SONY
SERVICE MANUAL

AA-2C CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-32XBR48	RM-Y144	US	SCC-N29B-A
KV-32XBR48	RM-Y144	Canadian	SCC-N30B-A
KV-34XBR48C	RM-Y144	E	SCC-N31B-A
KV-35XBR48	RM-Y144	US	SCC-N29A-A
KV-35XBR48	RM-Y144	Canadian	SCC-N30A-A
KV-35XBR88	RM-Y144	US	SCC-N29C-A
KV-37XBR48M	RM-Y144	E	SCC-N31A-A

CORRECTION-1

File this correction with the Service manual.

☛ : Indicates corrected portion

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MICROFILM

※ Please file according to model size. ..... ■

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SPECIFICATIONS (See page 2)

	KV-32XBR48	KV-34XBR48C	KV-35XBR48	KV-35XBR88	KV-37XBR48M
Power requirements	120 V, 60 Hz	220 V, 50/60 Hz	120 V, 60 Hz	120 V, 60 Hz	120 V, 60 Hz
Number of inputs / outputs					
Video [1]	3	3	3	3	3
S video[2]	2	2	2	2	2
Audio[3]	4	4	4	4	4
Audio out[4]	1	1	1	1	1
Monitor out[1]	1	1	1	1	1
TV out[1]	1	1	1	1	1
S-Link	•	•	•	•	•
Y, B-Y, R-Y[5]	1	1	1	1	1
Speaker output (W)	15W x 2	15W x 2	15W x 2	15W x 2	15W x 2
Power consumption (W)					
in use (Max.)	195W	195W	198W	198W	198W
in standby	15W	17W	15W	15W	15W
Dimensions (W/H/D)	864 x 656 x	864 x 656 x	936 x 706.5 x	936 x 1201.5 x	936 x 706.5 x
(mm)	606 mm	606 mm	629 mm	699.5 mm	629 mm
(in.)	34 1/16 x 25 7/8 x 23 7/8 in.	34 1/16 x 25 7/8 x 23 7/8 in.	36 7/8 x 27 7/8 x 24 25/32 in.	36 7/8 47 3/8 x 27 9/16 in.	36 7/8 x 27 7/8 x 24 25/32 in.
Mass (kg)	72 kg	72 kg	90 kg	125 kg	90 kg
(lbs)	158 lbs 12 oz	158 lbs 12 oz	198 lbs 7 oz	276 lbs 0 oz	198 lbs 7 oz

[1] 1 Vp-p, 75 ohms unbalanced, sync negative
[2] Y : 1 Vp-p, 75 ohms unbalanced, sync negative
C : 0.286 Vp-p (Burst signal), 75 ohms
[3] 500 mVrms (100% modulation), Impedance : 47 kilohms
[4] More than 408 mVrms at the maximum volume setting (variable)
More than 408 mVrms (fix)
Impedance : 50 kilohms
[5] Y : 1.0 Vp-p, 75 ohms, sync negative
B-Y : 0.7 Vp-p, 75 ohms
R-Y : 0.7 Vp-p, 75 ohms

Television system
American TV standard

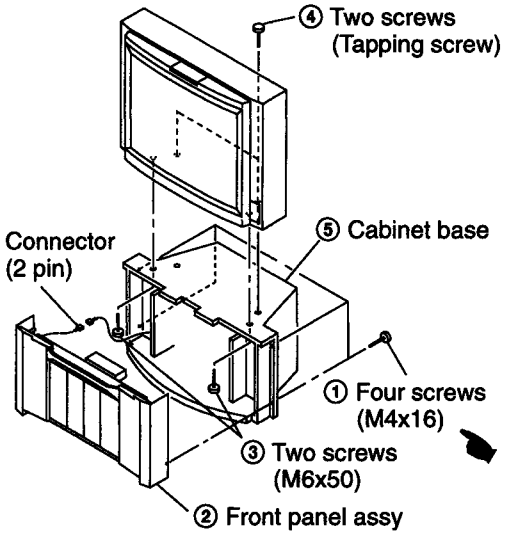
Channel coverage
VHF : 2-13 / UHF : 14-69 / CATV : 1-125

