Ver 1.0 2002. 09

Revision History

SECTION 6 ADJUSTMENTS

ADJ

Link

- Before starting adjustments
 - Adjusting items when replacing main parts and boards
- CAMERA SECTION ADJUSTMENTS
 - PREPARATIONS BEFORE ADJUSTMENTS
 - INITIALIZATION OF A, B, D, E, F, 7, 9 PAGE DATA
 - VIDEO SYSTEM ADJUSTMENTS
 - CAMERA SYSTEM ADJUSTMENTS
 - LCD SYSTEM ADJUSTMENTS
 - COLOR ELECTRONIC VIEWFINDER SYSTEM ADJUSTMENTS

SERVICE MODE

- ADJUSTING REMOTE COMMANDER
- DATA PROCESS
- SERVICE MODE

Contents of LEVEL 2 and LEVEL 3 Service Manual

CONTENTS	LEVEL 2	LEVEL 3
1. SERVICE NOTE	0	×
2. DISASSEMBLY	0	×
3. BLOCK DIAGRAMS	OVERALL	×
	POWER	
4. PRINTED WIRING BOARDS AND	CD-408, FR-194, PD-179,	SY-080 BOARD
SCHEMATIC DIAGRAMS	BT-015, LB-082, AL-013,	
	UJ-002, AJ-005, SW-379	
	BOARD, FP-583, FP-584	
	FLEXIBLE	
	CONTROL SWITCH	
	BLOCK (FZ51050)	
	CONTROL SWITCH	
	BLOCK (PW51050)	
5. REPAIR PARTS LIST	EXPLODED VIEWS	×
	ELECTRICAL PARTS LIST	0
		(SY-080 BOARD)



TABLE OF CONTENTS

<u>Secti</u>	<u>on Title Page</u>
6.	ADJUSTMENTS
Befor	e Starting Adjustment ·······6-1
1-1.	Adjusting Items when Replacing
	Main Parts and Boards6-2
6-1.	Camera Section Adjustments 6-3
1-1.	Preparations Before Adjustments6-3
	List of Service Tools6-3
	Preparations6-4
	Discharging of the Flashlight Power Supply6-4
	Precautions 6-6 Setting the Switch 6-6
1. 2.	Order of Adjustments6-6
3.	Subjects6-6
4.	Preparing the Flash Adjustment Box6-7
1-2.	Initialization of A, B, D, E, F, 7, 9 Page Data ······6-8
	Initialization of A, D Page Data6-8
1.	Initializing A, D Page Data 6-8
2.	Modification of A, D Page Data ····· 6-8
3.	A Page Table 6-8
4.	D Page Table6-8
	Initialization of B, E, F, 7, 9 Page Data ······ 6-9
1.	Initializing B, E, F, 7, 9 Page Data6-9
2.	Modification of B, E, F, 7, 9 Page Data6-9
3. 4.	B Page Table
5.	F Page Table6-10
<i>5</i> . 6.	7 Page Table
7.	9 Page Table
1-3.	Video System Adjustment ·······6-13
1.	Composite Video Level Adjustment6-13
1-4.	Camera System Adjustments 6-14
	Data Setting During Camera System Adjustments $\cdots\!\cdots\!6\text{-}14$
	Picture Frame Setting6-15
	Check on the Oscilloscope6-15
1.	HALL Adjustment 6-16
2.	Flange Back Adjustment (Using the minipattern box)6-17
3.	Flange Back Adjustment
٥.	(Using the flange back adjustment chart and
	Subject More than 500 m Away)6-18
4.	Flange Back Check
5.	F No. Compensation6-20
6.	Mechanical Shutter Adjustment6-20
7.	Light Value Adjustment 6-21
8.	Mixed Color Cancel Adjustment 6-21
9.	Auto White Balance 3200K Standard Data Input 1 ······ 6-22
10.	Auto White Balance 3200K Standard Data Input 2 ······ 6-22
11.	Auto White Balance 3200K Standard Data Input 3 6-23
12. 13.	Auto White Balance 5800K Standard Data Input 1 6-23 Auto White Balance 5800K Standard Data Input 2 6-24
13. 14.	Auto White Balance 5800K Standard Data Input 26-24 Auto White Balance 5800K Standard Data Input 36-24
15.	Auto White Balance 5800K Check 16-25
16.	Auto White Balance 5800K Check 26-26
17.	Auto White Balance 5800K Check 36-26
18.	Auto White Balance 3200K Check 16-27
19.	Auto White Balance 3200K Check 2 ······6-28
20.	Auto White Balance 3200K Check 36-28
21.	Color Reproduction Adjustment
22.	CCD White Defect Compensation6-30
23. 24.	CCD Black Defect Compensation 6-31
24. 25.	CCD Linearity Check (Monitoring)
25. 26.	Strobe White Balance Adjustment
27.	LED Illumination Check6-36
28	AF Illumination Check

<u>Sect</u>	<u>Title</u>	<u>Page</u>
1-5.	LCD System Adjustments	6-38
1.	LCD Initial Data Input (1)	
2.	LCD Initial Data Input (2)	6-39
3.	VCO Adjustment (PD-179 Board)	
4.	D Range Adjustment (PD-179 Board)	6-40
5.	Contrast Adjustment (PD-179 Board)	6-41
6.	V-COM Level Adjustment (PD-179 Board)	6-41
7.	V-COM Adjustment (PD-179 Board)	6-42
8.	White Balance Adjustment (PD-179 Board)	6-42
1-6.	Color Electronic Viewfinder System Adjustments	
1.	EVF Initial Data Input	
2.	VCO Adjustment (PD-179 Board)	6-44
3.	Bright Adjustment (PD-179 Board)	6-45
4.	Contrast Adjustment (PD-179 Board)	
5.	White Balance Adjustment (PD-179 Board)	6-46
6-2.	Service Mode ·····	~
2-1.	Adjusting Remote Commander	
1.	Used the Adjusting Remote Commander	6-47
2.	Precautions upon Using the Adjusting	
	Remote Commander ·····	
2-2.	Data Process ····	
2-3.	Service Mode ·····	
1.	Setting the Test Mode ·····	
2.	Bit Value Discrimination	
3.	Mode Dial Check (1) ·····	
4.	Mode Dial Check (2) ·····	
5.	Jog Dial Check ·····	
6.	Switch Check (1) ·····	
7.	Switch Check (2) ·····	
8.	LED Check ·····	
9.	Self Diagnosis Code ·····	6-51

^{*} The sheet for auxiliary light is shown on page 6-52.
* The color reproduction frame is shown on page 6-53.



SECTION 6 ADJUSTMENTS

Before starting adjustment

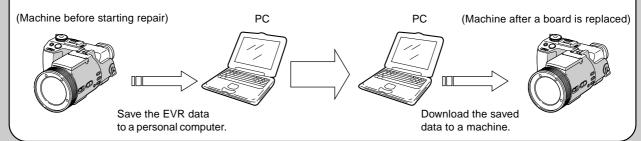
EVR Data Re-writing Procedure When Replacing Board

The data that is stored in the repair board, is not necessarily correct.

Perform either procedure 1 or procedure 2 or procedure 3 when replacing board.

Procedure 1

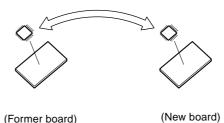
Save the EVR data of the machine in which a board is going to be replaced. Download the saved data after a board is replaced.



Procedure 2

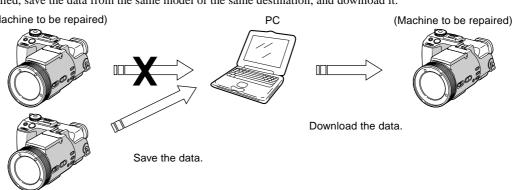
Remove the EEPROM from the board of the machine that is going to be repaired. Install the removed EEPROM to the replaced board.

Remove the EEPROM and install it.



Procedure 3

When the data cannot be saved due to defective EEPROM, or when the EEPROM cannot be removed or installed, save the data from the same model of the same destination, and download it.



(The same model of the same destination)

After the EVR data is saved and downloaded, check the respective items of the EVR data. (Refer to page 6-2 for the items to be checked.)



1-1. Adjusting items when replacing main parts and boards When replacing main parts and boards, adjust the items indicated by ● in the following table.

									Re	plac	ed p	arts								
		Г		I	Bloc	k				N	Mou	nted	part	ts			Boar	ď		
		replacement						replaceme			nent	ent			replacement					
Adjustment section	Adjustment	Lens block assy	Flash unit	Laser unit	LCD block LCD901 (LCD panel)	LCD block D911 (Back light unit)	EVF block LCD902 (EVF LCD panel)	LB-082 board D701 (Back light (EVF))	SY-080 board IC102 (S/H, AGC, A/D)	SY-080 board IC207 (EVR)	FR-194 board IC201 (VIDEO AMP)	PD-179 board IC801 (LCD drive)	PD-179 board IC802 (LCD Timing generator)	PD-179 board IC901 (LCD drive (EVF))	PD-179 board IC902 (LCD Timing generator (EVF))	FR-194 board (COMPLETE)	PD-179 board (COMPLETE)	SY-080 board (COMPLETE)	SY-080 board IC505 EEPROM	Supporting RealerW
Initialization of A. R. D.	Initialization of A, D page data	Lens	Flash	Laser	TCD	TCD	EVF	LB-0	O-XS	SY-0	FR-1	PD-1	PD-1	PD-1	PD-1	FR-1	PD-1	■ SY-0	SY-0	Supp
Initialization of A, B, D, E, F, 7, 9 page data	Initialization of B, E, F, 7, 9 page data	\vdash						_								_	<u> </u>			
Video	Composite video level adj.	H								•	•						\vdash	•	–	
Camera	Hall adj.	•								•	Ť					Ť		•	–	•
	Flange back adj.	•								Ť								•	•	•
	F No. compensation	•															-	•	•	•
	Mechanical shutter adj.	•								•								•	•	•
	Light value adj.	•							•									•	•	•
	Mixed color cancel adj.	•							•									•	•	•
	Auto white balance standard data input	•							•									•	•	•
	Color reproduction adj.	•							•									•	•	•
	CCD (white and black) defect compensation	•																•	•	•
	CCD linearity check	•							•									•	•	
	Strobe white balance adj.	•	•						•									•	•	•
_	AF Illumination check	L		•																•
LCD	LCD initial data input																	•	•	
	VCO adj.	L											•				•	•	•	
	D range adj.	L										•					•	•	•	
	Contrast adj.	L										•					•	•	•	
	V-COM level adj.	L										•					•	•	•	
	V-COM adj.	L			•							•					•	•	•	
	White balance adj.				•	•						•					•	•	•	
EVF	EVF initial data input																	•	•	
	VCO adj.	L													•		•	•	•	
	Bright adj.	L												•			•	•	•	
	Contrast adj.	_												•			•	•	•	
	White balance adj.																•		•	

Table 6-1-1



6-1. CAMERA SECTION ADJUSTMENTS

1-1. PREPARATIONS BEFORE ADJUSTMENTS

1-1-1. List of Service Tools

• Oscilloscope • Color monitor

• Vectorscope

• Regulated power supply

• Digital voltmeter

• Frequency counter

• Calculating machine capable of calculating hexadecimal numbers.

Ref. No.	Name	Parts Code	Usage
J-1	Filter for color temperature correction (C14)	J-6080-058-A	Auto white balance adjustment/check White balance adjustment/check
J-2	Pattern box PTB-450	J-6082-200-A	
J-3	Color bar chart for pattern box	J-6020-250-A	
J-4	Adjusting remote commander (RM-95 upgraded). (Note 1)	J-6082-053-B	
J-5	Siemens star chart	J-6080-875-A	For checking the flange back
J-6	Clear chart for pattern box	J-6080-621-A	
J-7	CPC-12 jig	J-6082-436-A	For connecting the adjusting remote commander For adjusting the LCD, EVF block
J-8	Minipattern box	J-6082-353-B	For adjusting the flange back
J-9	Back ground paper	J-2501-130-A	For adjusting the strobe
J-10	Extension cable (39 P, 0.3 mm)	J-6082-448-A	For extension between the CD-408 board (CN301) and the SY-080 board (CN101)
J-11	Extension cable (39 P, 0.3 mm)	1-686-180-11	For extension between the SY-080 board (CN701, 702) and the FR-194 board (CN301, 302)

Note 1: If the micro processor IC in the adjusting remote commander is not the new micro processor (UPD7503G-C56-12), The pages cannot be switched. In this case, replace with the new micro processor (8-759-148-35).

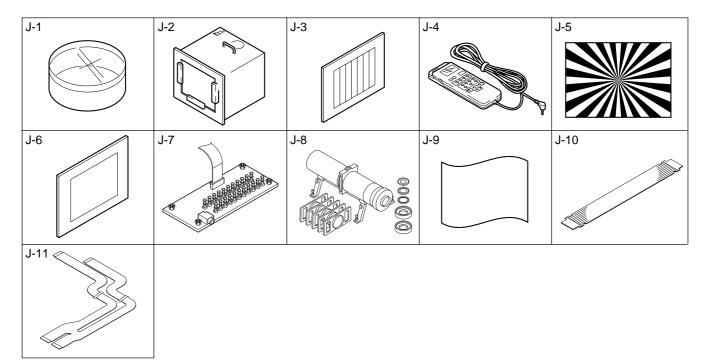


Fig. 6-1-1

1-1-2. Preparations

Note 1: For details of how remove the cabinet and boards, refer to "2. DISASSEMBLY".

Note 2: When performing only the adjustments, the lens block and boards need not be disassemble.

- Connect the equipment for adjustments according to Fig. 6-1 6.
- Connect the Adjusting remote commander to the FR-194 board CN305 via CPC-12 jig (J-6082-436-A). (See Fig. 6-1-3)

Note 3: Setting the "Forced CAMERA mode power ON" Mode

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: D, address: 21, set data: 07, and press the PAUSE button of the adjusting remote commander.

The above procedure will enable the camera power to be turned on. After completing adjustments, be sure to exit the "Forced CAMERA mode power ON Mode".

Note 4: Exiting the "Forced CAMERA mode power ON Mode"

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: D, address: 21, set data: 00, and press the PAUSE button of the adjusting remote commander.
- 3) Select page: 0, address: 01, and set data: 00.

1-1-3. Discharging of the Flashlight Power Supply

The capacitor which is used as power supply of flashlight is charged with 200 V to 300 V voltage. Discharge this voltage before starting disassembly in order to protect service engineers from electric shock during disassembly.

Discharge procedure

- Remove the FR-194 board, and disconnect the harness from CN404 on the BT-015 board.
- 2. Fabricate the short jig as shown in Fig. 6-1-5 locally by yourself. Connect the short jig to the pin ① and pin ② of CN404 on the BT-015 board. Allow ten seconds to discharge the voltage.

