available under JCCP-S or JCBP-S)

Request the patrol number to be set.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	29h



The camera will notify the controller of the patrol number to be set.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	29h	00h–63h

### REMARKS

- ◎ AUTO PATROL can be started by using the VALUE02 **AUTO PATROL** command.
- ◎ The AUTO PATROL pattern can be selected using the VALUE02 **AUTO PATROL PATTERN** command.
- ◎ The AUTO PATROL contents are set by using the VALUE02 **AUTO PATROL POSITION SELECT** and **AUTO PATROL DWELL SELECT** commands.
- ◎ For examples of actual usage, see Appendix 3.

## (24) AUTO PATROL POSITION SELECT

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:2Ah**

**APPLICATION** This command is used when setting or checking the position in the patrol number of the setting target.

**VALUE** Represents the position number. (00h–63h)  
           00h           Home position  
           01h–63h     Preset position Nos. 1 to 99  
 At power on     The contents saved with the AUTO PATROL is set.  
 Factory setting   Patrol number 1: Home position  
                     Patrol number 2 to 64: Preset position Nos. 1 to 63

**USAGE**           ◎ When setting the position in the patrol number of the setting target  
                     Specify the position number to be set using VALUE.           <sup>CONT</sup>   <sup>CAM</sup>

ENQ	CMD	ITEM	VALUE
83h	42h	2Ah	00h–63h



The camera sets the position specified by VALUE in the patrol number of the setting target.

◎ When checking the preset (home) position number currently set (not available under JCCP-S or JCBP-S)  
 Request the position number setting.   <sup>CONT</sup>   <sup>CAM</sup>

ENQ	CMD	ITEM
82h	02h	2Ah



The camera will notify the controller of the position number setting.

<sup>CAM</sup>   <sup>CONT</sup>

ENQ	CMD	ITEM	VALUE
83h	42h	2Ah	00h–63h

### REMARKS

- ◎ This setting can be saved using the TRIGGER **ENTER** command.
- ◎ AUTO PATROL can be started by using the VALUE02 **AUTO PATROL** command.
- ◎ The AUTO PATROL pattern can be selected using the VALUE02 **AUTO PATROL PATTERN** command. The patrol number of the setting target can be selected by using the VALUE02 **AUTO PATROL NUMBER SELECT** command. Be absolutely sure to select the AUTO PATROL pattern and patrol number first before setting the position number. (The AUTO PATROL pattern and patrol number are valid even if any other commands are sent between the **AUTO PATROL PATTERN** command, **AUTO PATROL NUMBER SELECT** command and **AUTO PATROL POSITION SELECT** command.)
- ◎ The AUTO PATROL stop time can be set by using the VALUE02 **AUTO PATROL DWELL SELECT** command.
- ◎ For examples of actual usage, see Appendix 3.

## (25) AUTO PATROL DWELL SELECT

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:2Bh**

**APPLICATION** This command is used when setting or checking the stop time in the patrol number of the setting target.

**VALUE** Represents the stop time. (00h–04h, 07h, 08h)

00h	SKIP (not subject to AUTO PATROL)
01h	30 seconds
02h	45 seconds
03h	1 minute
04h	2 minutes
07h	10 seconds
08h	20 seconds

At power on    The contents saved with the AUTO PATROL are set.

Factory setting 10 sec (for all patrol numbers) is set.

**USAGE**    © When setting the stop time in the patrol number of the setting target

The stop time to be set is specified by VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	2Bh	00h–04h 07h, 08h



The camera sets the stop time specified by VALUE in the patrol number of the setting target.

© When checking the setting stop time (not available under JCCP-S or JCBP-S)  
Request the stop time setting.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	2Bh

The camera will notify the controller of the stop time setting.

**CAM**

**CONT**



ENQ	CMD	ITEM	VALUE
83h	42h	2Bh	00h–04h 07h, 08h

### REMARKS

- © This setting can be saved using the TRIGGER **ENTER** command.
- © The AUTO PATROL can be started using the VALUE02 **AUTO PATROL** command.
- © The AUTO PATROL pattern can be selected using the VALUE02 **AUTO PATROL PATTERN** command. The patrol number of the setting target can be selected using the VALUE02 **AUTO PATROL NUMBER SELECT** command. Be absolutely sure to select the AUTO PATROL pattern and patrol number first before setting the stop time. (The AUTO PATROL pattern and patrol number are valid even if any other commands are sent between the **AUTO PATROL PATTERN** command, **AUTO PATROL NUMBER SELECT** command and **AUTO PATROL DWELL SELECT** command.)
- © The AUTO PATROL position number can be set using the VALUE02 **AUTO PATROL POSITION SELECT** command.
- © For examples of actual usage, see Appendix 3.

## (26) AREA TITLE DISPLAY

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**

**ITEM:2Ch**

**APPLICATION** This command is used when changing or checking the area title display.

**VALUE** Represents the display status. (00h–01h)

00h No display

01h Displayed

At power on The mode saved as CAMERA DATA is set.

Factory setting 00h (no display) is set.

**USAGE**

◎ When changing the display status

Specify the display status using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	2Ch	00h, 01h



The camera will change to the display status specified by VALUE.

◎ When checking the current AREA TITLE DISPLAY status (not available under JCCP-S or JCBP-S)

Request the current AREA TITLE DISPLAY status.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	2Ch



The camera will notify the controller of the display status.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	2Ch	00h, 01h

**REMARKS**

- ◎ This setting can be saved as **CAMERA DATA** using the TRIGGER **ENTER** command.
- ◎ The AREA TITLE can be set using the TRIGGER **AREA SELECT** command and the STRING/STRINGW **AREA TITLE** command.
- ◎ The AREA TITLE is displayed in the same position as the position title. (For details on the display position, see Appendix 2.)

## (27) PANIC ALARM DURATION

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:2Dh**

**APPLICATION** This command is used when setting or checking the duration for continuing the panic alarm operation.

**VALUE** Represents the duration for continuing operation. (01h–0Ah)

01h	5 seconds
02h	6 seconds
03h	7 seconds
04h	8 seconds
05h	9 seconds
06h	10 seconds
07h	15 seconds
08h	20 seconds
09h	30 seconds
0Ah	1 minute

At power on    The mode saved as CAMERA DATA is set.

Factory setting   06h (10 seconds) is set.

**USAGE**    © When setting the duration for continuing the panic alarm operation

The duration to be set for continuing is specified by VALUE.   **CONT**   **CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	2Dh	01h–0Ah

↪ The camera sets the duration for continuing the panic alarm operation to the time specified by VALUE.

© When checking the setting duration for continuing the panic alarm (not available under JCCP-S or JCBP-S)

Request the duration for continuing the panic alarm.   **CONT**   **CAM**

ENQ	CMD	ITEM
82h	02h	2Dh

↪ The camera will notify the controller of the setting duration for continuing the panic alarm.   **CAM**   **CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	2Dh	01h–0Ah

**REMARKS**    © This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

© The polarity of the panic alarm signal input can be set by using the VALUE02 **PANIC ALARM POLARITY** command.

© The alarm operational mode can be set using the VALUE02 **ALARM MODE** command.

© An alarm can be forcibly cancelled by using the TRIGGER **PANIC ALARM RESET** command even during the duration for continuing the panic alarm.

© Alarms are cancelled by the view angle operation even during the duration for continuing the panic alarm. The conditions for canceling alarms differ according to the alarm operation mode. Refer to the section on the VALUE02 **ALARM MODE** command.



## (28) PANIC ALARM POLARITY

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**

**ITEM:2Eh**

**APPLICATION** This command is used when setting or checking the polarity of the alarm signal input.

**VALUE** Represents the polarity of the alarm signal input. (00h, 01h)

00h      Make input

01h      Break input

At power on      The mode saved as CAMERA DATA is set.

Factory setting 00h (make input) is set.

**USAGE**      ◎ When setting the polarity of the alarm signal input

The polarity to be set is specified by VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	2Eh	00h, 01h



The camera performs the panic alarm operation by means of the signal input of the polarity specified by VALUE.

◎ When checking the polarity of the alarm signal input setting (not available under JCCP-S or JCBP-S)

Request the polarity setting.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	2Eh



The camera will notify the controller of the setting polarity.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	2Eh	00h, 01h

**REMARKS**

- ◎ This setting can be saved as **CAMERA DATA** using the **TRIGGER ENTER** command.
- ◎ The duration for continuing the panic alarm operation can be set by using the VALUE02 **PANIC ALARM DURATION** command.
- ◎ The alarm operational mode can be set using the VALUE02 **ALARM MODE** command.
- ◎ An alarm can be forcibly cancelled by using the **TRIGGER PANIC ALARM RESET** command even during the duration for continuing the panic alarm.
- ◎ An alarm can be cancelled by the view angle operation even during the duration for continuing the panic alarm. The conditions for canceling alarms differ according to the alarm operation mode. Refer to the section on the VALUE02 **ALARM MODE** command.

## (29) DIGITAL ZOOM MAX

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:39h**

**APPLICATION** This command is used when setting or checking the maximum magnification of the digital zoom operation.

**VALUE** Represents the maximum magnification of the digital zoom operation. (00h –05h)


00h	1x (digital zoom OFF)
01h	2x
02h	4x
03h	8x
04h	6x
05h	10x

At power on    The mode saved as CAMERA DATA is set.

Factory setting 01h (2x) is set.

**USAGE**    © When setting the maximum magnification of the digital zoom operation  
The maximum magnification to be set is specified by VALUE. **CONT**    **CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	39h	00h–05h

 The camera can perform digital zoom operations up to the maximum magnification which has been set.

© When checking the setting maximum magnification (not available under JCCP-S or JCBP-S)

Request the maximum magnification setting.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	39h

 The camera will notify the controller of the setting maximum magnification.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	39h	00h–05h

**REMARKS**    © This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

© Zoom operation methods include the absolute control method that uses the VALUE03 **ZOOM POSITION** command, the relative control method that uses the VALUE03 **ZOOM TELE/WIDE (RELATIVE)** command, and the speed control method that uses the TRIGGER **ZOOM TELE/WIDE/STOP** command. The digital zoom operates after the lens zoom has reached the TELE end.

## (30) INTERNAL ALARM STATUS

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**

**ITEM:3Bh**

**APPLICATION** When the internal alarm status of the camera has changed, this is used to announce the status to the controller. This command is **automatically issued** from the camera when JCCP-F is used.

**VALUE** Represents the internal alarm status. (00h, 01h)  
           00h       Internal alarm cancelled (NORMAL)  
           01h       Internal alarm occurrence (ALARM)

**USAGE**

The camera will notify the controller of the INTERNAL ALARM STATUS operational mode.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	3Bh	00h, 01h

**REMARKS**

- ◎ In this camera, the internal alarm status is changed by the panic alarm and motion detection.
- ◎ The issuance of this command can be prohibited by the VALUE02 **ALARM REPORT** command.
- ◎ The alarm operational mode can be set using the VALUE02 **ALARM MODE** command.
- ◎ An alarm can be forcibly cancelled by using the TRIGGER **PANIC ALARM RESET** command or view angle operation even during the duration for continuing the internal alarm. When an alarm has been forcibly cancelled, the cancel of the internal alarm using this command is not issued. The conditions for forcibly canceling alarms differ according to the alarm operation mode. Refer to the section on the VALUE02 **ALARM MODE** command.

## (31) ALARM MODE

**VALUE02 command** **CMD** **READ:02h** **WRITE:42h** **ITEM:3Dh**

**APPLICATION** This command is used when setting or checking the alarm operational mode.

**VALUE** Represents the duration for continuing operation. (00h, 01h)

00h Alarm priority mode  
Continue alarm operations regardless of the screen angle operation command

01h Manual priority mode  
The alarm operation is cancelled using the screen angle operation command

At power on The mode saved as CAMERA DATA is set.

Factory setting 00h (alarm priority mode) is set.

**USAGE** ◎ When setting the alarm operational mode  
Specify the operational mode to be set using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	3Dh	00h, 01h



The camera will perform ALARM operations according to the mode specified by VALUE.

◎ When checking the alarm operational mode (not available under JCCP-S or JCBP-S)

Request the specified operational mode.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	3Dh



The camera will notify the controller of the specified operational mode.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	3Dh	00h, 01h

**REMARKS** ◎ This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

◎ The operations in response to the commands during an alarm are as follows.

Classification	Command	VALUE	Alarm priority	Manual priority	
TRIGGER	PANIC ALARM RESET		Alarm cancelled	Alarm cancelled	
VALUE02	PRESET POSITION SELECT	Alarm position	Command ignored		
		All other			
	AUTO PAN	Other than manual panning			
	AUTO PATROL	ON			
VALUE03	PAN/TILT/ZOOM POSITION				
	PAN RIGHT/LEFT (RELATIVE)				
	TILT UP/DOWN (RELATIVE)				
	ZOOM TELE/WIDE (RELATIVE)				
TRIGGER	PAN RIGHT/LEFT				
	TILT UP/DOWN				
	ZOOM TELE/WIDE				
	SHIFT POSITION				
	EXTEND SHIFT POSITION				
All other commands					Same as normal operation

**(32) LAST ALARM POSITION**

VALUE02 command	CMD	READ:02h	WRITE:42h	ITEM:3Eh
-----------------	-----	----------	-----------	----------

**APPLICATION** This command is used when checking the alarm position currently activated or last activated. (Not available under JCCP-S and JCBP-S.)

<b>VALUE</b>	Represents alarm position. (00h–63h)
00h	Home position
01h–63h	Preset position Nos. 1 to 99

## USAGE

Request the alarm position.

CONT

CAM

ENQ	CMD	ITEM
82h	02h	3Eh



The camera will notify the controller of the alarm position.

CAM

CONT

ENQ	CMD	ITEM	VALUE
83h	42h	3Eh	00h–63h

REMARKS

◎ If not even one alarm has been activated after the power was turned on, 01h (preset position No.1) is noticed.

## (33) PORT OUTPUT 1-3 SELECT

**VALUE02 command CMD READ:02h WRITE:42h**
**ITEM:42h-44h**

**APPLICATION** This command is used when setting or checking the port output 1–3 function.

**ITEM** Represents the port output. (42h–44h)

42h Port output 1  
43h Port output 2  
44h Port output 3

**VALUE** Indicates the function of port output. (00h–06h)

00h OFF (no output)  
01h UNIT ALARM  
This command outputs the signal during an alarm operation.  
02h B&W  
This command outputs the signal during a black and white mode operation.  
03h Preset (home) position movement completed  
This command outputs the signal (for approx. 0.5 sec.) upon completion of the preset (home) position movement.  
04h AUX1 (RM)  
This command outputs the signal by using the TRIGGER **AUX 1** command.  
05h AUX2 (RM)  
This command outputs the signal by using the TRIGGER **AUX 2** command.  
06h AUX3 (RM)  
This command outputs the signal by using the TRIGGER **AUX 3** command.

At power on The mode saved as CAMERA DATA is set.

Factory setting 01h (UNIT ALARM) is set.

### USAGE

- ◎ When setting port output 1–3 function  
Specify the function to be set using VALUE.

CONT

CAM

ENQ	CMD	ITEM	VALUE
83h	42h	42h–44h	00h–06h



The camera sets output connectors 1–3 to the functions specified by VALUE.

- ◎ When checking the setting of the port output 1–3 function (not available under JCCP-S or JCBP-S)

Request the specified function.

CONT

CAM

ENQ	CMD	ITEM
82h	02h	42h–44h



The camera will notify the controller of the specified function.

CAM

CONT

ENQ	CMD	ITEM	VALUE
83h	42h	42h–44h	00h–06h

### REMARKS

- ◎ This setting can be saved as **CAMERA DATA** using the TRIGGER **ENTER** command.
- ◎ The signal output time for UNIT ALARM can be set by using the VALUE02 **PANIC ALARM DURATION** command and **MOTION DETECT ALARM DISPLAY TIME** command.

**(34) IR LIGHT**

VALUE02 command	CMD	READ:02h	WRITE:42h	ITEM:47h
-----------------	-----	----------	-----------	----------

**APPLICATION** This command is used when setting or checking the lighting in the black and white mode.

<b>VALUE</b>	Represents the lighting in the black and white mode. (00h, 01h)
00h	Normal lighting (natural light, fluorescent light, etc.)
01h	Infrared emission lighting

At power on      The mode saved as CAMERA DATA is set.

Factory setting 00h (normal lighting) is set.

**USAGE**

- ◎ When setting the lighting in the black and white mode  
The lighting in the black and white mode is specified by VALUE.

CONT

CAM

ENQ	CMD	ITEM	VALUE
83h	42h	47h	00h, 01h



• The camera sets the lighting in the black and white mode specified by VALUE.

◎ When checking the setting of the lighting in the black and white mode (not available under JCCP-S or JCBP-S)

Requests the lighting in the black and white mode setting.

CONT

CAM

ENQ	CMD	ITEM
82h	02h	47h



The camera will notify the controller of the lighting in the black and white mode setting.

CAM

CONT

ENQ	CMD	ITEM	VALUE
83h	42h	47h	00h, 01h

REMARKS

© This setting can be saved as **CAMERA DATA** using the TRIGGER **ENTER** command.

© The setting established by this command affects the focus operation in the black and white mode.

### (35) B&W MODE

VALUE02 command	CMD	READ:02h	WRITE:42h	ITEM:48h
-----------------	-----	----------	-----------	----------

**APPLICATION** This command is used when setting or checking the black and white mode switching function.

<b>VALUE</b>	Represents the black and white mode switching function. (00h–06h)
--------------	---

00h	OFF (operation in color mode)
01h	ON (operation in black and white mode)
02h	AUTO (automatic switching as per subject brightness)
03h	This is switched by alarm signal input 1.
04h	This is switched by alarm signal input 2.
05h	This is switched by alarm signal input 3.
06h	This is switched by alarm signal input 4.

At power on      The mode saved as CAMERA DATA is set.

Factory setting 00h (OFF) is set.

**USAGE**      © When setting the black and white mode switching function

The black and white mode switching function to be set is specified by VALUE.

CONT CAM

ENQ	CMD	ITEM	VALUE
83h	42h	48h	00h–06h

The camera will switch the function between the color mode and the black and white mode specified by VALUE.

◎ When checking the setting of the black and white mode switching function (not available under JCCP-S or JCBP-S)

Requests the setting black and white mode switching function

CONT CAM

ENQ	CMD	ITEM
82h	02h	48h

☐ The camera will notify the specified fuction.

**CAM**      **CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	48h	00h–06h

**REMARKS**      © This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

- © Set the lighting in the black and white mode using the **VALUE02 IR LIGHT** command.

© The switching level in the AUTO mode can be set by using the VALUE03 **B&W AUTO LEVEL** command.



## (36) AUTO BLACK CONTROL MODE

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:49h**

**APPLICATION** This command is used when setting or checking the auto black control mode.

**NOTE** Auto black control is a function that automatically increases the reference level (pedestal level) for black in accordance with the subject brightness (AGC gain) to make it easier to view dark areas of images on the monitor.

**VALUE** Represents the duration for continuing operation. (00h, 01h)

00h      OFF

01h      ON

At power on      The mode saved as CAMERA DATA is set.

Factory setting   00h (OFF) is set.

**USAGE**      ◎ When setting the auto black control operational mode

Specify the mode to be set using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	49h	00h, 01h



The auto black control will function in the mode specified for the camera by VALUE.

◎ When checking the specified auto black control mode (not available under JCCP-S or JCBP-S)

Request the specified mode.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	49h



The camera will notify the controller of the specified mode.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	49h	00h, 01h

**REMARKS**

◎ This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

◎ If the maximum gain during AGC operations has been set to 0 dB (OFF), the auto black control function will not work. The maximum gain during AGC operations can be set using the VALUE02 **AGC MODE** command.

◎ If the pedestal level has been set to level 5, the auto black control function will not work. (The pedestal level can be set using the VALUE03 **PEDESTAL LEVEL** command.)

## (37) AUTO PAN KEY

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:4Ah**

**APPLICATION** This command is used when setting or checking the target operation of the VALUE02 **AUTO PAN** command.

**VALUE** Represents the target operation of the **AUTO PAN** command. (00h–02h)

00h	AUTO PAN
01h	AUTO PATROL
02h	AUTO TRACE

At power on    The mode saved as CAMERA DATA is set.

Factory setting 00h (AUTO PAN) is set.

**USAGE**    © When setting the target operation of the **AUTO PAN** command

The target operation to be set is specified by VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	4Ah	00h–02h



The camera will perform the **AUTO PAN** command operations according to the mode specified by VALUE.

© When checking the setting of the target operation of the **AUTO PAN** command (not available under JCCP-S or JCBP-S)

Request the target operation setting.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	4Ah



The camera will notify the controller of the target operation setting.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	4Ah	00h–02h

**REMARKS**

© This setting can be saved as **CAMERA DATA** using the TRIGGER **ENTER** command.

## (38) AUTO PATROL KEY

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:4Bh**

**APPLICATION**   This command is used when setting or checking the target operation of the VALUE02 **AUTO PATROL** command.

**VALUE**   Represents the target operation of the **AUTO PATROL** command. (00h–02h)

00h	AUTO PAN
01h	AUTO PATROL
02h	AUTO TRACE

At power on   The mode saved as CAMERA DATA is set.

Factory setting   01h (AUTO PATROL) is set.

**USAGE**   ◎ When setting the target operation of the **AUTO PATROL** command

The target operation to be set is specified by VALUE.

CONT

CAM

ENQ	CMD	ITEM	VALUE
83h	42h	4Bh	00h–02h



The camera will perform the **AUTO PATROL** command operations according to the mode specified by VALUE.