Picture tube
Hi Black Trinitron® tube

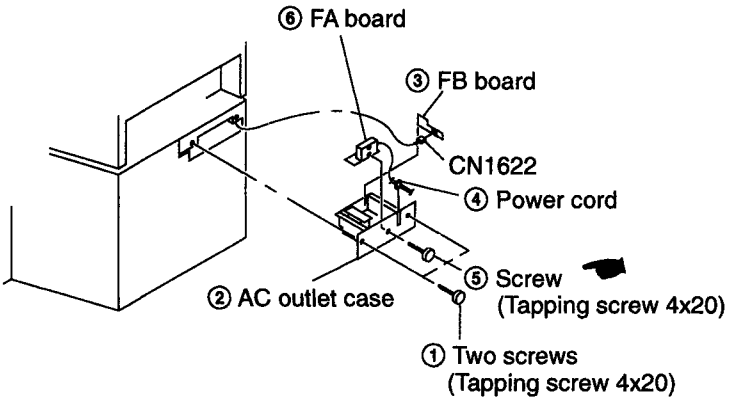
Antenna
75 ohm external terminal for VHF / UHF

SECTION 2. DISASSEMBLY

2-2-1. CABINET BASE REMOVAL (KV-35XBR88) (See page 22)

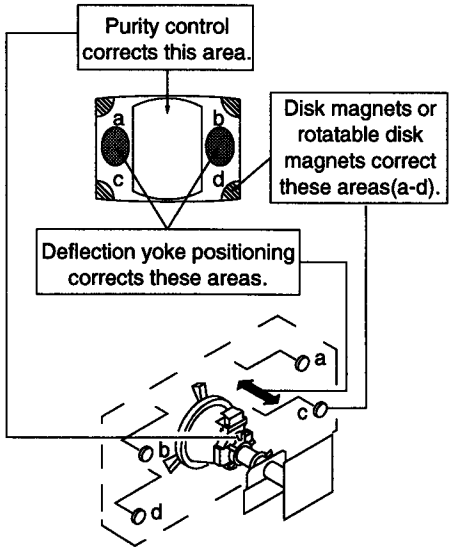


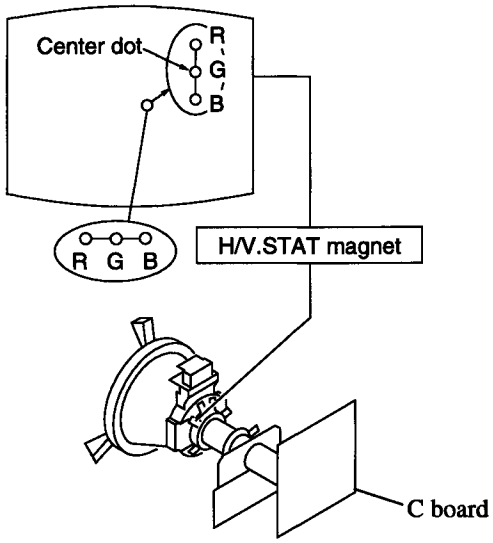
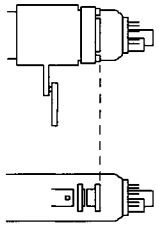
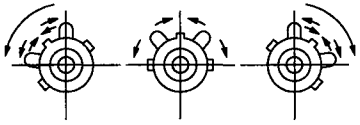
2-2-2. FA AND FB BOARDS REMOVAL (KV-35XBR88) (See page 22)

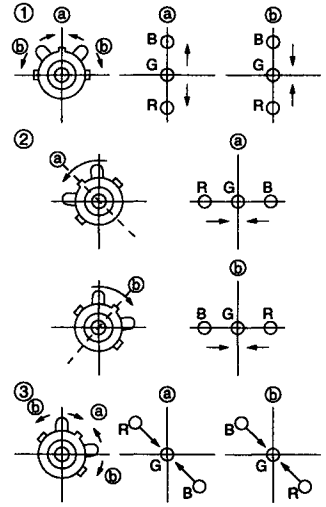
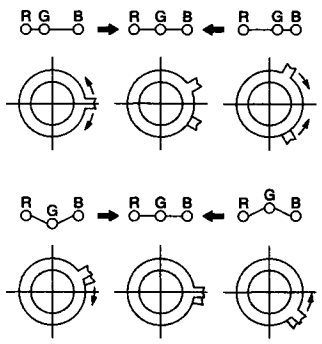
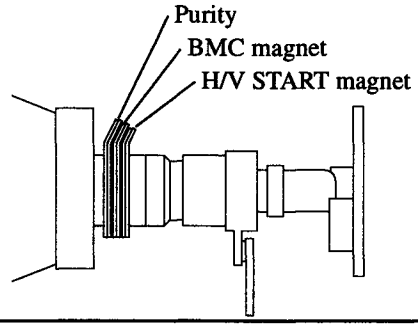