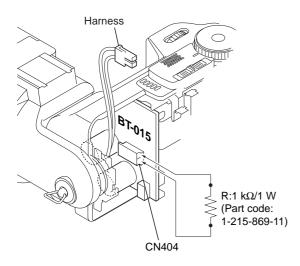


Fig. 6-1-4

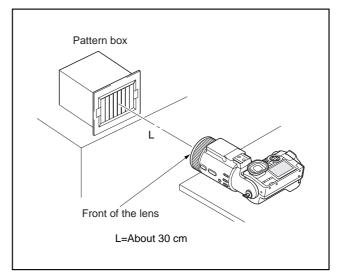


Fig. 6-1-2

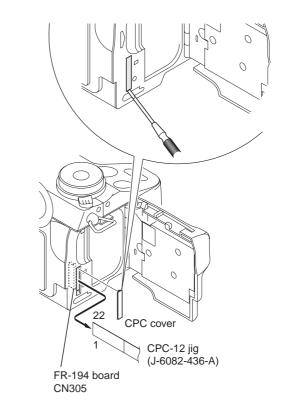


Fig. 6-1-3

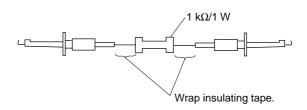


Fig. 6-1-5

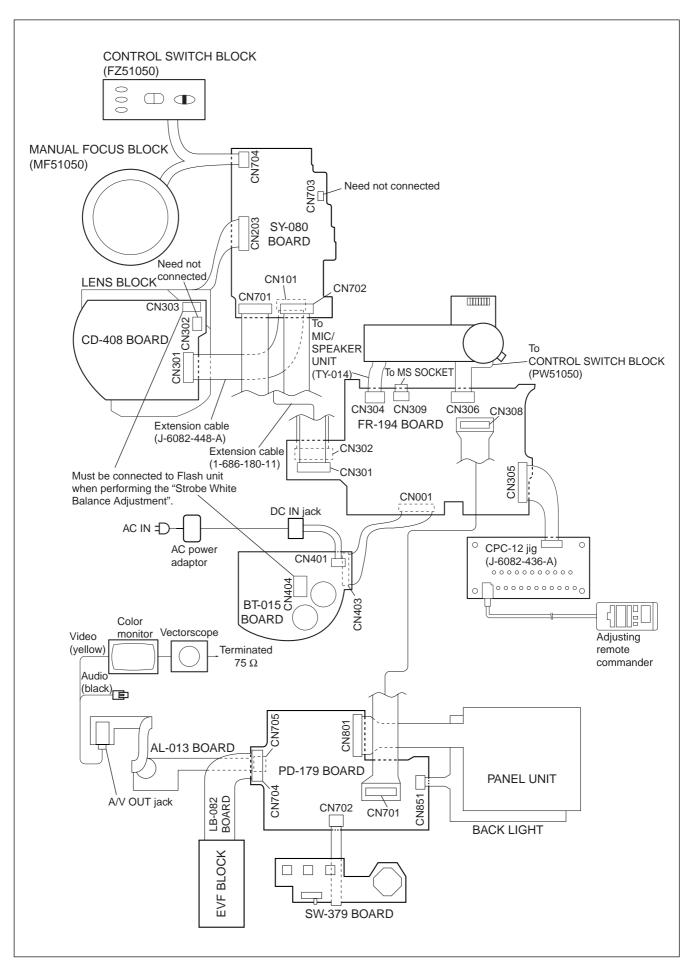


Fig. 6-1-6

1-1-4. Precautions

1. Setting the Switch

Unless otherwise specified, set the switches as follows and perform adjustments.

	3	
1.	Mode Dial	CAMERA
2.	FOCUS switch	
	(FZ51050 block S308)	MANUAL
3.	EXPOSURE button	
	(PW51050 block S404)	0EV
4.	DISPLAY button	

(SW-379 board S355) OSD OFF 5. WHT BAL

2. Order of Adjustments

Basically carry out adjustments in the order given.

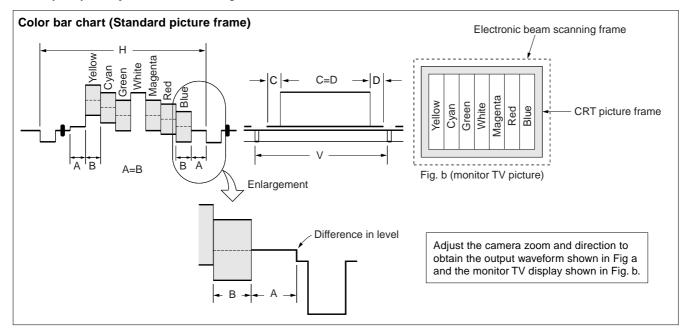
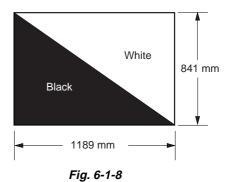


Fig. 6-1-7

3. Subjects

- Color bar chart (Standard picture frame).
 When performing adjustments using the color bar chart, adjust the picture frame as shown in Fig. 6-1-7. (Standard picture frame)
- Clear chart (Standard picture frame)
 Remove the color bar chart from the pattern box and insert a clear chart in its place. (Do not perform zoom operations during this time)
- 3) Chart for flange back adjustment
 Join together a piece of white A0 size paper (1189mm × 841 mm) and a piece of black paper to make the chart shown in Fig. 6-1-8.

Note: Use a non-reflecting and non-glazing vellum paper. The size must be A0 or larger and the joint between the white and black paper must not have any undulations.



4. Preparing the Flash Adjustment Box

A dark room is required to provide an accurate flash adjustment. If it is not available, prepare the flash adjustment box as given below;

Provide woody board A, B and C of 15 mm thickness.
 Dimensions without brackets are for a box of 1 m in depth.
 Dimensions in brackets are for a box of 50 cm in depth.

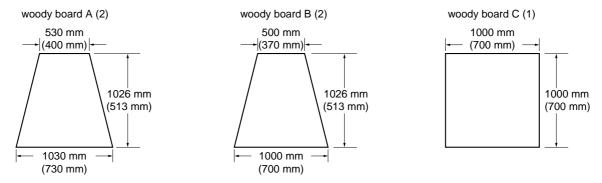


Fig. 6-1-9

- 2) Apply black mat paint to one side of woody board A and B.
- 3) Attach background paper (J-2501-130-A) to woody board C.
- 4) Assemble so that the black sides and the background paper side of woody board A, B and C are internal. (Fig 6-1-10)

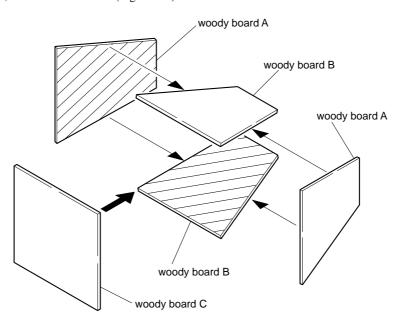


Fig. 6-1-10



1-2. INITIALIZATION OF A, B, D, E, F, 7, 9 PAGE

1-2-1. Initialization of A, D Page Data

1. Initializing A, D Page Data

Note: If the A, D page data has been initialized, the following adjustments need to be performed again.

- 1) Modification of A, D page data
- 2) Video system adjustments
- 3) LCD system adjustments
- 4) Color electronic viewfinder system adjustment

Adjsuting page	A
Adjsuting Address	00 to FF
Adjusting page	D
Adjusting Address	10 to 7F

Initializing Method:

Order	Page	Address	Data	Procedure
1	0	01	01	
2	4	03	11	
3	4	00	2D	
4	4	01	2D	Press PAUSE button.
5	4	02		Check the data changes to "01".
6				Perform "Modification of A, D page Data".

2. Modification of A, D Page Data

If the A, D page data has been initialized, change the data of the "Fixed data-2" address shown in the following table by manual input.

Modifying Method:

- 1) Before changing the data, select page: 0, address: 01, and set
- 2) New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.

Note: If copy the data built in the different model, the camera may not operate.

- When changing the data, press the PAUSE button of the adjusting remote commander each time when setting new data to write the data in the non-volatile memory.
- 4) Check that the data of adjustment addresses is the initial value. If not, change the data to the initial value.

Processing after Completing Modification of A, D Page Data:

Order	Page	Address	Data	Procedure
1	2	00	29	
2	2	01	29	Press PAUSE button.

3. A Page table

Note 1: Fixed data-1: Initialized data.

(Refer to "1. Initializing the A, D Page Data")

Note 2: Fixed data-2: Modified data.

(Refer to "2. Modification of A, D Page Data")

Address Initial value Fixed data-1 (Initialized data) 4F Fixed data-2 50 to 81 Fixed data-1 (Initialized data) 82 2D VCO adj. (NTSC mode) (LCD) 83 3C VCO adj. (PAL mode) (LCD) 84 63 V-COM adj. (LCD) 85 16 D Range adj. (LCD) 86 Fixed data-1 (Initialized data) 87 6B V-COM level adj. (LCD) 88 90 White balance adj. (LCD) 88 Bto 91 Fixed data-1 (Initialized data) 92 34 VCO adj. (NTSC mode) (EVF) 93 44 VCO adj. (NTSC mode) (EVF) 94 Fixed data-1 (Initialized data) 95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 96 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 99 82 Contrast adj. (EVF) 98 10 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-2 A9 Fixed data-2 A9 Fixed data-1 (Initialized data)	(Refer to 2. Modification of A, D rage Data)			
4F Fixed data-2 50 to 81 Fixed data-1 (Initialized data) 82 2D VCO adj. (NTSC mode) (LCD) 83 3C VCO adj. (PAL mode) (LCD) 84 63 V-COM adj. (LCD) 85 16 D Range adj. (LCD) 86 Fixed data-1 (Initialized data) 87 6B V-COM level adj. (LCD) 88 90 White balance adj. (LCD) 89 83 White balance adj. (LCD) 8B to 91 Fixed data-1 (Initialized data) 92 34 VCO adj. (NTSC mode) (EVF) 93 44 VCO adj. (PAL mode) (EVF) 94 Fixed data-1 (Initialized data) 95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 9A 25 Contrast adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-2 Fixed data-2 Fixed	Address	Initial value	Remark	
50 to 81 Fixed data-1 (Initialized data) 82 2D VCO adj. (NTSC mode) (LCD) 83 3C VCO adj. (PAL mode) (LCD) 84 63 V-COM adj. (LCD) 85 16 D Range adj. (LCD) 86 Fixed data-1 (Initialized data) 87 6B V-COM level adj. (LCD) 88 90 White balance adj. (LCD) 89 83 White balance adj. (LCD) 8B to 91 Fixed data-1 (Initialized data) 92 34 VCO adj. (NTSC mode) (EVF) 93 44 VCO adj. (PAL mode) (EVF) 94 Fixed data-1 (Initialized data) 95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-2 Fixed data-2 Fixed data-2	00 to 4E		Fixed data-1 (Initialized data)	
82	4F		Fixed data-2	
83 3C VCO adj. (PAL mode) (LCD) 84 63 V-COM adj. (LCD) 85 16 D Range adj. (LCD) 86 Fixed data-1 (Initialized data) 87 6B V-COM level adj. (LCD) 88 90 White balance adj. (LCD) 88 90 White balance adj. (LCD) 88 83 VCO adj. (LCD) 88 40 VCO adj. (NTSC mode) (EVF) 93 44 VCO adj. (PAL mode) (EVF) 94 Fixed data-1 (Initialized data) 95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 99 82 PA 25 Contrast adj. (EVF) 99 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2 Fixed data-2	50 to 81		Fixed data-1 (Initialized data)	
84 63 V-COM adj. (LCD) 85 16 D Range adj. (LCD) 86 Fixed data-1 (Initialized data) 87 6B V-COM level adj. (LCD) 88 90 White balance adj. (LCD) 89 83 White balance adj. (LCD) 8B to 91 Fixed data-1 (Initialized data) 92 34 VCO adj. (NTSC mode) (EVF) 93 44 VCO adj. (PAL mode) (EVF) 94 Fixed data-1 (Initialized data) 95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	82	2D	VCO adj. (NTSC mode) (LCD)	
85 16 D Range adj. (LCD) 86 Fixed data-1 (Initialized data) 87 6B V-COM level adj. (LCD) 88 90 White balance adj. (LCD) 89 83 White balance adj. (LCD) 8B to 91 Fixed data-1 (Initialized data) 92 34 VCO adj. (NTSC mode) (EVF) 93 44 VCO adj. (PAL mode) (EVF) 94 Fixed data-1 (Initialized data) 95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	83	3C	VCO adj. (PAL mode) (LCD)	
Simple Fixed data-1 (Initialized data)	84	63	V-COM adj. (LCD)	
87 6B V-COM level adj. (LCD) 88 90 White balance adj. (LCD) 89 83 White balance adj. (LCD) 8A 0A Contrast adj. (LCD) 8B to 91 Fixed data-1 (Initialized data) 92 34 VCO adj. (NTSC mode) (EVF) 93 44 VCO adj. (PAL mode) (EVF) 94 Fixed data-1 (Initialized data) 95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	85	16	D Range adj. (LCD)	
88 90 89 83 8A 0A Contrast adj. (LCD) 8B to 91 Fixed data-1 (Initialized data) 92 34 VCO adj. (NTSC mode) (EVF) 93 44 VCO adj. (PAL mode) (EVF) 94 Fixed data-1 (Initialized data) 95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	86		Fixed data-1 (Initialized data)	
89 83 White balance adj. (LCD) 8A 0A Contrast adj. (LCD) 8B to 91 Fixed data-1 (Initialized data) 92 34 VCO adj. (NTSC mode) (EVF) 93 44 VCO adj. (PAL mode) (EVF) 94 Fixed data-1 (Initialized data) 95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 9A 25 Contrast adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-2 A9 Fixed data-2	87	6B	V-COM level adj. (LCD)	
89 83 8A 0A Contrast adj. (LCD) 8B to 91 Fixed data-1 (Initialized data) 92 34 VCO adj. (NTSC mode) (EVF) 93 44 VCO adj. (PAL mode) (EVF) 94 Fixed data-1 (Initialized data) 95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 9A 25 Contrast adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	88	90	White belonge adj. (LCD)	
8B to 91 Fixed data-1 (Initialized data) 92 34 VCO adj. (NTSC mode) (EVF) 93 44 VCO adj. (PAL mode) (EVF) 94 Fixed data-1 (Initialized data) 95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 99 82 White balance adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	89	83	writte barance adj. (LCD)	
92 34 VCO adj. (NTSC mode) (EVF) 93 44 VCO adj. (PAL mode) (EVF) 94 Fixed data-1 (Initialized data) 95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 9A 25 Contrast adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	8A	0A	Contrast adj. (LCD)	
93 44 VCO adj. (PAL mode) (EVF) 94 Fixed data-1 (Initialized data) 95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 99 82 Contrast adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	8B to 91		Fixed data-1 (Initialized data)	
94 Fixed data-1 (Initialized data) 95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 99 82 White balance adj. (EVF) 9A 25 Contrast adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	92	34	VCO adj. (NTSC mode) (EVF)	
95 7F Bright adj. (EVF) 96, 97 Fixed data-1 (Initialized data) 98 94 White balance adj. (EVF) 99 82 Contrast adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	93	44	VCO adj. (PAL mode) (EVF)	
96, 97 Fixed data-1 (Initialized data) 98 94 99 82 White balance adj. (EVF) 9A 25 Contrast adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	94		Fixed data-1 (Initialized data)	
98 94 99 82 White balance adj. (EVF) 9A 25 Contrast adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	95	7F	Bright adj. (EVF)	
99 82 White balance adj. (EVF) 9A 25 Contrast adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	96, 97		Fixed data-1 (Initialized data)	
99 82 9A 25 Contrast adj. (EVF) 9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	98	94	White belongs adj. (EVE)	
9B to 9F Fixed data-1 (Initialized data) A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	99	82	writte barance adj. (EVF)	
A0 80 Composite video level adj. A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	9A	25	Contrast adj. (EVF)	
A1 to A7 Fixed data-1 (Initialized data) A8 Fixed data-2 A9 Fixed data-2	9B to 9F		Fixed data-1 (Initialized data)	
A8 Fixed data-2 A9 Fixed data-2	A0	80	Composite video level adj.	
A9 Fixed data-2	A1 to A7		Fixed data-1 (Initialized data)	
	A8		Fixed data-2	
AA to FF Fixed data-1 (Initialized data)	A9		Fixed data-2	
	AA to FF		Fixed data-1 (Initialized data)	

4. D Page table

Note 1: Fixed data-1: Initialized data.

(Refer to "1. Initializing the A, D Page Data")

Note 2: Fixed data-2: Modified data.