◎ When checking the setting of the target operation of the **AUTO PATROL** command (not available under JCCP-S or JCBP-S)

Request the target operation setting.

CONT

CAM

ENQ	CMD	ITEM
82h	02h	4Bh



The camera will notify the controller of the target operation setting.

CAM

CONT

ENQ	CMD	ITEM	VALUE
83h	42h	4Bh	00h–02h

**REMARKS**

◎ This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

## (39) MOTION DETECT MODE

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:4Ch**

**APPLICATION** This command is used when setting or checking the operational mode of the motion detection function.

**VALUE** Represents the operational mode. (00h, 01h)

00h      OFF

01h      ON

At power on      The mode saved as CAMERA DATA is set.

Factory setting 00h (OFF) is set.

**USAGE**      ◎ When setting the operational mode of the motion detection function

Specify the operational mode to be set using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	4Ch	00h, 01h



The camera will operate the motion detection in the specified mode by VALUE.

◎ When checking the specified operational mode of the motion detection function (not available under JCCP-S or JCBP-S)

Request the specified operational mode.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	4Ch



The camera will notify the controller of the specified operational mode.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	4Ch	00h, 01h

**REMARKS**

◎ This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

◎ The detection sensitivity for motion detection can be set by using the VALUE03 **MOTION DETECT LEVEL** command.

◎ The alarm character string display time when motion has been detected can be set by using the VALUE02 **MOTION DETECT ALARM DISPLAY TIME** command.

◎ When the camera is at a position other than the home position, the motion detection function will not work.

## (40) MOTION DETECT ALARM DISPLAY TIME

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**
**ITEM:4Dh**

**APPLICATION** This command is used when setting or checking the time for the alarm character string display activated by motion detection.

**VALUE** Represents the display time. (00h–0Ah)

00h	OFF (No display)
01h	5 seconds
02h	6 seconds
03h	7 seconds
04h	8 seconds
05h	9 seconds
06h	10 seconds
07h	15 seconds
08h	20 seconds
09h	30 seconds
0Ah	1 minute

At power on    The mode saved as CAMERA DATA is set.

Factory setting   01h (5 seconds) is set.

**USAGE**

- ◎ When setting the time for the alarm character string display  
Specify the display time setting using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	4Dh	00h–0Ah



The camera sets the time for the alarm character string display activated by motion detection to the time specified by VALUE.

- ◎ When checking the time for the alarm character string display (not available under JCCP-S or JCBP-S)

Request the display time setting.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	4Dh



The camera will notify the controller of the display time setting.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	4Dh	00h–0Ah

**REMARKS**

- ◎ This setting can be saved as **CAMERA DATA** using the **TRIGGER ENTER** command.
- ◎ The operational mode of the motion detection can be set using the VALUE02 **MOTION DETECT** command.
- ◎ The level at which motion is to be detected can be set by using the VALUE03 **MOTION DETECT LEVEL** command.
- ◎ The character size used when displaying alarm text can be set using the VALUE02 **ALARM CHARACTER SIZE** command.
- ◎ The color used when displaying alarm text can be set using the VALUE02 **TITLE COLOR AT ALARM** command.

## (41) PRIVATE MASKING MODE

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:4Eh**

**APPLICATION** This command is used when setting or checking the private masking operation mode.

**NOTE** Private masking is a function that turns the areas on the display which are not to be filmed to gray.

**VALUE** Represents the operational mode. (00h, 01h)

00h      OFF  
01h      ON

At power on      The mode saved as CAMERA DATA is set.

Factory setting 00h (OFF) is set.

**USAGE**      ◎ When setting the private masking operation mode

Specify the duration to be set for continuing using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	42h	4Eh	00h, 01h



The camera will perform private masking according to the operation mode specified by VALUE.

◎ When checking the operational mode of the setting private masking (not available under JCCP-S or JCBP-S)

Request the specified operational mode.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	02h	4Eh



The camera will notify the controller of the specified operational mode.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	42h	4Eh	00h, 01h

**REMARKS**

◎ This setting can be saved as **CAMERA DATA** using the TRIGGER **ENTER** command.

## (42) ALARM REPORT

VALUE02 command	CMD	READ:02h	WRITE:42h	ITEM:51h
-----------------	-----	----------	-----------	----------

**APPLICATION** This command is used when setting or checking the enable/disable status for automatically issuing the **VALUE02 INTERNAL ALARM STATUS** command.

<b>VALUE</b>	Represents the operational mode. (00h, 01h)
--------------	---

00h Disabled

01h	Enabled
-----	---------

At power on      The mode saved as CAMERA DATA is set.

Factory setting 00h (disabled) is set.

**USAGE**      © When setting the enable/disable status for automatically issuing the **INTERNAL ALARM STATUS** command

Specify the operational mode to be set using VALUE.

CONT

CAM

ENQ	CMD	ITEM	VALUE
83h	42h	51h	00h, 01h



The camera sets the automatic issuance status when an internal alarm has occurred to the status specified by VALUE.

© When checking the specified mode (not available under JCCP-S or JCBP-S)

Request the specified mode.

CONT

CAM

ENQ	CMD	ITEM
82h	02h	51h



The camera will notify the specified mode.

CAM

CONT

ENQ	CMD	ITEM	VALUE
83h	42h	51h	00h, 01h

REMARKS

© The enable/disable status is automatically stored.

## (43) TITLE COLOR AT ALARM

**VALUE02 command**   **CMD**   **READ:02h**   **WRITE:42h**   **ITEM:54h**

**APPLICATION** This command is used when setting or checking the color used when displaying alarm text.

**VALUE** Represents the color used when displaying alarm text. (00h –03h)

00h	White
01h	Green
02h	Cyan
03h	Yellow

At power on    The mode saved as CAMERA DATA is set.

Factory setting 00h (white) is set.

**USAGE**    © When setting the color used when displaying alarm text.  
Specify the setting color used when displaying alarm text using VALUE.

CONT

CAM

ENQ	CMD	ITEM	VALUE
83h	42h	54h	00h–03h



The camera sets the color used when displaying alarm text specified by VALUE.

© When checking the specified color used when displaying the alarm text (not available under JCCP-S or JCBP-S)

Request the setting color used when displaying the alarm text.

CONT

CAM

ENQ	CMD	ITEM
82h	02h	54h



The camera will notify the controller of the display color setting.

CAM

CONT

ENQ	CMD	ITEM	VALUE
83h	42h	54h	00h–03h

**REMARKS**    © This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

© The character size used when displaying alarm text can be set using the VALUE02 **ALARM CHARACTER SIZE** command.



## 4 VALUE03 COMMANDS

VALUE03 is primarily used to control level-related parameters.

		Command Code CMD	
VALUE03		READ:03h WRITE:43h	
	Item	Name	VALUE Range
1	00h	MANUAL IRIS LEVEL	00h–FFh
2	02h	ZOOM POSITION	20h–17E8h
3	03h	FOCUS POSITION	20h–0580h
4	04h	PAN POSITION	00h–18FFh
5	05h	TILT POSITION	00h–1900h
6	06h	MANUAL WHITE BALANCE (R-B)	00h–FFh
7	0Ah	AVERAGE:PEAK	00h–05h
8	10h	PEDESTAL LEVEL	7Bh–85h
9	13h	V PHASE	1F7Dh–2083h (NTSC) 1F64h–209Ch (PAL)
10	14h	MANUAL WHITE BALANCE (Mg-G)	00h–FFh
11	30h	PAN RIGHT (RELATIVE)	00h–B4h
12	31h	PAN LEFT (RELATIVE)	00h–B3h
13	32h	TILT UP (RELATIVE)	00h–B4h
14	33h	TILT DOWN (RELATIVE)	00h–B4h
15	34h	FOCUS FAR (RELATIVE)	00h–C8h
16	35h	FOCUS NEAR (RELATIVE)	00h–C8h
17	36h	ZOOM TELE (RELATIVE)	00h–64h
18	37h	ZOOM WIDE (RELATIVE)	00h–64h
19	3Ah	ExDR LEVEL	7Bh–85h
20	3Bh	B&W AUTO LEVEL	7Fh–81h
21	3Ch	MOTION DETECT LEVEL	7Bh–85h
22	3Dh	ENHANCE LEVEL	7Bh–85h
23	3Eh	COLOR LEVEL	7Bh–85h

## (1) MANUAL IRIS LEVEL

**VALUE03 command**   **CMD**   **READ:03h**   **WRITE:43h**   **ITEM:00h**

**APPLICATION** This command is used when changing or checking the absolute level of the manual iris.

**VALUE** Represents the absolute level of the manual iris. (00h–FFh)  
           00h           The iris is in its most contracted state (close)  
           |  
           FFh           Iris is opened to maximum (open)  
           At power on   The level saved with the home position is set.  
           Factory setting 7Fh is set.


**USAGE**    ⊙ When changing the absolute level of the manual iris  
               Specify the absolute level of the manual iris using VALUE.   `CONT`   `CAM`

ENQ	CMD	ITEM	VALUE
83h	43h	00h	00h–7Fh

VALUE  
00h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	00h	01h	00h–7Fh


VALUE  
80h–FFh

 The camera will set the iris to the level specified by VALUE.

⊙ When checking the absolute level of the manual iris (not available under JCCP-S or JCBP-S)

Request the absolute level of the manual iris.   `CONT`   `CAM`

ENQ	CMD	ITEM
82h	03h	00h

 The camera will notify the controller of the absolute level of the manual iris.   `CAM`   `CONT`

ENQ	CMD	ITEM	VALUE
83h	43h	00h	00h–7Fh

VALUE  
00h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	00h	01h	00h–7Fh

VALUE  
80h–FFh

**REMARKS**    ⊙ This setting can be saved as **POSITION DATA** using the TRIGGER **ENTER** or **SAVE AS POSITION** command.

⊙ This operation is available when the iris operational mode is MANUAL.  
     (The iris operational mode can be set using the VALUE02 **IRIS MODE** command.)

⊙ The manual iris can also be controlled using the TRIGGER **IRIS OPEN/CLOSE/STOP** commands.

## (2) ZOOM POSITION (POSITION SERVO)

**VALUE03 command**   **CMD**   **READ:03h**   **WRITE:43h**   **ITEM:02h**

**APPLICATION** This command is used when changing or checking the lens absolute zoom position.

**VALUE** Represents the lens absolute zoom position. (20h–17E8h)

20h      WIDE end (lens zoom) + 1x (digital zoom)

|

1702h    TELE end (lens zoom) + 1x (digital zoom)

|

17E8h    TELE end (lens zoom) + 10x (digital zoom)

At power on      The location saved with the home position is set.

Factory setting   20h (WIDE end of zoom position, 1x) is set.

### USAGE

◎ When changing the lens absolute zoom position

Specify the lens absolute zoom position using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	43h	02h	20h–7Fh

VALUE  
20h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	04h	01h–2Eh	00h–7Fh
			2Fh	00h–68h

VALUE  
80h–177Fh  
1780h–17E8h



The camera will set the zoom to the position specified by VALUE.

◎ When checking the lens absolute zoom position

Request the lens absolute zoom position.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	03h	02h



The camera will notify the controller of the zoom position.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	43h	02h	20h–7Fh

VALUE  
20h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	04h	01h–2Eh	00h–7Fh
			2Fh	00h–68h

VALUE  
80h–177Fh  
1780h–17E8h

### REMARKS

- ◎ This setting can be saved as **POSITION DATA** using the TRIGGER **ENTER** or **SAVE AS POSITION** command.
- ◎ Since a time delay arises before notification is returned when requesting the absolute zoom position, sometimes the actual position differs from that being reported due to the zoom changing while moving to a preset (home) position.
- ◎ The zoom may be operated in different ways: the relative control method that uses the VALUE03 **ZOOM TELE/WIDE (RELATIVE)** command or the speed control method that uses the TRIGGER **ZOOM TELE/WIDE/STOP** command.
- ◎ The maximum magnification of the digital zoom can be set by using the VALUE02 **DIGITAL ZOOM MAX** command.

### (3) FOCUS POSITION (POSITION SERVO)

**VALUE03 command**   **CMD**   **READ:03h**   **WRITE:43h**   **ITEM:03h**

**APPLICATION** This command is used when changing or checking the lens' absolute focus position.

**VALUE** Represents the lens' absolute focus position. (20h–0580h)  
           20h           FAR end of focus position  
           |  
           0580h       NEAR end of focus position  
 At power on   The location saved with the home position is set.  
 Factory setting 0580h (NEAR end of focus position) is set.

**USAGE**    Ⓒ When changing the lens' absolute focus position  
               Specify the lens' absolute focus position using VALUE.    <sup>CONT</sup>    <sup>CAM</sup>

ENQ	CMD	ITEM	VALUE
83h	43h	03h	20h–7Fh

VALUE  
20h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	04h	01h–0Ah	00h–7Fh
			0Bh	00h

VALUE  
80h–057Fh  
0580h

↪ The camera will set the focus to the level specified by VALUE.

Ⓒ When checking the lens' absolute focus position (not available under JCCP-S or JCBP-S)

Request the lens' absolute focus position.    <sup>CONT</sup>    <sup>CAM</sup>

ENQ	CMD	ITEM
82h	03h	03h

↪ The camera will notify the controller of the focus position.    <sup>CAM</sup>    <sup>CONT</sup>

ENQ	CMD	ITEM	VALUE
83h	43h	03h	20h–7Fh

VALUE  
20h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	04h	01h–0Ah	00h–7Fh
			0Bh	00h

VALUE  
80h–057Fh  
0580h

- REMARKS**
- Ⓒ This setting can be saved as **POSITION DATA** using the TRIGGER **ENTER** or **SAVE AS POSITION** command.
  - Ⓒ Since a time delay arises before notification is returned when requesting the absolute focus position, sometimes the actual position differs from that being reported due to the focus changing while moving to a preset (home) position or starting one-push auto focus.
  - Ⓒ One-push auto focus can be canceled when in effect by specifying a lens focus position.
  - Ⓒ The focus may be operated in different ways: the relative control method that uses the VALUE03 **FOCUS FAR/NEAR (RELATIVE)** command or the speed control method that uses the TRIGGER **FOCUS FAR/NEAR/STOP** command.

(4) PAN POSITION (POSITION SERVO)

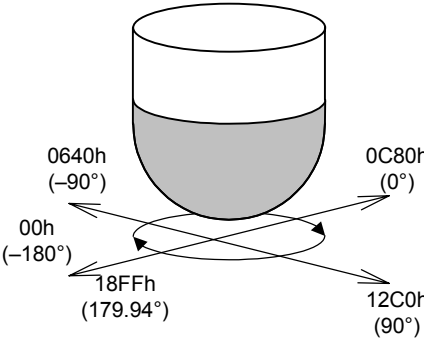
VALUE03 command    CMD    READ:03h    WRITE:43h    ITEM:04h

**APPLICATION**    This command is used when changing or checking the absolute pan position (angle of pan/tilt head in horizontal plane).

**VALUE**    Represents the pan position. (00h–18FFh)

00h	–180.00°
0640h	– 90.00°
0C80h	0.00°
12C0h	90.00°
18FFh	179.94°

The angle changes 0.056° at a time in the clockwise direction.



At power on    The location saved with the home position is set.  
Factory setting 0C80h (0°) is set.

**USAGE**    ◎ When changing the absolute pan position  
Specify the absolute pan position using VALUE.

ENQ	CMD	ITEM	VALUE
83h	43h	04h	00h–7Fh

**CONT**    **CAM**  
VALUE  
00h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	04h	01h–31h	00h–7Fh

VALUE  
80h–18FFh

↳ The camera will move to the absolute pan position specified by VALUE.

◎ When checking the absolute pan position (not available under JCCP-S or JCBP-S)

Request the absolute pan position.

**CONT**    **CAM**

ENQ	CMD	ITEM
82h	03h	04h

↳ The camera will notify the controller of the pan position.

**CAM**    **CONT**

ENQ	CMD	ITEM	VALUE
83h	43h	04h	00h–7Fh

VALUE  
00h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	04h	01h–31h	00h–7Fh

VALUE  
80h–18FFh

**REMARKS**

- ◎ This setting can be saved as **POSITION DATA** using the TRIGGER **ENTER** or **SAVE AS POSITION** command.
- ◎ The camera rotates at a speed of approximately 240°/sec.
- ◎ Since a time delay arises before notification is returned when requesting the absolute pan position, sometimes during pan operations the actual position differs from that being reported.
- ◎ AUTO PAN can be canceled when in effect by specifying an absolute pan position.
- ◎ The pan may be operated in different ways: the relative control method that uses the VALUE03 **PAN RIGHT/LEFT (RELATIVE)** command or the speed control method that uses the TRIGGER **PAN RIGHT/LEFT/STOP** command.

## (5) TILT POSITION (POSITION SERVO)

**VALUE03 command**   **CMD**   **READ:03h**   **WRITE:43h**   **ITEM:05h**

**APPLICATION** This command is used when changing or checking the absolute tilt position (angle of pan/tilt head in the vertical plane.)

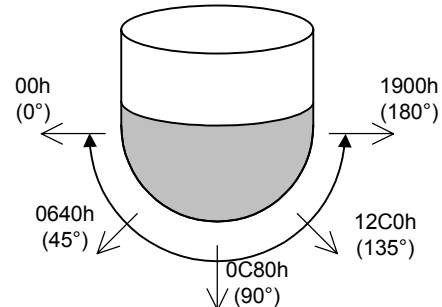
**VALUE** Represents the tilt position. (00h–1900h)

00h      0°  
|  
0640h    45°  
|  
0C80h    90°  
|  
12C0h    135°  
|  
1900h    180°

The angle changes 0.028° at a time.

At power on      The location saved with the home position is set.

Factory setting 0640h (45°) is set.



### USAGE

- ◎ When changing the absolute tilt position  
Specify the absolute tilt position using VALUE.

ENQ	CMD	ITEM	VALUE
83h	43h	05h	00h–7Fh

**CONT**   **CAM**  
VALUE  
00h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	05h	01h–31h	00h–7Fh
			32h	00h

VALUE  
80h–18FFh  
1900h

↪ The camera will move to the absolute tilt position specified by VALUE.

- ◎ When checking the absolute tilt position (not available under JCCP-S or JCBP-S)

Request the absolute tilt position.

ENQ	CMD	ITEM
82h	03h	05h

**CONT**   **CAM**

↪ The camera will notify the controller of the tilt position.

ENQ	CMD	ITEM	VALUE
83h	43h	05h	00h–7Fh

**CAM**   **CONT**  
VALUE  
00h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	05h	01h–31h	00h–7Fh
			32h	00h

VALUE  
80h–18FFh  
1900h

### REMARKS

- ◎ This setting can be saved as **POSITION DATA** using the **TRIGGER ENTER** or **SAVE AS POSITION** command.
- ◎ The camera rotates at a speed of approximately 120°/sec.
- ◎ Since a time delay arises before notification is returned when requesting the absolute tilt position, sometimes during tilt operations the actual position differs from that being reported.
- ◎ The tilt may be operated in different ways: the relative control method that uses the VALUE03 **TILT UP/DOWN (RELATIVE)** command or the speed control method that uses the **TRIGGER TILT UP/DOWN/STOP** command.
- ◎ When 0C81h to 1900h is used for VALUE, use the VALUE02 **AUTO FLIP MODE** command to set the auto flip mode to DIGITAL.

## (6) MANUAL WHITE BALANCE (R-B)

**VALUE03 command**   **CMD**   **READ:03h**   **WRITE:43h**   **ITEM:06h**

**APPLICATION** This command is used when changing or checking the R-B axis operation level for the white balance.

**VALUE** Represents the white balance R-B axis operation level. (00h–FFh)  
           00h           Corresponds to a color temperature of 2500K or less  
           |  
           FFh           Corresponds to a color temperature of 8000K or more  
           At power on   The level saved with the home position is set.  
           Factory setting 5Fh is set.

**USAGE**    ⊙ When changing the white balance R-B axis operation level  
               Specify the white balance R-B axis operation level using VALUE.

ENQ	CMD	ITEM	VALUE
83h	43h	06h	00h–7Fh

VALUE  
00h–7Fh

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE	
84h	43h	06h	01h	00h–7Fh

VALUE  
80h–FFh



The camera sets the white balance R-B axis to the level specified by VALUE.

⊙ When checking the white balance R-B axis operation level (not available under JCCP-S or JCBP-S)

Request the white balance R-B axis operation level.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	03h	06h



The camera will notify the controller of the operational level.

ENQ	CMD	ITEM	VALUE
83h	43h	06h	00h–7Fh

VALUE  
00h–7Fh

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE	
84h	43h	06h	01h	00h–7Fh

VALUE  
80h–FFh

### REMARKS

- ⊙ This setting can be saved as **POSITION DATA** using the TRIGGER **ENTER** or **SAVE AS POSITION** command.
- ⊙ The white balance operation level specified by VALUE will not result when the WHITE BALANCE operational mode is AUTO (ATW). (The WHITE BALANCE operational mode can be set using the VALUE02 **WHITE BALANCE MODE** command.)
- ⊙ The Mg-G axis operation for the white balance can be set by using the VALUE03 **MANUAL WHITE BALANCE (Mg-G)** command.
- ⊙ The manual adjustment is facilitated if automatic adjustment is first performed by using the TRIGGER **ONE PUSH AUTO WHITE BALANCE** command before proceeding to manually adjust the white balance by using this command and the VALUE03 **MANUAL WHITE BALANCE (Mg-G)** command.
- ⊙ The correspondence given between VALUE and color temperature are only guidelines. Please adjust using actual video. (Lower VALUE if the screen appears too red and raise the VALUE if it appears too blue.)