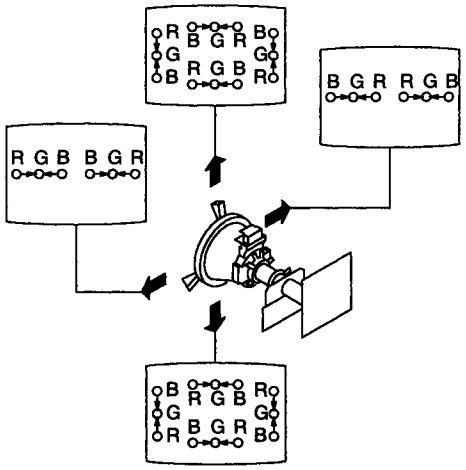
SECTION 3. SET-UP ADJUSTMENTS (See page 27-42)

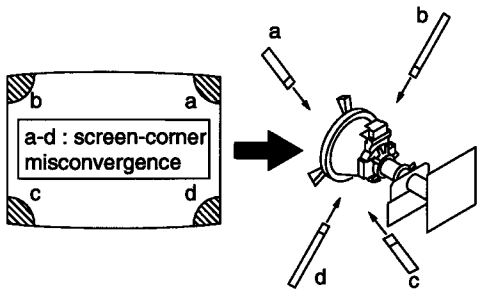
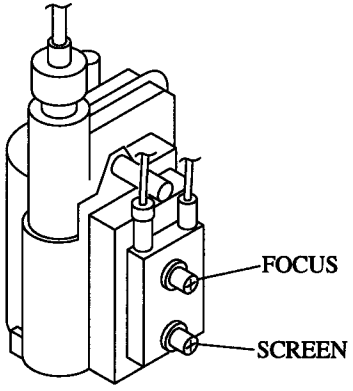
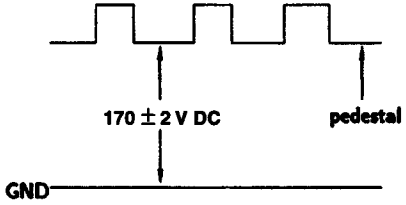
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
● The following adjustments should be made when a complete realignment is required or a new picture tube is installed. ● These adjustments should be performed with rated power supply voltage unless otherwise noted.				
The controls and switch should be set as follows unless otherwise noted : VIDEO MODE : STANDARD PICTURE control..... 100% BRIGHTNESS control..... 50% **Preparation:** ● Feed in the white pattern signal.				Purity control
(1) In order to reduce the influence of geomagnetism on the set's picture tube face it east or west. Note:Please do not use the hand degausser, because the hand degausser efects a spot on a CRT and magnetizes CRT around.	Color bar Pattern Generator			
BEAM LANDING 1. Input a *raster signal with the pattern generator. 2. Loosen the deflection yoke mounting screw, and set the *purity control to the center. 3. Turn the *raster signal of the pattern generator to green. 4. Move the *deflection yoke backward, and adjust with the purity control so that green is in the center and red and blue are at the sides evenly. 5. Move the deflection yoke forward, and adjust so that the entire screen becomes green.	*White Pattern *Green Pattern		*Purity Control *Deflection Yoke	B R G