(Refer to "2. Modification of A, D Page Data")

Address	Initial value	Remark
10 to 20		Fixed data-1 (Initialized data)
21	00	Test mode
22 to 7F		Fixed data-1 (Initialized data)

1-2-2. Initialization of B, E, F, 7, 9 Page Data

1. Initializing B, E, F, 7, 9 Page Data

Note: If the B, E, F, 7, 9 Page data has been initialized,

"Modification of B, E, F, 7, 9 Page Data" and following adjustments need to be performed again.

- 1) Modification of B, E, F, 7, 9 page data
- 2) Camera system adjustments

Adjusting page	В
Adjusting Address	00 to FF
Adjusting page	Е
Adjusting Address	00 to FF
Adjusting page	F
Adjusting Address	00 to FF
Adjusting page	7
Adjusting Address	00 to FF
Adjusting page	9
Adjusting Address	00 to FF

Initializing Method:

Order	Page	Address	Data	Procedure
1	0	01	01	
2	6	03	11	
3	6	00	2D	
4	6	01	2D	Press PAUSE button.
5	6	02		Check the data changes to "01".
6	·			Perform "Modification of B, E, F, 7, 9 page Data".

2. Modification of B, E, F, 7, 9 Page Data

If the B, E, F, 7, 9 Page data has been initialized, change the data of the "Fixed data-2" address shown in the following tables by manual input.

Modifying Method:

- 1) Before changing the data, select page: 0, address: 01, and set
- New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.

Note: If copy the data built in the different model, the camera may not operate.

- 3) When changing the data, press the PAUSE button of the adjusting remote commander each time when setting new data to write the data in the non-volatile memory.
- Check that the data of adjustment addresses is the initial value.
 If not, change the data to the initial value.

Processing after Completing Modification of B, E, F, 7, 9 Page data

Order	Page	Address	Data	Procedure
1	2	00	29	
2	2	01	29	Press PAUSE button.

3. B Page Table

Note 1: Fixed data-1: Initialized data.

(Refer to "1. Initializing B, E, F, 7, 9 Page Data")

Note 2: Fixed data-2: Modified data.

(Refer to "2. Modification of B, E, F, 7, 9 Page Data")

Address	Initial value	Remark
00 to FF		Fixed data-1 (Initialized data)

4. E Page Table

Note 1: Fixed data-1: Initialized data.

(Refer to "1. Initializing B, E, F, 7, 9 Page Data")

Note 2: Fixed data-2: Modified data.

(Refer to "2. Modification of B, E, F, 7, 9 Page Data")

Address	Initial value	Remark
00 to 95		Fixed data-1 (Initialized data)
96		Fixed data-2
97 to FF		Fixed data-1 (Initialized data)

5. F Page Table

Note 1: Fixed data-1: Initialized data.

(Refer to "1. Initializing the B, E, F, 7, 9 Page Data")

Note 2: Fixed data-2: Modified data.

		dification of B, E, F, 7, 9 Page Data")
Address	Initial value	Remark
00 to 0F		Fixed data-1 (Initialized data)
10	58	
11	FF	
12	FF	
13	FF	LED Ilumination check.
14	00	
15	90	
16	FF	
17		Fixed data-1 (Initialized data)
18	22	
19	48	
1A	2D	
1B	3A	
1C	13	
1D	00	
1E	00	
1F	00	
20	00	
21	00	
22	12	
23	00	
24	20	
25	20	
26	23	
27	44	
28	0A	
29	00	
2A	00	Flange back adj.
2B	00	
2C	00	
2D	00	
2E	00	
2F	00	
30	00	
31	00	
32	00	
33	00	
34	00	
35	00	
36	00	
37	00	
38	00	
39	00	
3A	00	
3B	00	
3C	00	

Address	Initial value	Remark	
3D	00	Flange back adj.	
3E	FF	Trange back auj.	
3F to 57		Fixed data-1 (Initialized data)	
58	5D		
59	82		
5A	15	Hall adj.	
5B	5B	Tian adj.	
5C	75		
5D	5D		
5E	00		
5F	00		
60	00		
61	00	F No. compensation	
62	00		
63	00		
64	00		
65	30		
66	FE	Light value adj.	
67	6D		
68	68	Hall adj.	
69 to 6D		Fixed data-1 (Initialized data)	
6E	00	Mixed color cancel adj.	
6F	00	winded color cancer adj.	
70	2B		
71	E4		
72	1F		
73	8D		
74	2A	AWB 3200K standard data input 1	
75	90	11W B 32001C standard data input 1	
76	21		
77	13		
78	00		
79	00		
7A	00		
7B	00		
7C	00	AWB 3200K standard data input 2	
7D	00	2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	
7E	00		
7F	00		
80	00		
81	00	AWB 3200K standard data input 3	
82	00	11 2 520012 Standard data Input 5	
83	00		
84, 85		Fixed data-1 (Initialized data)	
86	00	AWB 3200K standard data input 3	
87	00	111 D 32001C standard data input	

Address	Initial value	Remark	
88	1A		
89	A4		
8A	30		
8B	08		
8C	1A	ANUD 5000K	
8D	0E	AWB 5800K standard data input 1	
8E	32		
8F	2D		
90	00		
91	00		
92	00		
93	00		
94	00	ANUD 5000K	
95	00	AWB 5800K standard data input 2	
96	00		
97	00		
98	00		
99	00	AWD 5000M -+ 11 1	
9A	00	AWB 5800K standard data input 3	
9B	00		
9C, 9D		Fixed data-1 (Initialized data)	
9E	00	AWD 5000K 4 1 1 1 4 1 4 2	
9F	00	AWB 5800K standard data input 3	
A0	2B		
A1	40	AWD 5900V standard data input 1	
A2	5D	AWB 5800K standard data input 1	
A3	C0		
A4	E8		
A5	FB		
A6	77		
A7	86		
A8	0E		
A9	01	Color reproduction adj.	
AA	85	Color reproduction adj.	
AB	90		
AC	76		
AD	86		
AE	E2		
AF	FB		
В0	00	AWB 3200K standard data input 1	
B1	00	AWB 5800K standard data input 1	
B2	00	AWB 3200K standard data input 1	
В3	00	AWB 5800K standard data input 1	
B4	00	AWB 3200K standard data input 1	
B5		Fixed data-1 (Initialized data)	
В6	28	Strobe white balance adj.	
В7	6E	2225 mile salahee aaj.	
В8	10	Mechanical shutter adj.	
В9	35	shutter adj.	

Address	Initial value	Remark
BA	10	
BB	35	
BC	10	
BD	35	
BE	10	
BF	35	
C0	10	
C1	35	
C2	00	
C3	00	
C4	00	
C5	00	
C6	00	
C7	2E	
C8	13	Mechanical shutter adj.
C9	0D	
CA	07	
СВ	07	
CC	80	
CD	88	
CE	98	
CF	90	
D0	88	
D1	00	
D2	00	
D3	00	
D4	00	
D5	00	
D6	00	
D7	14	
D8 to DF	0.0	Fixed data-1 (Initialized data)
E0	00	
E1	00	
E2	00	
E3	00	
E4	00	
E5 E6	00	
E6 E7	00	
E8	00	Strobe white balance adj.
E9	00	
E9 EA	00	
EB	00	
EC	00	
ED	00	
EE	00	
EF	00	
F0 to FF		Fixed data-1 (Initialized data)
10 10 11		1co data 1 (Initianized data)

DSC-F717

6. 7 Page Table

Note 1: Fixed data-1: Initialized data.

(Refer to "1. Initializing B, E, F, 7, 9 Page Data")

Note 2: Fixed data-2: Modified data.

(Refer to "2. Modification of B, E, F, 7, 9 Page Data")

Address	Initial value	Remark
00 to FF		Fixed data-1 (Initialized data)

7. 9 Page Table

Note 1: Fixed data-1: Initialized data.
(Refer to "1. Initializing B, E, F, 7, 9 Page Data")

Note 2: Fixed data-2: Modified data.

(Refer to "2. Modification of B, E, F, 7, 9 Page Data")

Address	Initial value	Remark
00 to FF		Fixed data-1 (Initialized data)



1-3. VIDEO SYSTEM ADJUSTMENT 1. Composite Video Level Adjustment

Adjust the sync level of the composite video signal output and check the burst level of the composite video signal output.

Mode	PLAY	
Signal	Arbitrary	
Measurement Point	Video terminal of A/V OUT jack (75 Ω terminated)	
Measuring Instrument	Oscilloscope	
Adjustment Page	A	
Adjustment Address	A0	
Specified Value	Sync level: $A = 286 \pm 5 \text{ mV (NTSC mode)}$ $A = 300 \pm 5 \text{ mV (PAL mode)}$ Burst level: $B = 286 \pm 5 \text{ mV (NTSC mode)}$ $B = 300 \pm 5 \text{ mV (PAL mode)}$	

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	
2	A	02	13	Press PAUSE button.
3	4	F1	04	
4	A	A0		Change the data and set the sync level (A) to the specified value.
5	A	A0		Press PAUSE button.
6				Check the burst level (B) to the specified value.

Order	Page	Address	Data	Procedure
1	A	02	00	Press PAUSE button.
2	4	F1	00	
3	0	01	00	

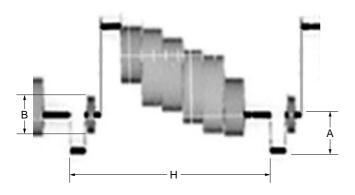


Fig. 6-1-11



1-4. CAMERA SYSTEM ADJUSTMENTS

Before perform the camera system adjustments, check that the specified values of "VIDEO SYSTEM ADJUSTMENTS" are satisfied.

Note: For "CAMERA SYSTEM ADJUSTMENTS", perform in order of item numbers.

Data setting during camera system adjustments

Perform the following data setting before the camera system adjustments.

It is not necessary to perform the following data setting everytime when you perform some items of camera system adjustments continuously unless the power is turned off. Only when the power is turned off during this adjustments, perform the data setting again, then continue the adjustments.

Set up setting:

 VIDEO OUT of SET UP setting......NTSC (NTSC mode) (This adjustment must be performed in NTSC mode, so don't set the SET UP setting to "PAL")

Data setting method:

Order	Page	Address	Data	Procedure
1	0	01	01	
2	A	01		Set the bit value of bit 5 is "1", and press PAUSE button. (Note 1)
3	2	10		Check the bit values of bit3, bit4 and bit5 are "1". (Note 1, 2)
4	A	00		Set the bit value of bit 1 is "1", and press PAUSE button. (Note 1)
5	A	02		Set the bit value of bit 1 is "1", and press PAUSE button. (Note 1)
6	A	0D		Set the bit value of bit 5 is "0", and press PAUSE button. (Note 1)
7	D	21	07	Press PAUSE button.
8	6	C1		Check the data changes to "02".
9	6	6C	01	
10				Wait for 1 second.
11	Е	96	00	Press PAUSE button.

Note 1: For the bit values, refer to "6-2. SERVICE MODE", "2-3. 2. Bit value discrimination".

Note 2: In case of wrong data.

- Select page: 2, address: 00 and set data: 29.
- Select page: 2, address: 01 and set data: 29.
- Select page: 2, address: 0C, set the bit value of bit 1 is
- Select page: 2, address: 04 and set data: 04.
 Set the adjusting remote commander to normal LANC, and the power will be turned, off and on automatically.

Note 3: Repeat the "Data setting method", if the power was turned off and on during the "CAMERA SYSTEM ADJUST-MENTS".

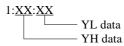
After completing the camera system adjustments, release the data setting:

Order	Page	Address	Data	Procedure
1	Е	96	40	Press PAUSE button.
2	6	6C	00	
3	D	21	00	Press PAUSE button.
4	A	0D		Set the bit value of bit 5 is "1", and press PAUSE button. (Note 1)
5	A	02		Set the bit value of bit 1 is "0", and press PAUSE button. (Note 1)
6	A	00		Set the bit value of bit 1 is "0", and press PAUSE button. (Note 1)
7	A	01		Set the bit value of bit 5 is "0", and press PAUSE button. (Note 1)
8	0	01	00	

Picture Frame Setting

Mode	CAMERA
Subject	Color bar chart (Standard picture frame with the zoom lens at WIDE end)
Measurement Point	Video terminal of A/V OUT jack (75 Ω terminated)
Measuring Instrument	Oscilloscope and monitor TV
Specified Value	A=B, C=D, E=F

Note 1: Displayed data of the page 1 of adjusting remote commander.



Switch setting

- 1) FOCUSAUTO
- 2) MACRO (Control button)ON

Setting method:

Order	Page	Address	Data	Procedure
1				Shoot the color bar chart with the zoom WIDE end.
2				Enter the output of VIDEO OUT to the monitor TV, and move the position as shown in Fig. 6-1-14.
3				Horizontal width of one color (B, C) and that of black (A, D) on the color bar chart should be same. (See Fig. 6-1-12)
4				With vertical width of black (E, F) set in same, the color bar chart should come to the center of monitor TV. (See Fig. 6-1-13)
5				Check that the color bar on the monitor TV is focused.
6	0	03	22	
7	1			Note down the YH and YL data. (Note 1)

Processing after Completing Adjustment:

Order	Page	Address	Data	Procedure
1	0	03	00	

How to reset the zoom and focus when they deviated:

Order	Page	Address	Data	Procedure
1	6	2C	01	
2	6	90	00	
3	6	91	00	
4	6	92	YL	(Note 2)
5	6	93	YH	(Note 2)
6	6	01	79	Press PAUSE button.
7	6	07		Check the data changes to "01".
8	6	01	00	Press PAUSE button.

Note 2: The data noted down at step 7 of "Setting method".

Check on the oscilloscope

1. Horizontal period

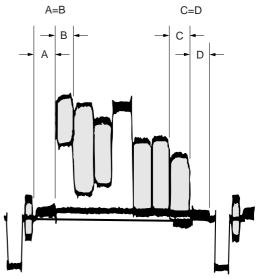


Fig. 6-1-12

2. Vertical period

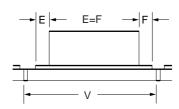


Fig. 6-1-13

Check on the monitor TV

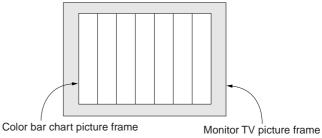


Fig. 6-1-14

1. HALL Adjustment

ı	Ra	ıd	a	r	И	I
A	ALC				л.	p

Mode	CAMERA
Subject	Not required
Measuring Instrument	Adjusting remote commander
Adjustment Page	F
Adjustment Address	58 to 5D, 68

Note 1: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Adjusting method:

Order	Page	Address	Data	Procedure
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)
2	6	94	16	
3	6	95	81	
4	6	01	6D	Press PAUSE button. (Note 2)
5	6	02		Check the data changes to "01".
6	6	01	00	Press PAUSE button.

Note 2: The adjustment data will be automatically input to page: F, address: 58 to 5D and 68.

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2	6	94	00	
3	6	95	00	
4				Release the data setting performed at step 1. (Refer to page 6-14)

2. Flange Back Adjustment (Using the minipattern box) RadarW

The inner focus lens flange back adjustment is carried out automatically. In whichever case, the focus will be deviated during auto focusing/manual focusing.

Mode	CAMERA
Subject	Siemens star chart with ND filter for minipattern box (Note 1)
Measurement Point	Check operation on monitor TV
Measuring Instrument	
Adjustment Page	F
Adjustment Address	18 to 3E

Note 1: Dark Siemens star chart.

Note 2: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Preparations before adjustments:

 The minipattern box is installed as shown in the following figure.

Note 3: The attachment lenses are not used.