## (7) AVERAGE: PEAK

**VALUE03 command**   **CMD**   **READ:03h**   **WRITE:43h**   **ITEM:0Ah**

**APPLICATION** This command is used when changing or checking the calculation ratio between the average and peak values to use with auto iris light measurement data.

**VALUE** Represents the calculation ratio between the average and peak values to use with auto iris light measurement data. (00h–05h)

00h	Average value 10: Peak value 0
01h	Average value 9: Peak value 1
02h	Average value 8: Peak value 2
03h	Average value 7: Peak value 3
04h	Average value 6: Peak value 4
05h	Average value 5: Peak value 5

At power on    The calculation ratio saved as CAMERA DATA is set.

Factory setting   02h (8:2) is set.

**USAGE**    © When changing the calculation ratio between the average and peak values to use with auto iris light measurement data

Specify the calculation ratio between the average and peak values to use with auto iris light measurement data using VALUE.    CONT    CAM

ENQ	CMD	ITEM	VALUE
83h	43h	0Ah	00h–05h



The camera will calculate average and peak values using the calculation ratio specified by VALUE.

© When checking the calculation ratio between the average and peak values to use with auto iris light measurement data (not available under JCCP-S or JCBP-S)

Request the calculation ratio between the average and peak values to use with auto iris light measurement data.    CONT    CAM

ENQ	CMD	ITEM
82h	03h	0Ah



The camera will notify the controller of the calculation ratio. CAM    CONT

ENQ	CMD	ITEM	VALUE
83h	43h	0Ah	00h–05h

**REMARKS**    © This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

© The calculation ratio between the average and peak values to use with auto iris light measurement data is in effect when the operational mode of the iris is set to AUTO, AUTO (+) or AUTO (–). (The iris operation mode can be set by using the VALUE02 **IRIS MODE** command.)

© Although the calculation ratio between the average and peak values to use with auto iris light measurement data functions even during AGC/SENSE UP operations, it does not function during ExDR operations.



## (8) PEDESTAL LEVEL

**VALUE03 command**   **CMD**   **READ:03h**   **WRITE:43h**   **ITEM:10h**

**APPLICATION** This command is used when changing or checking the reference level (pedestal level) for black in the images.

**VALUE** Represents the pedestal level. (7Bh–85h)

7Bh      Minimum (–5)

|

80h      Standard (NORMAL)

|

85h      Maximum (5)

At power on      The pedestal level saved as CAMERA DATA is set.

Factory setting   80h (standard) is set.

**USAGE**

◎ When changing the pedestal level

Specify the pedestal level using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	43h	10h	7Bh–85h



The camera sets the reference for black in the images to the level specified by VALUE.

◎ When checking the pedestal level (not available under JCCP-S or JCBP-S)

Request the pedestal level.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	03h	10h



The camera will notify the controller of the pedestal level.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	43h	10h	7Bh–85h

**REMARKS**

◎ This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

◎ Since the pedestal level changes in accordance with the subject brightness during auto black control, there may be no change on the image even when the pedestal level is changed by this command. (The auto black control operational mode can be set by using the VALUE02 **AUTO BLACK CONTROL MODE** command.)

## (9) V PHASE

**VALUE03 command**   **CMD**   **READ:03h**   **WRITE:43h**   **ITEM:13h**

**APPLICATION** This command is used when changing or checking the vertical phase difference between the power input and video signal during line lock (mode).

**VALUE** Represents the vertical phase difference. (1F7Dh–2083h, 1F64h–209Ch)  
 1F7Dh (NTSC), 1F64h (PAL) Approx.  $-180^{\circ}$  from the standard position  
 |  
 1FBEh (NTSC), 1FB2h (PAL) Approx.  $-90^{\circ}$  from the standard position  
 |  
 2000h Standard position (zero crosspoints)  
 |  
 2041h (NTSC), 204Eh (PAL) Approx.  $90^{\circ}$  from the standard position  
 |  
 2083h (NTSC), 209Ch (PAL) Approx.  $178.6^{\circ}$  from the standard position

At power on The phase difference saved as CAMERA DATA is set.

Factory setting 2000h (standard position) is set.

**USAGE** ◎ When changing the vertical phase difference between the power input and video signal during line lock (mode)  
 Specify the vertical phase difference between the power input and video signal using VALUE. CONT CAM

ENQ	CMD	ITEM	VALUE	
84h	43h	13h	3Eh	64h–7Fh
			3Fh–40h	00h–7Fh
			41h	64h–1Ch

VALUE  
 1F64h–1F7Fh  
 1F80h–207Fh  
 2080h–209Ch



The camera will set the vertical phase difference between the power input and video signal to the level specified by VALUE.

◎ When checking the vertical phase difference between the power input and video signal during line lock (mode) (not available under JCCP-S or JCBP-S)  
 Request the vertical phase difference between the power input and video signal. CONT CAM

ENQ	CMD	ITEM
82h	03h	13h



The camera will notify the controller of the vertical phase difference. CAM CONT

ENQ	CMD	ITEM	VALUE	
84h	43h	13h	3Eh	64h–7Fh
			3Fh–40h	00h–7Fh
			41h	64h–1Ch

VALUE  
 1F64h–1F7Fh  
 1F80h–207Fh  
 2080h–209Ch

**REMARKS** ◎ This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.  
 ◎ This setting is in effect during line lock (mode). (The sync mode can be set using the DIP switches on the ceiling mount terminal strip setting switch panel.)

## (10) MANUAL WHITE BALANCE (Mg-G)

**VALUE03 command CMD READ:03h WRITE:43h ITEM:14h**

**APPLICATION** This command is used when changing or checking the white balance Mg-G axis operation level.

**VALUE** Represents the white balance Mg-G axis operation level. (00h–FFh)

00h Enhances green.

|

FFh Enhances purple.

At power on The level saved with the home position is set.

Factory setting 3Fh is set.

**USAGE**

- ◎ When changing the white balance Mg-G axis operation level  
Specify the white balance Mg-G axis operation level using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	43h	14h	00h–7Fh

VALUE  
00h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	14h	01h	00h–7Fh

VALUE  
80h–FFh



The camera sets the white balance Mg-G axis to the level specified by VALUE.

- ◎ When checking the white balance Mg-G axis operation level (not available under JCCP-S or JCBP-S)

Request the white balance Mg-G axis operation level.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	03h	14h



The camera will notify the controller of the operational level.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	43h	14h	00h–7Fh

VALUE  
00h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	14h	01h	00h–7Fh

VALUE  
80h–FFh

**REMARKS**

- ◎ This setting can be saved as **POSITION DATA** using the TRIGGER **ENTER** or **SAVE AS POSITION** command.
- ◎ The white balance operation level specified by VALUE will not result when the WHITE BALANCE operational mode is AUTO (ATW). (The WHITE BALANCE operational mode can be set using the VALUE02 **WHITE BALANCE MODE** command.)
- ◎ The white balance R-B axis operation can be set using the VALUE03 **MANUAL WHITE BALANCE (R-B)** command.
- ◎ The manual adjustment is facilitated if automatic adjustment is first performed by using the TRIGGER **ONE PUSH AUTO WHITE BALANCE** command before proceeding to manually adjust the white balance by using this command and the VALUE03 **MANUAL WHITE BALANCE (R-B)** command.

## (11) PAN RIGHT (RELATIVE)

**VALUE03 command** **CMD** **WRITE:43h** **ITEM:30h**

**APPLICATION** This command is used when moving the relative position of the pan position (angle of pan/tilt head in horizontal plane) in the clockwise direction.

**VALUE** Represents the pan position angle. (00h–B4h)  
 00h      Approx. 0°  
 |  
 B4h      Approx. 180°  
 The angle changes approx. 1° at a time.

### USAGE

Specify the pan position angle using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	43h	30h	00h–7Fh

VALUE  
00h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	30h	01h	00h–34h

VALUE  
80h–B4h



Rotates the pan head of the camera clockwise through the angle specified by VALUE.

### REMARKS

- ◎ This command is not in effect during AUTO PAN mode.
- ◎ The pan may be operated in different ways: the absolute position control method that uses the VALUE03 **PAN POSITION** command or the speed control method that uses the TRIGGER **PAN RIGHT/LEFT/STOP** command.

## (12) PAN LEFT (RELATIVE)

**VALUE03 command** **CMD** **WRITE:43h** **ITEM:31h**

**APPLICATION** This command is used when moving the relative position of the pan position (angle of pan/tilt head in horizontal plane) in the counterclockwise direction.

**VALUE** Represents the pan position angle. (00h–B3h)  
 00h      Approx. 0°  
 |  
 B3h      Approx. 179°  
 The angle changes approx. 1° at a time.

### USAGE

Specify the pan position angle using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	43h	31h	00h–7Fh

VALUE  
00h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	31h	01h	00h–33h

VALUE  
80h–B3h



Rotates the pan head of the camera counterclockwise through the angle specified by VALUE.

### REMARKS

- ◎ This command is not in effect during AUTO PAN mode.
- ◎ The pan may be operated in different ways: the absolute position control method that uses the VALUE03 **PAN POSITION** command or the speed control method that uses the TRIGGER **PAN RIGHT/LEFT/STOP** command.

## (13) TILT UP (RELATIVE)

**VALUE03 command** **CMD** **WRITE:43h** **ITEM:32h**

**APPLICATION** This command is used when moving the relative position of the tilt position (angle of pan/tilt head in vertical plane) upward.

**VALUE** Represents the tilt position angle. (00h–B4h)  
 00h Approx. 0°  
 |  
 B4h Approx. 180°  
 The angle changes approx. 1° at a time.

### USAGE


Specify the tilt position angle using VALUE.

ENQ	CMD	ITEM	VALUE
83h	43h	32h	00h–7Fh

**CONT** **CAM**  
 VALUE  
 00h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	32h	01h	00h–34h

VALUE  
 80h–B4h

 Rotates the tilt head of the camera upward through the angle specified by VALUE.

**REMARKS** ◎ The tilt may be operated in different ways: the absolute position control method that uses the VALUE03 **TILT POSITION** command or the speed control method that uses the TRIGGER **TILT UP/DOWN/STOP** command.

## (14) TILT DOWN (RELATIVE)

**VALUE03 command** **CMD** **WRITE:43h** **ITEM:33h**

**APPLICATION** This command is used when moving the relative position of the tilt position (angle of pan/tilt head in vertical plane) downward.

**VALUE** Represents the tilt position angle. (00h–B4h)  
 00h Approx. 0°  
 |  
 B4h Approx. 180°  
 The angle changes approx. 1° at a time.

### USAGE


Specify the tilt position angle using VALUE.

ENQ	CMD	ITEM	VALUE
83h	43h	33h	00h–7Fh

**CONT** **CAM**  
 VALUE  
 00h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	33h	01h	00h–34h

VALUE  
 80h–B4h

 Rotates the tilt head of the camera downward through the angle specified by VALUE.

**REMARKS** ◎ The tilt may be operated in different ways: the absolute position control method that uses the VALUE03 **TILT POSITION** command or the speed control method that uses the TRIGGER **TILT UP/DOWN/STOP** command.

## (15) FOCUS FAR (RELATIVE)

**VALUE03 command CMD WRITE:43h**

**ITEM:34h**

**APPLICATION** This command is used when moving the relative position of the lens focus position in the FAR direction.

**VALUE** Represents the amount of focus movement. (00h–C8h)

00h	Does not move.
01h	Minimum step (1/200 of the maximum step)
C8h	Maximum step (moving from the NEAR end to the FAR end)

### USAGE

Specify the amount of focus movement using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	43h	34h	00h–7Fh

VALUE  
00h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	34h	01h	00h–48h

VALUE  
80h–C8h



Moves the focus of the camera in the FAR direction by the amount specified by VALUE.

**REMARKS** © The focus may be operated in different ways: the absolute position control method that uses the VALUE03 **FOCUS POSITION** command or the speed control method that uses the TRIGGER **FOCUS FAR/NEAR/STOP** command.

## (16) FOCUS NEAR (RELATIVE)

**VALUE03 command CMD WRITE:43h**

**ITEM:35h**

**APPLICATION** This command is used when moving the relative position of the lens focus position in the NEAR direction.

**VALUE** Represents the amount of focus movement. (00h–C8h)

00h	Does not move.
01h	Minimum step (1/200 of the maximum step)
C8h	Maximum step (moving from the FAR end to the NEAR end)

### USAGE

Specify the amount of focus movement using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	43h	35h	00h–7Fh

VALUE  
00h–7Fh

ENQ	CMD	ITEM	VALUE	
84h	43h	35h	01h	00h–48h

VALUE  
80h–C8h



Moves the focus of the camera in the NEAR direction by the amount specified by VALUE.

**REMARKS** © The focus may be operated in different ways: the relative absolute position control method that uses the VALUE03 **FOCUS POSITION** command or the speed control method that uses the TRIGGER **FOCUS FAR/NEAR/STOP** command.

## (17) ZOOM TELE (RELATIVE)

**VALUE03 command CMD WRITE:43h**

**ITEM:36h**

**APPLICATION** This command is used when moving the relative position of the ZOOM position in the TELE direction.

**VALUE** Represents the amount of zoom movement. (00h–64h)

00h	Does not move.
01h	Minimum step (1/100 of the maximum step)
64h	Maximum step
	Lens zoom: From WIDE end to TELE end
	Digital zoom: From 1x to 10x

**USAGE** Specify the amount of zoom movement using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	43h	36h	00h–64h



Moves the zoom of the camera in the TELE direction by the amount specified by VALUE.

**REMARKS**

- ◎ The zoom may be operated in different ways: the absolute position control method that uses the VALUE03 **ZOOM POSITION** command or the speed control method that uses the TRIGGER **ZOOM TELE/WIDE/STOP** command.
- ◎ The maximum magnification of the digital zoom can be set by using the VALUE02 **DIGITAL ZOOM MAX** command.
- ◎ The zoom operation is stopped when the lens zoom reaches the TELE end. If you want to perform digital zoom, send the command a second time.

## (18) ZOOM WIDE (RELATIVE)

**VALUE03 command CMD WRITE:43h**

**ITEM:37h**

**APPLICATION** This command is used when moving the relative position of the ZOOM position in the WIDE direction.

**VALUE** Represents the amount of zoom movement. (00h–64h)

00h	Does not move.
01h	Minimum step (1/100 of the maximum step)
64h	Maximum step
	Lens zoom: From TELE end to WIDE end
	Digital zoom: From 10x to 1x

**USAGE** Specify the amount of zoom movement using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	43h	37h	00h–64h



Moves the zoom of the camera in the WIDE direction by the amount specified by VALUE.

**REMARKS**

- ◎ The zoom may be operated in different ways: the absolute position control method that uses the VALUE03 **ZOOM POSITION** command or the speed control method that uses the TRIGGER **ZOOM TELE/WIDE/STOP** command.
- ◎ The maximum magnification of the digital zoom can be set by using the VALUE02 **DIGITAL ZOOM MAX** command.
- ◎ The zoom operation is stopped when the digital zoom reaches 1x. If you want to perform lens zoom, send the command a second time.

## (19) ExDR LEVEL

**VALUE03 command**   **CMD**   **READ:03h**   **WRITE:43h**   **ITEM:3Ah**

**APPLICATION** This command is used when changing or checking proportion of low and high brightness areas during ExDR operations.

**VALUE** Represents the proportion of low and high brightness areas during ExDR operations. (7Bh–85h)

7Bh      Increases the proportion of high brightness areas. (–5)

|  
80h      Standard (NORMAL)


|  
85h      Increases the proportion of low brightness areas. (5)

At power on      The proportion saved as CAMERA DATA is used.

Factory setting 80h (standard) is set.

**USAGE**      © When changing the proportion of low and high brightness areas during ExDR operations  
Specify the proportion of low and high brightness areas during ExDR operations using VALUE.      CONT      CAM

ENQ	CMD	ITEM	VALUE
83h	43h	3Ah	7Bh–85h

 Sets the proportion of low to high brightness areas for the camera according to the proportion specified by VALUE.

© When checking the proportion of low and high brightness areas during ExDR operations (not available under JCCP-S or JCBP-S)  
Request the proportion of low and high brightness areas during ExDR operations.      CONT      CAM

ENQ	CMD	ITEM
82h	03h	3Ah

 The camera will notify the controller of the proportion.      CAM      CONT

ENQ	CMD	ITEM	VALUE
83h	43h	3Ah	7Bh–85h

**REMARKS**      © This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

© The ExDR operational mode can be set using the VALUE02 **ExDR MODE** command.



## (20) B&W AUTO LEVEL

**VALUE03 command** **CMD READ:03h WRITE:43h**

**ITEM:3Bh**

**APPLICATION** This command is used to change or check the switching level used when the black and white mode switching function is set to AUTO.

**VALUE** Represents the switching level. (7Fh–81h)

7Fh	LOW	Black and white results at a lower brightness level than standard.
80h	NORMAL	Standard
81h	HIGH	Black and white results at a higher brightness level than standard.

At power on The switching level saved as CAMERA DATA is set.

Factory setting 80h (NORMAL) is set.

**USAGE** ◎ When changing the switching level used when the black and white mode switching function is set to AUTO  
Specify the switching level using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	43h	3Bh	7Bh–85h



The camera will switch between the black and white mode and the color mode according to the switching level specified by VALUE.

◎ When checking the switching level used when the black and white mode switching function is set to AUTO (not available under JCCP-S or JCBP-S)  
Request the switching level.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	03h	3Bh



The camera will notify the switching level.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	43h	3Bh	7Bh–85h

**REMARKS**

- ◎ This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.
- ◎ The black and white mode switching function can be set using the VALUE02 **B&W MODE** command.

## (21) MOTION DETECT LEVEL

**VALUE03 command**   **CMD**   **READ:03h**   **WRITE:43h**   **ITEM:3Ch**

**APPLICATION** This command is used when changing or checking the sensitivity of the motion detection function

**VALUE** Represents the detection sensitivity for motion detection. (7Bh–85h)

7Bh	Low sensitivity (–5)
80h	Standard sensitivity (NORMAL)
85h	High sensitivity (5)

At power on The detection sensitivity saved as CAMERA DATA is used.

Factory setting 80h (standard sensitivity) is set.

**USAGE**    © When changing the detection sensitivity for motion detection  
Specify the detection sensitivity using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	43h	3Ch	7Bh–85h



The camera performs motion detection at the detection sensitivity specified by VALUE.

© When checking the detection sensitivity for motion detection (not available under JCCP-S or JCBP-S)  
Request the detection sensitivity.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	03h	3Ch



The camera will notify the controller of the detection sensitivity.

**CAM**

**CONT**

ENQ	CMD	ITEM	VALUE
83h	43h	3Ch	7Bh–85h

### REMARKS

- © This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.
- © Operational mode of the motion detection can be set by using the VALUE02 **MOTION DETECT MODE** command.
- © The alarm character string display time when motion has been detected can be set by using the VALUE03 **MOTION DETECT ALARM DISPLAY TIME** command.
- © When the camera is at a position other than the home position, the motion detection function will not work.

(22) ENHANCE LEVEL

VALUE03 command    **CMD**    **READ:03h**    **WRITE:43h**    **ITEM:3Dh**

**APPLICATION**

This command is used when changing or checking the aperture/contour (hard/soft setting for picture quality).

**VALUE**

Represents the aperture/contour status. (7Bh–85h)

7Bh

Soft (–5)

|

80h

Standard (NORMAL)

|

85h

Hard (5)

At power on    The mode saved as CAMERA DATA is set.

Factory setting    80h (standard) is set.

**USAGE**

© When changing the aperture/contour status

Specify aperture/contour status using VALUE.

CONT

CAM

ENQ	CMD	ITEM	VALUE
83h	43h	3Dh	7Bh–85h

The camera will put the aperture/contour into the status specified by VALUE.

© When checking the aperture/contour status (not available under JCCP-S or JCBP-S)

Request the aperture/contour status.

CONT

CAM

ENQ	CMD	ITEM
82h	03h	3Dh

The camera will notify the controller of the aperture/contour status.

CAM

CONT

ENQ	CMD	ITEM	VALUE
83h	43h	3Dh	7Bh–85h

**REMARKS**

© This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

## (23) COLOR LEVEL

**VALUE03 command**   **CMD**   **READ:03h**   **WRITE:43h**   **ITEM:3Eh**

**APPLICATION** This command is used when changing or checking a color gain level.

**VALUE** Represents the color gain level. (7Bh–85h)

7Bh            Minimum gain (–5)

|

80h            Standard gain (NORMAL)

|

85h            Maximum gain (5)

At power on    The color gain level saved as CAMERA DATA is set.

Factory setting 80h (standard) is set.

**USAGE**    © When changing the color gain level  
Specify color gain level using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	43h	3Eh	7Bh–85h



The camera will set the level to the color gain specified by VALUE.

© When checking the color gain level (not available under JCCP-S or JCBP-S)  
Request the color gain level.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	03h	3Eh



The camera will notify the controller of the color gain level. **CAM**    **CONT**

ENQ	CMD	ITEM	VALUE
83h	43h	3Eh	7Bh–85h

**REMARKS**    © This setting can be saved as **CAMERA DATA** using the TRIGGER ENTER command.

## 5 TRIGGER COMMANDS

TRIGGER commands are used to activate the operation defined for the ITEM byte. VALUE represents a value related to the operation such as movement speed.