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
6. Switch over the raster signal to red and blue and confirm the condition. 7. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw. 8. When landing at the corner is not right, adjust by using the *disk magnets.			*Disk Magnets	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
CONVERGENCE **Preparation:** ● Before starting, perform FOCUS, V. LIN and V. SIZE adjustments. ● Set BRIGHTNESS control to minimum. ● Feed in *signal. **(1) Horizontal and Vertical Static Convergence Adjustment** 1. Adjust *magnet to convergence red, green and blue dots in the center of the screen. (Vertical movement)	*Dot Pattern		*H/V. STAT Magnet	
				-Neck assy Position- 
●Tilt the *magnet and adjust static convergence to open or close the *magnet.			*V. STAT Magnet	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
2. When the *magnet is moved in the direction of arrow ⓐ and ⓑ, red, green and blue dots move as shown below.			*V. STAT Magnet	
● Operation of *Magnet ● The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking. Use the V STAT tabs to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).			*BMC Magnet	
● Y separation axis correction magnet adjustment 1. Receive a *signal, and adjust *PICTURE and BRIGHTNESS. 2. Adjust the deflection yoke to the upright condition when it hits the CRT. 3. Adjust so that the Y separation Axis correction magnet on the neck assembly is symmetrical at the top and bottom (open state). 4. Return the deflection yoke to its original position.	*Cross-hatch Pattern		*PICTURE ..... minimum BRIGHTNESS ..... normal	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
(2) Dynamic Convergence Adjustment **Preparation:** ● Before starting perform Horizontal and Vertical static convergence Adjustment. 1. Slightly loosen deflection yoke screw. 2. Remove deflection yoke spacers. 3. Move the *deflection yoke for best convergence as shown below. 4. Tighten the deflection yoke screw. 5. Install the deflection yoke spacers.			*Deflection Yoke	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
(3) Screen-corner Convergence Adjustment			*SCREEN control (On FBT Ass'y)	
a–b : screen-corner misconvergence				
Affix a Permalloy ass'y corresponding to the misconverged areas			Permalloy Ass'y	Permalloy assembly
FOCUS 1. Set to VIDEO mode = STANDARD, PICTURE = 100%. 2. Adjust *FOCUS control for best picture.			*FOCUS control (On FBT Ass'y)	 FBT
SCREEN (G2) 1. Input a *signal. 2. Adjust *PICTURE, BRIGHTNESS controls. 3. Adjust S BRT, G CUT, B CUT in service mode so that voltages on the red, green and blue *cathodes are *Voltage with an oscilloscope. 4. Observe the screen and adjust *SCREEN (G2)VR On FBT (Flyback transformer ass'y) to obtain the faintly visible background of dot signal.	*Dot pattern Oscilloscope	*cathodes	*PICTURE ..... normal *BRIGHTNESS ..... normal *S BRT *G CUT *B CUT *SCREEN (G2) (On FBT Assy)	*170 ± 2 V DC 

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
WHITE BALANCE ADJUSTMENTS				
1. Input a *signal. 2. Set to service adjustment mode. 3. Set the PICTURE and BRIGHTNESS to *adjustment. 4. Adjust with *S BRT if necessary. 5. Select *G CUT and *B CUT with [1] and [4]. 6. Adjust with [3] and [6] for the best white balance. 7. Set the *PICTURE and BRIGHTNESS to *adjustment. 8. Select *G AMP and B AMP with [1] and [4]. 9. Adjust with [3] and [6] for the best white balance. 10. Write into the memory by pressing [MUTING] then [ENTER].	*Entire White Pattern		*PICTURE ..... minimum BRIGHTNESS ..... minimum *S BRT *G CUT *B CUT *PICTURE ..... maximum BRIGHTNESS ..... maximum *G DRV B DRV	
SUB BRIGHT ADJUSTMENT				
1. Set to service adjustment mode. 2. Input a *signal. 3. Select SBRT with [1] and [4], and adjust SUB BRIGHT level with [3] and [6] so that the stripe second from the right is dimly lit. 4. Write into the memory by pressing [MUTING] then [ENTER].	*Grey scale pattern		*PICTURE ..... minimum BRIGHTNESS ..... normal SBRT	white second from the right black

ELECTRICAL ADJUSTMENTS BY REMOTE COMMANDER

Use of Remote Commander (RM-Y144) can be performed circuit adjustments about this model.

NOTE : Test Equipment Required.

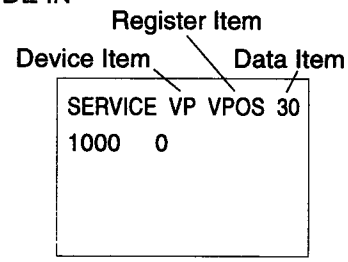
1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio OSC

1. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

SERVICE MODE PROCEDURE

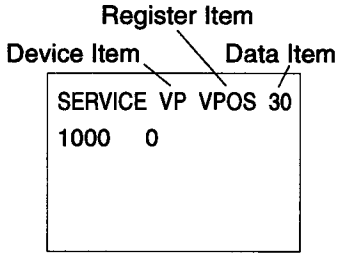
1. Standby mode. (Power off)
2. [DISPLAY] → [5] → [VOL (+)] → [POWER] on the Remote Commander. (Press each button within a second.)