- 2) Install the minipattern box so that the distance between it and the front of lens of camera is less than 3 cm.
- 3) Make the height of minipattern box and the camera equal.
- 4) Check the output voltage of the regulated power supply is the specified voltage \pm 0.01 Vdc.
- Check that the center of Siemens star chart meets the center of shot image screen with the zoom lens at TELE end and WIDE end respectively.

Specified voltage: The specified voltage varies according to the minipattern box, so adjustment the power supply output voltage to the specified voltage written on the sheet which is supplied with the minipattern box.

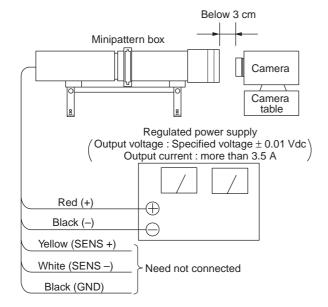


Fig. 6-1-15

Adjusting method:

Order	Page	Address	Data	Procedure
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)
2	6	01	13	Press PAUSE button.
3	6	01	27	Press PAUSE button. (Note 4)
4	6	02		Check the data changes to "01".
5	F	3E		Check the data. 00: Normal 01 to FF: Defective

Note 4: The adjustment data will be automatically input to page: F, address: 18 to 3E.

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2				Release the data setting performed at step 1. (Refer to page 6-14)
3				Perform "Flange Back Check".

3. Flange Back Adjustment RadarW (Using the flange back adjustment chart and Subject More than 500 m Away)

The inner focus lens flange back adjustment is carried out automatically. In whichever case, the focus will be deviated during auto focusing/manual focusing.

3-1. Flange Back Adjustment (1)

Mode	CAMERA
Subject	Flange back adjustment chart (2.0 m from the front of lens) (Luminance: 300 to 400 lux)
Measurement Point	Check operation on monitor TV
Measuring Instrument	
Adjustment Page	F
Adjustment Address	18 to 3E

Note 1: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Preparations before adjustments:

- 1) Place the Flange back adjustment chart 2.0 m from the front of the lens.
- Check that the center of Flange back adjustment chart meets the center of shot image screen with the zoom lens at TELE end and WIDE end respectively.

Adjusting method:

• •					
Order	Page	Address	Data	Procedure	
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)	
2	6	01	13	Press PAUSE button.	
3	6	01	15	Press PAUSE button. (Note 2)	
4	6	02		Check the data changes to "01".	
5	F	3E		Check the data. 00: Normal 01 to FF: Defective	

Note 2: The adjustment data will be automatically input to page: F, address: 18 to 3E.

Processing after Completing Adjustment:

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2				Release the data setting performed at step 1. (Refer to page 6-14)
3				Perform "Flange Back Adjustment (2)".

3-2. Flange Back Adjustment (2)

Perform this adjustment after performing "Flange Back Adjustment (1)".

Mode	CAMERA
Subject	Subject more than 500 m away (Subject with clear contrast such as buildings, etc.)
Measurement Point	Check operation on monitor TV
Measuring Instrument	
Adjustment Page	F
Adjustment Address	18 to 3E

Adjusting method:

Order	Page	Address	Data	Procedure
1				Set the zoom lens to the TELE end and expose a subject that is more than 500 m away. (Note 1)
2				Perform "Data setting during camera system adjustment". (Refer to page 6-14)
3	6	01	13	Press PAUSE button.
4				Place ND filter on the lens so that the optimum image is obtain.
5	6	01	29	Press PAUSE button. (Note 2)
6	6	02		Check the data changes to "01".
7	F	3E		Check the data. 00: Normal 01 to FF: Defective

Note 1: Subject with clear contrast such as building, etc. Nearby subjects less than 500 m away should not be in the screen.

Note 2: The adjustment data will be automatically input to page: F, address: 18 to 3E.

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2				Release the data setting performed at step 2. (Refer to page 6-14)
3				Perform "Flange Back Check".

4. Flange Back Check RadarW

Mode	CAMERA
Subject	Siemens star (1.0 m from the front of the lens) (Luminance: 200 to 400 lux)
Measurement Point	Check operation on monitor TV
Measuring Instrument	
Specified value	Focused at the TELE end and WIDE end

Checking method:

Order	Page	Address	Data	Procedure
1				Place the Siemens star 1.0 m from the front of the lens.
2				To open the IRIS, decrease the luminous intensity to the Siemens star up to a point before noise appear on the image.
3				Perform "Data setting during camera system adjustment". (Refer to page 6-14)
4	В	3D		Note down the data.
5	В	3D	50	Press PAUSE button. (Note 1)
6	6	90	00	
7	6	91	04	
8	6	92	D0	
9	6	93	5A	
10	6	01	79	Press PAUSE button.
11	6	07		Check the data changes to "01".
12	6	2C	01	
13	6	01	00	Press PAUSE button.
14				While observe the TV monitor, change the zoom to the WIDE end and check that the lens is focused.

Note 1: How to find the data

Decrease the data of page: B, address: 3D until four sides of a black frame can be seen on the monitor, then find the value. The largest value under this condition will be the setting value. If the value is less than 50, change monitors.

Order	Page	Address	Data	Procedure
1	6	2C	00	
2	6	91	00	
3	6	92	00	
4	6	93	00	
5	В	3D		Set data noted down at step 4, and press PAUSE button.
6				Release the data setting performed at step 3. (Refer to page 6-14)

5. F No. Compensation RadarW

Compensate the unevenness of the iris meter sensitivity.

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Adjustment Page	F
Adjustment Address	5E to 64

Note 1: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Adjusting method:

Order	Page	Address	Data	Procedure
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)
2				Perform "Picture Frame setting". (Refer to page 6-15)
3	6	01	ВВ	Press PAUSE button. (Note 2)
4	6	02		Check the data changes to "01".

Note 2: The adjustment data will be automatically input to page: F, address: 5E to 64.

Processing after Completing Adjustment:

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2				Release the data setting performed at step 1. (Refer to page 6-14)

6. Mechanical Shutter Adjustment RadarW



Adjust the period which the mechanical shutter is closed, and compensate the exposure.

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Adjustment Page	F
Adjustment Address	B8 to D7

Note 1: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Adjusting method:

Order	Page	Address	Data	Procedure
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)
2				Perform "Picture Frame setting". (Refer to page 6-15)
3	6	01	AD	Press PAUSE button. (Note 2)
4	6	02		Check the data changes to "01".
5	6	AB		Check the data is "00".

Note 2: The adjustment data will be automatically input to page: F, address: B8 to D7.

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2				Release the data setting performed at step 1. (Refer to page 6-14)

7. Light Value Adjustment RadarW

Adjust the standard LV value.

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Measurement Point	Displayed data of page: 1 (Note 2) and page: F, address: 65
Measuring Instrument	Adjusting remote commander
Adjustment Page	F
Adjustment Address	65 to 67
Specified Value	AE level 1: 0FE0 to 1020 AE level 2: 37 to 4F

Note 1: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Note 2: The right four digits of the page: 1 displayed data of the adjusting remote commander.

1:XX:XX Displayed data

Adjusting method:

Order	Page	Address	Data	Procedure
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)
2				Perform "Picture Frame setting". (Refer to page 6-15)
3	6	01	0D	Press PAUSE button. (Note 3)
4	6	02		Check the data changes to "01".
5	0	03	06	
6	1			Check that the displayed data (Note 2) satisfies the AE level 1 specified value.
7	F	65		Check that the displayed data satisfies the AE level 2 specified value.

Note 3: The adjustment data will be automatically input to page: F, address: 65 to 67.

Processing after Completing Adjustment:

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2	0	03	00	
3				Release the data setting performed at step 1. (Refer to page 6-14)

8. Mixed Color Cancel Adjustment RadarW

To perform mixed color cancel adjustment based on data of each color in color bar.

Mode	CAMERA
Subject	Color bar chart (Standard picture frame with the zoom lens at WIDE end)
Adjustment Page	F
Adjustment Address	6E and 6F

Note 1: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Adjusting method:

Order	Page	Address	Data	Procedure
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)
2				Perform "Picture Frame setting". (Refer to page 6-15)
3	7	12		Note down the data.
4	7	12	00	Press PAUSE button.
5	6	01	D7	Press PAUSE button.
6	6	01	D5	Press PAUSE button. (Note 2)
7	6	02		Check the data changes to "01".

Note 2: The adjustment data will be automatically input to page: F, address: 6E and 6F.

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2	7	12		Set the data noted down at step 3, and press PAUSE button.
3				Release the data setting performed at step 1. (Refer to page 6-14)

Auto White Balance 3200K Standard Data Input 1 RadarW

Adjust the white balance standard data at 3200K.

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Adjustment Page	F
Adjustment Address	70 to 79, B0, B2, B4

Note 1: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Note 2: "Auto White Balance 3200K Standard Data Input 1" is available only once after the power is turned on. Turn the power off, then on again if the adjustment is retried.

Adjusting method:

	rajusting memou.					
Order	Page	Address	Data	Procedure		
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)		
2				Perform "Picture Frame setting". (Refer to page 6-15)		
3	6	37	01			
4	6	В6	03			
5	6	01	11	Press PAUSE button.		
6	6	38		Check the data changes to "01".		
7	6	01	C1	Press PAUSE button. (Note 3)		
8	6	02		Check the data changes to "01".		
9	6	01	00	Press PAUSE button.		
10	6	В6	00			
11	6	37	02			
12	6	01	0B	Press PAUSE button. (Note 3)		
13	6	02		Check the data changes to "01".		

Note 3: The adjustment data will be automatically input to page: F, address: 70 to 79, B0, B2 and B4.

Processing after Completing Adjustment:

Order	Page	Address	Data	Procedure			
1	6	01	00	Press PAUSE button.			
2				Perform "Auto White Balance 3200K Standard Data Input 2".			

10. Auto White Balance 3200K Standard Data Input 2 RadarW

Adjust the white balance standard data at 3200K.

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Adjustment Page	F
Adjustment Address	7A to 7F

Note 1: Perform this data input after performing "Auto White Balance 3200K Standard Data Input 1".

Note 2: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Note 3: "Auto White Balance 3200K Standard Data Input 2" is available only once after the power is turned on. Turn the power off, then on again if the adjustment is retried.

Adjusting method:

Order	Page	Address	Data	Procedure
1				"Auto White Balance 3200K Standard Data Input 1" is completed.
2	6	37	04	
3	6	01	0B	Press PAUSE button. (Note 4)
4	6	02		Check the data changes to "01".

Note 4: The adjustment data will be automatically input to page: F, address: 7A to 7F.

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2				Perform "Auto White Balance 3200K Standard Data Input 3".

11. Auto White Balance 3200K Standard Data Input 3 RadarW

Adjust the white balance standard data at 3200K.

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Adjustment Page	F
Adjustment Address	80 to 83, 86, 87

- **Note 1:** Perform this data input after performing "Auto White Balance 3200K Standard Data Input 2".
- **Note 2:** Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.
- **Note 3:** "Auto White Balance 3200K Standard Data Input 3" is available only once after the power is turned on. Turn the power off, then on again if the adjustment is retried.

Adjusting method:

Order	Page	Address	Data	Procedure
1				"Auto White Balance 3200K Standard Data Input 2" is completed.
2	6	37	06	
3	6	01	0B	Press PAUSE button. (Note 4)
4	6	02		Check the data changes to "01".

Note 4: The adjustment data will be automatically input to page: F, address: 80 to 83 and 86 to 87.

Processing after Completing Adjustment:

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2				Perform "Auto White Balance 5800K Standard Data Input 1".

12. Auto White Balance 5800K Standard Data Input 1

Adjust the white balance standard data at 5800K.

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Filter	Filter C14 for color temperature correction
Adjustment Page	F
Adjustment Address	88 to 91, A0 to A3, B1, B3

- **Note 1:** Perform this data input after performing "Auto White Balance 3200K Standard Data Input 3".
- **Note 2:** Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.
- **Note 3:** "Auto White Balance 5800K Standard Data Input 1" is available only once after the power is turned on. Turn the power off, then on again if the adjustment is retried.

Adjusting method:

Aujusting method.					
Order	Page	Address	Data	Procedure	
1				"Auto White Balance 3200K Standard Data Input 3" is completed.	
2				Place the C14 filter on the lens.	
3	F	A0	2B	Press PAUSE button.	
4	F	A1	10	Press PAUSE button.	
5	F	A2	5D	Press PAUSE button.	
6	F	A3	E0	Press PAUSE button.	
7	6	37	07		
8	6	В6	03		
9	6	01	11	Press PAUSE button.	
10	6	38		Check the data changes to "01".	
11	6	01	C3	Press PAUSE button. (Note 4)	
12	6	02		Check the data changes to "01".	
13	6	01	00	Press PAUSE button.	
14	6	В6	00		
15	6	37	08		
16	6	01	A5	Press PAUSE button. (Note 4)	
17	6	02		Check the data changes to "01".	

Note 4: The adjustment data will be automatically input to page: F, address: 88 to 91, A0 to A3, B1 and B3.

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2				Perform "Auto White Balance 5800K Standard Data Input 2".

13. Auto White Balance 5800K Standard Data Input 2

Adjust the white balance standard data at 5800K.

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Filter	Filter C14 for color temperature correction
Adjustment Page	F
Adjustment Address	92 to 97

- **Note 1:** Perform this data input after performing "Auto White Balance 5800K Standard Data Input 1".
- **Note 2:** Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.
- **Note 3:** "Auto White Balance 5800K Standard Data Input 2" is available only once after the power is turned on. Turn the power off, then on again if the adjustment is retried.

Adjusting method:

Order	Page	Address	Data	Procedure
1				"Auto White Balance 5800K Standard Data Input 1" is completed.
2	6	37	0A	
3	6	01	A5	Press PAUSE button. (Note 4)
4	6	02		Check the data changes to "01".

Note 4: The adjustment data will be automatically input to page: F, address: 92 to 97.

Processing after Completing Adjustment:

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2				Perform "Auto White Balance 5800K Standard Data Input 3".

14. Auto White Balance 5800K Standard Data Input 3

Adjust the white balance standard data at 5800K.

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Filter	Filter C14 for color temperature correction
Adjustment Page	F
Adjustment Address	98 to 9B, 9E, 9F

- **Note 1:** Perform this data input after performing "Auto White Balance 5800K Standard Data Input 2".
- **Note 2:** Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.
- **Note 3:** "Auto White Balance 5800K Standard Data Input 3" is available only once after the power is turned on. Turn the power off, then on again if the adjustment is retried.

Adjusting method:

Order	Page	Address	Data	Procedure
1				"Auto White Balance 5800K Standard Data Input 2" is completed.
2	6	37	0C	
3	6	01	A5	Press PAUSE button. (Note 4)
4	6	02		Check the data changes to "01".

Note 4: The adjustment data will be automatically input to page: F, address: 98 to 9B and 9E to 9F.

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2				Perform "Auto White Balance 5800K Check 1".

15. Auto White Balance 5800K Check 1

_	_	-	
Ra	da	r	W/

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Filter	Filter C14 for color temperature correction
Measurement Point	Displayed data of Page: 1 (Note 3)
Measuring Instrument	Adjusting remote commander
Specified Value	R ratio: 2910 to 2D10 B ratio: 5BE0 to 5FE0 R-Y level data: 0076 to 0082 B-Y level data: 0078 to 0084

- **Note 1:** Perform this data input after performing "Auto White Balance 5800K Standard Data Input 3".
- **Note 2:** Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.
- **Note 3:** The right four digits of the page: 1 displayed data of the adjusting remote commander.

