SECTION 3

ELECTRICAL ADJUSTMENTS

CONTENTS

3.1 PRECAUTIONS FOR ELECTRICAL ADJUSTMENTS....3-1
3.1.1 Measuring instruments and Tools required for adjustments....3-1
3.1.2 Alignment tape specifications....3-1
3.1.3 Signals required for adjustments....3-1
3.1.4 Notes for adjustments....3-2
3.1.5 Adjustment menu....3-2
3.2 DVC UNIT ADJUSTMENTS....3-4
3.3 VIDEO SYSTEM ADJUSTMENTS....3-8
3.4 REWRITE BOARD SCHEMATIC DIAGRAM....3-23

SECTION 3
ELECTRICAL ADJUSTMENTS

3.1 PRECAUTIONS FOR ELECTRICAL ADJUSTMENTS

Electrical adjustments should be performed only when they are required, for example, during maintenance. Electrical adjustments that are possible only after mechanism adjustments should be performed after completing these. Before proceeding to perform electrical adjustments, be sure to warm up the unit for at least 10 minutes after turning it on.
Use the 10:1 probe with the oscilloscope unless otherwise specified.

3.1.1 Measuring instruments and Tools required for adjustments

(1) Measuring instruments
- Oscilloscope: 2-trace, 100 MHz or more.
- NTSC/PAL waveform monitor (WFM)
- NTSC/PAL Composite and Y/C video signal generator
- Frequency counter: 10 MHz or more, resolution 100 mV or less.
- Monitor TV

(2) Tools

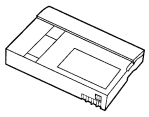
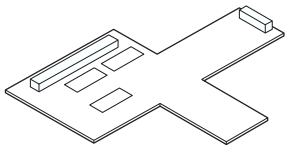
1	Alignment tape
VFK1842	
2	Rewrite board (Jig connector)
VFK1846	

Table 3-1-1

3.1.2 Alignment tape specifications

VFK1842

No.	Video signal	Audio signal	Time (min.)	Applications
1	Moving image	Moving image audio	10	Block noise check
2	Color bars	1 kHz	10	•Interchangeability adjustment •Video/audio play circuit check/adjustment

Table 3-1-2

3.1.3 Signals required for adjustments

NTSC and PAL color bar signals are required on "3.3 VIDEO SYSTEM ADJUTMENT".

NTSC:
100% color bars (100, 0, 100, 0) (Without SETUP)
100% color bars (100, 7.5, 100, 7.5) (With SETUP)
PAL:
100% color bars (100, 0, 100, 0) (PAL does not use SETUP.)

(1) Composite 100% color bars

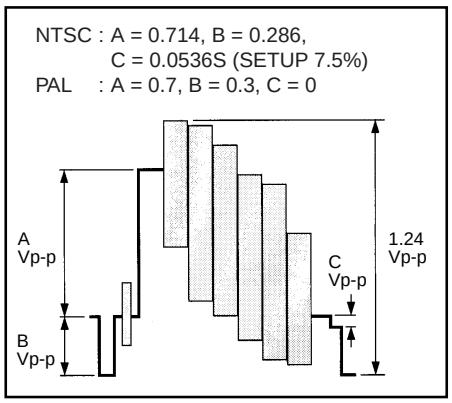
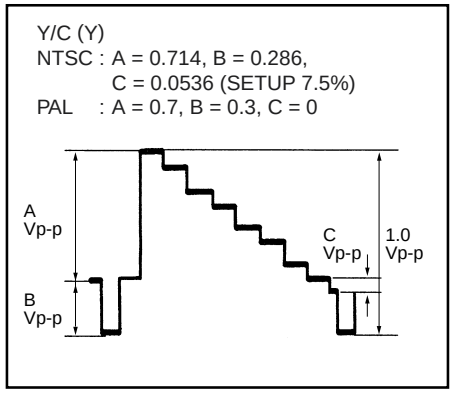


Fig. 3.1.3 (1)

(2) Y/C 100% color bars



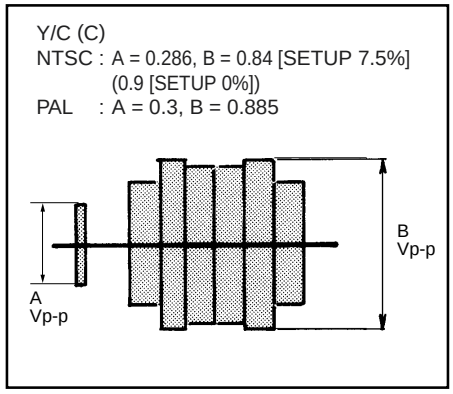


Fig. 3.1.3 (2)

3.1.4 Notes for adjustments

Since the AG-DV2500 is compatible with the recording and playback of the NTSC and PAL signals, it is required that both NTSC and PAL be adjusted.
The NTSC and PAL signals use different Y signal V/S ratios and color levels. Be sure to use the specified signals for the adjustments.

Both the NTSC and PAL signals use a variety of signals differing in the Y levels and color levels, etc. Also note that the NTSC signals include signals both with and without the Setup component.

The AG-DV2500 is provided with input and output level adjustment capabilities only. If a signal of the specified level for color and setup is not available, read the following for the substitution.

(1) Y level adjustments (Both of NTSC and PAL)
If the available Y signal contains a white level of 100 IRE (PAL: 0.7 Vp-p), the signal can be used in the adjustment as described in the given procedure.
If the input signal has the setup, adjust the luminance level from the pedestal to the white peak including the setup.

(2) Setup level adjustment (NTSC only)
The NTSC signal generator usually generates a signal with the Setup component. If it cannot be switched off, follow the alternative adjustment procedure for the signal with Setup, which is provided for each adjustment item.

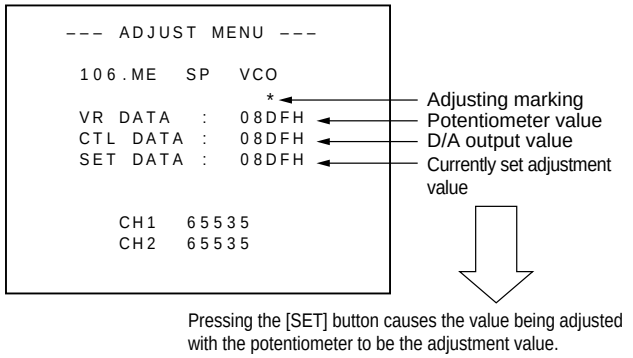
(3) Color level adjustments (Both of NTSC and PAL)
The chroma level is variable depending on whether it is 75% or 100% and on whether the Setup component is present (NTSC only). As a result, a correct adjustment is not possible unless the specified signal is used. If the specified signal is not available, refer to the following.

- Chroma level adjustment
  First measure the input signal what the signal type is (Refer to the table 3.1.4). Then apply the signal (composite or Y/C) to the AG-DV2500 and adjust the output signal level equal to the input type level.
- Burst level adjustment
  The burst level is identical for all signals. There will be no problem if it can be adjusted to NTSC: 0.286 Vp-p (PAL: 0.3 Vp-p). There is no problem whether or not the Setup component is present (NTSC only).

3.1.5 Adjustment menu

(1) Operation method
Use the ADJUST MENU for adjustments. The operating method is as follows.

① Make sure of no cassette in the VTR. While holding the [REW] and [FF] buttons, press the [OPERATE] button to turn the unit on.
② When the unit is turned on, press and hold the [EJECT] button for about 2 seconds until the ADJUST MENU is displayed.
③ Press the ► (FF) or ◄ (REW) button to select adjustment item.
④ Press the [SET] (PAUSE) button so that the "*" marking blinks and, while observing the specified TP, the measuring instrument and others, press the ▲ (PLAY) button or ▼ (STOP) button to adjust the value to the specified value.
(Pressing the [A.DUB] button simultaneously with the ▲ or ▼ button varies the adjustment value by ±10 steps.)



⑤ After completing the adjustment, press the [SET] (PAUSE) button again to turn the "*" marking off and store the adjustment value. (The adjustment value is not stored and moving to the next adjustment item can not be performed unless the [SET] (PAUSE) button is pressed.)
⑥ Press the ► (FF) or ◄ (REW) button to select the next adjustment item.

Notes:
- When the adjustment procedure requires a mode transition to PLAY, etc., use the accessory of wireless remote controller.
- After completing all of the required settings, press [OPERATE] button to turn off the power.
- To return to normal operating status, tur n the unit off then on again. If this is not performed, since the unit is turned on in the adjustment mode, pressing the MENU button displays an adjustment menu and it is not possible to display the normal operation menu.