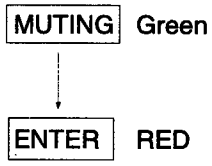
SERVICE ADJUSTMENT MODE IN



3. The CRT displays the item Being adjusted.
4. Press [2] or [5] on the Remote Commander to select the device item.
5. Press [1] or [4] on the Remote Commander to select the item.
6. Press [3] or [6] on the Remote Commander to change the data.
7. If you want to recover the latest values press [0] then [ENTER] to lead the memory.
8. Press [MUTING] then [ENTER] to write into memory.

SERVICE ADJUSTMENT MODE MEMORY





8. Press [8] then [ENTER] on the Remote Commander to reset.

Carry out step 8) when adjusting IDs 0 to 4 and when replacing and adjusting IC102.

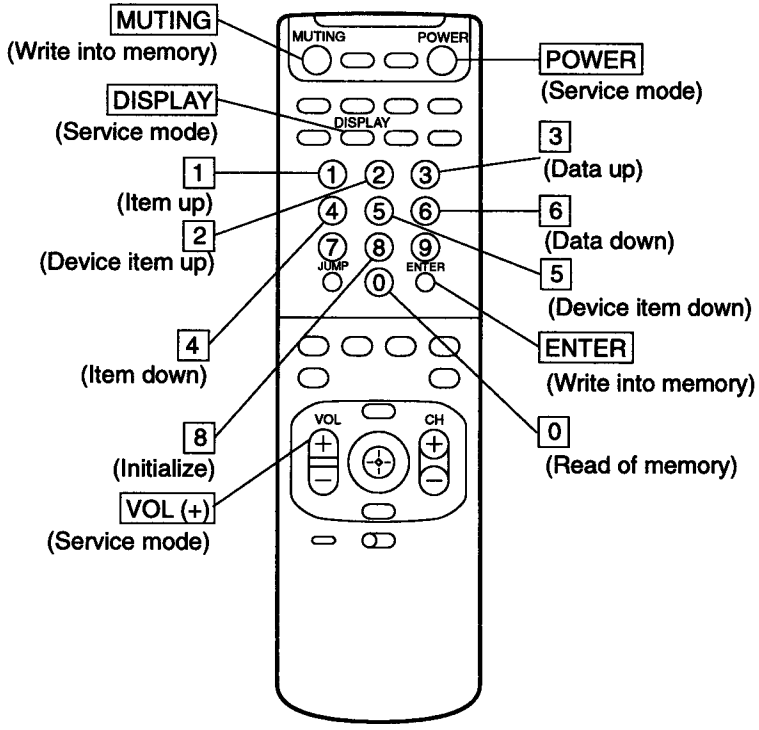
Factory original setting

9. Turn set off and on to exit.

2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again, confirm they were adjusted.

3. ADJUST BUTTONS AND INDICATOR



SERVICE DATA

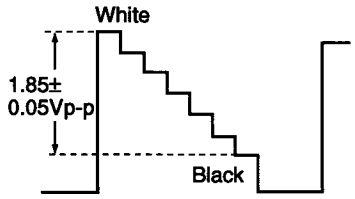
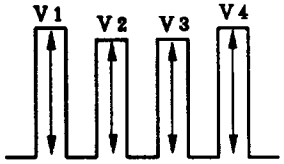
	Discriptions	Device	Resistor Name	Data Length	Initial Data	Avarage Data		Comment
						32"/34"	35"/37"	
VP	VPOS	CXA2025S	V-Position	0-63	20	23	12	Adjust
	VSIZ		V-Size	0-63	20	34	37	Adjust
	VCOM		V-Compensation	0-3	1	1	1	Fix
	VLIN		V-Linearity	0-15	7	8	7	Adjust
	VSCO		S-Correcttion	0-15	7	7	7	Adjust
	HPOS		H-Position	0-15	7	10	12	Adjust
	HSIZ		H-Size	0-63	20	36	36	Adjust
	PAMP		PIN-Compensation	0-63	31	28	27	Adjust
	UPIN		Upper-CornerPin	0-15	7	7	7	Adjust
	LPIN		Lower-CornerPin	0-15	7	7	7	Adjust
	PPHA		Pin-Phase	0-15	7	5	5	Adjust
	AFC		AFC	0-3	2	2	2	Fix
	VBOW		AFC-Bow	0-15	7	5	6	Adjust
	VANG		AFC-Angle	0-15	7	8	7	Adjust
	REF		Reference-Position	0-3	2	1	1	Fix
	GDRV		Green-Drive	0-63	31	38	37	Adjust
	BDRV		Blue-Drive	0-63	31	36	33	Adjust
	GCUT		Green-Cutoff	0-15	7	12	11	Adjust
	BCUT		Blue-Cutoff	0-15	7	10	9	Adjust
	SCON		Sub-Contrast	0-15	7	9	10	Adjust
	SHUE		Sub-Hue	0-15	7	4	2	Adjust
	SCOL		Sub-Color	0-15	7	6	6	Adjust
	SBRT		Sub-Brightness	0-63	31	28	24	Adjust
	SSHP		Sub-Sharpness	0-15	7	7	7	Fix
	CDM2		Countdown Mode 2	0-1	1	1	1	Fix
	DPIX		Dynamic-Picture	0, 1	1	1	1	Fix
	Y-DC		DC-Transmission	0, 1	1	1	1	Fix
	ABLM		ABL	0, 1	1	1	1	Fix
	NOTC		Chroma Trap	0, 1	0	0	0	Fix
	CROM		Chroma Trap-Adjust	0-15	7	7	7	Fix
	TOT		TOT-Filter	0, 1	1	1	1	Fix
	PREL		Pre/Over-Shoot	0-3	3	0	0	Fix
	SHPF		Sharpness-f0	0-3	2	2	2	Fix
	RON		Red-Off	0, 1	1	1	1	Fix
	GON		Green-Off	0, 1	1	1	1	Fix
	BON		Blue-Off	0 , 1	1	1	1	Fix
	CDMD		V-Countdown	0, 1	0	0	0	Fix
	HBSW		H Blanking Switch	0, 1	1	0	0	Fix
	LBLK		Left Blanking	0-15	2	7	7	Fix
	RBLK		Right Blanking	0-15	7	7	7	Fix
AP	SVOL	BH3856FS	Sub-Volume	0-15	0	0	0	Fix
	SBAL		Sub-Balance	0-15	7	7	7	Fix