1:XX:XX Displayed data

Checking method:

Order	Page	Address	Data	Procedure
1				"Auto White Balance 5800K Standard Data Input 3" is completed.
2	6	37	13	
3	6	В6	03	
4	6	01	11	Press PAUSE button.
5	6	38		Check the data changes to "01".
6	6	01	C3	Press PAUSE button.
7	6	02		Check the data changes to "01".
8	0	03	04	
9	1			Check that the displayed data (Note 3) satisfied the R ratio specified value.
10	0	03	05	
11	1			Check that the displayed data (Note 3) satisfied the B ratio specified value.
12	0	03	2C	
13	1			Check that the R-Y level data (Note 3) satisfied the specified value.
14	0	03	2D	
15	1			Check that the B-Y level data (Note 3) satisfied the specified value.
16	6	01	00	Press PAUSE button.
17	6	В6	00	
18	6	37	14	
19	6	01	3F	Press PAUSE button.
20	6	02		Check the data changes to "01".

Order	Page	Address	Data	Procedure
21	0	03	04	
22	1			Check that the displayed data (Note 3) satisfied the R ratio specified value.
23	0	03	05	
24	1			Check that the displayed data (Note 3) satisfied the B ratio specified value.
25	0	03	2E	
26	1			Check that the R-Y level data (Note 3) satisfied the specified value.
27	0	03	2F	
28	1			Check that the B-Y level data (Note 3) satisfied the specified value.

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2				Perform "Auto White Balance 5800K Check 2".

16. Auto White Balance 5800K Check 2 RadarW

	larW
III - A- Ya	E I A I I I A

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Measurement Point	Displayed data of page: F, address: 94, 95
Measuring Instrument	Adjusting remote commander
Specified Value 1	11 to 4D
Specified Value 2	00 to 1D, DC to FF

Note 1: Perform this check after "Auto White Balance 5800K Check 1" without a break.

Note 2: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Checking method:

Order	Page	Address	Data	Procedure		
1				"Auto White Balance 5800K Check 1" is completed.		
2				Remove the C14 filter on the lens.		
3	F	94		Check that the data specified value 1.		
4	F	95		Check that the data specified value 2.		

Processing after Completing Adjustment:

Order	Page	Address	Data	Procedure
1				Perform "Auto White Balance 5800K Check 3".

17. Auto White Balance 5800K Check 3 RadarW

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
)	
Measurement Point	Displayed data of page: F, address 9A, 9B
Measuring Instrument	Adjusting remote commander
Specified Value 1	23 to 9B
Specified Value 2	00 to 30, DA to FF

Note 1: Perform this check after "Auto White Balance 5800K Check 2" without a break.

Note 2: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Checking method:

Order	Page	Address	Data	Procedure
1				"Auto White Balance 5800K Check 2" is completed.
2	F	9A		Check that the data specified value 1.
3	F	9B		Check that the data specified value 2.

Order	Page	Address	Data	Procedure
1				Perform "Auto White
1				Balance 3200K Check 1".

18. Auto White Balance 3200K Check 1

	Da	٦	2	rl	1/
- 0	$\mathbf{K}a$	(0)	ы		A'/

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Measurement Point	Displayed data of Page: 1 (Note 3)
Measuring Instrument	Adjusting remote commander
Specified Value	R ratio: 3E00 to 4200 B ratio: 3E00 to 4200 R-Y level data: 007E to 0082 B-Y level data: 007E to 0082

- **Note 1:** Perform this check after "Auto White Balance 5800K Check 3" without a break.
- **Note 2:** Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.
- **Note 3:** The right four digits of the page: 1 displayed data of the adjusting remote commander.

1:XX:XX Displayed data

Checking method:

Order	Page	Address	Data	Procedure
1				"Auto White Balance 5800K Check 3" is completed.
2	6	37	0D	
3	6	В6	03	
4	6	01	11	Press PAUSE button.
5	6	38		Check the data changes to "01".
6	6	01	C1	Press PAUSE button.
7	6	02		Check the data changes to "01".
8	0	03	04	
9	1			Check that the displayed data (Note 3) satisfied the R ratio specified value.
10	0	03	05	
11	1			Check that the displayed data (Note 3) satisfied the B ratio specified value.
12	0	03	2C	
13	1			Check that the R-Y level data (Note 3) satisfied the specified value.
14	0	03	2D	
15	1			Check that the B-Y level data (Note 3) satisfied the specified value.
16	6	01	00	Press PAUSE button.
17	6	В6	00	
18	6	37	0E	
19	6	01	0F	Press PAUSE button.
20	6	02		Check the data changes to "01".
21	0	03	04	

Order	Page	Address	Data	Procedure
22	1			Check that the displayed data (Note 3) satisfied the R ratio specified value.
23	0	03	05	
24	1			Check that the displayed data (Note 3) satisfied the B ratio specified value.
25	0	03	2E	
26	1			Check that the R-Y level data (Note 3) satisfied the specified value.
27	0	03	2F	
28	1			Check that the B-Y level data (Note 3) satisfied the specified value.

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2				Perform "Auto White Balance 3200K Check 2".

19. Auto White Balance 3200K Check 2 RadarW

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Measurement Point	Displayed data of page: F, address: 7C, 7D
Measuring Instrument	Adjusting remote commander
Specified Value 1	00 to 2F, EE to FF
Specified Value 2	00 to 23, F6 to FF

Note 1: Perform this check after "Auto white Balance 3200K Check 1" without a break.

Note 2: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Checking method:

Order	Page	Address	Data	Procedure
1				"Auto White Balance 3200K Check 1" is completed.
2	F	7C		Check that the data specified value 1.
3	F	7D		Check that the data specified value 2.

Processing after Completing Adjustment:

Order	Page	Address	Data	Procedure
1	. «90	7 144.755	2 0.10	Perform "Auto White
1				Balance 3200K Check 3".

20. Auto White Balance 3200K Check 3 RadarW

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Measurement Point	Displayed data of page: F, address: 82, 83
Measuring Instrument	Adjusting remote commander
Specified Value 1	00 to 82, E7 to FF
Specified Value 2	00 to 6D, F1 to FF

Note 1: Perform this check after "Auto white Balance 3200K Check 2" without a break.

Note 2: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Checking method:

Order	Page	Address	Data	Procedure
1				"Auto White Balance 3200K Check 2" is completed.
2	F	82		Check that the data specified value 1.
3	F	83		Check that the data specified value 2.

Order	Page	Address	Data	Procedure
1	6	37	00	
2	0	03	00	
3				Release the data setting performed at step 1 in "Auto White Balance 3200K Standard Data Input 1". (Refer to page 6-22)

21. Color Reproduction Adjustment RadarW

Adjust the color separation matrix coefficient so that proper color reproduction is produced.

Mode	CAMERA
Subject	Color bar chart (Standard picture frame with the zoom lens at WIDE end)
Measurement Point	Video terminal of A/V OUT jack (75 Ω terminated)
Measuring Instrument	Vectorscope
Adjustment Page	F
Adjustment Address	A4 to AF
Specified Value	All color luminance points should settle within each color reproduction frame.

Menu setting:

- 1) VIDEO OUT of SET UP menu NTSC (NTSC mode)
- **Note 1:** "Auto White Balance 3200K Standard Data Input" and "Auto White Balance 5800K Standard Data Input" need to be adjusted beforehand.
- **Note 2:** Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.
- **Note 3:** "Color Reproduction Adjustment" is available only once after the power is turned on. Turn the power off, then on again if the adjustment is retried.

Adjusting method:

Order	Page	Address	Data	Procedure
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)
2				Perform "Picture Frame Setting". (Refer to page 6-15)
3	6	01	AB	Press PAUSE button.
4	6	12	80	
5				Wait for 1 second.
6	6	12	00	
7				Wait for 2 seconds.
8	6	37	1F	
9	6	01	A9	Press PAUSE button. (Note 4)
10	6	02		Check the data changes to "01".
11				Check the each color luminance point is in each color reproduction frame.

Note 4: The adjustment data will be automatically input to page: F, address: A4 to AF.

Order	Page	Address	Data	Procedure
1	6	37	00	
2	6	01	00	Press PAUSE button.
3				Release the data setting performed at step 1. (Refer to page 6-14)

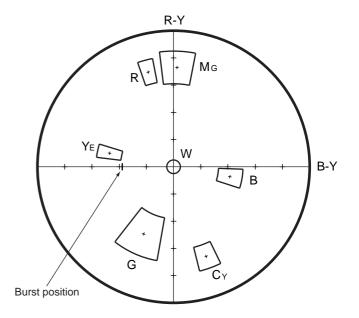


Fig. 6-1-16

22. CCD White Defect Compensation

RadarW

Mode	CAMERA
Subject	Not required
Measurement Point	Displayed data of page: 6, address: 55
Measuring Instrument	Adjusting remote commander

Note 1: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Note 2: The "CCD White Defect Compensation" should be made when the set warms up at certain duration after the power was turned on, as it is affected with the temperature.

Adjusting method:

Order	Page	Address	Data	Procedure
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)
2	Е	64		Note down the data.
3	Е	64	1E	Press PAUSE button.
4	Е	69		Note down the data.
5	Е	69	16	Press PAUSE button.
6	6	01	8B	Press PAUSE button.
7	6	02		Check the data changes to "01".
8	6	55		Check the data. 00 to 7F: Normal 80 to FF: Defective
9	6	01	00	Press PAUSE button.
10	Е	64	0F	Press PAUSE button.
11	Е	69	60	Press PAUSE button.
12	6	01	87	Press PAUSE button.
13	6	02		Check the data changes to "01".
14	6	55		Check the data. 00: Normal 01 to FF: Defective

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2	Е	64		Set data noted down at step 2, and press PAUSE button.
3	Е	69		Set data noted down at step 4, and press PAUSE button.
4				Release the data setting performed at step 1. (Refer to page 6-14)

23. CCD Black Defect Compensation



Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Measurement Point	Displayed data of page: 6, address: 55
Measuring Instrument	Adjusting remote commander

Note 1: Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.

Note 2: Check that there are no dust, no dirt and reflection of the clear chart.

Note 3: Any subject other than the clear chart should be in the screen.

Adjusting method:

Order	Page	Address	Data	Procedure
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)
2	Е	65		Note down the data.
3	Е	65	4C	Press PAUSE button.
4	6	2C	01	
5	6	90	00	
6	6	91	03	
7	6	92	00	
8	6	93	00	
9	6	01	79	Press PAUSE button.
10	6	30	08	
11	6	07		Check the data changes to "01".
12	6	01	8D	Press PAUSE button.
13	6	02		Check the data changes to "01".
14	6	55		Check the data. 00 to 14: Normal 15 to FF: Defective (Note 4)
15	6	01	00	Press PAUSE button.
16	Е	65	5A	Press PAUSE button.
17	6	01	89	Press PAUSE button.
18	6	02		Check the data changes to "01".
19	6	55		Check the data. 00: Normal 01 to FF: Defective

Note 4: If the data is "00" at the check in this adjustment method order #14, skip the orders from #15 to #19, and go forward to "Processing after Completing Adjustment.

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2	6	2C	00	
3	6	30	00	
4	6	91	00	
5	Е	65		Set data noted down at step 2, and press PAUSE button.
6				Release the data setting performed at step 1. (Refer to page 6-14)

24. CCD Linearity Check (Monitoring)

Check that CCD output at monitoring keeps being straight even input is changed.

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Measurement Point	Displayed data of Page: 1 (Note 1)
Measuring Instrument	Adjusting remote commander
Specified Value 1	97 to 103 (decimal notation)
Specified Value 2	97 to 105 (decimal notation)

Note 1: The right four digits of the page: 1 displayed data of the adjusting remote commander.

adjusting remote commander.

1:XX:XX

Displayed data

Adjusting method:

Adjusting method.						
Order	Page	Address	Data	Procedure		
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)		
2				Perform "Picture Frame setting". (Refer to page 6-15)		
3	7	09	04	Press PAUSE button.		
4	6	C8	26			
5	6	13	A8			
6	6	14	90			
7				Wait for 2 seconds.		
8	0	03	40			
9	1			Read displayed data. (Note 1)		
10				Get average value of displayed data of ten times, and named average value as $D_{\text{R/GRef.}}$		
11				Convert $D_{R/GRef}$ to decimal notation, and obtain $D_{R/GRef}$ '.		
12	0	03	41			
13	1			Read displayed data. (Note 1)		
14				Get average value of displayed data of ten times, and named average value as D _{B/GRef} .		
15				Convert $D_{B/GRef}$ to decimal notation, and obtain $D_{B/GRef}$ '.		
16	В	72		Note down the data.		
17	В	72	50	Press PAUSE button.		
18				Wait for 2 seconds.		
19	0	03	40			
20	1			Read displayed data. (Note 1)		
21				Get average value of displayed data of ten times, and named average value as $D_{\text{R/GHi}}$.		
22				Convert $D_{R/GHi}$ to decimal notation, and obtain $D_{R/GHi}$.		
23	0	03	41			

Order	Page	Address	Data	Procedure
24	1			Read displayed data. (Note 1)
25				Get average value of displayed data of ten times, and named average value as D _{B/GHi} .
26				Convert $D_{B/GHi}$ to decimal notation, and obtain $D_{B/GHi}$.
27	В	72		Set data noted down at step 16, and press PAUSE button.
28	6	14	8B	
29				Wait for 2 seconds.
30	0	03	40	
31	1			Read displayed data. (Note 1)
32				Get average value of displayed data of ten times, and named average value as D _{R/GLow} .
33				Convert $D_{R/GLow}$ to decimal notation, and obtain $D_{R/GLow}$ '.
34	0	03	41	
35	1			Read displayed data. (Note 1)
36				Get average value of displayed data of ten times, and named average value as D _{B/GLow} .
37				Convert $D_{B/GLow}$ to decimal notation, and obtain $D_{B/GLow}$ '.
38				Calculate D_1 by using the following equation. (decimal calculation) $D_1 = (D_{R/GHi}' \div D_{R/GRef}') \times 100$
39				Check that calculated D ₁ satisfies the specified value 1.
40				Calculate D_2 by using the following equation. (decimal calculation) $D_2 = (D_{B/GHi}^{-2} \div D_{B/GRef}^{-2}) \times 100$
41				Check that calculated D ₂ satisfies the specified value 2.
42				Calculate D_3 by using the following equation. (decimal calculation) $D_3 = (D_{R/GLow}' \div D_{R/GRef}') \times 100$
43				Check that calculated D ₃ satisfies the specified value 1.
44				Calculate D_4 by using the following equation. (decimal calculation) $D_4 = (D_{B/GLow} \cdot \div D_{B/GRef} \cdot) \times 100$
45				Check that calculated D ₄ satisfies the specified value 1.

Order	Page	Address	Data	Procedure
1	6	C8	00	
2	0	03	00	
3	7	09	00	Press PAUSE button.
4	6	13	00	
5	6	14	00	
6				Release the data setting performed at step 1. (Refer to page 6-14)

25. CCD Linearity Check (Caputure)

Check that CCD output at caputure keeps being straight even input is changed.

Mode	CAMERA
Subject	Clear chart (Standard picture frame with the zoom lens at WIDE end)
Measurement Point	Displayed data of Page: 1 (Note 1)
Measuring Instrument	Adjusting remote commander
Specified Value	97 to 103 (decimal notation)

Note 1: The right four digits of the page: 1 displayed data of the adjusting remote commander.