[NTSC]

Type	Y level [mVp-p]	White [mV]	Sync [mV]	Setup [mV]	Burst [mVp-p]	YL/B [mVp-p]	CY/R [mVp-p]	G/MG [mVp-p]
Y 100%, color 100% level, setup 0%	1000	714	286	0	286	640	908	848
Y 100%, color 100% level, setup 7.5%	1000	714	286	53.6	286	592	836	780
Y 100%, color 75% level, setup 0%	1000	714	286	0	286	480	681	636
Y 100%, color 75% level, setup 7.5%	1000	714	286	53.6	286	444	627	585

[PAL]

Type	Y level [mVp-p]	White [mV]	Sync [mV]	Burst [mVp-p]	YL/B [mVp-p]	CY/R [mVp-p]	G/MG [mVp-p]
Y 100%, color 100% level	1000	700	300	300	627	885	827
Y 100%, color 75% level	1000	700	300	300	471	664	620

YL/B: Yellow and Blue level. CY/R: Cyan and Red level. G/MG: Green and Magenta level.
Table 3.1.4

(2) Adjustment items and initial data
The initial values are merely the typical values, which are written automatically after the EEP-ROM replacement, etc. As the adjustments will not be correct if these values are left, be sure to perform actual adjustments before use.
The hatched rows in the following table indicate that adjustments are not necessary, so do not change the value of the initial settings.

No.	Adjustment item (OSD characters)	Initial value (CTL DATA)	Adjustment range
100	PB SW POINT	Auto adjustment	0000H~FFFFH
105	ME REC CURRENT	121	0~255
106	ME SP VCO	0890(Hex)	0000H~FFFFH
107	ME LP VCO	0892(Hex)	0000H~FFFFH
110	FS PLL 48kHz	25	0~255
111	FS PLL 44.1kHz	83	0~255
112	FS PLL 32kHz	25	0~255
113	27MHz VCO	143	0~255
114	ATF GAIN	110	0~255
115	AGC GAIN	132	0~255
116	DUMP CTL	68	0~255
117	PB VCO	128	0~255
118	BGNEND SENS	18	0~255
119	FWD TORQUE	192	0~255
120	REV TORQUE	192	0~255
121	UNLOAD TORQUE	72	0~255
200	OSD ADJ	53	0~255
210	PB Y LEV(S OFF)	129	0~255
211	PB SETUP LEV(S OFF)	192	192~207
212	PB SYNC LEV(S OFF)	89	0~255
213	PB C LEV(S OFF)	95	0~255
214	PB BUR LEV(S OFF)	205	0~255
215	YC REC Y LEV(S OFF)	94	0~255
216	YC REC ST LV(S OFF)	9	0~127
217	YC REC C LEV(S OFF)	0	-16~15
218	LE REC Y LEV(S OFF)	92	0~255
219	LE REC ST LV(S OFF)	8	0~127
220	LE REC C LEV(S OFF)	0	-16~15
221	YC EE Y LEV(S OFF)	96	0~255
222	YC EE C LEV(S OFF)	174	0~255
223	LE EE Y LEV(S OFF)	95	0~255

No.	Adjustment item (OSD characters)	Initial value (CTL DATA)	Adjustment range
224	LE EE C LEV(S OFF)	152	0~255
230	PB Y LEV(S ON)	119	0~255
231	PB SETUP LEV(S ON)	201	192~207
232	PB SYNC LEV(S ON)	118	0~255
233	PB C LEV(S ON)	87	0~255
234	PB BUR LEV(S ON)	200	0~255
235	YC REC Y LEV(S ON)	94	0~255
236	YC REC ST LV(S ON)	34	0~127
237	YC REC C LEV(S ON)	1	-16~15
238	LE REC Y LEV(S ON)	91	0~255
239	LE REC ST LV(S ON)	31	0~127
240	LE REC C LEV(S ON)	2	-16~15
241	YC EE Y LEV(S ON)	95	0~255
242	YC EE C LEV(S ON)	172	0~255
243	LE EE Y LEV(S ON)	96	0~255
244	LE EE C LEV(S ON)	149	0~255
260	PB Y LEV(PAL)	127	0~255
261	PB SETUP LEV(PAL)	0	0~16
262	PB SYNC LEV(PAL)	94	0~255
263	PB C LEV(PAL)	95	0~255
264	PB BUR LEV(PAL)	29	0~255
265	YC REC Y LEV(PAL)	104	0~255
266	YC REC ST LV(PAL)	3	0~127
267	YC REC C LEV(PAL)	-16	-16~15
268	LE REC Y LEV(PAL)	101	0~255
269	LE REC ST LV(PAL)	2	0~127
270	LE REC C LEV(PAL)	-16	-16~15
271	YC EE Y LEV(PAL)	94	0~255
272	YC EE C LEV(PAL)	233	0~255
273	LE EE Y LEV(PAL)	93	0~255
274	LE EE C LEV(PAL)	206	0~255

Table 3.1.5 Adjustment menu items

3.2 DVC UNIT ADJUSTMENTS

Preparation : Connect the Rewrite board (VFK1846) to CN4004 on the Main board. Connect it in the orientation shown in Fig. 3.2, so that the test point surface (component mounting surface) faces toward the rear.

NOTE : DVC UNIT ADJUSTMENTS can be completed if NTSC mode is performed.
Set the NTSC/PAL switch of the rear panel to NTSC.

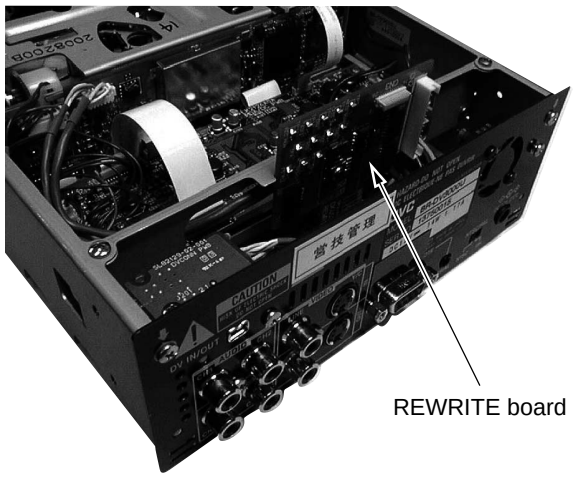


Fig. 3.2 Rewrite board connection method

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (ⓣ) Adjustment level (☆)	Adjustment procedure
1	PB switching point adjustment	Alignment tape, VFK1842 color bar recorded section	• PLAY • ADJUST MENU, 100. PB SW POINT	◎ TP6 (SPA) ◎ TP9 (ENV OUT) TRIG: TP5 (HID) GND: TP1 (GND) [Rewrite board] ⓣ Auto adjustment ☆ a and b = 126 µ sec ± 10 µ sec	(1) Select ADJUST MENU No. 100, "PB SW POINT". (2) Playback the alignment tape. Confirm that the compatibility adjustment has been performed and the FM waveform at TP9 (ENV OUT) is flat and stable. (3) Press the [SET] button to cause the * marking to blink. The PB switching point will be adjusted automatically.

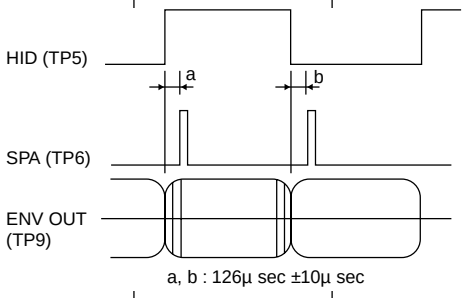


Fig. 3.2.1(1)

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⊕) Adjustment level (☆)	Adjustment procedure
					(4) Measure TP6 (SPA) by triggering TP5 (HID) and confirm that the values a and b are within the specified ranges. (5) Press the [PLAY] button a few times to display the adjustment data in the "DATA:" field. (The DATA value should not be 00000000 or FFFFFFFF.) (6) Press the [SET] button to store the adjustment data. **NOTE:** **Make sure that the data value is displayed before pressing the [SET] button. If this adjustment is completed before the data value is displayed the adjustment value will not be put into the memory.**
2	ME recording current adjustment		• EE • ADJUST MENU, 105. ME REC CURRENT	◎ Monitor display ⊕ [PLAY] and [STOP] buttons ☆ SET DATA = 115	(1) Select ADJUST MENU No. 105, "ME REC CURRENT". (2) Check the set data so that the value is "115" (Recording current is approx. 360 mVp-p). If not, adjust the value to "115" (3) Press the [SET] button to store the adjustment data.