	Discriptions	Device	Resistor Name	Data Length	Initial Data	Avarage Data		Comment
						32″/34″	35″/37″	
	SBAS		Sub-Bass	0-15	7	6	4	32″/34″ : 6 35″/37″ : 4
	STRE		Sub-Treble	0-15	7	9	9	Fix
3D	CGAN	μPD6488	CGAIN	0, 1	1	1	1	Fix
	AVAP		AVAPON	0, 1	1	1	1	Fix
	MS		MS0/MS1	0-2	0	0	0	Fix
	YDLL		YDELAY-L	0-7	2	2	2	Fix
	HRD8		HRD08	0, 1	0	0	0	Fix
	HRD7		HRD00-07	0-255	12	12	12	Fix
	DYCO		DYCOR	0-15	5	5	5	Fix
	DYGA		DYGAIN	0-15	8	8	8	Fix
	DCCO		DCCO	0-15	3	3	3	Fix
	DCCG		DCGAIN	0-15	7	7	7	Fix
	VTR0		VTR0/VTR1	0-2	0	0	0	Fix
	VTRH		VTRH	0-2	2	2	2	Fix
	VTRR		VTRR	0-15	7	7	7	Fix
	SELJ		SELJ	0, 1	1	1	1	Fix
	HSDR		HSDR	0-15	7	7	7	Fix
	WSCO		WSCOR	0-15	15	15	15	Fix
	LSDR		LDSREF	0-15	7	7	7	Fix
	WSD1		WSDR1	0-15	15	15	15	Fix
	WSD2		WSDR2	0-15	15	15	15	Fix
	VAPG		VAPGAIN	0-7	4	4	4	Fix
	VAPI		VAPINV	0-31	15	15	15	Fix
	MOTÉ		MDTES	0, 1	0	0	0	Fix
	YTM8		YTM87	0, 1	0	0	0	Fix
	DYTR		DYTRAP	0, 1	1	1	1	Fix
	VHG		VHG	0-3	3	3	3	Fix
	YH87		YH87	0, 1	0	0	0	Fix
	YSG		YSG	0, 1	1	1	1	Fix
	YTG		YTG	0-3	1	1	1	Fix
	VTMR		VTMREF	0-15	12	12	12	Fix
	VHRE		VHREF	0-15	11	11	11	Fix
	YT1R		YT1REF	0-15	2	2	2	Fix
	CT2Y		CT2YT	0, 1	0	0	0	Fix
	CTG		CTG	0-3	1	1	1	Fix
	CTMR		CTMREF	0-15	10	10	10	Fix
	CT2R		CT2REF	0-15	10	10	10	Fix
	CT1R		CT1REF	0-15	7	7	7	Fix
PI	SHPR	TA1226N	Sharpness	0-127	59	59	59	Fix
	SRTS		SRT Start Position	0, 1	3	3	3	Fix
	GIRE		Gamma Start Point	0-3	3	3	3	Fix
	GCUR		Gamma Curve	0, 1	0	0	0	Fix
	RS		RS	0-7	0	0	0	Fix
	RTC		RTC	0-7	4	4	4	Fix