		Command Code CMD	
TRIGGER		WRITE:45h	
	ITEM	Name	VALUE Range
1	00h	PAN RIGHT	10h–1Fh
2	01h	PAN LEFT	10h–1Fh
3	02h	PAN STOP	
4	03h	TILT UP	10h–1Fh
5	04h	TILT DOWN	10h–1Fh
6	05h	TILT STOP	
7	06h	IRIS OPEN	
8	07h	IRIS CLOSE	
9	08h	IRIS STOP	
10	09h	FOCUS FAR	00h–03h
11	0Ah	FOCUS NEAR	00h–03h
12	0Bh	FOCUS STOP	
13	0Ch	ZOOM TELE	00h–03h
14	0Dh	ZOOM WIDE	00h–03h
15	0Eh	ZOOM STOP	
16	0Fh	ALL STOP	
17	16h	ENTER	00h, 01h, 03h–06h, 08h
18	17h	ONE PUSH AUTO WHITE BALANCE	
19	19h-1Bh	AUX 1-3	00h, 01h
20	1Dh	CLEAR	00h–3Fh, 42h
21	1Eh	AUTO PAN POSITION SET	00h, 01h
22	1Fh	ONE PUSH AUTO FOCUS	
23	25h	EDITING ALARM SELECT	01h–0Ah
24	26h	FLIP START	
25	27h	ID DISPLAY	
26	28h	SAVE AS POSITION	00h–3Fh
27	29h	MENU	
28	2Ah	SET	
29	2Bh	AREA SELECT	00h–0Fh
30	2Ch	SHIFT POSITION	00h, 01h
31	2Dh	PANIC ALARM RESET	
32	30h	CHARACTER CODE SET	00h, 01h
33	31h	EXTEND POSITION CLEAR	00h–63h
34	32h	ALL CLEAR	00h, 01h
35	33h	EXTEND SHIFT POSITION	00h, 01h

## (1) PAN RIGHT (SPEED SERVO)

**TRIGGER command** **CMD** **WRITE:45h**

**ITEM:00h**

**APPLICATION** This command is used when panning right (rotating the pan/tilt head in the horizontal plane to the right).

**VALUE** Represents the panning speed of the pan/tilt head. (10h–1Fh)

Correction Mode VALUE	OFF	ON		
		ZOOM Position		
		TELE region	MIDDLE region	WIDE region
10h, 11h	Approx. 1°/sec	Approx. 0.5°/sec	Approx. 1°/sec	Approx. 3°/sec
12h, 13h	Approx. 3°/sec	Approx. 1°/sec	Approx. 3°/sec	Approx. 7°/sec
14h, 15h	Approx. 7°/sec	Approx. 1°/sec	Approx. 7°/sec	Approx. 20°/sec
16h, 17h	Approx. 12°/sec	Approx. 3°/sec	Approx. 12°/sec	Approx. 60°/sec
18h, 19h	Approx. 20°/sec	Approx. 3°/sec	Approx. 20°/sec	Approx. 80°/sec
1Ah, 1Bh	Approx. 40°/sec	Approx. 7°/sec	Approx. 40°/sec	Approx. 100°/sec
1Ch, 1Dh	Approx. 60°/sec	Approx. 7°/sec	Approx. 60°/sec	Approx. 120°/sec
1Eh, 1Fh	Approx. 80°/sec	Approx. 12°/sec	Approx. 80°/sec	Approx. 140°/sec

### USAGE

Specify the panning speed using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	00h	10h–1Fh



The camera will pan right at the speed specified by VALUE.

### REMARKS

- ◎ The camera will continue panning right until a pan operation is performed with the VALUE02 **PRESET POSITION SELECT** or **AUTO PAN** command, the VALUE03 **PAN POSITION** or **PAN RIGHT/LEFT (RELATIVE)** command, or the TRIGGER **PAN LEFT/STOP**, **ALL STOP** or **SHIFT POSITION** command.
- ◎ This command is not in effect during AUTO PAN mode.
- ◎ Correction mode can be turned ON and OFF using the VALUE02 **VARIABLE PAN/TILT SPEED** command.
- ◎ The pan/tilt head may be rotated in the horizontal plane (panning) in different ways: the absolute control method that uses the VALUE03 **PAN POSITION** command or the relative control method that uses the VALUE03 **PAN RIGHT/LEFT (RELATIVE)** command.
- ◎ Used for operating the menu (selecting setting values, moving the cursor, etc.) while the built-in menu is displayed. Panning does not function.

## (2) PAN LEFT (SPEED SERVO)

**TRIGGER command** **CMD** **WRITE:45h**
**ITEM:01h**

**APPLICATION** This command is used when panning left (rotating the pan/tilt head in the horizontal plane to the left).

**VALUE** Represents the panning speed of the pan/tilt head. (10h–1Fh)

Correction Mode VALUE	OFF	ON		
		ZOOM Position		
		TELE region	MIDDLE region	WIDE region
10h, 11h	Approx. 1°/sec	Approx. 0.5°/sec	Approx. 1°/sec	Approx. 3°/sec
12h, 13h	Approx. 3°/sec	Approx. 1°/sec	Approx. 3°/sec	Approx. 7°/sec
14h, 15h	Approx. 7°/sec	Approx. 1°/sec	Approx. 7°/sec	Approx. 20°/sec
16h, 17h	Approx. 12°/sec	Approx. 3°/sec	Approx. 12°/sec	Approx. 60°/sec
18h, 19h	Approx. 20°/sec	Approx. 3°/sec	Approx. 20°/sec	Approx. 80°/sec
1Ah, 1Bh	Approx. 40°/sec	Approx. 7°/sec	Approx. 40°/sec	Approx. 100°/sec
1Ch, 1Dh	Approx. 60°/sec	Approx. 7°/sec	Approx. 60°/sec	Approx. 120°/sec
1Eh, 1Fh	Approx. 80°/sec	Approx. 12°/sec	Approx. 80°/sec	Approx. 140°/sec

### USAGE

Specify the panning speed using VALUE.

CONT

CAM

ENQ	CMD	ITEM	VALUE
83h	45h	01h	10h–1Fh



The camera will pan left at the speed specified by VALUE.

### REMARKS

- ◎ The camera will continue panning left until a pan operation is performed with the VALUE02 **PRESET POSITION SELECT** or **AUTO PAN** command, the VALUE03 **PAN POSITION** or **PAN RIGHT/LEFT (RELATIVE)** command, or the TRIGGER **PAN RIGHT/STOP**, **ALL STOP** or **SHIFT POSITION** command.
- ◎ This command is not in effect during AUTO PAN mode.
- ◎ Correction mode can be turned ON and OFF using the VALUE02 **VARIABLE PAN/TILT SPEED** command.
- ◎ The pan/tilt head may be rotated in the horizontal plane (panning) in different ways: the absolute control method that uses the VALUE03 **PAN POSITION** command or the relative control method that uses the VALUE03 **PAN RIGHT/LEFT (RELATIVE)** command.
- ◎ Used for operating the menu (selecting setting values, moving the cursor, etc.) while the built-in menu is displayed. Panning does not function.

### (3) PAN STOP (SPEED SERVO)

**TRIGGER command** **CMD WRITE:45h** **ITEM:02h**

**APPLICATION** This command is used when stopping panning (rotating of the pan/tilt head in the horizontal plane).

**VALUE** None.

**USAGE**

Specify that pan/tilt head stop rotating in the horizontal plane (panning).

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	45h	02h



The camera will stop rotating in the horizontal plane (panning).

**REMARKS**

- ◎ This command is not in effect during AUTO PAN mode.
- ◎ The pan/tilt head may be rotated in the horizontal plane (panning) in different ways: the absolute control method that uses the VALUE03 **PAN POSITION** command or the relative control method that uses the VALUE03 **PAN RIGHT/LEFT (RELATIVE)** command.



## (4) TILT UP (SPEED SERVO)

**TRIGGER command CMD WRITE:45h**
**ITEM:03h**

**APPLICATION** This command is used when tilting up (rotating the pan/tilt head upward in the vertical plane).

**VALUE** Represents the tilting speed of the pan/tilt head. (10h–1Fh)

Correction Mode VALUE	OFF	ON		
		ZOOM Position		
		TELE region	MIDDLE region	WIDE region
10h, 11h	Approx. 0.5°/sec	Approx. 0.5°/sec	Approx. 0.5°/sec	
12h, 13h	Approx. 1°/sec	Approx. 1°/sec	Approx. 1°/sec	
14h, 15h	Approx. 3°/sec	Approx. 3°/sec	Approx. 3°/sec	
16h, 17h	Approx. 7°/sec	Approx. 7°/sec	Approx. 7°/sec	
18h, 19h	Approx. 16°/sec		Approx. 16°/sec	
1Ah, 1Bh	Approx. 26°/sec		Approx. 26°/sec	
1Ch, 1Dh	Approx. 42°/sec		Approx. 42°/sec	
1Eh, 1Fh	Approx. 60°/sec		Approx. 60°/sec	

### USAGE

Specify the tilting speed using VALUE.

CONT

CAM

ENQ	CMD	ITEM	VALUE
83h	45h	03h	10h–1Fh



The camera will tilt upward at the speed specified by VALUE.

### REMARKS

- ◎ The camera will continue tilting upward until a tilt operation is performed with the VALUE02 **PRESET POSITION SELECT** command, the VALUE03 **TILT POSITION** or **TILT UP/DOWN (RELATIVE)** command, or the TRIGGER **TILT DOWN/STOP, ALL STOP** or **SHIFT POSITION** command or until the 0° position is reached.
- ◎ Correction mode can be turned ON and OFF using the VALUE02 **VARIABLE PAN/TILT SPEED** command.
- ◎ The pan/tilt head may be rotated in the vertical plane (tilting) in different ways: the absolute control method that uses the VALUE03 **TILT POSITION** command or the relative control method that uses the VALUE03 **TILT UP/DOWN (RELATIVE)** command.
- ◎ Used for operating the menu (selecting setting items, moving the cursor, etc.) while the built-in menu is displayed. Tilting does not function.

## (5) TILT DOWN (SPEED SERVO)

**TRIGGER command CMD WRITE:45h**
**ITEM:04h**

**APPLICATION** This command is used when tilting down (rotating the pan/tilt head downward in the vertical plane).

**VALUE** Represents the tilting speed of the pan/tilt head. (10h–1Fh)

Correction Mode VALUE	OFF	ON		
		ZOOM Position		
		TELE region	MIDDLE region	WIDE region
10h, 11h	Approx. 0.5°/sec	Approx. 0.5°/sec	Approx. 0.5°/sec	
12h, 13h	Approx. 1°/sec	Approx. 1°/sec	Approx. 1°/sec	
14h, 15h	Approx. 3°/sec	Approx. 3°/sec	Approx. 3°/sec	
16h, 17h	Approx. 7°/sec	Approx. 7°/sec	Approx. 7°/sec	
18h, 19h	Approx. 16°/sec		Approx. 16°/sec	
1Ah, 1Bh	Approx. 26°/sec		Approx. 26°/sec	
1Ch, 1Dh	Approx. 42°/sec		Approx. 42°/sec	
1Eh, 1Fh	Approx. 60°/sec		Approx. 60°/sec	

### USAGE

Specify the tilting speed using VALUE.

**CONT**
**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	04h	10h–1Fh



The camera will tilt downward at the speed specified by VALUE.

### REMARKS

- ◎ The camera will continue tilting downward until a tilt operation is performed with the VALUE02 **PRESET POSITION SELECT** command, the VALUE03 **TILT POSITION** or **TILT UP/DOWN (RELATIVE)** command, or the TRIGGER **TILT UP/STOP**, **ALL STOP** or **SHIFT POSITION** command or until the 90° position is reached.
- ◎ Correction mode can be turned ON and OFF using the VALUE02 **VARIABLE PAN/TILT SPEED** command.
- ◎ The pan/tilt head may be rotated in the vertical plane (tilting) in different ways: the absolute control method that uses the VALUE03 **TILT POSITION** command or the relative control method that uses the VALUE03 **TILT UP / DOWN (RELATIVE)** command.
- ◎ Used for using the menu (selecting setting items, moving the cursor, etc.) while the built-in menu is displayed. Tilting does not function.

## (6) TILT STOP (SPEED SERVO)

**TRIGGER command** **CMD** **WRITE:45h** **ITEM:05h**

**APPLICATION** This command is used when stopping tilting (rotation of the pan/tilt head in the vertical plane).

**VALUE** None.

**USAGE**

Specify that pan/tilt head stop rotating in the vertical plane (tilting).

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	45h	05h



The camera will stop rotating in the vertical plane (tilting).

**REMARKS**

- ◎ The pan/tilt head may be rotated in the vertical plane (tilting) in different ways:  
the absolute control method that uses the VALUE03 **TILT POSITION** command  
or the relative control method that uses the VALUE03 **TILT UP / DOWN (RELATIVE)** command.

## (7) IRIS OPEN

**TRIGGER command** **CMD** **WRITE:45h** **ITEM:06h**

**APPLICATION** This command is used when opening the lens iris.

**VALUE** None.

**USAGE**

Specify that the lens iris be opened.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	45h	06h



The camera will open the iris.

**REMARKS**

- ◎ The camera will continue opening the iris until an iris operation is performed with the VALUE02 **PRESET POSITION SELECT** command, the VALUE03 **MANUAL IRIS LEVEL** command, or the **TRIGGER IRIS CLOSE/STOP, ALL STOP** or **SHIFT POSITION** command or until the LIMIT (fully open) position is reached.
- ◎ There is another method of controlling iris operations using the VALUE03 **MANUAL IRIS LEVEL** command.
- ◎ This operation is available when the iris operational mode is MANUAL.
- ◎ The convergence level for the auto iris rises if the iris operational mode is set to AUTO, AUTO (+) or AUTO (-).
- ◎ The iris operational mode can be set using the VALUE02 **IRIS MODE** command.
- ◎ The iris does not function while the built-in menu is displayed.

## (8) IRIS CLOSE

**TRIGGER command** **CMD** **WRITE:45h** **ITEM:07h**

**APPLICATION** This command is used when closing the lens iris.

**VALUE** None.

**USAGE**

Specify that the lens iris be closed.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	45h	07h



The camera will close the iris.

**REMARKS**

- ◎ The camera will continue closing the iris until an iris operation is performed with the VALUE02 **PRESET POSITION SELECT** command, the VALUE03 **MANUAL IRIS LEVEL** command, or the **TRIGGER IRIS OPEN/STOP, ALL STOP** or **SHIFT POSITION** command or until the LIMIT (fully closed) position is reached.
- ◎ There is another method of controlling iris operations using the VALUE03 **MANUAL IRIS LEVEL** command.
- ◎ This operation is available when the iris operational mode is MANUAL.
- ◎ The convergence level for the auto iris lowers if the iris operational mode is set to AUTO, AUTO (+) or AUTO (-).
- ◎ The iris operational mode can be set using the VALUE02 **IRIS MODE** command.
- ◎ The iris does not function while the built-in menu is displayed.

## (9) IRIS STOP

**TRIGGER command** **CMD** **WRITE:45h** **ITEM:08h**

**APPLICATION** This command is used when stopping the open/close operation of the lens iris.

**VALUE** None.

**USAGE**

Specify that opening/closing of the lens iris stop.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	45h	08h



The camera will stop opening/closing the iris.

**REMARKS**

- ◎ There is another method of controlling iris operations using the VALUE03 **MANUAL IRIS LEVEL** command.
- ◎ The convergence level will stop changing if it is currently changing by TRIGGER **IRIS OPEN/CLOSE** command while the iris operational mode is AUTO, AUTO (+) or AUTO (-).
- ◎ The iris operational mode can be set using the VALUE02 **IRIS MODE** command.

## (10) FOCUS FAR (SPEED SERVO)

**TRIGGER command** **CMD** **WRITE:45h** **ITEM:09h**

**APPLICATION** This command is used when focusing the lens in the FAR direction.

**VALUE**

Represents the lens absolute motion speed. (00h–03h)

00h Speed requiring approx. 85 seconds to cross from NEAR to FAR focus

01h Speed requiring approx. 20 seconds to cross from NEAR to FAR focus

02h Speed requiring approx. 6 seconds to cross from NEAR to FAR focus

03h Speed requiring approx. 3 seconds to cross from NEAR to FAR focus

**USAGE**

Specify that the lens focus in the FAR direction.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	09h	00h–03h



The camera will focus in the FAR direction at the speed specified by VALUE.

**REMARKS**

- ◎ The camera will continue focusing in the FAR direction until a focus operation is performed with the VALUE02 **PRESET POSITION SELECT** command, the VALUE03 **FOCUS POSITION** or **FOCUS FAR/NEAR (RELATIVE)** command, or the TRIGGER **FOCUS NEAR/STOP, ALL STOP, ONE PUSH AUTO FOCUS** or **SHIFT POSITION** command or until the FAR focus limit position is reached.
- ◎ Focusing may be performed in different ways: the absolute position control method that uses the VALUE03 **FOCUS POSITION** command or the relative control method that uses the VALUE03 **FOCUS FAR/NEAR (RELATIVE)** command.
- ◎ The focus does not function while the built-in menu is displayed. Used to change the AUTO PATROL PATTERN while the AUTO PATROL MENU is displayed, but used to change the title no. to be set while the AREA TITLE or ALARM TITLE SETTINGS MENU is displayed.

## (11) FOCUS NEAR (SPEED SERVO)

**TRIGGER command** **CMD** **WRITE:45h** **ITEM:0Ah**

**APPLICATION** This command is used when focusing the lens in the NEAR direction.

**VALUE** Represents the lens absolute motion speed. (00h–03h)

00h	Speed requiring approx. 85 seconds to cross from FAR to NEAR focus
01h	Speed requiring approx. 20 seconds to cross from FAR to NEAR focus
02h	Speed requiring approx. 6 seconds to cross from FAR to NEAR focus
03h	Speed requiring approx. 3 seconds to cross from FAR to NEAR focus

### USAGE

Specify that the lens focus in the NEAR direction.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	0Ah	00h–03h



The camera will focus in the NEAR direction at the speed specified by VALUE.

### REMARKS

- ◎ The camera will continue focusing in the NEAR direction until a focus operation is performed with the VALUE02 **PRESET POSITION SELECT** command, the VALUE03 **FOCUS POSITION** or **FOCUS FAR/NEAR (RELATIVE)** command, or the TRIGGER **FOCUS FAR/STOP, ALL STOP, ONE PUSH AUTO FOCUS** or **SHIFT POSITION** command or until the NEAR focus limit position is reached.
- ◎ Focusing may be performed in different ways: the absolute position control method that uses the VALUE03 **FOCUS POSITION** command or the relative control method that uses the VALUE03 **FOCUS FAR/NEAR (RELATIVE)** command.
- ◎ The focus does not function while the built-in menu is displayed. Used to change the AUTO PATROL PATTERN while the AUTO PATROL MENU is displayed, but used to change the title no. to be set while the AREA TITLE or ALARM TITLE SETTINGS MENU is displayed.

## (12) FOCUS STOP (SPEED SERVO)

**TRIGGER command** **CMD** **WRITE:45h** **ITEM:0Bh**

**APPLICATION** This command is used when stopping the lens focus operation.

**VALUE** None.

### USAGE

Specify that the lens focus operation stop.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	45h	0Bh



The camera will stop focus operations.

### REMARKS

- ◎ Focusing may be performed in different ways: the absolute position control method that uses the VALUE03 **FOCUS POSITION** command or the relative control method that uses the VALUE03 **FOCUS FAR/NEAR (RELATIVE)** command.

## (13) ZOOM TELE (SPEED SERVO)

**TRIGGER command** **CMD** **WRITE:45h**

**ITEM:0Ch**

**APPLICATION** This command is used when zooming the lens in the TELE direction.

**VALUE** Represents the lens absolute motion speed. (00h–03h)

00h	Speed requiring approx. 24 seconds to cross from the WIDE end to TELE end (lens zoom)
01h	Speed requiring approx. 12 seconds to cross from the WIDE end to TELE end (lens zoom)
02h	Speed requiring approx. 8 seconds to cross from the WIDE end to TELE end (lens zoom)
03h	Speed requiring approx. 4 seconds to cross from the WIDE end to TELE end (lens zoom)

### USAGE

Specify that the lens zoom in the TELE direction.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	0Ch	00h–03h



The camera will zoom in the TELE direction at the speed specified by VALUE.

### REMARKS

- ◎ The camera will continue zooming in the TELE direction until a zoom operation is performed with the VALUE02 **PRESET POSITION SELECT** command, the VALUE03 **ZOOM POSITION** or **ZOOM TELE/WIDE (RELATIVE)** command, or the TRIGGER **ZOOM WIDE/STOP**, **ALL STOP** or **SHIFT POSITION** command or until the TELE end is reached.
- ◎ Zooming may be operated in different ways: the absolute control method that uses the VALUE03 **ZOOM POSITION** command or the relative control method that uses the VALUE03 **ZOOM TELE / WIDE (RELATIVE)** command.
- ◎ The maximum magnification of the digital zoom can be set by using the VALUE02 **DIGITAL ZOOM MAX** command.
- ◎ The zoom operation is stopped when the lens zoom reaches the TELE end. If you want to perform digital zoom, send the command a second time.
- ◎ The zoom does not function while the built-in menu is displayed. Used to change the line to be set when the TITLE SETTINGS MENU is displayed, but used to switch the page pattern when the AUTO PATROL MENU is displayed.

## (14) ZOOM WIDE (SPEED SERVO)

**TRIGGER command CMD WRITE:45h**

**ITEM:0Dh**

**APPLICATION** This command is used when zooming the lens in the WIDE direction.

**VALUE** Represents the lens absolute motion speed. (00h–03h)

00h	Speed requiring approx. 24 seconds to cross from the TELE end to WIDE end (lens zoom)
01h	Speed requiring approx. 12 seconds to cross from the TELE end to WIDE end (lens zoom)
02h	Speed requiring approx. 8 seconds to cross from the TELE end to WIDE end (lens zoom)
03h	Speed requiring approx. 4 seconds to cross from the TELE end to WIDE end (lens zoom)

**USAGE**

Specify that the lens zoom in the WIDE direction.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	0Dh	00h–03h



The camera will zoom in the WIDE direction at the speed specified by VALUE.