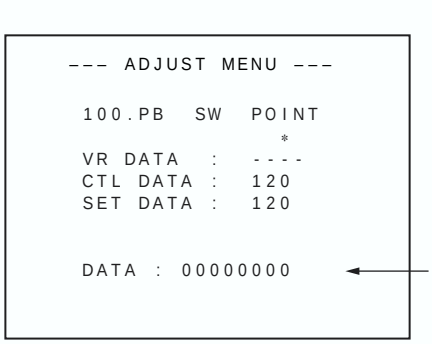


Fig. 3.2.1(2)

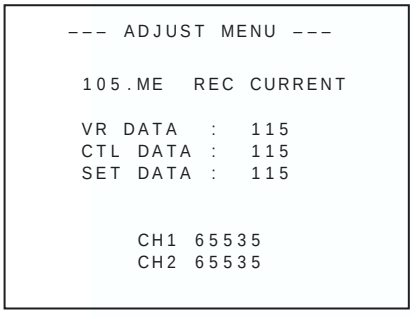


Fig. 3.2.2

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (ⓘ) Adjustment level (☆)	Adjustment procedure
3	ME SP VCO offset adjustment (Error rate adjustment)	Recording tape (brand-new tape) Moving Picture	• Self-REC/ PLAY • ADJUST MENU, 106. ME SP VCO	Monitor display [PLAY] and [STOP] buttons Minimum error rate, which should be ≦ 498 (per CH). (Viterbi : OFF)	**(Notes)** • **Be sure to use a brand-new tape for the ME SP VCO offset adjustment.** • **Be sure to clean the head with a head cleaning tape before adjustment.** • **The error rate should be measured with the Viterbi OFF. The Viterbi is switched OFF automatically when the adjustment mode is entered.** • **The error rate value is displayed in decimal form.** (1) Record a moving image in advance on the NEW recording tape for 5 minutes. (2) Select ADJUST MENU No. 106, "ME SP VCO". (3) Playback the recorded tape, press the [STOP] button to decrease the adjustment EVR data and freeze the image. (Pressing the [A.DUB] button simultaneously with the ▲ or ▼ button varies the adjustment value by ± 10 steps.) (4) Increase the EVR data gradually until the block noise just disappears. The current value is the adjustment value "A". (5) Playback the recorded tape and press the [PLAY] button to increase the EVR data and freeze the image. (6) Decrease the EVR data gradually until the block noise just disappears. The current value is the adjustment value "B". (7) Calculate the intermediate value between the "A" and "B" values. (Since the adjustment values are hex numbers, use a functional computation-capable calculator or the PC calculator provided in Accessories.) C = (A + B)/2 Set the value "C" as the adjustment value. (8) Playback the recorded tape again, confirm that the error rate is within specification. (9) Press the [SET] button to store the adjustment data.

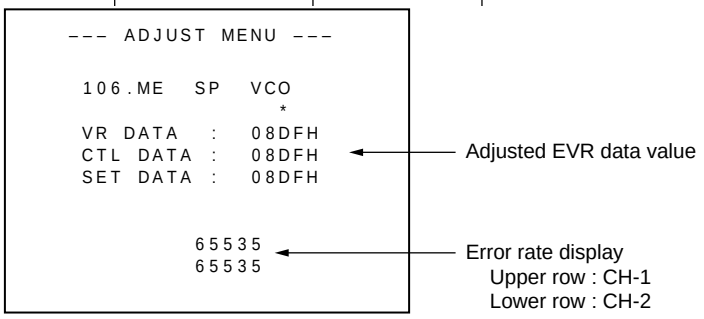


Fig. 3.2.3 (1) SP VCO Offset Menu

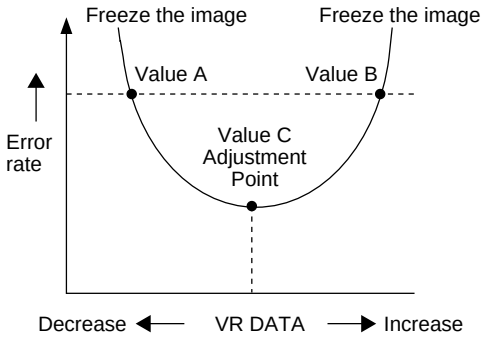


Fig. 3.2.3 (2) Consept of the adjustment

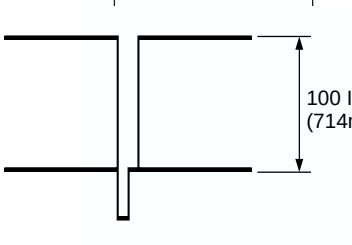
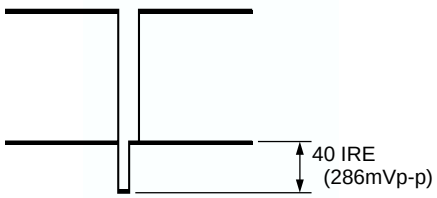
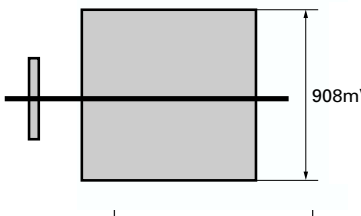
No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (ⓣ) Adjustment level (☆)	Adjustment procedure
4	FS PLL 48 kHz adjust-ment	Frequency counter No input	EE ADJUST MENU, 110. FS PLL 48 kHz	◎ TP4 (FS PLL) GND: TP1 (GND) [Rewrite board] ⓣ [PLAY] and [STOP] buttons ☆ 12.288 MHz ± 0.1 MHz	(1) Select ADJUST MENU No. 110, "FS PLL 48 kHz". (2) Press the [SET] button to measure frequency. (3) Adjust the frequency to the specified value. (4) Press the [SET] button to store the adjustment data.
5	FS PLL 44.1 kHz adjustment	Frequency counter No input	EE ADJUST MENU, 111. FS PLL 44.1 kHz	◎ TP4 (FS PLL) GND: TP1 (GND) [Rewrite board] ⓣ [PLAY] and [STOP] buttons ☆ 11.2896 MHz ± 0.1 MHz	(1) Select ADJUST MENU No. 111, "FS PLL 44.1 kHz". (2) Press the [SET] button to measure frequency. (3) Adjust the frequency to the specified value. (4) Press the [SET] button to store the adjustment data.
6	FS PLL 32 kHz adjust-ment	No input.	EE ADJUST MENU,112. FS PLL 32 kHz	◎ Monitor display ⓣ [PLAY] and [STOP] buttons ☆ Value adjusted in No. 110, "FS PLL 48 kHz" in item 4 above.	(1) Select ADJUST MENU No. 112, "FS PLL 32 kHz". (2) Press the [SET] button to measure frequency. (3) Adjust to the same value as the FS PLL 48 kHz adjustment value. (Setting range: 0 to 255) (4) Press the [SET] button to store the adjustment data.
7	27 MHz VCO center frequency adjustment	Frequency counter No input	EE ADJUST MENU,113. 27 MHz VCO	◎ TP7 (MAIN VCO) GND: TP1 (GND) [Rewrite board] ⓣ [PLAY] and [STOP] buttons ☆ 13.5 MHz ± 0.1 MHz	(1) Select ADJUST MENU No. 113, "27 MHz VCO". (2) Press the [SET] button to measure frequency. (3) Adjust the frequency to the specified value. (4) Press the [SET] button to store the adjustment data.

3.3 VIDEO SYSTEM ADJUSTMENTS

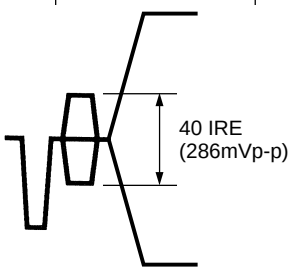
- Use NTSC signals for the NTSC adjustments and PAL signals for the PAL adjustments.
- Use the specified signals to make adjustments whenever possible. When there are no specified signals, please refer to the "3.1.4 Notes for adjustments".
- The monitor image may fluctuate horizontally during adjustments. This phenomenon occurs only in the adjustment mode and does not affect the adjustment results.
- When an item is selected in the ADJUST MENU and INPUT SELECT SW sets to LINE or Y/C, the INPUT SELECT is switched automatically according to the selected item. If DV input is selected, disable automatic selection.