	Discriptions	Device	Resistor Name	Data Length	Initial Data	Avarage Data		Comment
						32"/34"	35"/37"	
PP	SMT6	SAB9076	SMART6	0, 1	1	1	1	Fix
	SKIP6		SKIP6	0, 1	0	0	0	Fix
	BGHP		BGhfp	0-15	9	7	6	Adjust
	BGVP		BGvfp	0-15	8	8	6	Adjust
	MAHP		MAhfp	0-15	7	6	5	Adjust
	MAVP		MAvfp	0-255	24	24	24	Adjust
	SAHP		SAhfp	0-15	3	3	3	Fix
	SAVP		SAvfp	0-255	24	24	24	Fix
	VPED		PedestV	0-15	0	14	14	Fix
	UPED		PedestU	0-15	0	14	14	Fix
	MDEC		16h , bit0-4	0-32	18	18	18	Fix
	SDEC		15h , bit0-4	0-32	16	16	16	Fix
	DISS		17h , bit0-7	0-126	2	2	2	Fix
	BSIZ		---	0-255	34	34	34	Fix
	POFH		---	0-15	11	11	11	Fix
	POFV		---	0-15	6	6	6	Fix
	DHPS		Display H Position Start	0-15	3	3	3	Fix
	P&PV		SDhfp , MDhfp under P&P	0-255	62	62	62	Fix
	BBR0		---	0-3	1	1	1	Fix
	BCL0		---	0-7	7	7	7	Fix
	BBR2		---	0-3	2	2	2	Fix
	BCL2		---	0-7	6	6	6	Fix
	BBR3		---	0-3	0	0	0	Fix
	BCL3		---	0-7	7	7	7	Fix
MC	MHUE	CXA2019	HUE	0-63	26	26	26	Fix
	MCOL		COLOR	0-63	38	35	35	Fix
	MSCO		SUB CONT	0-15	7	7	6	Adjust
	MSCL		SUB COLOR	0-15	7	7	5	Adjust
	MSHU		SUB HUE	0-15	7	7	9	Adjust
	MTOT		TOT ON	0, 1	1	1	1	Fix
	MTRP		TRAP ON	0, 1	0	0	0	Fix
	MTRA		CTRAPADJ	0-15	7	7	7	Fix
	MCD2		CD MODE2	0, 1	1	1	1	Fix
	MFSC		FSC OUT	0, 1	1	1	1	Fix
	MYDR		Y DRIVE	0-31	24	22	22	Fix
	MVPE		V PED	0-15	7	7	8	Adjust
	MUPE		U PED	0-15	7	7	6	Adjust
	MRVP		RV PED	0-15	7	7	7	Fix
	MRUP		RU PED	0-15	7	7	7	Fix
	MDCT		DC TRAN	0-7	0	0	0	Fix
	MRYD		RY DRIVE	0-31	31	31	31	Fix
	MPRE		PRE OVER	0-3	0	0	0	Fix
	MRUD		RU DRIVE	0-31	15	15	15	Fix