**REMARKS**

- ◎ The camera will continue zooming in the WIDE direction until a zoom operation is performed with the VALUE02 **PRESET POSITION SELECT** command, the VALUE03 **ZOOM POSITION** or **ZOOM TELE/WIDE (RELATIVE)** command, or the TRIGGER **ZOOM TELE/STOP**, **ALL STOP** or **SHIFT POSITION** command or until the WIDE end is reached.
- ◎ Zooming may be performed in different ways: the absolute control method that uses the VALUE03 **ZOOM POSITION** command or the relative control method that uses the VALUE03 **ZOOM TELE / WIDE (RELATIVE)** command.
- ◎ The maximum magnification of the digital zoom can be set by using the VALUE02 **DIGITAL ZOOM MAX** command.
- ◎ The zoom operation is stopped when the digital zoom is reaches 1x. If you want to perform lens zoom, send the command a second time.
- ◎ The zoom does not function while the built-in menu is displayed. Used to change the line to be set when the TITLE SETTINGS MENU is displayed, but used to switch the page pattern when the AUTO PATROL MENU is displayed.

## (15) ZOOM STOP (SPEED SERVO)

**TRIGGER command CMD WRITE:45h**

**ITEM:0Eh**

**APPLICATION** This command is used when stopping the lens zoom operation.

**VALUE** None.

**USAGE**

Specify that the lens zoom operation stop.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	45h	0Eh



The camera will stop zoom operations.

**REMARKS**

- ◎ Zooming may be performed in different ways: the absolute control method that uses the VALUE03 **ZOOM POSITION** command or the relative control method that uses the VALUE03 **ZOOM TELE / WIDE (RELATIVE)** command.



(16) ALL STOP

TRIGGER command    **CMD**    **WRITE:45h**    **ITEM:0Fh**

**APPLICATION**    This command is used when stopping all pan/tilt head (PAN/TILT) and lens (IRIS, FOCUS, ZOOM) operations.

**VALUE**    None.


**USAGE**

Specify that all pan/tilt head and lens operations stop.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	45h	0Fh

 The camera will stop all pan/tilt head and lens operations.

**REMARKS**

- ◎ Operations do not stop when the camera is moving to a preset (home) position.
- ◎ Panning does not stop if the camera is in AUTO PAN mode.

## (17) ENTER

**TRIGGER command CMD WRITE:45h****ITEM:16h****APPLICATION** This command is used when saving settings.

**VALUE** Represents the item to be saved. (00h, 01h, 03h–06h, 08h)

00h	Camera data
01h	Preset (home) position data (pan/tilt head, lens, video, title)
03h	Preset (home) position data (video, title)
04h	Alarm character string Nos. 246 to 255
05h	Area text
06h	AUTO PATROL (position, stop duration)
08h	AUTO PATROL mode (pattern)

**USAGE**

Specify the item to be saved using VALUE.

**CONT****CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	16h	00h, 01h 03h–06h, 08h



The camera will save the item specified by VALUE.

**REMARKS**

- ◎ Since there is a limit to the number of times memory used for storing settings can be written, overuse of this command may result in equipment failure. Keep the use of this command to an absolute minimum.
- ◎ This command causes preset (home) position data to be saved for the currently selected preset (home) position.
- ◎ The **TRIGGER SAVE AS POSITION** command can also be used to save settings.
- ◎ Saved settings can be set back to factory defaults using the **TRIGGER EXTEND POSITION CLEAR** or **ALL CLEAR** command.
- ◎ Alarm text is stored only for the text string no. selected using the **TRIGGER EDITING ALARM SELECT** command.
- ◎ Area text is stored only for the area text selected using the **TRIGGER AREA SELECT** command.
- ◎ Auto patrol is stored only for the patrol number selected using the **VALUE02 AUTO PATROL No. SELECT** command.
- ◎ For examples of actual usage, see Appendix 3.
- ◎ This command **does not follow the specifications** given for continuous commands under JCCP-S and JCBP-S described in JVC CCV CAMERA PROGRAMMER'S MANUAL. Follow the specifications described below.

Normal Time Interval	1 sec or more
Maximum number of continuous commands	5 commands
(Note however that the ENTER command must be sent last.)	
Continuous send time interval	1 sec or more

- ◎ **Never set VALUE to 02h** when using ENTER.

## (18) ONE PUSH AUTO WHITE BALANCE

**TRIGGER command** **CMD** **WRITE:45h**

**ITEM:17h**

**APPLICATION** This command is used to start the ONE PUSH AUTO WHITE BALANCE operations.

**VALUE** None.

**USAGE**

Specify that ONE PUSH AUTO WHITE BALANCE operations be activated.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	45h	17h



The camera will activate ONE PUSH AUTO WHITE BALANCE operations.

**REMARKS**

- ◎ If ONE PUSH AUTO WHITE BALANCE operations end normally or are out of range, set the white balance operation mode to AWC (manual), and the results of ONE PUSH AUTO WHITE BALANCE operations are automatically stored. When the lighting level is excessive or insufficient, the status before ONE PUSH AUTO WHITE BALANCE is restored and white balance operation mode terminates.
- ◎ The WHITE BALANCE operational mode can be set using the VALUE02 **WHITE BALANCE MODE** command.

## (19) AUX 1-3

**TRIGGER command** **CMD** **WRITE:45h**

**ITEM:19h-1Bh**

**APPLICATION** This command is used when outputting a signal to the output terminal.

**ITEM** Indicates the output function. (42h–44h)

19h AUX 1  
1Ah AUX 2  
1Bh AUX 3

**VALUE** Indicates the status of the signal to be output. (00h, 01h)

00h Output OFF  
01h Output ON

**USAGE**

The signal status is specified by VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	19h-1Bh	00h, 01h



A signal is output to the output terminal of the camera as AUX1-3.

**REMARKS**

- ◎ The VALUE02 **PORT OUTPUT 1-3 SELECT** command can be used to specify AUX1-3 for the output terminal.

## (20) CLEAR

**TRIGGER command CMD WRITE:45h****ITEM:1Dh****APPLICATION** This command is used when returning saved settings to factory defaults.

**VALUE** Represents the settings to be returned to factory defaults. (00h–3Fh, 42h)

00h Home position data (pan/tilt head, lens, video, title)

01h–3Fh Preset position data (all) Nos. 1 to 63

42h All data

**USAGE**Specify the item to be returned to factory defaults using VALUE. CONT CAM

ENQ	CMD	ITEM	VALUE
83h	45h	1Dh	00h–3Fh 42h



The camera will return the item specified by VALUE to factory defaults.

**REMARKS**

- ◎ Since there is a limit to the number of times memory used for storing settings can be written, overuse of this command may result in equipment failure. Keep the use of this command to an absolute minimum.
- ◎ Settings are saved using the TRIGGER **ENTER** or **SAVE AS POSITION** command.
- ◎ This command is an old command used to maintain compatibility with older models. Use the TRIGGER **EXTEND POSITION CLEAR** command and **ALL CLEAR** command except when necessary.
- ◎ This command cannot be used to restore factory settings for preset position data nos. 64–99.
- ◎ This command **does not follow the specifications** given for continuous commands under JCCP-S and JCBP-S described in CCV CAMERA PROGRAMMER'S MANUAL. Follow the specifications described below.

Normal Time Interval	1 sec or more (VALUE 00h – 3Fh) 5 sec or more (VALUE 42h)
Maximum number of continuous commands	5 commands (Note however that the CLEAR command must be sent last.)
Continuous send time interval	1 sec or more (VALUE 00h – 3Fh) 5 sec or more (VALUE 42h)

## (21) AUTO PAN POSITION SET

**TRIGGER command** **CMD** **WRITE:45h**

**ITEM:1Eh**

**APPLICATION** This command is used when registering a START and RETURN POSITION for AUTO PAN mode.

**VALUE** Represents the item to be registered. (00h, 01h)

00h AUTO PAN START POSITION

01h AUTO PAN RETURN POSITION

Factory setting  $-180^{\circ}$  (PAN POSITION 00h) is saved for both the START and RETURN POSITION.

### USAGE

Specify the item to be registered using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	1Eh	00h, 01h



The camera will register the current PAN POSITION for the item specified by VALUE.

### REMARKS

- ◎ Executing this command causes the item specified by VALUE to be saved.
- ◎ Since there is a limit to the number of times memory used for storing settings can be written, overuse of this command may result in equipment failure. Keep the use of this command to an absolute minimum.
- ◎ When AUTO PAN mode is ON, pan/tilt head and lens statuses (TILT, ZOOM, FOCUS) will be set to that registered for the START POINT. Be sure to register a START POINT even if you will be using continuous clockwise or counter clockwise rotation.
- ◎ The PAN operation mode can be set using the VALUE02 **AUTO PAN** command.
- ◎ The rotation direction to use for AUTO PAN mode can be set using the VALUE02 **AUTO PAN DIRECTION** command.

## (22) ONE PUSH AUTO FOCUS

**TRIGGER command** **CMD** **WRITE:45h**

**ITEM:1Fh**

**APPLICATION** This command is used when activating one push auto focus.

**VALUE** None.

### USAGE

Specify that one push auto focus be activated.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	45h	1Fh



The camera will activate one push auto focus mode.

### REMARKS

- ◎ If the VALUE02 **PRESET POSITION SELECT** command, the VALUE03 **FOCUS POSITION** or **FOCUS FAR/NEAR (RELATIVE)** command, or the **TRIGGER FOCUS FAR/NEAR/STOP** or **ALL STOP** command is used during auto focus mode, one push auto focus will be canceled even in the middle of a focusing operation.

## (23) EDITING ALARM SELECT

**TRIGGER command** **CMD** **WRITE:45h**

**ITEM:25h**

**APPLICATION** This command is used when specifying the alarm text to be edited.

**VALUE** Represents the alarm text number to be edited. (01h–0Ah)

01h Alarm text No.246

|

0Ah Alarm text No.255

At power on 01h (Alarm text No.246) is set.

### USAGE

Specify the alarm text number to be set using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	25h	01h–0Ah



The camera will wait for the alarm text for the specified No.

### REMARKS

- ◎ Alarm text is set using the STRING/STRINGW **ALARM TITLE** command.
- ◎ The alarm text is displayed in the upper right portion of the screen using the VALUE02 **ALARM DISPLAY SELECT** command. (For details on the display position, see Appendix 2. )
- ◎ The character size used when displaying alarm text can be set using the VALUE02 **ALARM CHARACTER SIZE** command.
- ◎ For examples of actual usage, see Appendix 3.

## (24) FLIP START

**TRIGGER command** **CMD** **WRITE:45h**

**ITEM:26h**

**APPLICATION** This command is used to start FLIP operations (180° rotation of the pan/tilt head in the horizontal plane or reverse video of the video image).

**VALUE** None.

### USAGE

Specify that the FLIP operation be triggered.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	45h	26h



The camera will perform the FLIP operation.

### REMARKS

- ◎ Set AUTO FLIP to ON or to DIGITAL using the VALUE02 **AUTO FLIP MODE** command if you want the FLIP operation to be automatically performed according to the TILT position.
- ◎ The FLIP operation is not performed when panning is controlled using the VALUE02 **PRESET POSITION SELECT** or **AUTO PAN (START/RETURN POSITION)** command, the VALUE03 **PAN POSITION** or **PAN RIGHT/LEFT (RELATIVE)** command, the TRIGGER **PAN RIGHT/LEFT** or **SHIFT POSITION** command, AUTO PAN or AUTO FLIP.
- ◎ If during the FLIP operation pan operations are controlled by the VALUE02 **PRESET POSITION SELECT** or **AUTO PAN** command, the VALUE03 **PAN POSITION** or **PAN RIGHT/LEFT (RELATIVE)** command, or the TRIGGER **PAN RIGHT/LEFT/STOP, ALL STOP** or **SHIFT POSITION** command, the FLIP operation will be halted and the corresponding operation performed.

## (25) ID DISPLAY

**TRIGGER command** **CMD** **WRITE:45h** **ITEM:27h**

**APPLICATION** This command is used when displaying the communication ID of the camera (unit address).

**VALUE** None.

**USAGE**

Specify that the communication ID of the camera (unit address) be displayed.

**CONT** **CAM**

ENQ	CMD	ITEM
82h	45h	27h



The camera will display the communication ID of the camera (unit address) in the lower right portion of the screen for about 3 seconds.

- REMARKS**
- ◎ This command displays the communication ID of the camera (unit address) only under JCBP-S and JCBP-F for about 3 seconds.
  - ◎ For details on the display location, see Appendix 2.

## (26) SAVE AS POSITION

**TRIGGER command** **CMD** **WRITE:45h** **ITEM:28h**

**APPLICATION** This command is used when saving current settings (pan/tilt head, lens, video) for a preset (home) position.

**VALUE** Represents the position to be saved. (00h–63h)

00h Home position

01h–63h Preset position Nos. 1 to 99

**USAGE**

Specify the position to save settings for using VALUE.

**CONT** **CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	28h	00h–63h



The camera will save current settings (pan/tilt head, lens, video) for the specified position.

- REMARKS**
- ◎ Since there is a limit to the number of times memory used for storing settings can be written, overuse of this command may result in equipment failure. Keep the use of this command to an absolute minimum.
  - ◎ The TRIGGER **ENTER** command may also be used to save settings.
  - ◎ Saved settings can be set back to factory defaults using the TRIGGER **EXTEND POSITION CLEAR** or **ALL CLEAR** command.
  - ◎ For examples of actual usage, see Appendix 3.
  - ◎ The preset (home) position title is not saved. (There is no change from the status before this command is executed.)
  - ◎ This command **does not follow the specifications** given for continuous commands under JCCP-S and JCBP-S described in JVC CCV CAMERA PROGRAMMER'S MANUAL. Follow the specifications described below.

Normal Time Interval	1 sec or more
Maximum number of continuous commands	5 commands
(Note however that the SAVE AS POSITION command must be sent last.)	
Continuous send time interval	1 sec or more

## (27) MENU

**TRIGGER command** **CMD** **WRITE:45h**

**ITEM:29h**

**APPLICATION** This command is used to start/stop the display of the built-in menu and to move to upper level menus.

**VALUE** None.

**USAGE**

Specifies the menu operation.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	45h	29h



The camera will start/stop the display of the built-in menu and move to upper level menus.

- REMARKS**
- ◎ Automatically moves the camera to home position when the built-in menu is displayed. AUTO PAN/AUTO PATROL and other such functions are automatically cancelled.
  - ◎ For examples of actual usage, see Appendix 1.
  - ◎ Use the TRIGGER **SET** command when moving to a lower level menu.
  - ◎ Use the TRIGGER **PAN RIGHT/LEFT/STOP** command and **TILT UP/DOWN/STOP** command to select setting items and setting values on the menu and to move the cursor. Also use the TRIGGER **ZOOM TELE/WIDE/STOP** command and **FOCUS FAR/NEAR/STOP** command depending on the menu screen.

## (28) SET

**TRIGGER command** **CMD** **WRITE:45h**

**ITEM:2Ah**

**APPLICATION** This command is used to move the built-in menu to a lower level menu.

**VALUE** None.

**USAGE**

Specifies the menu operation.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	45h	2Ah



The camera will move the built-in menu to lower level menus.

- REMARKS**
- ◎ For examples of actual usage, see Appendix 1.
  - ◎ TRIGGER **MENU** command is used to start/stop the display of the built-in menu and to move to higher level menus.
  - ◎ Use the TRIGGER **PAN RIGHT/LEFT/STOP** command and **TILT UP/DOWN/STOP** command to select setting items and setting values on the menu and to move the cursor. Also use the TRIGGER **ZOOM TELE/WIDE/STOP** command and **FOCUS FAR/NEAR/STOP** command depending on the menu screen.



## (29) AREA SELECT

**TRIGGER command** **CMD** **WRITE:45h**
**ITEM:2Bh**

**APPLICATION** This command is used when specifying the area to be set for the area title.

**VALUE** Indicates the area to be set. (00h–0Fh)

00h–0Fh Area 1 – 16

At power on Undefined.

**USAGE**

Specify the area to be set using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	2Bh	00h–0Fh



The camera will move to the specified area and wait for the specification of the area title.

**REMARKS**

- ◎ The display of the area title can be set using the VALUE02 **AREA TITLE DISPLAY**.
- ◎ The area title can be set using the STRING/STRINGW **AREA TITLE** command.
- ◎ The area title can be saved using the TRIGGER **ENTER** command.
- ◎ The area also changes position when the home position pan position is changed. Set the area title after confirming the home position.
- ◎ For examples of actual usage, see Appendix 3.

## (30) SHIFT POSITION

**TRIGGER command** **CMD** **WRITE:45h**
**ITEM:2Ch**

**APPLICATION** This command is used when moving from the current position by searching for a pre-registered position.

**VALUE** Indicates the direction of the search. (00h, 01h)

00h Forward

01h Reverse

**USAGE**

The search direction is specified by VALUE and then the search for the position and movement to the position found starts.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	2Ch	00h, 01h



The camera will search for a pre-registered position in the direction specified and the camera moves to the position in question.

**REMARKS**

- ◎ The camera cannot be moved to the non-registered position.
- ◎ The VALUE02 **PRESET POSITION SELECT** command can also be used to move to a preset (home) position.
- ◎ This command is an old command used to maintain compatibility with older models. Use the TRIGGER **EXTEND SHIFT POSITION** command except when necessary.
- ◎ Preset position nos. 64–99 are ignored when using this command.

## (31) PANIC ALARM RESET

**TRIGGER command** **CMD** **WRITE:45h**

**ITEM:2Dh**

**APPLICATION** This command is used when canceling panic alarm status.

**VALUE** None.

**USAGE**

Requests the cancel of panic alarm status.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	2Ch	00h, 01h



The camera cancels the panic alarm status.

**REMARKS**

- © Panic alarm status can be cancelled by allowing the alarm duration to elapse or by manual operation. For details, refer to the section on the VALUE02 **PANIC ALARM DURATION, PANIC ALARM MODE** command.

# (32) CHARACTER CODE SET

**TRIGGER command CMD WRITE:45h**

**ITEM:30h**

**APPLICATION** This command is used when setting the character code set to be used with the STRING and STRINGW commands.

**VALUE** Represents the character code set to be used. (00h, 01h)  
 00h Code A  
 01h Code B

Code A		Upper 4 Bits									
		0	1	2	3	4	5	6	7	8-F	
Lower 4 Bits	0	SP	0		P						
	1		1	A	Q						
	2		2	B	R						
	3		3	C	S						
	4		4	D	T						
	5		5	E	U						
	6		6	F	V						
	7		7	G	W						
	8		8	H	X						
	9		9	I	Y						
	A		:	J	Z						
	B			K							
	C	,		L							
	D	-		M							
	E	.		N							
	F	/		O							

Code B				Upper 4 Bits													
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
Lower 4 Bits	0		â	SP	0		P		p								
	1	Ä	ê		1	A	Q	a	q								
	2	Ö	î		2	B	R	b	r								
	3	Ü	ô		3	C	S	c	s								
	4	Â	û		4	D	T	d	t								
	5	Ê	á		5	E	U	e	u								
	6	Î	é		6	F	V	f	v								
	7	Ô	í	'	7	G	W	g	w								
	8	Û	ó		8	H	X	h	x								
	9	Ç	ú		9	I	Y	i	y								
	A	Ñ	à	:		J	Z	j	z								
	B	ä	è			K	ñ	k									
	C	ë	ì	,		L	ß	l									
	D	ï	ò	-		M	ç	m									
	E	ö	ù	.		N	ï	n									
	F	ü	ç	/		O		o									

At power on Code A is selected.

**USAGE** Specify the code set to be used using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	30h	00h, 01h

The camera will send and receive STRING and STRINGW commands using the code specified by VALUE.

## REMARKS

- ⊙ The type of character code set to be used cannot be saved.
- ⊙ Code B characters and symbols <ÄÖÛÂÊÎÔÛÇÑäëïòúáéíóúàèìòùçñß¿> (codes 00h–1Fh, 5Bh–5Eh) cannot be used by NTSC model (TK-C676U).
- ⊙ When Code A is being used, lower case alphabetic characters <a to z> and characters and symbols <ÄÖÛÂÊÎÔÛÇÑäëïòúáéíóúàèìòùçñß¿> cannot normally be sent.

### (33) EXTEND POSITION CLEAR

**TRIGGER command** **CMD** **WRITE:45h**

**ITEM:31h**

**APPLICATION** This command is used when returning saved position settings to factory defaults.

**VALUE** Represents the positions to be returned to factory defaults. (00h–63h)

00h Home position

01h–63h Preset position Nos. 1 to 99

**USAGE**

Specify the position to be returned to factory defaults using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	31h	00h–63h



The camera will return the position data specified by VALUE to factory defaults.

**REMARKS**

- ◎ Since there is a limit to the number of times memory used for storing settings can be written, overuse of this command may result in equipment failure. Keep the use of this command to an absolute minimum.
- ◎ Settings are saved using the TRIGGER **ENTER** or **SAVE AS POSITION** command.
- ◎ Use the TRIGGER **ALL CLEAR** command to restore all data to factory default status.
- ◎ This command **does not follow the specifications** given for continuous commands under JCCP-S and JCBP-S described in JVC CCV CAMERA PROGRAMMER'S MANUAL. Follow the specifications described below.