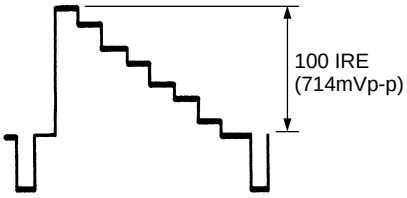
(1) NTSC circuit adjustments

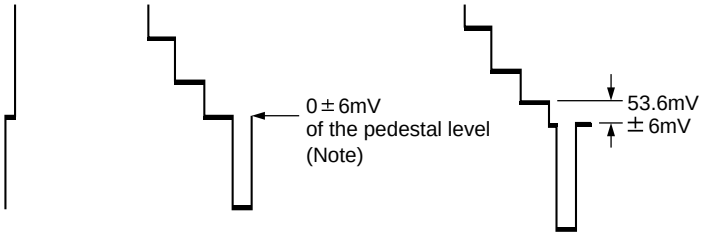
Set the [NTSC/PAL] switch of rear panel to "NTSC".

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⏉) Adjustment level (☆)	Adjustment procedure
1	NTSC PB Y level adjustment (SETUP OFF) 	WFM (NTSC) or oscilloscope 100% WHITE (built-in signal)	EE ADJUST MENU, 210. PB Y LEV (S OFF)	◎ Y OUT (Y/C jack) (75 Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 100 IRE (714 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 210, "PB Y LEV (S OFF)". (3) Adjust so that the level from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data.
2	NTSC PB SYNC level adjustment (SETUP OFF) 	WFM (NTSC) or oscilloscope 100% WHITE (built-in signal)	EE ADJUST MENU, 212. PB SYNC LEV (S OFF)	◎ Y OUT (Y/C jack) (75 Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 40 IRE (286 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 212, "PB SYNC LEV (S OFF)". (3) Adjust so that the level from the pedestal to the sync tip is as specified. (4) Press the [SET] button to store the adjustment data.
3	NTSC PB Chroma level adjustment (SETUP OFF) 	WFM (NTSC) or oscilloscope RED raster (built-in signal)	EE ADJUST MENU, 213. PB C LEV (S OFF)	◎ C OUT (Y/C jack) (75 Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 908 mVp-p	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 213, "PB C LEV (S OFF)". (3) Adjust so that the chroma level is as specified. (4) Press the [SET] button to store the adjustment data.

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⇧) Adjustment level (☆)	Adjustment procedure
4	NTSC PB BURST level adjustment (SETUP OFF)	WFM (NTSC) or oscilloscope RED raster (built-in signal)	EE ADJUST MENU, 214. PB BUR LEV (S OFF)	◎ C OUT (Y/C jack) (75Ω terminated) ⇧ [PLAY] and [STOP] buttons ☆ 40 IRE (286 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 214, "PB BUR LEV (S OFF)". (3) Adjust so that the burst level is as specified. (4) Press the [SET] button to store the adjustment data.
5	NTSC Y/C IN REC Y level adjustment (SETUP OFF)	WFM (NTSC) or oscilloscope Y/C IN. NTSC 100% color bar (SETUP 0%)	EE ADJUST MENU, 215. YC REC Y LEV (S OFF)	◎ Y OUT (Y/C jack) (75Ω terminated) ⇧ [PLAY] and [STOP] buttons ☆ 100 IRE (714 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 215, "YC REC Y LEV (S OFF)". (3) Adjust so that the level from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data.
6	NTSC Y/C IN REC SETUP level adjust-ment (SETUP OFF)	WFM (NTSC) or oscilloscope Y/C IN. NTSC 100% color bar (SETUP 0%)	EE ADJUST MENU, 216. YC REC ST LV (S OFF)	◎ Y OUT (Y/C jack) (75Ω terminated) ⇧ [PLAY] and [STOP] buttons ☆ 0 ± 6 mV of the pedestal level	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 216, "YC REC ST LV (S OFF)". (3) Adjust so that the setup level is as specified. (4) Press the [SET] button to store the adjustment data. (5) Check ADJUST MENU No. 215, "YC REC Y LEV (S OFF)". If it is deviated, adjust it again. **Reference:** **If a 7.5% setup signal should be used, the same effect as this adjustment can be obtained by adjusting the setup level to 53.6 mV ± 6 mV.** **Note:** Adjust the setup level by decreasing it from + side, and stop decreasing when it just reaches 0.

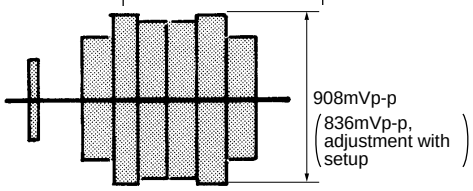
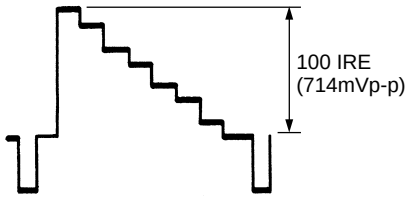
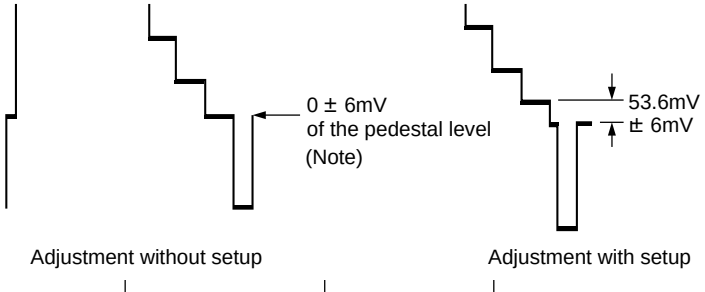


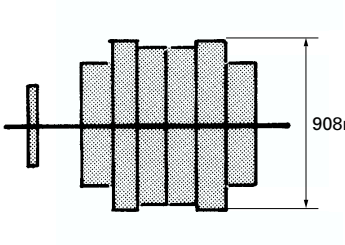
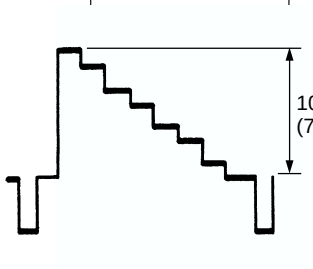
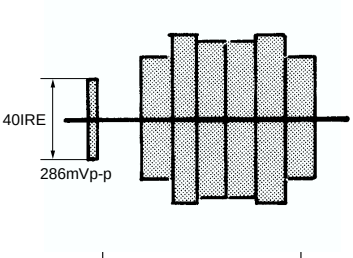


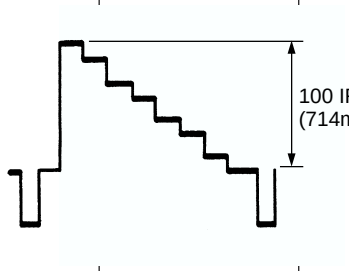
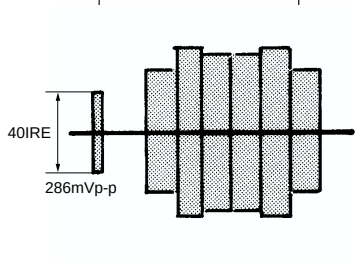
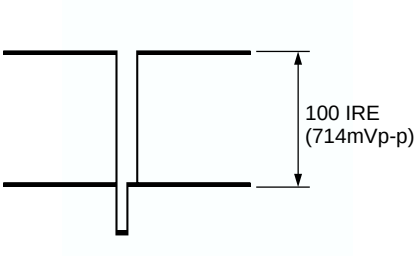


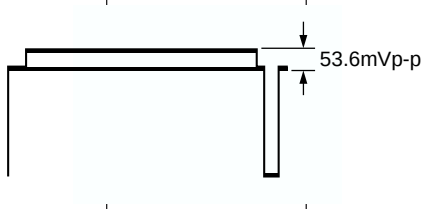
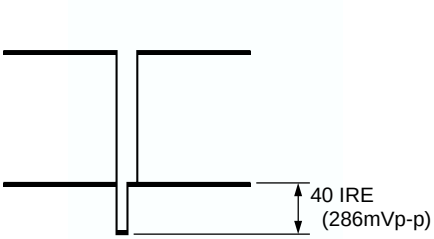
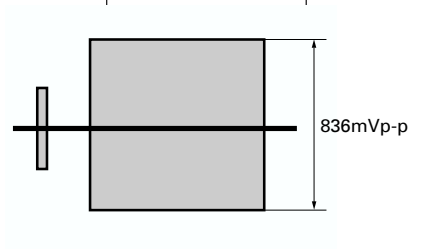
Adjustment without setup