1:XX:XX Displayed data

Adjusting method:

Order Page Address Data Procedure	Aujusting method.						
Camera system adjustment". (Refer to page 6-14) Perform "Picture Frame setting". (Refer to page 6-15) Refer to page 6-15) Refer to page 6-15 Read displayed data. (Note 1)	Order	Page	Address	Data			
Setting". (Refer to page 6-15) 3	1				camera system adjustment".		
4 6 C8 26 5 6 13 A8 6 6 14 90 7 Wait for 2 seconds. 8 6 01 F9 Press PAUSE button. 9 Wait for 3 seconds. 10 0 03 40 11 1 Read displayed data. (Note 1) 12 This data is named D _{R/GRef} . 13 Convert D _{R/GRef} to decimal notation, and obtain D _{R/GRef} . 14 0 03 41 15 1 Read displayed data. (Note 1) 16 This data is named D _{R/GRef} . 17 Convert D _{B/GRef} to decimal notation, and obtain D _{B/GRef} . 18 6 01 00 Press PAUSE button. 19 B 72 Note down the data. 20 B 72 50 Press PAUSE button. 21 Wait for 2 seconds. 22 6 01 F9 Press PAUSE button. 23 9	2						
5 6 13 A8 6 6 14 90 7 Wait for 2 seconds. 8 6 01 F9 Press PAUSE button. 9 Wait for 3 seconds. 10 0 03 40 11 1 Read displayed data. (Note 1) 12 This data is named DR/GRef. 13 Convert DR/GRef to decimal notation, and obtain DR/GRef. 14 0 03 41 15 1 Read displayed data. (Note 1) 16 This data is named DB/GRef. 17 Convert DB/GRef to decimal notation, and obtain DB/GRef. 19 B 72 Note down the data. 20 B 72 50 Press PAUSE button. 21 Wait for 2 seconds. 22 6 01 F9 Press PAUSE button. 23 9 Wait for 3 seconds. 24 0 03 40 25 1 Read displayed data. (Note 1) <tr< td=""><td>3</td><td>7</td><td>09</td><td>04</td><td>Press PAUSE button.</td></tr<>	3	7	09	04	Press PAUSE button.		
6 6 14 90 7 Wait for 2 seconds. 8 6 01 F9 Press PAUSE button. 9 Wait for 3 seconds. 10 0 03 40 11 1 Read displayed data. (Note 1) 12 This data is named DR/GRef. 13 Convert DR/GRef to decimal notation, and obtain DR/GRef. 14 0 03 41 15 1 Read displayed data. (Note 1) 16 This data is named DB/GRef. 17 Convert DB/GRef to decimal notation, and obtain DB/GRef. 18 6 01 00 Press PAUSE button. 19 B 72 Note down the data. 20 B 72 50 Press PAUSE button. 21 Wait for 2 seconds. 22 6 01 F9 Press PAUSE button. 23 9 Wait for 3 seconds. 24 0 03 40 25 1 Read displayed	4	6	C8	26			
Wait for 2 seconds.	5	6	13	A8			
8 6 01 F9 Press PAUSE button. 9 Wait for 3 seconds. 10 0 03 40 11 1 Read displayed data. (Note 1) 12 This data is named DR/GRef. 13 Convert DR/GRef to decimal notation, and obtain DR/GRef. 14 0 03 41 15 1 Read displayed data. (Note 1) 16 This data is named DB/GRef. 17 Convert DB/GRef to decimal notation, and obtain DB/GRef. 18 6 01 00 Press PAUSE button. 19 B 72 Note down the data. 20 B 72 50 Press PAUSE button. 21 Wait for 2 seconds. 22 6 01 F9 Press PAUSE button. 23 9 Wait for 3 seconds. 24 0 03 40 25 1 Read displayed data. (Note 1) 26 This data is named DR/GHi. 27 Convert DR/GHi to	6	6	14	90			
Wait for 3 seconds.	7				Wait for 2 seconds.		
10	8	6	01	F9	Press PAUSE button.		
11	9				Wait for 3 seconds.		
This data is named DR/GRef.	10	0	03	40			
13	11	1			Read displayed data. (Note 1)		
13	12				This data is named DR/GRef.		
Read displayed data. (Note 1)	13						
16 This data is named Db/GRef. 17 Convert Db/GRef to decimal notation, and obtain Db/GRef'. 18 6 01 00 Press PAUSE button. 19 B 72 Note down the data. 20 B 72 50 Press PAUSE button. 21 Wait for 2 seconds. 22 6 01 F9 Press PAUSE button. 23 9 Wait for 3 seconds. 24 0 03 40 25 1 Read displayed data. (Note 1) 26 This data is named DR/GHi. Convert DR/GHi to decimal notation, and obtain DR/GRHi'. 28 0 03 41 29 1 Read displayed data. (Note 1)	14	0	03	41			
17	15	1			Read displayed data. (Note 1)		
17 notation, and obtain D _{B/GRef} '. 18 6 01 00 Press PAUSE button. 19 B 72 Note down the data. 20 B 72 50 Press PAUSE button. 21 Wait for 2 seconds. 22 6 01 F9 Press PAUSE button. 23 9 Wait for 3 seconds. 24 0 03 40 25 1 Read displayed data. (Note 1) 26 This data is named D _{R/GHi} . Convert D _{R/GHi} to decimal notation, and obtain D _{R/GRHi} '. 28 0 03 41 29 1 Read displayed data. (Note 1)	16				This data is named D _{B/GRef} .		
19 B 72 Note down the data. 20 B 72 50 Press PAUSE button. 21 Wait for 2 seconds. 22 6 01 F9 Press PAUSE button. 23 9 Wait for 3 seconds. 24 0 03 40 25 1 Read displayed data. (Note 1) 26 This data is named DR/GHI. 27 Convert DR/GHI to decimal notation, and obtain DR/GRHI'. 28 0 03 41 29 1 Read displayed data. (Note 1)	17						
20 B 72 50 Press PAUSE button. 21 Wait for 2 seconds. 22 6 01 F9 Press PAUSE button. 23 9 Wait for 3 seconds. 24 0 03 40 25 1 Read displayed data. (Note 1) 26 This data is named DR/GHI. 27 Convert DR/GHI to decimal notation, and obtain DR/GRHI. 28 0 03 41 29 1 Read displayed data. (Note 1)	18	6	01	00	Press PAUSE button.		
21	19	В	72		Note down the data.		
22 6 01 F9 Press PAUSE button. 23 9 Wait for 3 seconds. 24 0 03 40 25 1 Read displayed data. (Note 1) 26 This data is named DR/GHI. 27 Convert DR/GHI to decimal notation, and obtain DR/GRHI'. 28 0 03 41 29 1 Read displayed data. (Note 1)	20	В	72	50	Press PAUSE button.		
23 9 Wait for 3 seconds. 24 0 03 40 25 1 Read displayed data. (Note 1) 26 This data is named DR/GHi. 27 Convert DR/GHi to decimal notation, and obtain DR/GRHi'. 28 0 03 41 29 1 Read displayed data. (Note 1)	21				Wait for 2 seconds.		
24 0 03 40 25 1 Read displayed data. (Note 1) 26 This data is named Drughi. 27 Convert Drughi to decimal notation, and obtain Drughi.'. 28 0 03 41 29 1 Read displayed data. (Note 1)	22	6	01	F9	Press PAUSE button.		
25 1 Read displayed data. (Note 1) 26 This data is named D _{R/GHi} . 27 Convert D _{R/GHi} to decimal notation, and obtain D _{R/GRHi} '. 28 0 03 41 29 1 Read displayed data. (Note 1)	23	9			Wait for 3 seconds.		
This data is named Drughi. Convert Drughi to decimal notation, and obtain Drughi. Read displayed data. (Note 1)	24	0	03	40			
27 Convert D _{R/GHi} to decimal notation, and obtain D _{R/GRHi} '. 28 0 03 41 29 1 Read displayed data. (Note 1)	25	1			Read displayed data. (Note 1)		
27	26				This data is named D _{R/GHi} .		
29 1 Read displayed data. (Note 1)	27						
	28	0	03	41			
This data is named D _{B/GHi} .	29	1			Read displayed data. (Note 1)		
	30				This data is named D _{B/GHi} .		

Order	Page	Address	Data	Procedure
31				Convert $D_{B/GHi}$ to decimal notation, and obtain $D_{B/GHi}$.
32	6	01	00	Press PAUSE button.
33	В	72		Set data noted down at step 19, and press PAUSE button.
34	6	14	8B	
35				Wait for 2 seconds.
36	6	01	F9	Press PAUSE button.
37				Wait for 3 seconds.
38	0	03	40	
39	1			Read displayed data. (Note 1)
40				This data is named $D_{\mbox{\scriptsize R/GLow}}$.
41				Convert $D_{\text{R/GLow}}$ to decimal notation, and obtain $D_{\text{R/GLow}}$ '.
42	0	03	41	
43	1			Read displayed data. (Note 1)
44				This data is named D _{B/GLow} .
45				Convert $D_{B/GLow}$ to decimal notation, and obtain $D_{B/GLow}$ '.
46				Calculate D_1 by using the following equation. (decimal calculation) $D_1 = (D_{R/GHi}' \div D_{R/GRef}') \times 100$
47				Check that calculated D ₁ satisfies the specified value.
48				Calculate D_2 by using the following equation. (decimal calculation) $D_2 = (D_{B/GHi}' \div D_{B/GRef}') \times 100$
49				Check that calculated D ₂ satisfies the specified value.
50				Calculate D_3 by using the following equation. (decimal calculation) $D_3 = (D_{R/GLow}' \div D_{R/GRef}') \times 100$
51				Check that calculated D ₃ satisfies the specified value.
52				Calculate D_4 by using the following equation. (decimal calculation) $D_4 = (D_{B/GLow}' \div D_{B/GRef}') \times 100$
53				Check that calculated D ₄ satisfies the specified value.

${\bf Processing} \ after \ Completing \ Adjustment:$

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2	6	C8	00	
3	0	03	00	
4	7	09	00	Press PAUSE button.
5	6	13	00	
6	6	14	00	
7				Release the data setting performed at step 1. (Refer to page 6-14)

26. Strobe White Balance Adjustment RadarW

Adjust the white balance when the strobe light flashed.

Mode	CAMERA
Subject	Flash adjustment box (Note 3) Paper which reflection rate is 18% (Note 6) (50 cm from the front of lens)
Measurement Point	Displayed data of page: 1 (Note 4) and page: F, address: E8, EA, EC, EE
Measuring Instrument	Adjusting remote commander
Adjustment Page	F
Adjustment Address	B6, B7, E0 to EF
Specified Value	Y level data 1: 03 to 0A Y level data 2: 03 to 08 R-Y level data: 007A to 0086 (Note 4) B-Y level data: 007A to 0086 (Note 4)

- **Note 1:** Check that the data of page: 6, address: 02 is "00". If not, turn the power of unit OFF/ON.
- **Note 2:** Perform this adjustment in the Flash adjustment box.
- **Note 3:** Refer to "4. Preparing the Flash adjustment box". (See page 6-7)
- Note 4: The right four digits of the page: 1 displayed data of the adjusting remote commander.

1:XX:XX

Displayed data

- Note 5: "Strobe White Balance Adjustment" is available only once after the power is turned on. Turn the power off, then on again if the adjustment is retried.
- Note 6: Background paper (J-2501-130-A).

Switch setting:

1) FLASH (Control button) ON

Adjusting method:

Order	Page	Address	Data	Procedure
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)
2	6	2C	01	
3	6	90	00	
4	6	91	00	
5	6	92	FF	
6	6	93	FF	
7	6	6C	01	
8	6	01	79	Press PAUSE button.
9	6	07		Check the data changes to "01".
10	6	01	67	Press PAUSE button.
11				Check the flashing.
12	6	02		Check the data changes to "01".
13	F	E8		Check that the displayed data satisfies the Y level data 1 specified value.
14	6	01	00	Press PAUSE button.

Order	Page	Address	Data	Procedure
15	6	01	67	Press PAUSE button.
16				Check the flashing.
17	6	02		Check the data changes to "01".
18	6	01	00	Press PAUSE button.
19	6	01	67	Press PAUSE button.
20				Check the flashing.
21	6	02		Check the data changes to "01".
22	6	01	00	Press PAUSE button.
23	6	01	67	Press PAUSE button.
24				Check the flashing.
25	6	02		Check the data changes to "01".
26	6	01	00	Press PAUSE button.
27	6	01	В9	Press PAUSE button. (Note 7)
28				Check the flashing.
29	6	02		Check the data changes to "01".
30	6	01	00	Press PAUSE button.
31	6	01	E7	Press PAUSE button.
32				Check the flashing.
33	6	02		Check the data changes to "01".
34	F	EA EC EE		Check that the displayed data satisfies the Y level data 2 specified value.
35				Wait for 1 second.
36	0	03	2C	
37	1			Check that the R-Y level data (Note 4) satisfies the specified value.
38	0	03	2D	
39	1			Check that the B-Y level data (Note 4) satisfies the specified value.

Note 7: The adjustment data will be automatically input to page: F, address: B6 to B7 and E0 to EF.

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2	6	90	00	
3	6	91	00	
4	6	92	00	
5	6	93	00	
6	6	2C	00	
7	6	6C	00	
8	0	03	00	
9				Release the data setting performed at step 1. (Refer to page 6-14)

27. LED Illumination Check RadarW

Check a deviation of optical axis between AF illuminator and camera image.

Mode	CAMERA
Subject	Flash adjustment box (Note 4) Paper which reflection rate is 18% (Note 5) (50 cm from the front of lens)
Measurement Point	Displayed data of page: F, address: 13
Measuring Instrument	Adjusting remote commander
Adjustment Page	F
Adjustment Address	10 to 16
Specified Value	Data of page: F, address: 10 is "00"

- **Note 1:** Do not look directly into AF illumination which has not been adjusted yet or failed in the adjustment abnormally.
- **Note 2:** Perform checking by making the shooting surface of the Flash adjustment box perpendicular to the optical axis of the camera.
- **Note 3:** Perform this checking in the Flash adjustment box. Restrict external light to enter the Flash adjustment box as less as possible.
- **Note 4:** Refer to "4. Preparing the Flash adjustment box". (See page 6-7)
- **Note 5:** Background paper (J-2501-130-A).

Adjusting method:

Order	Page	Address	Data	Procedure
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)
2	F	15		Note down the data.
3	9	62		Note down the data.
4	9	83		Note down the data.
5	F	15	80	Press PAUSE button.
6	9	62	06	Press PAUSE button.
7	9	83	50	Press PAUSE button.
8	6	01	AF	Press PAUSE button. (Note 6)
9	6	02		Check the data changes to "01".
10	F	13		Check the data. 00: Normal FF: Defective

Note 6: The adjustment data will be automatically input to page: F, address: 10 to 16.

Order	Page	Address	Data	Procedure
1	6	01	00	Press PAUSE button.
2	F	15		Set data noted down at step 2, and press PAUSE button.
3	9	62		Set data noted down at step 3, and press PAUSE button.
4	9	83		Set data noted down at step 4, and press PAUSE button.
5				Release the data setting performed at step 1. (Refer to page 6-14)

28. AF Illumination Check RadarW

Check a deviation of optical axis between AF illuminator and camera image and defocusing of the pattern.

Mode	CAMERA
Subject	Flash adjustment box (Note 3) (1 m from the front of lens)
Measurement Point	Check operation on monitor TV
Measuring Instrument	
Specified Value	All luminance points should settle within specification frame.

- Note 1: Perform checking by making the shooting surface of the Flash adjustment box perpendicular to the optical axis of the camera.
- **Note 2:** Perform this checking in the Flash adjustment box. Restrict external light to enter the Flash adjustment box as less as possible.
- Note 3: Refer to "4. Preparing the Flash adjustment box". (See page 6-7)

Switch setting:

1) FOCUS AUTO

Preparation

- 1) Take a reduced or enlarged copy on the clear sheet so that a rectangular frame of the sheet for auxiliary light is suitable for the effective image size of the monitor.
- 2) Stick the copied sheet for auxiliary light on the monitor screen.