Normal Time Interval	1 sec or more
Maximum number of continuous commands	5 commands
(Note however that the EXTEND POSITIONCLEAR command must be sent last.)	
Continuous send time interval	1 sec or more

## (34) ALL CLEAR

**TRIGGER command** **CMD** **WRITE:45h**

**ITEM:32h**

**APPLICATION** This command is used when returning saved settings to factory defaults.

**VALUE** Represents the items to be returned to factory defaults. (00h, 01h)

00h All data  
01h All data other than title data

**USAGE** Specify the item to be saved using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	32h	00h, 01h



The camera will return the item specified by VALUE to factory defaults.

**REMARKS**

- ◎ Since there is a limit to the number of times memory used for storing settings can be written, overuse of this command may result in equipment failure. Keep the use of this command to an absolute minimum.
- ◎ Settings are saved using the TRIGGER **ENTER** or **SAVE AS POSITION** command.
- ◎ Use the TRIGGER **EXTEND POSITION CLEAR** command to restore specific position data to factory default status.
- ◎ This command does **not follow the specifications** given for continuous commands under JCCP-S and JCBP-S described in JVC CCV CAMERA PROGRAMMER'S MANUAL. Follow the specifications described below.

Normal Time Interval	5 sec or more
Maximum number of continuous commands	5 commands
(Note however that the ALL CLEAR command must be sent last.)	
Continuous send time interval	5 sec or more

## (35) EXTEND SHIFT POSITION

**TRIGGER command** **CMD** **WRITE:45h**

**ITEM:33h**

**APPLICATION** This command is used when moving from the current position by searching for a pre-registered position.

**VALUE** Indicates the direction of the search. (00h, 01h)

00h Forward  
01h Reverse

**USAGE**

Specify the item to be saved using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	VALUE
83h	45h	33h	00h, 01h



A search is made for a pre-registered position in the direction specified and the camera moves to the position in question.

**REMARKS**

- ◎ The camera cannot be moved to the non-registered position.
- ◎ VALUE02 **PRESET POSITION SELECT** command can also be used to move to a preset (home) position.

## 6 **STRING/STRINGW COMMANDS**

The STRING and STRINGW commands are used to handle the transmission of character strings.

		Command Code CMD	
STRING		READ:06h WRITE:46h	
STRINGW		WRITE:47h	
	Item	Name	Number of Characters
1	00h	CAMERA TITLE	16 characters
2	02h	POSITION TITLE	16 characters
3	04h	ALARM TITLE	12 characters
4	05h	AREA TITLE	16 characters

## (1) CAMERA TITLE

**STRING/STRINGW command** **CMD** **READ:06h** **WRITE:46h/47h**

**ITEM:00h**

**APPLICATION** This command is used when changing or checking a camera title.

**CHAR** Represents the camera title. (16 characters)

STRING 00h–7Fh (16 bytes)

STRINGW 00h–0Fh (32 bytes)

At power on The text saved as CAMERA DATA is set.

Factory setting All blank.

**USAGE** ◎ When changing a camera title  
Specify the camera title using CHAR.

**CONT**

**CAM**

ENQ	BC	CMD	ITEM	CHAR (16 bytes)		
8Fh	13h	46h	00h	CHAR	...	CHAR
				1		16

STRING

ENQ	BC	CMD	ITEM	CHAR (32 bytes)			
8Fh	23h	47h	00h	CHAR	CHAR	...	CHAR
				1-H	1-L		16-H 16-L

STRINGW



The camera will display the camera title specified by CHAR in the bottom left portion of the screen.

◎ When checking the camera title (not available under JCCP-S or JCBP-S)  
Request the camera title.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	06h	00h



The camera will notify the controller of the camera title.

**CAM**

**CONT**

ENQ	BC	CMD	ITEM	CHAR (16 bytes)		
8Fh	13h	46h	00h	CHAR	...	CHAR
				1		16

STRING  
(When Code A is used)

ENQ	BC	CMD	ITEM	CHAR (32 bytes)			
8Fh	23h	47h	00h	CHAR	CHAR	...	CHAR
				1-H	1-L		16-H 16-L

STRINGW  
(When Code B is used)

### REMARKS

- ◎ This setting can be saved as **CAMERA DATA** using the **TRIGGER ENTER** command.
- ◎ For details on the display location, see Appendix 2.
- ◎ If the number of characters is less than 16, the unspecified portion of the string will not be updated.
- ◎ If the number of characters is more than 16, the camera title will be set with 16 characters from the first “CHAR” byte.
- ◎ The character code to be used can be set using the **TRIGGER CHARACTER CODE SET** command.
- ◎ Code B characters and symbols <ĂŎŮĂÊÎŎŮÇŇăëïöüăêîôúăéíóúăèìòùçŋßł> cannot be used by NTSC model (TK-C676U).
- ◎ When Code A is being used, lower case alphabetic characters and characters and symbols <ĂŎŮĂÊÎŎŮÇŇăëïöüăêîôúăéíóúăèìòùçŋßł> cannot normally be sent.
- ◎ If the character string specified by CHAR contains character code data which does not match any characters in the code set, blanks will be used in place of those characters.

## (2) POSITION TITLE

**STRING/STRINGW command**   **CMD**   **READ:06h**   **WRITE:46h/47h**   **ITEM:02h**

**APPLICATION** This command is used when changing or checking a preset (home) position title.

**CHAR** Represents preset (home) position title. (16 characters)

STRING 00h–7Fh (16 bytes)

STRINGW 00h–0Fh (32 bytes)

At power on The text saved as POSITION DATA is set.

Factory setting All blank.

### USAGE

◎ When changing a preset (home) position title

Specify the preset (home) position title using CHAR.

**CONT**

**CAM**

ENQ	BC	CMD	ITEM	CHAR (16 bytes)		
8Fh	13h	46h	02h	CHAR 1	...	CHAR 16

STRING

ENQ	BC	CMD	ITEM	CHAR (32 bytes)				
8Fh	23h	47h	02h	CHAR 1-H	CHAR 1-L	...	CHAR 16-H	CHAR 16-L

STRINGW



The camera will display the preset (home) position title specified by CHAR on the monitor screen.

◎ When checking the preset (home) position title (not available under JCCP-S or JCBP-S)

Request the preset (home) position title.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	06h	02h

The camera will notify the controller of the title for the current position.



ENQ	BC	CMD	ITEM	CHAR (16 bytes)		
8Fh	13h	46h	02h	CHAR 1	...	CHAR 16

**CAM**

**CONT**

STRING

(When Code A is used)

ENQ	BC	CMD	ITEM	CHAR (32 bytes)				
8Fh	23h	47h	02h	CHAR 1-H	CHAR 1-L	...	CHAR 16-H	CHAR 16-L

STRINGW

(When Code B is used)

### REMARKS

- ◎ This setting can be saved as **POSITION DATA** using the **TRIGGER ENTER** command.
- ◎ The display position of the preset (home) position title can be set using the **VALUE02 POSITION TITLE LOCATION** command. (For details on the display location, see Appendix 2. )
- ◎ If the number of characters is less than 16, the unspecified portion of the string will not be updated.
- ◎ If the number of characters is more than 16, the preset (home) position title will be set with 16 characters from the first "CHAR" byte.
- ◎ The character code to be used can be set using the **TRIGGER CHARACTER CODE SET** command.
- ◎ Code B characters and symbols <ĂŎŮĂĖÎŎŮÇŇăëïöüăêîôáéíóúăèìòùçñß¿ı> cannot be used by NTSC model (TK-C676U).
- ◎ When Code A is being used, lower case alphabetic characters and characters and symbols <ĂŎŮĂĖÎŎŮÇŇăëïöüăêîôáéíóúăèìòùçñß¿ı> cannot normally be sent.



- © If the character string specified by CHAR contains character code data which does not match any characters in the code set, blanks will be used in place of those characters.

### (3) ALARM TITLE

**STRING/STRINGW command**   **CMD**   **READ:06h**   **WRITE:46h/47h**   **ITEM:04h**

**APPLICATION** This command is used when changing or checking the alarm title text.

**CHAR** Represents the alarm title text. (12 characters)

STRING 00h–7Fh (12 bytes)

STRINGW 00h–0Fh (24 bytes)

At power on The saved text is set.

Factory setting All blank.

**USAGE**    © When changing the alarm title text  
Specify the alarm title text using VALUE.

**CONT**

**CAM**

ENQ	CMD	ITEM	CHAR (12 bytes)		
8Eh	46h	04h	CHAR 1	...	CHAR 12

STRING

ENQ	BC	CMD	ITEM	CHAR (24 bytes)				
8Fh	1Bh	47h	04h	CHAR 1-H	CHAR 1-L	...	CHAR 12-H	CHAR 12-L

STRINGW



The camera will register the title text specified by CHAR as an alarm title text.

© When checking the alarm title text (not available under JCCP-S or JCBP-S)  
Request the alarm title text.

**CONT**

**CAM**

ENQ	CMD	ITEM
82h	06h	04h



The camera will notify the controller of the current alarm title text.

**CAM**

**CONT**

ENQ	BC	CMD	ITEM	CHAR (12 bytes)		
8Fh	0Fh	46h	04h	CHAR 1	...	CHAR 12

STRING

(When Code A is used)

ENQ	BC	CMD	ITEM	CHAR (24 bytes)				
8Fh	1Bh	47h	04h	CHAR 1-H	CHAR 1-L	...	CHAR 12-H	CHAR 12-L

STRINGW

(When Code B is used)

#### REMARKS

- © This setting can be saved using the TRIGGER **ENTER** command.
- © The alarm title text No. can be selected using the TRIGGER **EDITING ALARM SELECT** command. Always select an alarm title text No. before setting a character string. (The alarm title text No. is enabled even if another command is sent between the **EDITING ALARM SELECT** command and the **ALARM TITLE** command.)
- © For examples of actual usage, see Appendix 3.
- © The alarm title text is displayed in the upper right portion of the screen using the VALUE02 **ALARM DISPLAY SELECT** command. (For details on the display position, see Appendix 2.)
- © The character size used when displaying alarm title text can be set using the VALUE02 **ALARM CHARACTER SIZE** command.
- © If the number of characters is less than 12, the unspecified portion of the string will not be updated.
- © If the number of characters is more than 12, the alarm title will be set with 12 characters from the first "CHAR" byte.
- © Although this command is 14 bytes long, the variable length send request, "ENQv" is used when notifying alarm title text data using STRING.

- ◎ The character code to be used can be set using the TRIGGER **CHARACTER CODE SET** command.
- ◎ Code B characters and symbols <ÄÖÜÂÊÎÔÛÇÑäëïöüâêîôûáéíóúàèìòùçñß¿> cannot be used by NTSC model (TK-C676U).
- ◎ When Code A is being used, lower case alphabetic characters and characters and symbols <ÄÖÜÂÊÎÔÛÇÑäëïöüâêîôûáéíóúàèìòùçñß¿> cannot normally be sent.
- ◎ If the character string specified by CHAR contains character code data which does not match any characters in the code set, blanks will be used in place of those characters.

## (4) AREA TITLE

**STRING/STRINGW command** **CMD** **READ:06h** **WRITE:46h/47h** **ITEM:05h**

**APPLICATION** This command is used when changing or checking a area title.

**CHAR** Represents area title. (16 characters)

STRING 00h–7Fh (16 bytes)

STRINGW 00h–0Fh (32 bytes)

At power on The saved text is set.

Factory setting All blank.

### USAGE

◎ When changing a area title

Specify the area title using CHAR.

ENQ	BC	CMD	ITEM	CHAR (16 bytes)		
8Fh	13h	46h	05h	CHAR 1	...	CHAR 16

**CONT**

**CAM**

STRING

ENQ	BC	CMD	ITEM	CHAR (32 bytes)				
8Fh	23h	47h	05h	CHAR 1-H	CHAR 1-L	...	CHAR 16-H	CHAR 16-L

STRINGW



The camera will set the area title specified by CHAR.

◎ When checking the area title (not available under JCCP-S or JCBP-S)

Request the area title.

ENQ	CMD	ITEM
82h	06h	05h

**CONT**

**CAM**



The camera will notify the controller of the area title.

ENQ	BC	CMD	ITEM	CHAR (16 bytes)		
8Fh	13h	46h	05h	CHAR 1	...	CHAR 16

**CAM**

**CONT**

STRING

(When Code A is used)

ENQ	BC	CMD	ITEM	CHAR (32 bytes)				
8Fh	23h	47h	05h	CHAR 1-H	CHAR 1-L	...	CHAR 16-H	CHAR 16-L

STRINGW

(When Code B is used)

### REMARKS

- ◎ This setting can be saved using the TRIGGER **ENTER** command.
- ◎ The display of the area title can be turned ON and OFF using the VALUE02 **AREA TITLE DISPLAY** command. (For details on the display position, see Appendix 2.)
- ◎ The area No. of the area title to be set or checked can be selected using the TRIGGER **AREA SELECT** command. Always select the area No. before setting the text. (The area number is enabled even if another command is sent between the **AREA SELECT** command and the **AREA TITLE** command.)
- ◎ For examples of actual usage, see Appendix 3.
- ◎ If the number of characters is less than 16, the unspecified portion of the string will not be updated.
- ◎ If the number of characters is more than 16, the area title will be set with 16 characters from the first “CHAR” byte.
- ◎ The character code to be used can be set using the TRIGGER **CHARACTER CODE SET** command.
- ◎ Code B characters and symbols <ÄÖÜÂÊÎÔÛÇÑäëïöüâêîôûáéíóúàèìòùçñß¿> cannot be used by NTSC model (TK-C676U).
- ◎ When Code A is being used, lower case alphabetic characters and characters and symbols <ÄÖÜÂÊÎÔÛÇÑäëïöüâêîôûáéíóúàèìòùçñß¿> cannot normally be sent.

- © If the character string specified by CHAR contains character code data which does not match any characters in the code set, blanks will be used in place of those characters.

## 7 DUMP64 COMMANDS

Memory data is controlled using DUMP64.

		Command Code CMD	
STRING		READ:0Ah WRITE:4Ah	
	Item	Name	Packet to be used
1	00h	EEPROM DUMP	0–255

### (1) EEPROM DUMP

**DUMP64 command**   **CMD**   **READ:0Ah**   **WRITE:4Ah**   **ITEM:00h**

**APPLICATION** This command is used when uploading/downloading camera EEPROM data (various types of settings).

**PLT-H/L** Use 00h to 7Fh. (All data: 256 packet × 64 bytes = 16384 bytes)

**USAGE** Please use according to instructions given in the Programmer's Manual (Version 1.01 or later).

## APPENDIX 1 MENU OPERATIONS

Keep this description of how to use the built-in menu as a reference.

### (1) Commands used while the built-in menu is displayed

The following commands have different functions than normal while the built-in menu is being displayed.

Command		Operation
VALUE02	PRESET POSITION SELECT	Does not function except for the POSITION DATA SETTINGS MENU and AUTO PATROL SETTINGS MENU.
	AUTO PAN AUTO PATROL	Does not function.
TRIGGER	PAN RIGHT/LEFT/STOP	Used to select setting values, move the cursor, etc. and the pan does not function except for the AUTO PAN SETTINGS MENU.
	TILT UP/DOWN/STOP	Used to select setting values, move the cursor, etc. and the tilt does not function except for the AUTO PAN SETTINGS MENU.
	IRIS OPEN/CLOSE/STOP	Does not function.
	FOCUS FAR/NEAR/STOP	Focus does not function. Used to change the patrol pattern on the AUTO PATROL MENU. Used to change the Title No. on the AREA TITLE and ALARM TITLE SETTINGS MENU.
	ZOOM TELE/WIDE/STOP	Zoom does not function. Used when changing the character or symbol to be set on the TITLE SETTINGS MENU. Used when switching pages on the AUTO PATROL MENU.
	FLIP START	Does not function.
	SHIFT POSITION EXTEND SHIFT POSITION	Does not function except for the POSITION DATA SETTINGS MENU and AUTO PATROL SETTINGS MENU.

### NOTE

- Do not send commands other than those related to menu operations while the built-in menu is being displayed. (This excludes adjustments of view angle when setting AUTO PAN.)

### (2) Starting the built-in menu

Displays the main menu of the built-in menu if the TRIGGER **MENU** command is received while the camera is in normal status (not displaying a menu).

If the built-in menu is displayed, AUTO PAN and AUTO PATROL type functions are automatically cancelled and the camera moves to the home position.

### (3) Starting a sub-menu

Select a sub-menu by moving the cursor ">" up or down using the TRIGGER **TILT UP/DOWN/STOP** command and then starting the sub-menu with the TRIGGER **SET** command. The item names of items which start a sub-menu are displayed ending with ".".

If a sub-menu is displayed, the camera automatically moves to the home position. However, when using the DATA SETTINGS MENU the camera moves to the target position. In the case of the AUTO PATROL SETTINGS MENU, the camera moves to the position set by the cursor position (Auto Patrol No.1) or to the pre-registered Auto Pan Start Position on the AUTO PAN SETTINGS MENU.

**(4) Setting items**

## ◎ Normal items

Select an item by moving the cursor ">" up or down using the **TRIGGER TILT UP/DOWN/STOP** command and then changing the setting using the **TRIGGER PAN RIGHT/LEFT/STOP** command. In addition, the Position No. is changed for the position data item by using the **VALUE02 PRESET POSITION SELECT** command or **TRIGGER SHIFT POSITION** command.

## ◎ Title item

The character or symbol set with title settings is selected using the **TRIGGER ZOOM TELE/WIDE/STOP** command and characters are set by moving through the character table using the **TRIGGER PAN RIGHT/LEFT/STOP** command and **TILT UP/DOWN/STOP** command. The Position No. set using the **VALUE02 PRESET POSITION SELECT** command or **TRIGGER EXTEND SHIFT POSITION** command is changed using position title settings. In addition, the Title No. set using the **TRIGGER FOCUS FAR/NEAR/STOP** command is changed using area title or alarm title settings.

## ◎ AUTO PAN

For auto pan settings, first set the pan, tilt, zoom and focus for the start position using the required commands and then confirm the setting using the **TRIGGER MENU** command. Next move the pan and select the return position using the **TRIGGER MENU** command.

## ◎ AUTO PATROL

For auto patrol settings, the pattern to be set is selected using the **TRIGGER FOCUS FAR/NEAR/STOP** command, the patrol No. page is selected using the **TRIGGER ZOOM TELE/WIDE/STOP** command, and the patrol No. is selected using the **TRIGGER TILT UP/DOWN/STOP** command, while the position No. is set using either the **VALUE02 PRESET POSITION SELECT** command or the **TRIGGER EXTEND SHIFT POSITION** command, and the stop duration is set using the **TRIGGER PAN RIGHT/LEFT/STOP** command.

**(5) Exiting a sub-menu and storing settings**

The sub-menu can be ended using the **TRIGGER MENU** command. Items set on the sub-menu are automatically stored at this time. Settings are also automatically stored if the position set using position data or position title settings is switched and if the start/return position has been determined using auto pan settings.

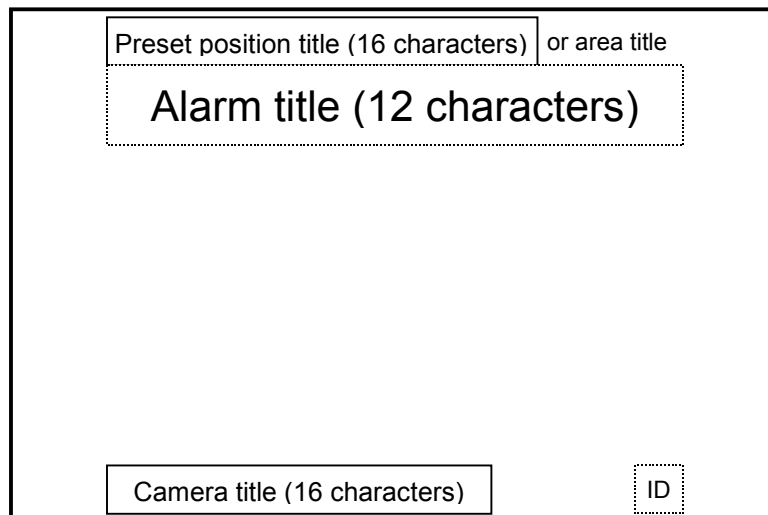
**(6) Exiting the built-in menu**

Exit the built-in menu using the **TRIGGER MENU** command while the main menu is being displayed.



## APPENDIX 2 SCREEN DISPLAY

Under factory settings, the location of the display on screen is as follows. No alarm title, area title, event display or ID is displayed. Although the camera title and preset position title are displayed, all settings are blank because they have not yet been made.



### ◎ Camera Title

- Always displayed.
- Display contents can be set using the STRING/STRINGW **CAMERA TITLE** command.
- The display position and the character size are fixed.

### ◎ Preset Position Title/Area Title

- The position title for the preset (home) position selected using the VALUE02 **PRESET POSITION SELECT** or TRIGGER **EXTEND SHIFT POSITION** command is displayed. The area title for the area in question is displayed when pan/tilt and zoom operations are performed. "MANUAL" is displayed if the AREA TITLE DISPLAY setting (of the VALUE02 **AREA TITLE DISPLAY** command) is set to OFF.
- The position title is set using either the VALUE02 **PRESET POSITION SELECT** command or TRIGGER **EXTEND SHIFT POSITION** command and the STRING/STRINGW **POSITION TITLE** command. The area title is set using the TRIGGER **AREA SELECT** command and the STRING/STRINGW **AREA TITLE** command.
- The display position is selected from six positions using the VALUE02 **POSITION TITLE LOCATION** command.
- The character size is fixed.