Adjustment with setup

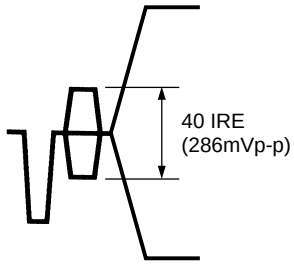
No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⏉) Adjustment level (☆)	Adjustment procedure
7	NTSC Y/C IN REC C level adjustment (SETUP OFF)	WFM (NTSC) or oscilloscope Y/C IN. NTSC 100% color bar (SETUP 0%) 	EE ADJUST MENU, 217. YC REC C LEV (S OFF)	◎ C OUT (Y/C jack) (75Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 908 mVp-p (RED)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 217, "YC REC C LEV (S OFF)". (3) Adjust so that the RED color levels are as specified. (4) Press the [SET] button to store the adjustment data. **Reference:** **If 7.5% signal setup should be used, the same effect as this adjustment can be obtained by adjusting the color level to 836 mV p-p (100% color).**
8	NTSC LINE IN REC Y level adjustment (SETUP OFF)	WFM (NTSC) or oscilloscope LINE IN. NTSC 100% color bar (SETUP 0%) 	EE ADJUST MENU, 218. LE REC Y LEV (S OFF)	◎ Y OUT (Y/C jack) (75Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 100 IRE (714 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 218, "LE REC Y LEV (S OFF)". (3) Adjust so that the level from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data.
9	NTSC LINE IN REC SETUP level adjustment (SETUP OFF)	WFM (NTSC) or oscilloscope LINE IN. NTSC 100% color bar (SETUP 0%) 	EE ADJUST MENU, 219. LE REC ST LV (S OFF)	◎ Y OUT (Y/C jack) (75Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 0 ± 6 mV of the pedestal level	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 219, "LE REC ST LV (S OFF)". (3) Adjust so that the setup level is as specified. (4) Press the [SET] button to store the adjustment data. (5) Check ADJUST MENU No. 218, "LE REC Y LEV (S OFF)". If it is deviated, adjust it again. **Reference:** **If 7.5% signal setup should be used, the same effect as this adjustment can be obtained by adjusting the setup level to 53.6 mV ± 6 mV.** **Note:** Adjust the setup level by decreasing it from + side, and stop decreasing when it just reaches 0.

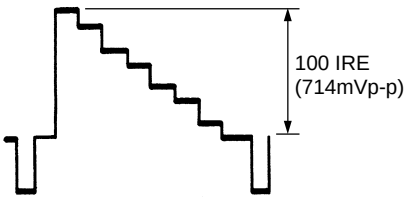
No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⇧) Adjustment level (☆)	Adjustment procedure
10	NTSC LINE IN REC C level adjustment (SETUP OFF)	WFM (NTSC) or oscilloscope LINE IN. NTSC 100% color bar (SETUP 0%)	EE ADJUST MENU, 220. LE REC C LEV (S OFF)	◎ C OUT (Y/C jack) (75 Ω terminated) ⇧ [PLAY] and [STOP] buttons ☆ 908 mVp-p (RED)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 220, "LE REC C LEV (S OFF)". (3) Adjust so that the RED color levels are as specified. (4) Press the [SET] button to store the adjustment data. **Reference:** **If 7.5% signal setup should be used, the same effect as this adjustment can be obtained by adjusting the color level to 836 mV p-p (100% color).**
					
11	NTSC Y/C IN EE Y level adjustment (SETUP OFF)	WFM (NTSC) or oscilloscope Y/C IN. NTSC 100% color bar (SETUP 0%)	EE ADJUST MENU, 221. YC EE Y LEV (S OFF)	◎ Y OUT (Y/C jack) (75 Ω terminated) ⇧ [PLAY] and [STOP] buttons ☆ 100 IRE (714 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 221, "YC EE Y LEV (S OFF)". (3) Adjust so that the level from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data. **Reference:** **If a 7.5% setup signal should be used, the same effect as this adjustment can be obtained by simply ignoring the setup level.**
					
12	NTSC Y/C IN EE C level adjustment (SETUP OFF)	WFM (NTSC) or oscilloscope Y/C IN. NTSC 100% color bar (SETUP 0%)	EE ADJUST MENU, 222. YC EE C LEV (S OFF)	◎ C OUT (Y/C jack) (75 Ω terminated) ⇧ [PLAY] and [STOP] buttons ☆ 40 IRE (286 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 222, "YC EE C LEV (S OFF)". (3) Adjust so that the burst levels are as specified. (4) Press the [SET] button to store the adjustment data.
					

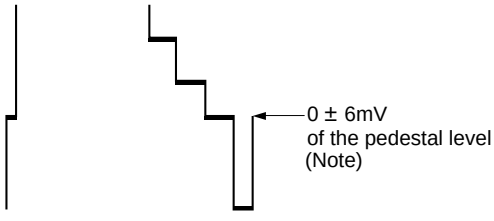
No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⏉) Adjustment level (☆)	Adjustment procedure
13	NTSC LINE IN EE Y level adjustment (SETUP OFF) 	WFM (NTSC) or oscilloscope LINE IN. NTSC 100% color bar (SETUP 0%)	EE ADJUST MENU, 223. LE EE Y LEV (S OFF)	◎ Y OUT (Y/C jack) (75 Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 100 IRE (714 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 223, "LE EE Y LEV (S OFF)". (3) Adjust so that the level from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data. **Reference:** **If a 7.5% setup signal should be used, the same effect as this adjustment can be obtained by simply ignoring the setup level.**
14	NTSC LINE IN EE C level adjustment (SETUP OFF) 	WFM (NTSC) or oscilloscope LINE IN. NTSC 100% color bar (SETUP 0%)	EE ADJUST MENU, 224. LE EE C LEV (S OFF)	◎ C OUT (Y/C jack) (75 Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 40 IRE (286 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 224, "LE EE C LEV (S OFF)". (3) Adjust so that the burst levels are as specified. (4) Press the [SET] button to store the adjustment data.
15	NTSC PB Y level adjustment (SETUP ON) 	WFM (NTSC) or oscilloscope 100% WHITE (built-in signal)	EE ADJUST MENU, 230. PB Y LEV (S ON)C LEV	◎ Y OUT (Y/C jack) (75 Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 100 IRE (714 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 230, "PB Y LEV (S ON)". (3) Adjust so that the level from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data.

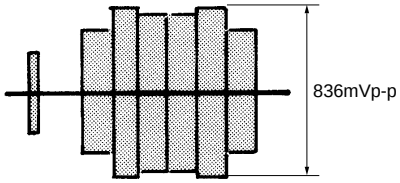
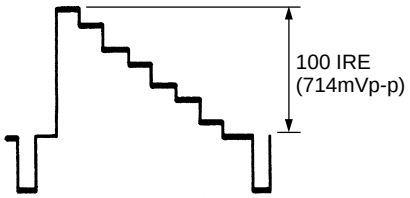
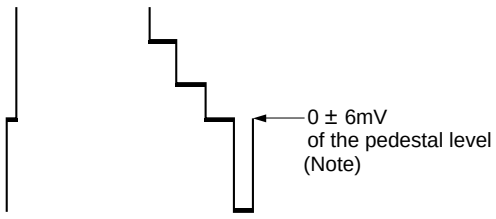
No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⇧) Adjustment level (☆)	Adjustment procedure
16	NTSC PB SETUP level adjustment (SETUP ON) 	WFM (NTSC) or oscilloscope BLACK BURST (built-in signal)	EE ADJUST MENU, 231. PB SETUP LEV (S ON)	◎ Y OUT (Y/C jack) (75 Ω terminated) ⇧ [PLAY] and [STOP] buttons ☆ 53.6 mVp-p	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 231, "PB SETUP LEV (S ON)". (3) Adjust so that the SETUP levels are as specified. (4) Press the [SET] button to store the adjustment data. (5) Check ADJUST MENU No. 230, "PB Y LEV (S ON)" in item 15. If it is deviated, adjust it again.
17	NTSC PB SYNC level adjustment (SETUP ON) 	WFM (NTSC) or oscilloscope 100% WHITE (built-in signal)	EE ADJUST MENU, 232. PB SYNC LEV (S ON)	◎ Y OUT (Y/C jack) (75 Ω terminated) ⇧ [PLAY] and [STOP] buttons ☆ 40 IRE (286 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 232, "PB SYNC LEV (S ON)". (3) Adjust so that the sync level is as specified. (4) Press the [SET] button to store the adjustment data.
18	NTSC PB C level adjustment (SETUP ON) 	WFM (NTSC) or oscilloscope RED raster (built-in signal)	EE ADJUST MENU, 233. PB C LEV (S ON)	◎ C OUT (Y/C jack) (75 Ω terminated) ⇧ [PLAY] and [STOP] buttons ☆ 836 mVp-p	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 233, "PB C LEV (S ON)". (3) Adjust so that the RED color level is as specified. (4) Press the [SET] button to store the adjustment data.