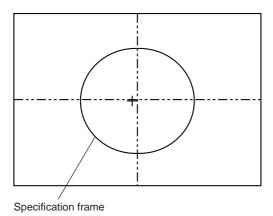


Fig. 6-1-17

Adjusting method:

Order	Page	Address	Data	Procedure
1				Perform "Data setting during camera system adjustment". (Refer to page 6-14)
2	6	30	06	
3	В	3D		Note down the data.
4	В	3D	50	Press PAUSE button.
5	6	2C	01	Press PAUSE button.
6	6	90	00	
7	6	91	D0	
8	6	92	5A	
9	6	93	50	
10	6	01	79	Press PAUSE button.
11	6	07		Check the data changes to "01".
12	6	01	00	Press PAUSE button.
13	6	22	05	
14	6	23	0A	
15				Check that the hologram pat- terns are all within the specifi- cation frame. (None of the ho- logram patterns are completely out of the frame.)

Order	Page	Address	Data	Procedure
1	В	3D		Set data noted down at step 3, and press PAUSE button.
2	6	01	00	Press PAUSE button.
3	6	22	00	
4	6	23	00	
5	6	2C	00	
6	6	30	00	
7	6	92	00	
8	6	93	00	
9				Release the data setting performed at step 1. (Refer to page 6-14)

DSC-F717



1-5. LCD SYSTEM ADJUSTMENTS

Before perform the LCD system adjustments, check that the specified values of "VIDEO SYSTEM ADJUSTMENTS" are satisfied.

Note 1: Taken an extreme care not to destroy the liquid crystal display module by static electricity when replacing it.

Note 2: Set the LCD BRIGHTENSS (SET UP setting) to the NORMAL.

[Adjusting connector]

Most of the measuring points for adjusting the LCD system are concentrated in CN305 of the FR-194 board.

Connect the Measuring Instruments via the CPC-12 jig (J-6082-436-A).

The following table shows the Pin No. and signal name of CN305.

Pin No.	Signal Name	Pin No.	Signal Name
1	BL_L1	12	LANC_OUT
2	N.C.	13	MAKER_RECOG
3	N. C.	14	N.C.
4	REG_GND	15	N.C.
5	N. C.	16	N.C.
6	BL_L2	17	N.C.
7	PANEL_HSY	18	N.C.
8	PANEL_COM	19	EVF_BL
9	PANEL_VG	20	EVF_BL_4.75V
10	CPC_UNREG	21	EVF_VG
11	LANC_IN	22	EVF_VCO

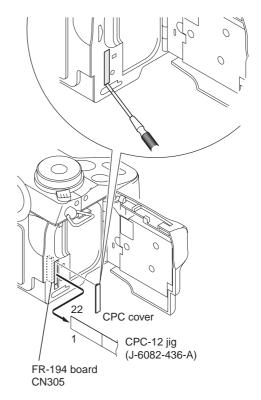


Fig. 6-1-18

1. LCD Initial Data Input (1)

Mode	PLAY
Signal	Arbitrary
Adjustment Page	A
Adjustment Address	80 to 8F, A3

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: A, and enter the data given in the following table.

Note: Press the PAUSE button each time the data are set, as the data are written to non-volatile memory (EEPROM).

Address	Data	Remark	
80	7A	Eined andre	
81	22	Fixed value	
82	2D	VCO Adjustment (NTSC mode)	
83	3C	VCO Adjustment (PAL mode)	
84	63	V-COM Adjustment	
85	16	D Range Adjustment	
86	В8	Fixed value	
87	6B	V-COM Level Adjustment	
88	90	White Balance Adjustment Contrast Adjustment	
89	83		
8A	0A		
8B	00		
8C	2F		
8D	31	Fixed value	
8E	80	Fixed value	
8F	1F		
A3	06		

Processing after Completing Adjustments:

1) Select page: 0, address: 01, and set data: 00.

2. LCD Initial Data Input (2)

Mode	PLAY
Signal	Arbitrary
Adjustment Page	В
Adjustment Address	3A to 3F

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: B, and enter the data given in the following table.

Note: Press the PAUSE button each time the data are set, as the data are written to non-volatile memory (EEPROM).

Address	Data	Remark
3A	57	
3B	FE	
3C	02	Fixed data
3D	5A	1 Ixed data
3E	00	
3F	01	

Processing after Completing Adjustments:

1) Select page: 0, address: 01, and set data: 00.

3. VCO Adjustment (PD-179 Board)

Set the VCO free-run frequency. If deviated, the LCD screen will be blurred.

Mode	PLAY
Signal	Arbitrary
Measurement Point	Pin ⑦ of CN305 on FR-194 board (PANEL_HSY)
Measuring Instrument	Frequency counter
Adjustment Page	A
Adjustment Address	82 (NTSC mode) 83 (PAL mode)
Specified Value	$f = 15734 \pm 100 \text{ Hz (NTSC mode)}$ $f = 15625 \pm 100 \text{ Hz (PAL mode)}$

Menu setting:

1) VIDEO OUT of SET UP setting

..... NTSC (NTSC mode)

(This adjustment must be performed in NTSC mode, so don't set the menu setting to "PAL") $\,$

Adjusting method:

Order	Page	Address	Data	Procedure		
1	0	01	01			
2	A	02	13	Press PAUSE button.		
3	4	F1	13			
4	A	82		Change the data and set the frequency (f) to the NTSC specified value.		
5	A	82		Press PAUSE button.		
6	4	1D	82			
7	A	83		Change the data and set the frequency (f) to the PAL specified value.		
8	A	83		Press PAUSE button.		

Processing after Completing Adjustments:

Order	Page	Address	Data	Procedure
1	A	02	00	Press PAUSE button.
2	4	F1	00	
3	4	1D	80	
4	0	01	00	

4. D Range Adjustment (PD-179 Board)

Set the D Range of the RGB decoder for driving the LCD to the specified value.

If deviated, the LCD screen image will be blackish or saturated (whitish).

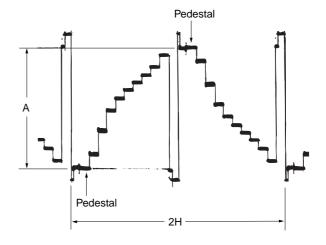
Mode	PLAY
Signal	Arbitrary
Measurement Point	Pin (9) of CN305 on FR-194 board (PANEL_VG) External trigger: Pin (8) of CN305 on FR-194 board (PANEL_COM)
Measuring Instrument	Oscilloscope
Adjustment Page	A
Adjustment Address	85
Specified Value	$A = 2.95 \pm 0.05 \text{ Vp-p}$

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	
2	A	02	13	Press PAUSE button.
3	4	F1	03	
4	A	85		Change the data and set the voltage (A) to the specified value.
5	A	85		Press PAUSE button.

Processing after Completing Adjustments:

Order	Page	Address	Data	Procedure
1	A	02	00	Press PAUSE button.
2	4	F1	00	
3	0	01	00	



A: Pedestal level difference between 1H period and previous 1H period.

Fig. 6-1-19

5. Contrast Adjustment (PD-179 Board)

Set the level of the VIDEO signal for driving the LCD to the specified value.

If deviated, the LCD screen image will be blackish or saturated (whitish).

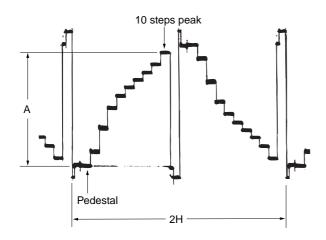
Mode	PLAY
Signal	Arbitrary
Measurement Point	Pin ③ of CN305 on FR-194 board (PANEL_VG) External trigger: Pin ⑧ of CN305 on FR-194 board (PANEL_COM)
Measuring Instrument	Oscilloscope
Adjustment Page	A
Adjustment Address	8A
Specified Value	$A = 2.65 \pm 0.07 \text{ Vp-p}$

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	
2	A	02	13	Press PAUSE button.
3	4	F1	03	
4	A	8A		Change the data and set the voltage (A) to the specified value.
5	A	8A		Press PAUSE button.

Processing after Completing Adjustments:

Order	Page	Address	Data	Procedure
1	A	02	00	Press PAUSE button.
2	4	F1	00	
3	0	01	00	



A: Between the pedestal and 10 steps peak

Fig. 6-1-20

6. V-COM Level Adjustment (PD-179 Board)

Set the common electrode drive signal level of LCD to the specified value.

Mode	PLAY
Signal	Arbitrary
Measurement Point	Pin ® of CN305 on FR-194 board (PANEL_COM)
Measuring Instrument	Oscilloscope
Adjustment Page	A
Adjustment Address	87
Specified Value	$A = 5.42 \pm 0.05 \text{ Vp-p}$

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	
2	A	02	13	Press PAUSE button.
3	4	F1	03	
4	A	87		Change the data and set the voltage (A) to the specified value.
5	A	87		Press PAUSE button.

Order	Page	Address	Data	Procedure
1	A	02	00	Press PAUSE button.
2	4	F1	00	
3	0	01	00	

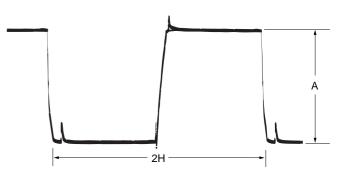


Fig. 6-1-21

7. V-COM Adjustment (PD-179 Board)

Set the DC bias of the common electrode drive signal of LCD to the specified value.

If deviated, the LCD display will be move, producing flicker and conspicuous vertical lines.

Mode	PLAY
Signal	Arbitrary
Measurement Point	Check on LCD screen
Measuring Instrument	
Adjustment Page	A
Adjustment Address	84
Specified Value	The brightness difference between the section-A and section-B is minimum

Note: Perform "D Range Adjustment", "Contrast Adjustment" and "V-COM Level Adjustment" before this adjustment.

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	
2	A	02	13	Press PAUSE button.
3	4	F1	82	
4	A	84		Change the data so that brightness of the section A and section B is equal.
5	A	84		Press PAUSE button.

Processing after Completing Adjustments:

Order	Page	Address	Data	Procedure
1	A	02	00	Press PAUSE button.
2	4	F1	00	
3	0	01	00	

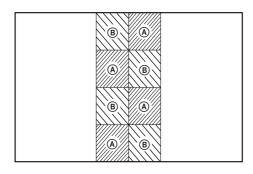


Fig. 6-1-22

8. White Balance Adjustment (PD-179 Board)

Correct the white balance.

If deviated, the LCD screen color cannot be reproduced.

Mode	PLAY
Signal	Arbitrary
Measurement Point	Check on LCD screen
Measuring Instrument	
Adjustment Page	A
Adjustment Address	88, 89
Specified Value	LCD screen must not be colored

Note 1: Check the white balance only when replacing the following parts. If necessary, adjust them.

- 1. LCD panel
- 2. Light induction plate
- 3. IC801

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	
2	A	02	13	Press PAUSE button.
3	4	F1	02	
4	A	88 89	90 83	Press PAUSE button. (Initial value)
5				Check that the LCD screen is not colored. If not colored, proceed to "Processing after Completing Adjustments".
6	A	88 89		Change the data so that the LCD screen is not colored. (Note 2)

Note 2: To write in the non-volatile memory (EEPROM), press the PAUSE button each time to set the data.

Order	Page	Address	Data	Procedure
1	A	02	00	Press PAUSE button.
2	4	F1	00	
3	0	01	00	



1-6. COLOR ELECTRONIC VIEWFINDER SYSTEM ADJUSTMENTS

Before perform the color electronic viewfinder system adjustments, check that the specified values of "VIDEO SYSTEM ADJUST-MENTS" are satisfied.

Note 1: Taken an extreme care not to destroy the liquid crystal display module by static electricity when replacing it.

Note 2: Set the EVF BACKLIGHT (SET UP setting) to the NOR-MAL.

[Adjusting connector]

Most of the measuring points for adjusting the viewfinder system are concentrated in CN305 of the FR-194 board.

Connect the Measuring Instruments via the CPC-12 jig (J-6082-436-A).

The following table shows the Pin No. and signal name of CN305.

Pin No.	Signal Name	Pin No.	Signal Name
1	BL_L1	12	LANC_OUT
2	N.C.	13	MAKER_RECOG
3	N. C.	14	N.C.
4	REG_GND	15	N.C.
5	N. C.	16	N.C.
6	BL_L2	17	N.C.
7	PANEL_HSY	18	N.C.
8	PANEL_COM	19	EVF_BL
9	PANEL_VG	20	EVF_BL_4.75V
10	CPC_UNREG	21	EVF_VG
11	LANC_IN	22	EVF_VCO

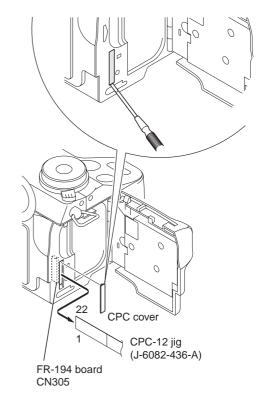


Fig. 6-1-23

1. EVF Initial Data Input

Mode	PLAY
Signal	Arbitrary
Adjustment Page	A
Adjustment Address	90 to 9D, A2

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: A, and enter the data given in the following table.

Note: Press the PAUSE button each time the data are set, as the data are written to non-volatile memory (EEPROM).

Address	Data	Remark
90	30	F: 1 1
91	72	Fixed value
92	34	VCO Adjustment (NTSC mode)
93	44	VCO Adjustment (PAL mode)
94	28	Fixed value
95	7F	Bright Adjustment
96	08	F: 1 1
97	80	Fixed value
98	94	William I. A. I.
99	82	White Balance Adjustment
9A	25	Contrast Adjustment
9B	1D	
9C	2B	
9D	00	Fixed value
A2	30	

Processing after Completing Adjustments:

1) Select page: 0, address: 01, and set data: 00.

2. VCO Adjustment (PD-179 Board)

Set the VCO free-run frequency. If deviated, the EVF screen will be blurred.

Mode	PLAY
Signal	Arbitrary
Measurement Point	Pin ② of CN305 on FR-194 board (EVF_VCO)
Measuring Instrument	Frequency counter
Adjustment Page	A
Adjustment Address	92 (NTSC mode) 93 (PAL mode)
Specified Value	f = 15734 ± 100 Hz (NTSC mode) f = 15625 ± 100 Hz (PAL mode)

Menu setting:

1) VIDEO OUT of SET UP setting NTSC (NTSC mode)

(This adjustment must be performed in NTSC mode, so don't set the menu setting to "PAL")

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	
2	A	02	23	Press PAUSE button.
3	4	F1	13	(NTSC mode)
4	4	1D	82	(PAL mode)
5	A	92		Change the data and set the frequency (f) to the NTSC specified value.
6	A	92		Press PAUSE button.
7	A	93		Change the data and set the frequency (f) to the PAL specified value.
8	A	93		Press PAUSE button.

Order	Page	Address	Data	Procedure
1	A	02	00	Press PAUSE button.
2	4	F1	00	(NTSC mode)
3	4	1D	80	(PAL mode)
4	0	01	00	

3. Bright Adjustment (PD-179 Board)

Set the D Range of the RGB decoder for driving the LCD to the specified value.

If deviated, the EVF screen image will be blackish or saturated (whitish).

Mode	PLAY
Signal	Arbitrary
Measurement Point	Pin ② of CN305 on FR-194 board (EVF_VG)
Measuring Instrument	Oscilloscope
Adjustment Page	A
Adjustment Address	95
Specified Value	$A = 7.00 \pm 0.10 \text{ Vp-p}$

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	
2	A	02	23	Press PAUSE button.
3	4	F1	03	
4	A	95		Change the data and set the voltage (A) to the specified value.
5	A	95		Press PAUSE button.

Processing after Completing Adjustments:

Order	Page	Address	Data	Procedure
1	A	02	00	Press PAUSE button.
2	4	F1	00	
3	0	01	00	

4. Contrast Adjustment (PD-179 Board) Set the level of the VIDEO signal for driving the I

Set the level of the VIDEO signal for driving the LCD to the specified value.

If deviated, the EVF screen image will be blackish or saturated (whitish).