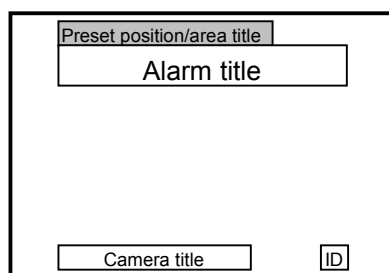
### ◎ Alarm Title

- The alarm text selected using the VALUE02 **ALARM DISPLAY SELECT** command is displayed. In addition, "ALARM" is displayed whether generated due to alarm terminal input or the motion detection function. (The alarm display disappears if a preset (home) position is moved.)
- It is possible to set the ten text strings which can be selected as alarm texts using the TRIGGER **EDITING ALARM SELECT** command and the STRING/STRINGW **ALARM TITLE** command.
- The display position is fixed. (Displayed padded to the right)
- The character size can be selected using the VALUE02 **ALARM CHARACTER SIZE** command.
- The character color can be selected using the VALUE02 **TITLE COLOR AT ALARM** command.

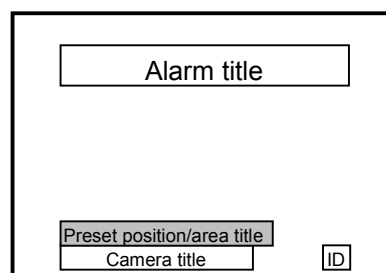
## © ID Display

- Sending the **TRIGGER ID DISPLAY MODE** command to a camera will cause its communication ID number to be displayed for about three seconds. (JCBP-S, F)
- The display is the communication ID No. set using its rotary switches.
- The display position and the character size are fixed.

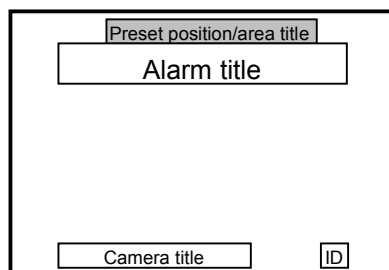
The display position of the preset position title or the area title can be selected using the VALUE02 **POSITION TITLE LOCATION** command as illustrated below.



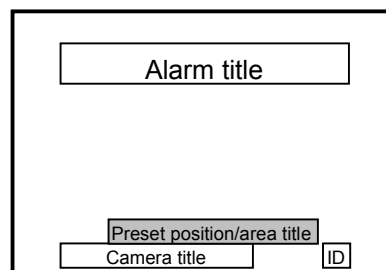
VALUE 00h: Upper left



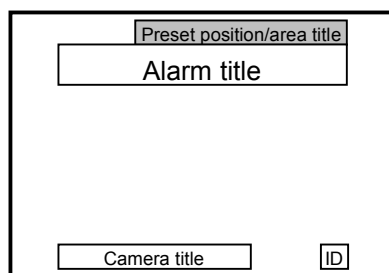
VALUE 01h: Lower left



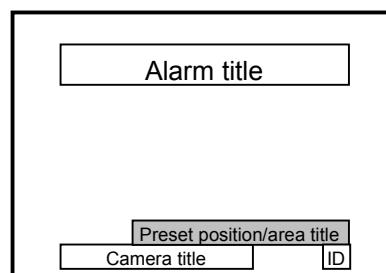
VALUE 02h: Upper middle



VALUE 03h: Lower middle

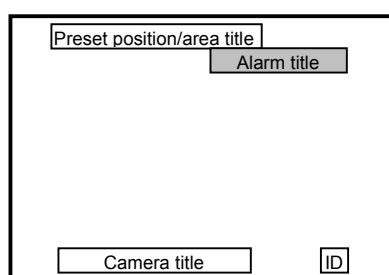


VALUE 04h: Upper right

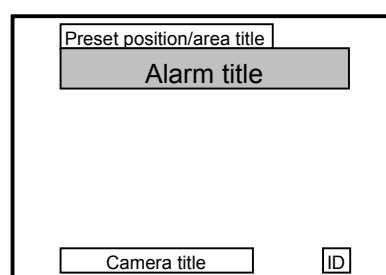


VALUE 05h: Lower right

The following results when you change the character size of the alarm title using the VALUE02 **ALARM CHARACTER SIZE** command.



VALUE 00h: Standard size



VALUE 01h: Double size

## APPENDIX 3 SAMPLE SETTINGS

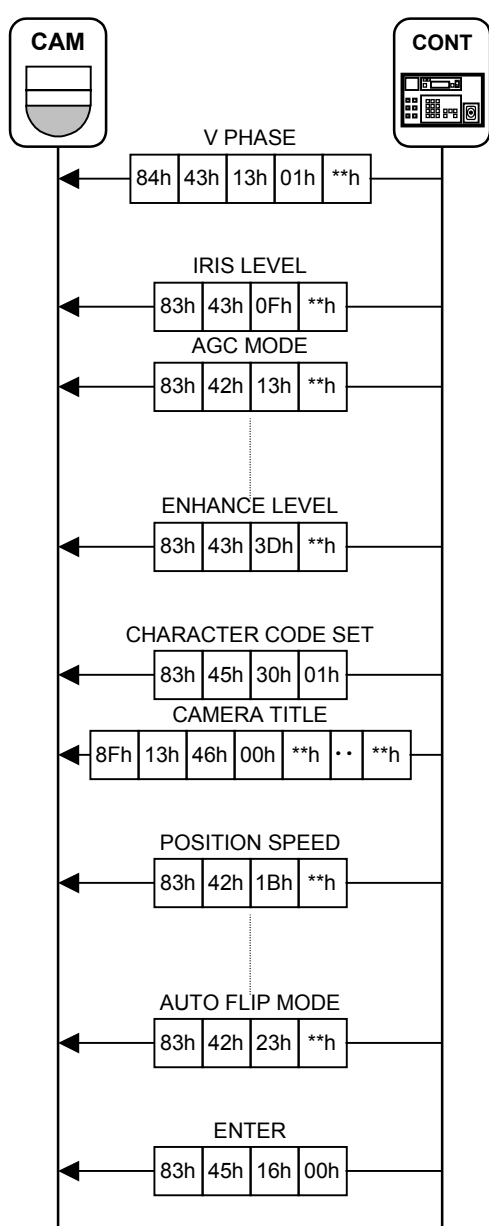
Use this appendix as a reference as it gives examples on controlling the TK-C676.

- ◎ This example is for JCCP-S. For use under another protocol, add the appropriate target specifications and acknowledge notifications as described in CCV CAMERA PROGRAMMER'S MANUAL and Chapter 2.
- ◎ Assume that the specifications for normal interval time, continuous send interval time, and maximum number of commands have been met.
- ◎ Check that the setting switches are all properly set before turning on the TK-C676's power.

### 1. When Using a TK-C676 For the First Time

The following items must be set and saved as given when using a TK-C676 camera for the first time.

#### (1) Camera Data



Adjust the V PHASE when using sync mode in L/L mode. Repeat this adjustment until the phase difference reaches a reasonable value.

- V PHASE <VALUE03>

Perform video-related settings. Note when setting camera data that it is used by all preset (home) positions. (There is no need to set this when factory settings are used.)

- IRIS LEVEL <VALUE03>
- AGC GAIN <VALUE02>
- AVERAGE:PEAK <VALUE03>
- ExDR MODE <VALUE02>
- MANUAL SHUTTER SPEED <VALUE02>
- ExDR LEVEL <VALUE03>
- ALC PRIORITY <VALUE02>
- SENSE UP MODE <VALUE02>
- B&W MODE <VALUE02>
- B&W AUTO LEVEL <VALUE03>
- COLOR LEVEL <VALUE03>
- PEDESTAL LEVEL <VALUE03>
- AUTO BLACK CONTROL MODE <VALUE02>
- ENHANCE LEVEL <VALUE03>, etc.

Set the camera title. Specify the character code set before setting the title if you want to use character Code B.

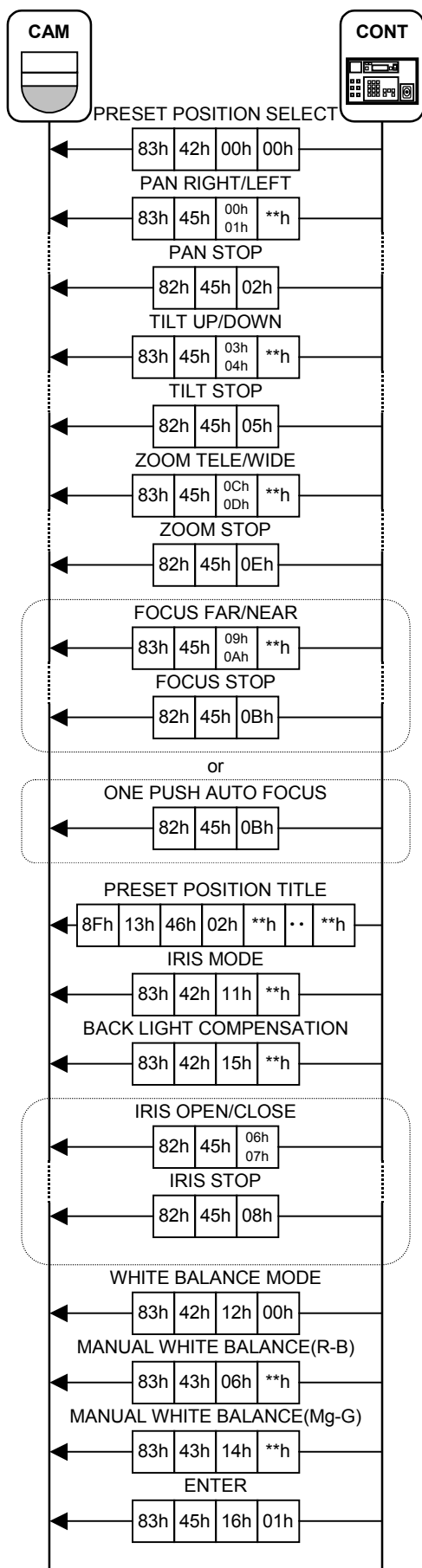
- CHARACTER CODE SET <TRIGGER>
- CAMERA TITLE <STRING/STRINGW>

Set the other items that can be changed.

- POSITION SPEED <VALUE02>
- VARIABLE PAN/TILT SPEED MODE <VALUE02>
- DIGITAL ZOOM MAX <VALUE02>
- POSITION TITLE LOCATION <VALUE02>
- PRIVATE MASKING MODE <VALUE02>
- MOTION DETECT MODE <VALUE02>
- MOTION DETECT LEVEL <VALUE03>
- AUTO FLIP MODE <VALUE02>, etc.

Save the necessary camera data once it has all been set.

- ENTER <TRIGGER>

**(2) Preset (Home) Position Data**

Select the home position.

- PRESET POSITION SELECT <VALUE02>

Set the angle of view (PAN, TILT, ZOOM).

- PAN RIGHT/LEFT/STOP <TRIGGER>
- TILT UP/DOWN/STOP <TRIGGER>
- ZOOM TELE/WIDE/STOP <TRIGGER>

Adjust the focus once the angle of view is set.

- FOCUS FAR/NEAR/STOP <TRIGGER>
- ONE PUSH AUTO FOCUS <TRIGGER>

Set the home position title.

- POSITION TITLE <STRING/STRINGW>

Set the iris mode and BLC mode. MANUAL IRIS LEVEL can be set if the iris mode is MANUAL. BLC mode can be set if it is AUTO, AUTO (+) or AUTO (-).

- IRIS MODE <VALUE02>
- BACK LIGHT COMPENSATION <VALUE02>
- IRIS OPEN/CLOSE/STOP <TRIGGER>

Set the white balance mode. Adjust the MANUAL W/B when the white balance mode is MANUAL.

- WHITE BALANCE MODE <VALUE02>
- MANUAL WHITE BALANCE (R-B, Mg-G) <VALUE03>

Save data once all settings have been made.

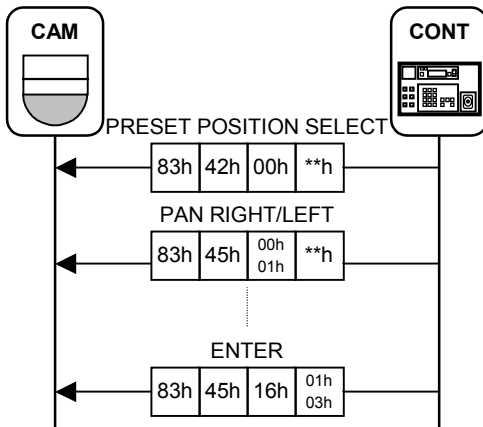
- ENTER <TRIGGER>

Repeat to for the other necessary positions.

## 2. When Changing Preset (Home) Position Settings

The following items must be set and saved as given when changing preset (home) position settings.

### (1) Changing



Select the preset (home) position to be changed.

- PRESET POSITION SELECT <VALUE02>  
(or EXTEND SHIFT POSITION <TRIGGER>)

Change the necessary items.

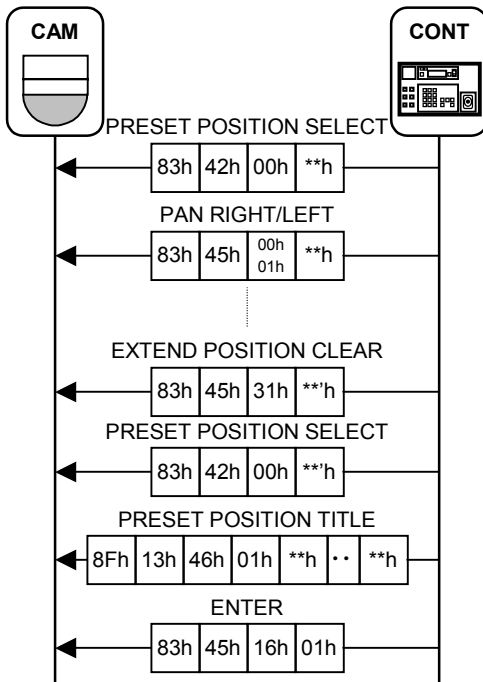
- Pan/tilt head (PAN, TILT)
- Lens (ZOOM, FOCUS, IRIS)
- Video (WHITE BALANCE, BLC)
- Preset position title

Save the data once all settings have been made.

- ENTER <TRIGGER>

**NOTE** Change VALUE as necessary depending on the items changed.

### (2) Changing + Copy



Select the preset (home) position that will be the copy source.

- PRESET POSITION SELECT <VALUE02>  
(or EXTEND SHIFT POSITION <TRIGGER>)

Change the necessary items.

- Pan/tilt head (PAN, TILT)
- Lens (ZOOM, FOCUS, IRIS)
- Video (WHITE BALANCE, BLC)

Select and initialize the copy destination once all settings have been made.

- EXTEND POSITION CLEAR <TRIGGER>
- PRESET POSITION SELECT <VALUE02>

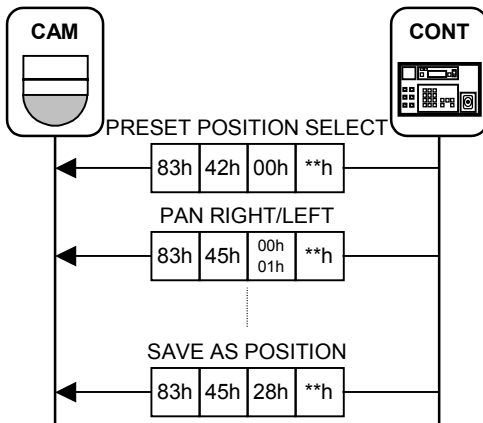
Set the home position title.

- POSITION TITLE <STRING/STRINGW>

Save the data.

- ENTER <TRIGGER>

### (3) Changing + Copy



Select the preset (home) position that will be the copy source.

- PRESET POSITION SELECT <VALUE02>  
(or EXTEND SHIFT POSITION <TRIGGER>)

Change the necessary items.

- Pan/tilt head (PAN, TILT)
- Lens (ZOOM, FOCUS, IRIS)
- Video (WHITE BALANCE, BLC)

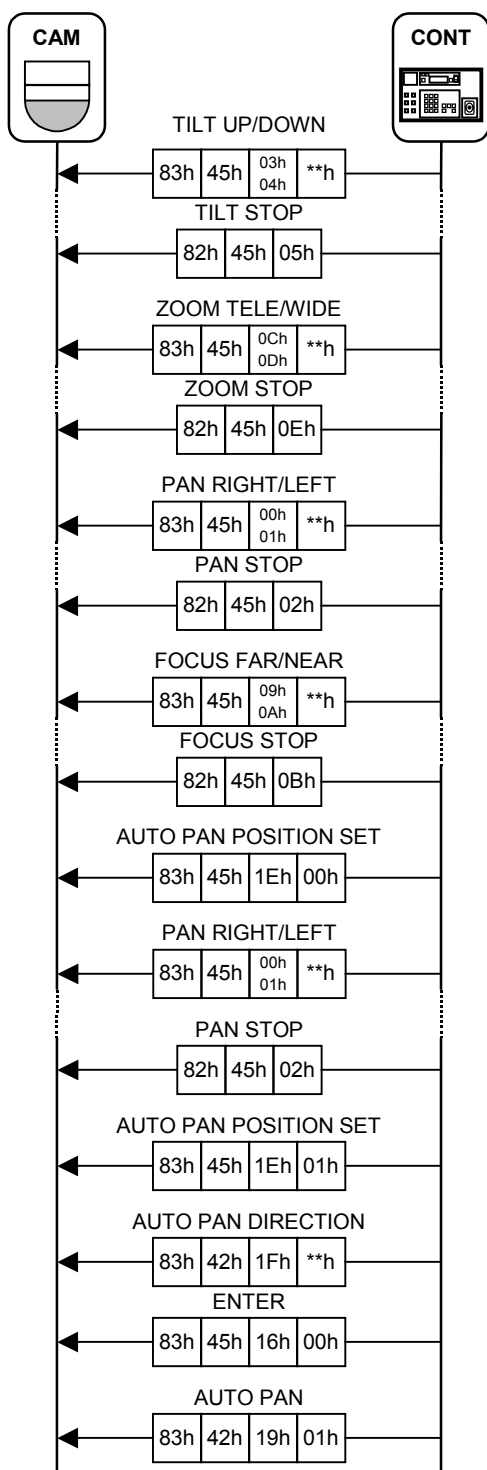
Copy data once all settings have been made.

- SAVE AS POSITION <TRIGGER>

**NOTE** The preset position title is not copied.

### 3. Using AUTO PAN

The following items must be set and saved as given when using AUTO PAN.



Set the start position for AUTO PAN.

TILT

- TILT UP/DOWN/STOP <TRIGGER>

ZOOM

- ZOOM TELE/WIDE/STOP <TRIGGER>

PAN

- PAN RIGHT/LEFT/STOP <TRIGGER>

FOCUS

- FOCUS FAR/NEAR/STOP <TRIGGER>  
(or ONE PUSH AUTO FOCUS <TRIGGER>)

Register the AUTO PAN start position that has been set.

- AUTO PAN POSITION SET <TRIGGER>

Set the return position for PAN operations. (Not necessary when continuously rotating left or right.)

- PAN POSITION <VALUE03>
- PAN RIGHT/LEFT/STOP <TRIGGER>

Register the AUTO PAN return position that has been set. (Not necessary when continuously rotating left or right.)

- AUTO PAN POSITION SET <TRIGGER>

Set and save the rotation method during AUTO PAN mode.

- AUTO PAN DIRECTION <VALUE02>
- ENTER <TRIGGER>

Select AUTO PAN mode.

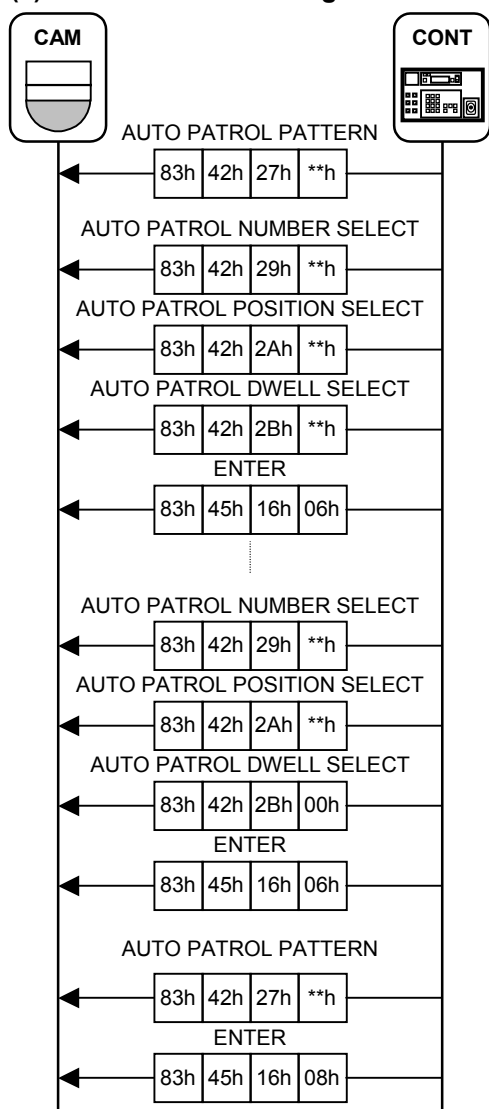
- AUTO PAN <VALUE02>

**NOTE** AUTO PAN mode is not saved.

## 4. Using AUTO PATROL

The following items must be set and saved as given when using AUTO PATROL.

### (1) AUTO PATROL setting



Select the AUTO PATROL patterns.