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (ⓕ) Adjustment level (☆)	Adjustment procedure
19	NTSC PB BURST level adjustment (SETUP ON)	WFM (NTSC) or oscilloscope RED raster (built-in signal)	EE ADJUST MENU, 234. PB BUR LEV (S ON)	◎ C OUT (Y/C jack) (75Ω terminated) ⓕ [PLAY] and [STOP] buttons ☆ 40 IRE (286 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 234, "PB BUR LEV (S ON)". (3) Adjust so that the burst level is as specified. (4) Press the [SET] button to store the adjustment data.
20	NTSC Y/C In REC Y level adjustment (SETUP ON)	WFM (NTSC) or oscilloscope Y/C IN. NTSC 100% color bar (Setup 7.5%)	EE ADJUST MENU, 235. YC REC Y LEV (S ON)	◎ Y OUT (Y/C jack) (75Ω terminated) ⓕ [PLAY] and [STOP] buttons ☆ 100 IRE (714 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 235, "YC REC Y LEV (S ON)". (3) Adjust so that the level from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data.
21	NTSC Y/C IN REC SETUP level adjustment (SETUP ON)	WFM (NTSC) or oscilloscope Y/C IN. NTSC 100% color bar (Setup 7.5%)	EE ADJUST MENU, 236. YC REC ST LV (S ON)	◎ Y OUT (Y/C jack) (75Ω terminated) ⓕ [PLAY] and [STOP] buttons ☆ 0 ± 6 mV of the pedestal level	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 236, "YC REC ST LV (S ON)". (3) Adjust so that the setup level is as specified. (4) Press the [SET] button to store the adjustment data. (5) Check ADJUST MENU No. 235, "YC REC Y LEV (S ON)" in item 20 above. If it is deviated, adjust it again. **Note:** Adjust the setup level by decreasing it from + side, and stop decreasing when it just reaches 0.

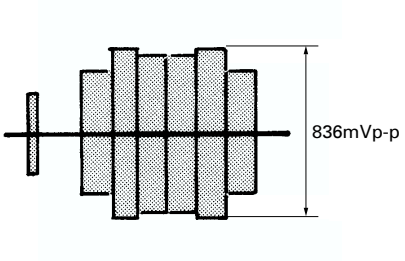


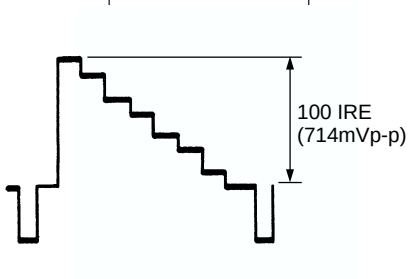


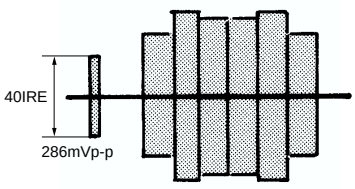


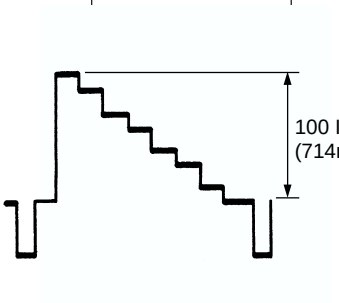
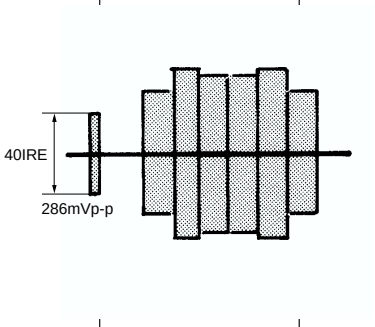
No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⏉) Adjustment level (☆)	Adjustment procedure
22	NTSC Y/C IN REC SETUP level adjustment (SETUP ON)	WFM (NTSC) or oscilloscope Y/C IN. NTSC 100% color bar (Setup 7.5%)	EE ADJUST MENU, 237. YC REC C LEV (S ON)	◎ C OUT (Y/C jack) (75Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 836 mVp-p (RED)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 237, "YC REC C LEV (S ON)". (3) Adjust so that the RED color levels are as specified. (4) Press the [SET] button to store the adjustment data.
					
23	NTSC LINE IN REC Y level adjustment (SETUP ON)	WFM (NTSC) or oscilloscope LINE IN. NTSC 100% color bar (Setup 7.5%)	EE ADJUST MENU, 238. LE REC Y LEV (S ON)	◎ Y OUT (Y/C jack) (75Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 100 IRE (714 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 238, "LE REC Y LEV (S ON)". (3) Adjust so that the difference from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data.
					
24	NTSC LINE IN REC SETUP level adjustment (SETUP ON)	WFM (NTSC) or oscilloscope LINE IN. NTSC 100% color bar (Setup 7.5%)	EE ADJUST MENU, 239. LE REC ST LV (S ON)	◎ Y OUT (Y/C jack) (75Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 0 ± 6 mV of the pedestal level	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 239, "LE REC ST LV (S ON)". (3) Adjust so that the setup level is as specified. (4) Press the [SET] button to store the adjustment data. **Note:** Adjust the setup level by decreasing it from + side, and stop decreasing when it just reaches 0.
					

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⏉) Adjustment level (☆)	Adjustment procedure
25	NTSC LINE IN REC C level adjustment (SETUP ON)	WFM (NTSC) or oscilloscope LINE IN. NTSC 100% color bar (SET UP 7.5 %)	EE ADJUST MENU, 240. LE REC C LEV (S ON)	◎ C OUT (Y/C jack) (75 Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 836 mVp-p (RED)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 240, "LE REC C LEV (S ON)". (3) Adjust so that the RED color levels are as specified. (4) Press the [SET] button to store the adjustment data.
26	NTSC Y/C IN EE Y level adjustment (SETUP ON)	WFM (NTSC) or oscilloscope Y/C IN. NTSC 100% color bar (Setup 7.5%)	EE ADJUST MENU, 241. YC EE Y LEV (S ON)	◎ Y OUT (Y/C jack) (75 Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 100 IRE (714 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 241, "YC EE Y LEV (S ON)". (3) Adjust so that the level from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data.
27	NTSC Y/C IN EE C level adjustment (SETUP ON)	WFM (NTSC) or oscilloscope Y/C IN. NTSC 100% color bar (Setup 7.5%)	EE ADJUST MENU, 242. YC EE C LEV (S ON)	◎ C OUT (Y/C jack) (75 Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 40 IRE (286 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 242, "YC EE C LEV (S ON)". (3) Adjust so that the burst levels are as specified. (4) Press the [SET] button to store the adjustment data.







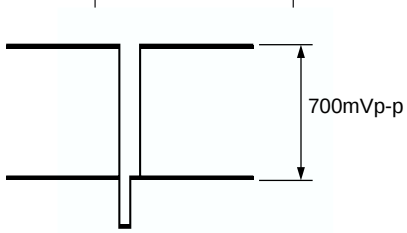
No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⇧) Adjustment level (☆)	Adjustment procedure
28	NTSC LINE IN EE Y level adjustment (SETUP ON) 	WFM (NTSC) or oscilloscope LINE IN. NTSC 100% color bar (Setup 7.5%)	EE ADJUST MENU, 243. LE EE Y LEV (S ON)	◎ Y OUT (Y/C jack) (75 Ω terminated) ⇧ [PLAY] and [STOP] buttons ☆ 100 IRE (714 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 243, "LE EE Y LEV (S ON)". (3) Adjust so that the level from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data.
29	NTSC LINE IN EE C level adjustment (SETUP ON) 	WFM (NTSC) or oscilloscope LINE IN. NTSC 100% color bar (Setup 7.5%)	EE ADJUST MENU, 244. LE EE C LEV (S ON)	◎ C OUT (Y/C jack) (75 Ω terminated) ⇧ [PLAY] and [STOP] buttons ☆ 40 IRE (286 mVp-p)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 244, "LE EE C LEV (S ON)". (3) Adjust so that the burst levels are as specified. (4) Press the [SET] button to store the adjustment data.