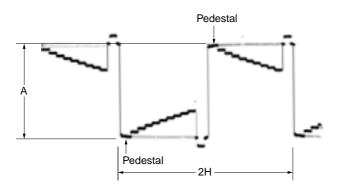
Mode	PLAY
Signal	Arbitrary
Measurement Point	Pin ② of CN305 on FR-194 board (EVF_VG)
Measuring Instrument	Oscilloscope
Adjustment Page	A
Adjustment Address	9A
Specified Value	$A = 1.75 \pm 0.10 \text{ Vp-p}$

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	
2	A	02	23	Press PAUSE button.
3	4	F1	03	
4	A	9A		Change the data and set the voltage (A) to the specified value.
5	A	9A		Press PAUSE button.

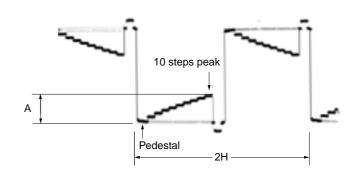
Processing after Completing Adjustments:

Order	Page	Address	Data	Procedure
1	A	02	00	Press PAUSE button.
2	4	F1	00	
3	0	01	00	



A: Between the reversed waveform pedestal and non-reversed waveform pedestal

Fig. 6-1-24



A: Between the pedestal and 10 steps peak

Fig. 6-1-25

5. White Balance Adjustment (PD-179 Board)

Correct the white balance.

If deviated, the EVF screen color cannot be reproduced.

Mode	PLAY
Signal	Arbitrary
Measurement Point	Check on EVF screen
Measuring Instrument	
Adjustment Page	A
Adjustment Address	98, 99
Specified Value	EVF screen must not be colored

Adjusting method:

Order	Page	Address	Data	Procedure
1	0	01	01	
2	A	02	23	Press PAUSE button.
3	4	F1	02	
4	A	98 99	94 82	Press PAUSE button. (Initial value)
5				Check that the EVF screen is not colored. If not colored, proceed to "Processing after Completing Adjustments".
6	A	98 99		Change the data so that the EVF screen is not colored. (Note)

Note: To write in the non-volatile memory (EEPROM), press the PAUSE button each time to set the data.

Order	Page	Address	Data	Procedure
1	A	02	00	Press PAUSE button.
2	4	F1	00	
3	0	01	00	



6-2. SERVICE MODE

2-1. ADJUSTING REMOTE COMMANDER

The adjusting remote commander is used for changing the calculation coefficient in signal processing, EVR data, etc. The adjusting remote commander performs bi-directional communication with the unit using the remote commander signal line (LANC). The resultant data of this bi-directional communication is written in the non-volatile memory.

1. Used the Adjusting Remote Commander

- 1) Connect the adjusting remote commander to CN305 on the FR-194 board via CPC-12 jig (J-6082-436-A).
- Adjust the HOLD switch of the adjusting remote commander to "HOLD" (SERVICE position).
- 3) Turn on the power with the POWER switch of the unit.

If it has been properly connected, the LCD on the adjusting remote commander will display as shown in Fig. 6-2-1.

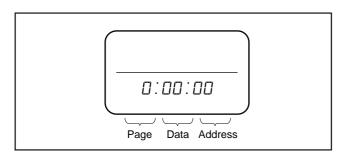


Fig. 6-2-1

- 4) Operate the adjusting remote commander as follows.
 - Changing the page

The page increases when the EDIT SEARCH + button is pressed, and decreases when the EDIT SEARCH – button is pressed. There are altogether 16 pages, from 0 to F.

Hexadecimal	_	1	2	2	1	_	_	7	0	_	^	ъ		Б	Б	F
notation	0	1	2	3	4	3	О	/	8	9	А	В	C	ט	E	Г
LCD Display	0	1	2	3	Ч	5	5	7	8	9	Я	Ь	С	d	Ε	F
Decimal notation	_	1	2	2	1	_	_	7	0	0	10	11	12	12	1.4	15
conversion value	U	1	2	3	4	3	О	/	ð	9	10	11	12	13	14	13

Table 6-2-1

- Changing the address
 - The address increases when the FF ($\triangleright \triangleright$) button is pressed, and decreases when the REW ($\blacktriangleleft \triangleright$) button is pressed. There are altogether 256 addresses, from 00 to FF.
- Changing the data (Data setting)
 The data increases when the PLAY (►) button is pressed, and decreases when the STOP (■) button is pressed. There are altogether 256 data, from 00 to FF.
- Writing the adjustment data
 The PAUSE button must be pressed to write the adjustment data in the nonvolatile memory. (The new adjustment data will not be recorded in the nonvolatile memory if this step is not performed)

2. Precautions upon Using the Adjusting Remote Commander

Mishandling of the adjusting remote commander may erase the correct adjustment data at times. To prevent this, it is recommended that all adjustment data be noted down before beginning adjustments and new adjustment data after each adjustment.

DSC-F717



2-2. DATA PROCESS

The calculation of the adjusting remote commander display data (hexadecimal notation) are required for obtaining the adjustment data of some adjustment items. In this case, after converting the hexadecimal notation to decimal notation, calculate and convert the result to hexadecimal notation, and use it as the adjustment data. Table 6-2-2. indicates the hexadecimal notation- the decimal notation, calculation table.

Hexade	cimal nontation-Decimal notat	ion													② ↓		
	The lower digits of the	0	1	2	3	4	5	6	7	8	9	Α	В	С	D	Е	F
	hexadecimal notation																
	The upper digits of the											(A)	(b)	(⊏)	(占)	(E)	(F)
	hexadecimal notation																
	0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	1	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	2	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
	3	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
	4	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
	5	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
	6	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
	7	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
	8	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
	9	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
	A (F)	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
⊕	B (b)	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
	C (c)	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
	D (d)	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
	E (<i>E</i>)	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
	F (F)	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255

Note: () indicate the adjusting remote control unit display.

(**Example**) In the case that the adjusting remote control unit display are BD (bd).

As the upper digit of the hexadecimal notation is B (b), and the lower digit is D (d), the intersection "189" of the 1 and 2 in the above table is the decimal notation to be calculated.

Table 6-2-2



2-3. SERVICE MODE

1. Setting the Test Mode

Page D Address 21	Page D	Address 21
-------------------	--------	------------

Data	Function
00	Normal
05	Forced MOVIE mode power ON
07	Forced CAMERA mode power ON
08	Forced PLAY mode power ON
09	Forced SET UP mode power ON

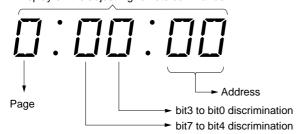
- Before setting the data, select page: 0, address: 01, and set data: 01.
- For page D, the data set is recorded in the non-volatile memory by pressing the PAUSE button of the adjusting remote commander. In this case, take note that the test mode will not be exited even when the main power is turned off.
- After completing adjustments/repairs, be sure to return the data of this address to "00", and press the PAUSE button of the adjusting remote commander.

Select page: 0, address: 01, and set data: 00.

2. Bit Value Discrimination

Bit values must be discriminated using the display data of the adjusting remote commander for following items. Use the table below to discriminate if the bit value is "1" or "0".

Display on the adjustilng remote commander



	Display on the		Rit v	alues	
	Adjusting	bit3	bit2	bit1	bit0
	remote	or	or	or	or
			_		bit4
	commander	bit7	bit6	bit5	
	0	0	0	0	0
	1	0	0	0	1
	2	0	0	1	0
	3	0	0	1	1
	4	0	1	0	0
	5	0	1	0	1
	6	0	1	1	0
	7	0	1	1	1
A	8	1	0	0	0
	9	1	0	0	1
	A (Ħ)	1	0	1	0
	B (b)	1	0	1	1
	C (c)	1	1	0	0
	D (d)	1	1	0	1
$^{f B}$	E (<i>E</i>)	1	1	1	0
	F (F)	1	1	1	1

Example: If "8E" is displayed on the adjusting remote commander, the bit values for bit7 to bit4 are shown in the ⓐ column, and the bit values for bit3 to bit0 are shown in the ® column.

3. Mode Dial Check (1)

Page 2	Address 90
--------	------------

Data	Function
00 to 14	S
15 to 3D	A
3E to 67	M
68 to A8	SCN
A9 to D0	MOVIE
D1 to FF	CAMERA

Using method:

- 1) Select page: 2, address: 90.
- 2) By discriminating the bit value of dispaly data, the state of the switches can be discriminated.

4. Mode Dial Check (2)

Page 2	Address 80, 81
--------	----------------

Address	Bit	Function	When bit value=1	When bit value=0
80	1	PLAY	others	PLAY
81	4	SET UP	others	SET UP

Using method:

- 1) Select page: 2, address: 80 and 81.
- 2) By discriminating the bit value of dispaly data, the state of the switches can be discriminated.

5. Jog Dial Check

Page 2	Address 81

Using method:

- 1) Set the mode dial to any position other than "SET UP".
- 2) Select page: 2, address: 81.
- 3) By discriminating the upper digit of the data, the rotation of the control dial can be discriminated.

	Upper digit of the data
(PW51050 block (S403))	
When rotated upward.	$\cdots \rightarrow 3 \rightarrow B \rightarrow F \rightarrow 7 \rightarrow 3 \rightarrow \cdots$
When rotated downward.	$\cdots \rightarrow 3 \rightarrow 7 \rightarrow F \rightarrow B \rightarrow 3 \rightarrow \cdots$

6. Switch Check (1)

Page 2	Address 80
--------	------------

Bit	Function	When bit value=1	When bit value=0	
0	POWER SW	OFF	ON	
1	PLAY (Mode Dial)	others	PLAY	
2				
3	SHUTTER SW (PW51050 block) (S401	OFF	ON	
4	XSHUTTER LOCK SW (PW51050 block) (S401	OFF	ON	
5	MEMORY STICK IN SW (MS Socket)	OUT	IN	

Using method:

- 1) Select page: 2, address: 80.
- 2) By discriminating the bit value of dispaly data, the state of the switches can be discriminated.

7. Switch Check (2)

Using method:

- 1) Select page: 2, addresses: 91 to 95.
- By discriminating the dispaly data, the pressed key can be discriminated.

A -1 -1	Data					
Address	00 to 14	15 to 3D	3E to 67	68 to A8	A9 to D0	D1 to FF
91 (KEY AD0) (IC102 5 9)	CONTROL DOWN (SW-379 board) (S353)	CONTROL UP (SW-379 board) (S353)	MENU (SW-379 board) (S352)	INDEX (SW-379 board) (S351)	FINEDER (SW-379 board) (S354)	LCD (SW-379 board) (S354)
92 (KEY AD1) (IC102 5 6)	CONTROL RIGHT (SW-379 board) (S353)	CONTROL LEFT (SW-379 board) (S353)	CONTROL SET (SW-379 board) (S353)	DISPLAY (SW-379 board) (S355)		No key input
93 (KEY AD2) (IC102 ⑤)	AE LOCK (FZ51050 block) (S301)	SPOT METER (FZ51050 block) (S302)	ONE-PUSH WHITE BALANCE (FZ51050 block) (S303)	WHT BAL (FZ51050 block) (S304)	FOCUS MANUAL (FZ51050 block) (S308)	FOCUS AUTO (FZ51050 block) (S308)
94 (KEY AD3) (IC102 ®)	+/- (EXPOSURE) (PW51050 block) (S404)	JOG DIAL EXECUTE (PW51050 block) (S406)		NIGHT FRAMING ON (TY-014 block) (S301)	NIGHT SHOT ON (TY-014 block) (S301)	NIGHT SHOT NIGHT FRAMING OFF (TY-014 block) (S301)
95 (KEY AD4) (IC102 ⑤)	ZOOM T (Fast) (FZ51050 block) (S306)	ZOOM T (Slow) (FZ51050 block) (S306)	ZOOM W (Fast) (FZ51050 block) (S307)	ZOOM W (Slow) (FZ51050 block) (S307)		No key input

8. LED Check

Page 2	Address 04	Data 02
--------	------------	---------

Using method:

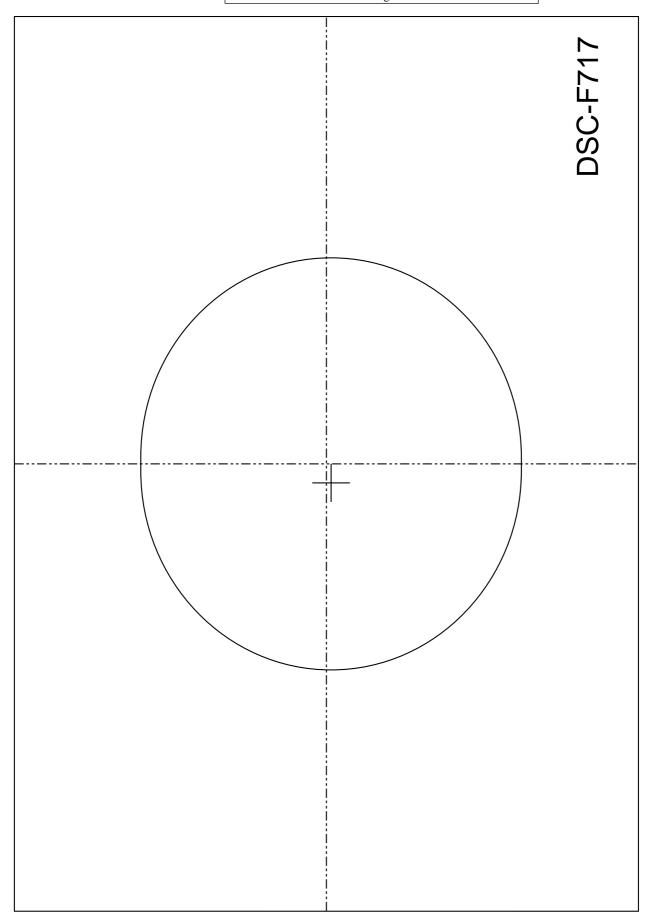
- 1) Select page: 2, address: 04, set data: 02, and press PAUSE button.
- Check that all LED are lit.
 (SELF TIMER/REC, POWER, CHG, ACCESS LED)
- 3) Select page: 2, address: 04, set data: 00, and press PAUSE button.

9. Self Diagnosis Code

Display Code	Countermeasure	Cause	Caution Display During Error	
C:32:□□	Turn the power off and on again.	Trouble with hardware.	SYSTEM ERROR	
C:13:□□	Format the "Memory Stick".	Unformatted "Memory Stick" is inserted.	FORMAT ERROR	
	Insert a new "Memory Stick".	"Memory Stick" is broken.	MEMORY STICK ERROR	
E:61:□□	Checking of lens drive circuit.	When failed in the focus and zoom initialization.		
E:91:□□	Checking of flash unit or replacement of flash unit.	Abnormality when flash is being charged.		

AF ILLUMINATION CHECK

Take a reduced or enlarged copy on the clear sheet so that a rectangular frame of the SHEET FOR AUXILIARY LIGHT is suitable for the effective image size of the monitor.

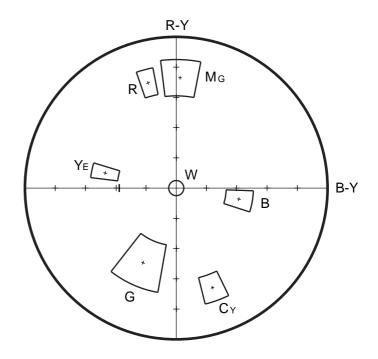


FOR CAMERA COLOR REPRODUCTION ADJUSTMENT

Take a copy of CAMERA COLOR REPRODUCTION FRAME with a clear sheet for use.

For NTSC mode

 \gg



DSC-F717

Revision History

Ver.	Date	History	Contents	S.M. Rev.
1.0	2002.09	Official Release	_	_