- AUTO PATROL PATTERN <VALUE02>

Select the AUTO PATROL number to be set.

- AUTO PATROL NUMBER SELECT <VALUE02>

Set the position and stop duration for the selected No.

- AUTO PATROL POSITION SELECT <VALUE02>
- AUTO PATROL DWELL SELECT <VALUE02>

Save the content that has been set.

- ENTER <TRIGGER>

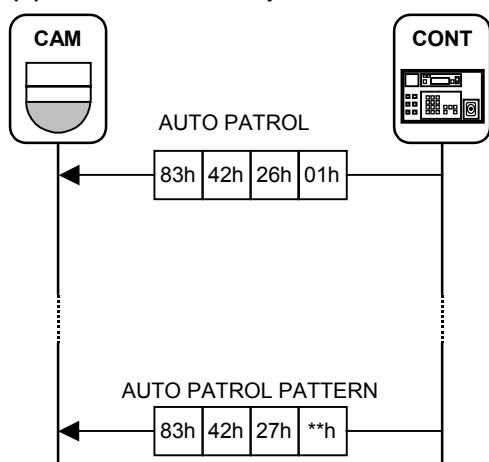
Repeat to for the necessary patrol numbers. Set "SKIP" for the stop duration of unneeded patrol numbers.

Repeat to for the other necessary patterns.

Select the pattern to be used normally and store.

- AUTO PATROL PATTERN <VALUE02>
- ENTER <TRIGGER>

### (2) AUTO PATROL operation



Initiate AUTO PATROL operations.

- AUTO PATROL <VALUE02>

**NOTE** AUTO PATROL operations are not stored.

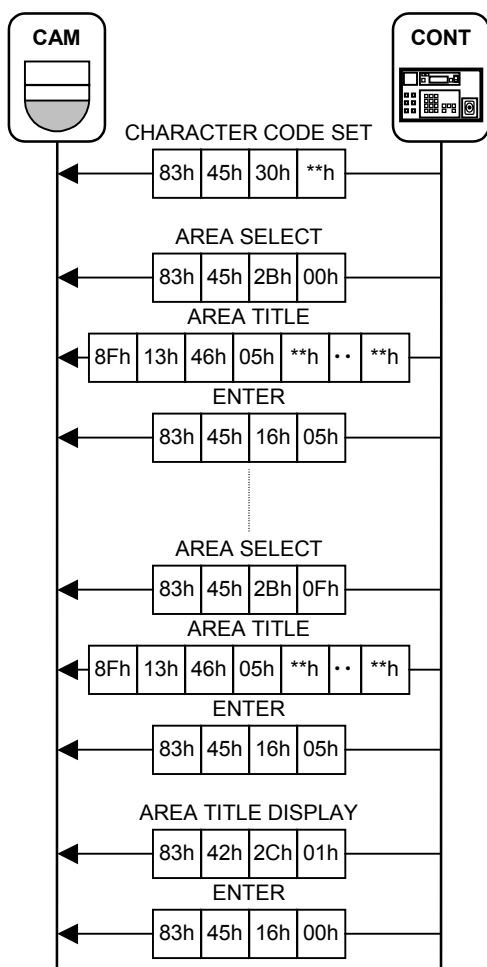
Change the pattern to be used according to certain conditions (such as day of week, time of day, etc.)

- AUTO PATROL PATTERN <VALUE02>



## 5. Using the Area Title

The following items must be set and saved as given when using the area title.



Select the area.

- AREA SELECT <TRIGGER>

Set the area title for the selected area. If you are changing the character code set, specify the character code before setting the text.

- CHARACTER CODE SET (TRIGGER)
- AREA TITLE <STRING/STRINGW>

Save the area title that has been set.

- ENTER <TRIGGER>

Repeat steps      to      to set area titles for areas 1 to 16.

Set DISPLAY mode for area titles and store settings.

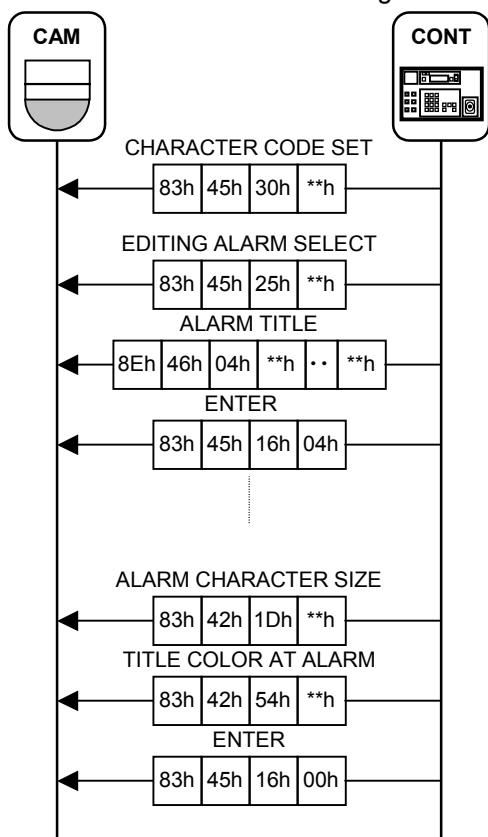
- AREA TITLE DISPLAY <VALUE02>
- ENTER <TRIGGER>

## 6. Using Alarms

The following items must be set and saved as given when using the alarm.

### (1) Setting Alarm Text

First set the text whenever using an alarm text other than alarm text Nos. 1 to 10.



If you are changing the character code set, specify the character code before setting the text.

- CHARACTER CODE SET <TRIGGER>

Select the text No. to be set.

- EDITING ALARM SELECT <TRIGGER>

Set the text.

- ALARM TITLE <STRING/STRINGW>

Save the text that has been set.

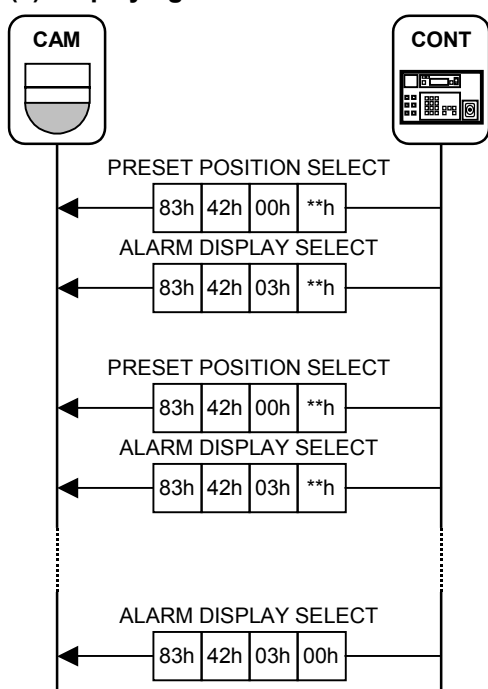
- ENTER <TRIGGER>

Repeat to for the necessary text strings.

Set the size and color to use when displayed and store settings.

- ALARM CHARACTER SIZE <VALUE02>
- TITLE COLOR AT ALARM <VALUE02>
- ENTER <TRIGGER>

### (2) Displaying Alarm Text



If the cause of an alarm (such as a sensor) goes off, the camera moves to the corresponding position and displays alarm text.

- PRESET POSITION SELECT <VALUE02>
- ALARM DISPLAY SELECT <VALUE02>

If another cause for alarm goes off, the camera moves to the corresponding position and switches to the corresponding alarm text.

- PRESET POSITION SELECT <VALUE02>
- ALARM DISPLAY SELECT <VALUE02>

Cancel the alarm text display once the alarm has cancelled such as due to the elapsing of a set amount of time.

- ALARM DISPLAY SELECT <VALUE02>

## APPENDIX 4 LIST OF COMMANDS

### 1. VALUE02

VALUE02		READ: 02h WRITE: 42h	
Item	Name	Value	Contents
00h	PRESET POSITION SELECT	00h 01h–63h	Home position Preset position Nos. 1 to 99
03h	ALARM DISPLAY SELECT	00h 01h–0Ah F6h–FFh	No alarm display Alarm text Nos. 1 to 10 Alarm text Nos. 246 to 255
0Bh	ExDR MODE	00h 03h	OFF ON
0Dh	SENSE UP MODE	00h 01h 02h 03h 04h 05h 06h	OFF x 2 AUTO x 4 AUTO x 8 AUTO x16 AUTO x32 AUTO x24 AUTO
0Eh	ALC PRIORITY	00h 01h	MOTION PRIORITY PICTURE PRIORITY
11h	IRIS MODE	00h 01h 02h 03h	MANUAL AUTO AUTO (+) AUTO (–)
12h	WHITE BALANCE MODE	01h 04h	AUTO (ATW) AWC (MANUAL)
13h	AGC MODE	00h 01h 02h 03h	0dB 10dB 20dB SUPER
14h	MANUAL SHUTTER SPEED	00h 01h 03h 04h 05h 06h 07h 08h	1/60(NTSC), 1/50(PAL) 1/100(NTSC), 1/120(PAL) 1/250 1/500 1/1000 1/2000 1/4000 1/10000
15h	BACK LIGHT COMPENSATION	00h 01h–04h	OFF PRESET AERA1–4
19h	AUTO PAN	00h 01h 02h 03h	MANUAL PAN (AUTO PAN OFF) AUTO PAN (AUTO PAN ON) START POINT RETURN POINT
1Ah	AUTO PAN SPEED	00h 01h 02h	NORMAL HIGH LOW

VALUE02		READ: 02h WRITE: 42h	
Item	Name	Value	Contents
1Bh	POSITION SPEED	00h	PAN: Approx. 1°/sec., TILT: Approx. 1°/sec.
		01h	PAN: Approx. 3°/sec., TILT: Approx. 3°/sec.
		02h	PAN: Approx. 12°/sec., TILT: Approx. 7°/sec.
		03h	PAN: Approx. 300°/sec., TILT: Approx. 180°/sec.
1Dh	ALARM CHARACTER SIZE	00h	Standard Size
		01h	Double Size
1Eh	POSITION TITLE LOCATION	00h	Upper left portion of screen
		01h	Lower left portion of screen
		02h	Upper middle portion of screen
		03h	Lower middle portion of screen
		04h	Upper right portion of screen
		05h	Lower right portion of screen
1Fh	AUTO PAN DIRECTION	00h	Return operation
		01h	Clockwise rotation
		02h	Counterclockwise rotation
22h	VARIABLE PAN/TILT SPEED MODE	00h	OFF
		01h	ON
23h	AUTO FLIP MODE	00h	OFF
		01h	AUTO
		02h	DIGITAL
24h	INFORMATION DISPLAY MODE	00h	OFF
		01h	CAMERA STATUS screen
		02h	SERVICE INFORMATION screen
25h	EASY AF	00h	OFF
		01h	ON
26h	AUTO PATROL	00h	OFF
		01h	ON
27h	AUTO PATROL PATTERN	00h	Pattern 1
		01h	Pattern 2
		02h	Pattern 3
29h	AUTO PATROL NUMBER SELECT	00h–63h	AUTO PATROL No.1–100
2Ah	AUTO PATROL POSITION SELECT	00h	Home position
		01h–63h	Preset position Nos. 1 to 99
2Bh	AUTO PATROL DWELL SELECT	00h	SKIP
		01h	30 seconds
		02h	45 seconds
		03h	1 minute
		04h	2 minutes
		07h	10 seconds
		08h	20 seconds
2Ch	AREA TITLE DISPLAY	00h	OFF
		01h	ON
2Dh	PANIC ALARM DURATION	01h–06h	5 – 10 seconds
		07h	15 seconds
		08h	20 seconds
		09h	30 seconds
		0Ah	1 minute
2Eh	PANIC ALARM POLARITY	00h	MAKE
		01h	BREAK

VALUE02		READ: 02h WRITE: 42h	
Item	Name	Value	Contents
39h	DIGITAL ZOOM MAX	00h 01h 02h 03h 04h 05h	1x (OFF) 2x 4x 8x 6x 10x
3Bh	INTERNAL ALARM STATUS	00h 01h	Internal alarm cancelled (NORMAL) Internal alarm generated (ALARM)
3Dh	ALARM MODE	00h 01h	Alarm priority Manual priority
3Eh	LAST ALARM POSITION	00h 01h–63h	Home position Preset position Nos. 1 to 99
42h	PORT OUTPUT 1 SELECT	00h 01h 02h	OFF UNIT ALARM B&W
43h	PORT OUTPUT 2 SELECT	03h 04h	POSITION END AUX 1 (RM)
44h	PORT OUTPUT 3 SELECT	05h 06h	AUX 2 (RM) AUX 3 (RM)
47h	IR LIGHT	00h 01h	NORMAL IR
48h	B&W MODE	00h 01h 02h 03h–06h	OFF ON AUTO ALARM1–4
49h	AUTO BLACK CONTROL MODE	00h 01h	OFF ON
4Ah	AUTO PAN KEY	00h 01h	AUTO PAN AUTO PATROL
4Bh	AUTO PATROL KEY	02h	AUTO TRACE
4Ch	MOTION DETECT MODE	00h 01h	OFF ON
4Dh	ALARM DISPLAY TIME	00h 01h–06h 07h 08h 09h 0Ah	OFF 5 – 10 seconds 15 seconds 20 seconds 30 seconds 1 minute
4Eh	PRIVATE MASKING MODE	00h 01h	OFF ON
51h	ALARM REPORT	00h 01h	Disabled Enabled
54h	TITLE COLOR AT ALARM	00h 01h 02h 03h	White Green Cyan Yellow

**2. VALUE03**

<b>VALUE03</b>		<b>READ:03h WRITE:43h</b>	
Item	Name	Value	Contents
00h	MANUAL IRIS LEVEL	00h   FFh	The iris is in its most contracted state  The iris is at its most open state (Full open)
02h	ZOOM POSITION	20h   17E8h	WIDE end + x1  TELE end + x1  TELE end + x10
03h	FOCUS POSITION	20h   0580h	FAR end of focus position  NEAR end of focus position
04h	PAN POSITION	00h   0640h   0C80h   12C0h   18FFh	-180.00 °  -90.00 °  0.00 °  90.00 °  179.94 °
05h	TILT POSITION	00h   0640h   0C80h   12C0h   1900h	0 °  45 °  90 °  135 °  180 °
06h	MANUAL WHITE BALANCE (R-B)	00h   FFh	B side (Color temperature: 2500K or less)  R side (Color temperature: 8000K or more)
0Ah	AVERAGE: PEAK	00h 01h 02h 03h 04h 05h	AVERAGE 10: PEAK 0 AVERAGE 9: PEAK 1 AVERAGE 8: PEAK 2 AVERAGE 7: PEAK 3 AVERAGE 6: PEAK 4 AVERAGE 5: PEAK 5
10h	PEDESTAL LEVEL	7Bh   80h   85h	-5  NORMAL  5

VALUE03		READ:03h WRITE:43h	
Item	Name	Value	Contents
13h	V PHASE	1F7Dh, 1F64h   1FBEh, 1FB2h   2000h   2041h, 204Eh   2083h, 209Ch	Approx. -180° from the standard position Approx. -90° from the standard position Standard position (zero crosspoints) Approx. 90° from the standard position Approx. 180° from the standard position
14h	MANUAL WHITE BALANCE(Mg-G)	00h   FFh	G side Mg side
30h	PAN RIGHT(RELATIVE)	00h   B4h	0° 180°
31h	PAN LEFT(RELATIVE)	00h   B3h	0° 179°
32h	TILT UP(RELATIVE)	00h 	0°
33h	TILT DOWN(RELATIVE)	B4h	180°
34h	FOCUS FAR(RELATIVE)	00h 01h	Does not function Minimum step
35h	FOCUS NEAR(RELATIVE)	 C8h	Maximum step
36h	ZOOM TELE(RELATIVE)	00h 01h	Does not function Minimum step
37h	ZOOM WIDE(RELATIVE)	 64h	Maximum step
3Ah	ExDR LEVEL	7Bh   80h   85h	-5 NORMAL 5
3Bh	B&W AUTO LEVEL	7Fh 80h 81h	LOW NORMAL HIGH
3Ch	MOTION DETECT LEVEL	7Bh   80h   85h	-5 NORMAL 5
3Dh	ENHANCE LEVEL	7Bh   80h   85h	-5 NORMAL 5
3Eh	COLOR LEVEL	7Bh   80h   85h	-5 NORMAL 5

### 3. TRIGGER

TRIGGER		WRITE:45h	
Item	Name	Value	Contents
00h	PAN RIGHT	10h, 11h	Lowest speed (Approx. 1°/sec. with correction OFF)
		12h, 13h	Low speed (Approx. 3°/sec. with correction OFF)
		14h, 15h	Low speed (Approx. 7°/sec. with correction OFF)
		16h, 17h	Medium speed (Approx. 12°/sec. with correction OFF)
		18h, 19h	Medium speed (Approx. 20°/sec. with correction OFF)
01h	PAN LEFT	1Ah, 1Bh	High speed (Approx. 40°/sec. with correction OFF)
		1Ch, 1Dh	High speed (Approx. 60°/sec. with correction OFF)
		1Eh, 1Fh	Highest speed (Approx. 80°/sec. with correction OFF)
02h	PAN STOP		
03h	TILT UP	10h, 11h	Lowest speed (Approx. 0.5°/sec. with correction OFF)
		12h, 13h	Low speed (Approx. 1°/sec. with correction OFF)
		14h, 15h	Low speed (Approx. 3°/sec. with correction OFF)
		16h, 17h	Medium speed (Approx. 7°/sec. with correction OFF)
		18h, 19h	Medium speed (Approx. 16°/sec. with correction OFF)
04h	TILT DOWN	1Ah, 1Bh	High speed (Approx. 26°/sec. with correction OFF)
		1Ch, 1Dh	High speed (Approx. 42°/sec. with correction OFF)
		1Eh, 1Fh	Highest speed (Approx. 60°/sec. with correction OFF)
05h	TILT STOP		
06h	IRIS OPEN		
07h	IRIS CLOSE		
08h	IRIS STOP		
09h	FOCUS FAR	00h	Lowest speed (Approx. 64 sec. from NEAR end to FAR end)
		01h	Low speed (Approx. 40 sec. from NEAR end to FAR end)
0Ah	FOCUS NEAR	02h	High speed (Approx. 25 sec. from NEAR end to FAR end)
		03h	Highest speed (Approx. 8 sec. from NEAR end to FAR end)
0Bh	FOCUS STOP		



TRIGGER		WRITE:45h	
Item	Name	Value	Contents
0Ch	ZOOM TELE	00h	Lowest speed (Approx. 11 sec. from WIDE end to TELE end)
		01h	Low speed (Approx. 8 sec. from WIDE end to TELE end)
		02h	High speed (Approx. 3 sec. from WIDE end to TELE end)
		03h	Highest speed (Approx. 2 sec. from WIDE end to TELE end)
0Dh	ZOOM WIDE		
0Eh	ZOOM STOP		
0Fh	ALL STOP		
16h	ENTER *1	00h	Camera data
		01h	Preset (home) position data (all)
		03h	Preset (home) position data (video, title)
		04h	Alarm text
		05h	Area title
		06h	AUTO PATROL
		08h	AUTO PATROL pattern
17h	ONE PUSH AUTO WHITE BALANCE		
19h	AUX 1	00h 01h	OFF ON
1Ah	AUX 2		
1Bh	AUX 3		

\*1 Since there is a limit to the number of times the memory used by this camera for storing settings can be written, overuse of this command may result in equipment failure. Keep the use of this command to an absolute minimum.

TRIGGER		WRITE:45h	
Item	Name	Value	Contents
1Dh	CLEAR <sup>*1.*2</sup>	00h 01h - 3Fh 42h	Home position data Preset position data Nos. 1 to 63 All data
1Eh	AUTO PAN POSITION SET <sup>*2</sup>	00h 01h	START POSITION RETURN POSITION
1Fh	ONE PUSH AUTO FOCUS		
25h	EDITING ALARM SELECT	01h - 0Ah	Alarm text Nos. 246 to 255
26h	FLIP START		
27h	ID DISPLAY		
28h	SAVE AS POSITION <sup>*2</sup>	00h 01h - 63h	Home position data Preset position data Nos. 1 to 99
29h	MENU		
2Ah	SET		
2Bh	AREA SELECT	00h - 0Fh	Area 1 – 16
2Ch	SHIFT POSITION <sup>*1</sup>	00h 01h	Forward Preset position Reverse Nos. 64–99 cannot be selected Maximum position No.63
2Dh	PANIC ALARM RESET		
30h	CHARACTER CODE SET	00h 01h	Code A Code B
31h	EXTEND POSITION CLEAR <sup>*2</sup>	00h 01h - 63h	Home position data Preset position data Nos. 1 to 99
32h	ALL CLEAR <sup>*2</sup>	00h 01h	ALL CLEAR WITHOUT POSITION/TITLE
33h	EXTEND SHIFT POSITION	00h 01h	Forward Reverse

\*1 This command has an old format. Do not use this command unless specifically required. Use the alternate commands listed in this text as much as possible.

\*2 Since there is a limit to the number of times the memory used by this camera for storing settings can be written, overuse of this command may result in equipment failure. Keep the use of this command to an absolute minimum.

#### 4. STRING/STRINGW

STRING		READ:06h WRITE:46h
STRINGW		WRITE:47h
Item	Name	Number of Characters
00h	CAMERA TITLE	16 characters
02h	POSITION TITLE	16 characters
04h	ALARM TITLE	12 characters
05h	AREA TITLE	16 characters

#### 5. DUMP64

Command Code CMD		
STRING		READ:0Ah WRITE:4Ah
Item	Name	Packet to be used
00h	EEPROM DUMP	0–255