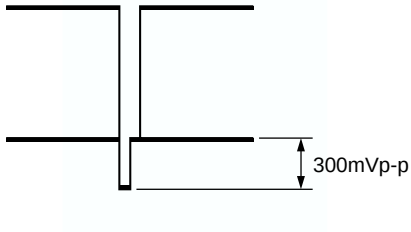
No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⏉) Adjustment level (☆)	Adjustment procedure

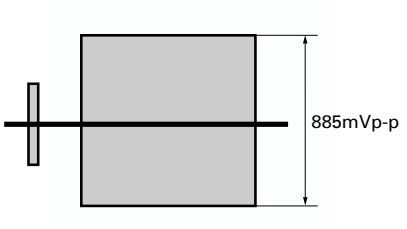
(2) PAL circuit adjustments

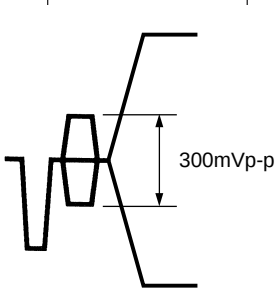
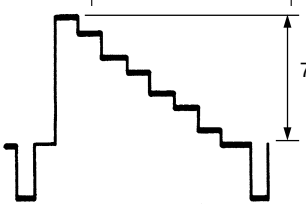
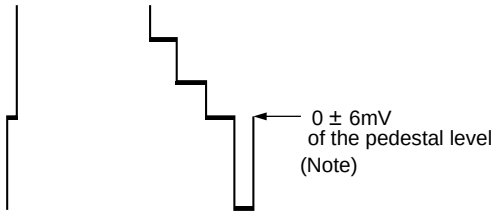
Set the [NTSC /PAL] switch of rear panel to “PAL”.

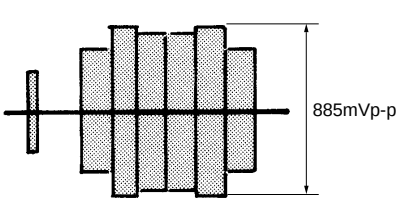
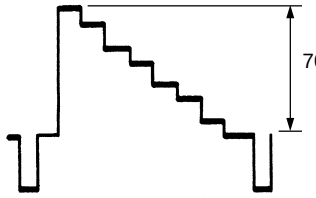
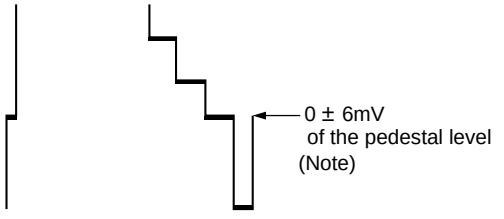
30	PAL PB Y level adjustment	WFM (PAL) or oscilloscope 100% WHITE (built-in signal)	EE ADJUST MENU, 260. PB Y LEV (PAL)	◎ Y OUT (Y/C jack) (75 Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 700 mVp-p	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 260, "PB Y LEV (PAL)". (3) Adjust so that the level from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data. **Note:** **When this item is selected after an NTSC adjustment item, the built-in 100% WHITE signal may sometimes be unable to be output. In this case, select No. 262, "PB SYNC LEV (PAL)" and then select No. 260, "PB Y LEV (PAL)" again.**
31	PAL PB SYNC level adjustment	WFM (PAL) or oscilloscope 100% WHITE (built-in signal)	EE ADJUST MENU, 262. PB SYNC LEV (PAL)	◎ Y OUT (Y/C jack) (75 Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 300 mVp-p	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 262, "PB SYNC LEV (PAL)". (3) Adjust so that the sync level is as specified. (4) Press the [SET] button to store the adjustment data.
32	PAL PB C level adjustment	WFM (PAL) or oscilloscope RED raster (built-in signal)	EE ADJUST MENU, 263. PB C LEV (PAL)	◎ C OUT (Y/C jack) (75 Ω terminated) ◎ [PLAY] and [STOP] buttons ☆ 885 mVp-p	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 263, "PB C LEV (PAL)". (3) Adjust so that the color levels are as specified. (4) Press the [SET] button to store the adjustment data.

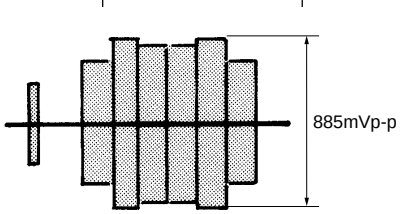
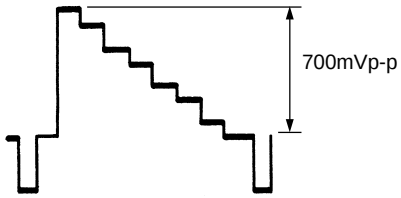
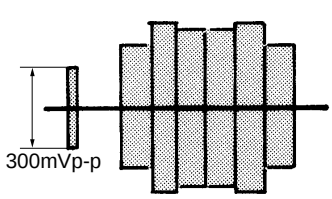


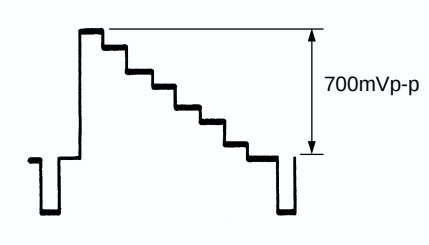
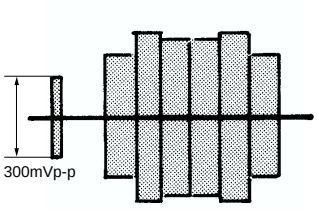




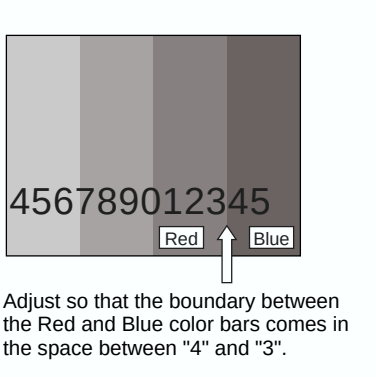
No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (↑) Adjustment level (☆)	Adjustment procedure
33	PAL PB BURST level adjustment 	WFM (PAL) or oscilloscope RED raster (built-in signal)	EE ADJUST MENU, 264. PB BUR LEV (PAL)	◎ C OUT (Y/C jack) (75Ω terminated) ↑ [PLAY] and [STOP] buttons ☆ 300 mVp-p	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 264, "PB BUR LEV (PAL)". (3) Adjust so that the burst level is as specified. (4) Press the [SET] button to store the adjustment data.
34	PAL Y/C IN REC Y level adjustment 	WFM (PAL) or oscilloscope Y/C IN PAL 100% color bar	EE ADJUST MENU, 265. YC REC Y LEV (PAL)	◎ Y OUT (Y/C jack) (75Ω terminated) ↑ [PLAY] and [STOP] buttons ☆ 700 mVp-p	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 265, "YC REC Y LEV (PAL)". (3) Adjust so that the level from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data.
35	PAL Y/C IN REC SETUP level adjust-ment 	WFM (PAL) or oscilloscope Y/C IN PAL 100% color bar	EE ADJUST MENU, 266. YC REC ST LV (PAL)	◎ Y OUT (Y/C jack) (75Ω terminated) ↑ [PLAY] and [STOP] buttons ☆ 0 ± 6 mV of the pedestal level	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 266, "YC REC ST LV (PAL)". (3) Adjust so that the setup level is as specified. (4) Press the [SET] button to store the adjustment data. (5) Check ADJUST MENU No. 265, "YC REC Y LEV (PAL)" in item 34 above. If it is deviated, adjust it again. **Note:** Adjust the setup level by decreasing it from + side, and stop decreasing when it just reaches 0.

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (↑) Adjustment level (☆)	Adjustment procedure
36	PAL Y/C IN REC C level adjustment	WFM (PAL) or oscilloscope Y/C IN PAL 100% color bar 	EE ADJUST MENU, 267. YC REC C LEV (PAL)	◎ C OUT (Y/C jack) (75Ω terminated) ↑ [PLAY] and [STOP] buttons ☆ 885 mVp-p (RED)	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 267, "YC REC C LEV (PAL)". (3) Adjust so that the RED color levels are as specified. (4) Press the [SET] button to store the adjustment data.
37	PAL LINE IN REC Y level adjustment	WFM (PAL) or oscilloscope LINE IN PAL 100% color bar 	EE ADJUST MENU, 268. LE REC Y LEV (PAL)	◎ Y OUT (Y/C jack) (75Ω terminated) ↑ [PLAY] and [STOP] buttons ☆ 700 mVp-p	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 268, "LE REC Y LEV (PAL)". (3) Adjust so that the level from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data.
38	PAL LINE IN REC SETUP level adjustment	WFM (PAL) or oscilloscope LINE IN PAL 100% color bar 	EE ADJUST MENU, 269. LE REC ST LV (PAL)	◎ Y OUT (Y/C jack) (75Ω terminated) ↑ [PLAY] and [STOP] buttons ☆ 0 ± 6 mV of the pedestal level	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 269, "LE REC ST LV (PAL)". (3) Adjust so that the setup level is as specified. (4) Press the [SET] button to store the adjustment data. (5) Check ADJUST MENU No. 268, "LE REC Y LEV (PAL)" in item 37 above. If it is deviated, adjust it again. **Note:** Adjust the setup level by decreasing it from + side, and stop decreasing when it just reaches 0.

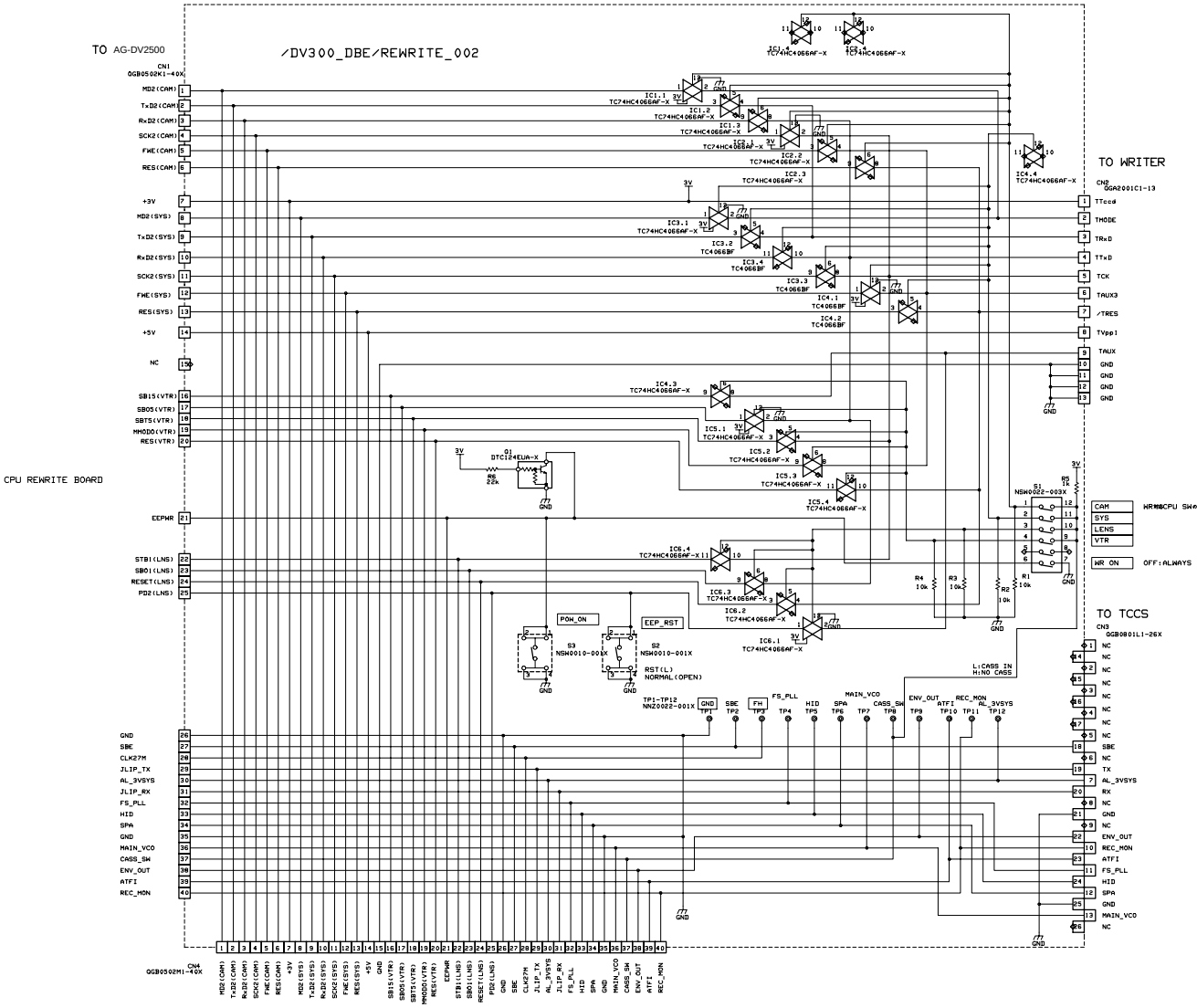
No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (ⓣ) Adjustment level (☆)	Adjustment procedure
39	PAL LINE IN REC C level adjustment	WFM (PAL) or oscilloscope LINE IN PAL 100% color bar 	EE ADJUST MENU, 270. LE REC C LEV (PAL)	◎ C OUT (Y/C jack) (75Ω terminated) ⓣ [PLAY] and [STOP] buttons ☆ 885 mVp-p	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 270, "LE REC C LEV (PAL)". (3) Adjust so that the RED color levels are as specified. (4) Press the [SET] button to store the adjustment data.
40	PAL Y/C IN EE Y level adjustment	WFM (PAL) or oscilloscope Y/C IN PAL 100% color bar 	EE ADJUST MENU, 271. YC EE Y LEV (PAL)	◎ Y OUT (Y/C jack) (75Ω terminated) ⓣ [PLAY] and [STOP] buttons ☆ 700 mVp-p	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 271, "YC EE Y LEV (PAL)". (3) Adjust so that the level from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data.
41	PAL Y/C IN EE C level adjustment	WFM (PAL) or oscilloscope Y/C IN PAL 100% color bar 	EE ADJUST MENU, 272. YC EE C LEV (PAL)	◎ C OUT (Y/C jack) (75Ω terminated) ⓣ [PLAY] and [STOP] buttons ☆ 300 mVp-p	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 272, "YC EE C LEV (PAL)". (3) Adjust so that the burst levels are as specified. (4) Press the [SET] button to store the adjustment data.

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⏉) Adjustment level (☆)	Adjustment procedure
42	PAL LINE IN EE Y level adjustment 	WFM (PAL) or oscilloscope LINE IN PAL 100% color bar	EE ADJUST MENU, 273. LE EE Y LEV (PAL)	◎ Y OUT (Y/C jack) (75 Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 700 mVp-p	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 273, "LE EE Y LEV (PAL)". (3) Adjust so that the level from the pedestal to 100% WHITE is as specified. (4) Press the [SET] button to store the adjustment data.
43	PAL LINE IN EE C level adjustment 	WFM (PAL) or oscilloscope LINE IN PAL 100% color bar	EE ADJUST MENU, 274. LE EE C LEV (PAL)	◎ C OUT (Y/C jack) (75 Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ 300 mVp-p	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 274, "LE EE C LEV (PAL)". (3) Adjust so that the burst levels are as specified. (4) Press the [SET] button to store the adjustment data.

(3) On-screen display adjustment

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (⏉) Adjustment level (☆)	Adjustment procedure
44	On-screen display position adjustment 	Monitor TV Color bar (built-in signal)	EE ADJUST MENU, 200 OSD ADJ	◎ LINE OUT or Y/C OUT (75 Ω terminated) ⏉ [PLAY] and [STOP] buttons ☆ Between "3" and "4" ± 1/5 character	(1) Set the INPUT SELECT SW to LINE or Y/C. (2) Select ADJUST MENU No. 200, "OSD ADJ". (3) Adjust so that the boundary between the Red and Blue color bars comes in the space between "4" on the second position from the right of the array of figures on the bottom of the screen and "3" on the third position. (4) Press the [SET] button to store the adjustment data.

3.4 REWRITE BOARD SCHEMATIC DIAGRAM



S1			S2	S3
Pin No.	Initial	Parameter	Not used	Not used
1	OFF	ON : Enable to rewrite VTR (MSD)		
2	OFF	ON : Enable to rewrite SYS CPU		
3	OFF	Not used		
4	OFF	ON : Enable to rewrite VTR (MSD) CPU ((Note)		
5	OFF	Not used		
6	OFF	Not used		

(Note : When rewriting the VTR (MSD) firmware, both of switch S1 - 1 and 4 should be set to “ON”.