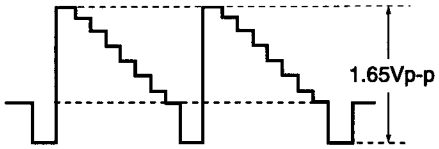
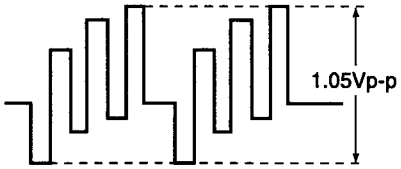
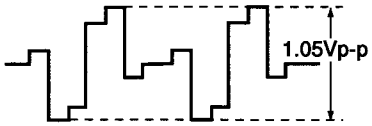
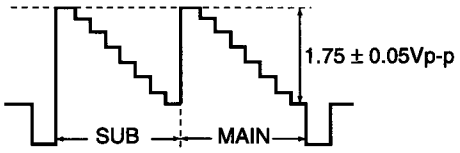
	Discriptions	Device	Resistor Name	Data Length	Initial Data	Avarage Data		Comment
						32"/34"	35"/37"	
	MRVD		RV DRIVE	0-31	15	15	15	Fix
	MDLY		DELAY	0-3	0	0	0	Fix
	MSCR		SCP BGR	0-3	1	1	1	Fix
	MSCF		SCP BGF	0-3	1	1	1	Fix
IC	ICYC	CXA2019	CV/YC	0, 1	1	1	1	Fix
	IHUE		HUE	0-63	24	24	24	Fix
	ICOL		COLOR	0-63	38	37	37	Fix
	ISCO		SUB CONT	0-15	7	6	5	Adjust
	ISCL		SUB COLOR	0-15	7	7	4	Adjust
	ISHU		SUB HUE	0-15	7	7	9	Adjust
	ITOT		TOT ON	0, 1	1	1	1	Fix
	ITRP		TRAP ON	0, 1	0	0	0	Fix
	ITRA		CTRAPADJ	0-15	7	7	7	Fix
	ICD2		CD MODE2	0, 1	1	1	1	Fix
	IYDR		Y DRIVE	0-31	26	24	24	Fix
	IVPE		V PED	0-15	7	7	7	Adjust
	IUPE		U PED	0-15	7	7	5	Adjust
	IRVP		RV PED	0-15	7	7	7	Fix
	IRUP		RU PED	0-15	7	7	7	Fix
	IDCT		DC TRAN	0-7	0	0	0	Fix
	IRYD		RY DRIVE	0-31	31	31	31	Fix
	IPRE		PRE OVER	0-3	0	0	0	Fix
	IRUD		RU DRIVE	0-31	15	15	15	Fix
	IRVD		RV DRIVE	0-31	15	15	15	Fix
	IDLY		DELAY	0-3	0	0	0	Fix
	ISCR		SCP BGR	0-3	1	1	1	Fix
	ISCF		SCP BGF	0-3	1	1	1	Fix
DA	RTCO	CXA1315	DAC0 (Rotation Coil)	0-63	32	32	32	Fix
	2HUE		DAC1 (CXA2039 Hue)	0-63	32	(24)	(24)	Adjust
	2COL		DAC2 (CXA2039 COL)	0-63	32	(31)	(31)	Adjust
CC	CRIH	CXP85856A		0-15	9	9	9	Fix
	CRIL			0-15	2	2	2	Fix
	CFLD			0-15	5	5	5	Fix
	CCDI			0-7	3	3	3	Fix
	CRIP			0-7	4	4	4	Fix
	CRIT			0-3	1	1	1	Fix
	CSB1			0-3	3	3	3	Fix
	CSB2			0-7	4	4	4	Fix
	CCBD			0-15	4	4	4	Fix
	CCFD			0-63	7	7	7	Fix
	CREP			0-256	142	142	142	Fix
	CSEP			0-256	186	186	186	Fix
	CRBD			0-15	8	8	8	Fix

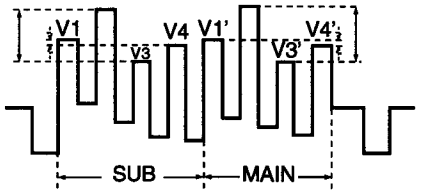
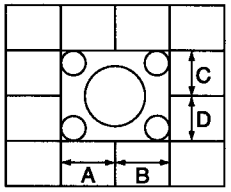
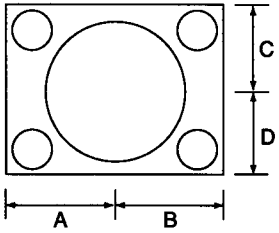
	Discriptions	Device	Resistor Name	Data Length	Initial Data	Avarage Data		Comment
						32"/34"	35"/37"	
	CRFD			0-15	9	9	9	Fix
	CSSD			0-15	3	3	3	Fix
	CSED			0-15	9	9	9	Fix
	CSBS			0-31	12	12	12	Fix
	CDSD			0-31	8	8	8	Fix
	CCDS			0-31	9	9	9	Fix
	CHMK			0-63	42	42	42	Fix
	CHSY			0-255	136	136	136	Fix
OP	DISP	CXP85856A	OSD Position	0-63	1	(38)	(38)	0 : Not Available , 1 : Left , 63 : Right
	PDPS		PIP Display Position Start	0-63	1	(35)	(35)	0 : Not Available , 1 : Left , 63 : Right
	PDP0		PIP Display Position 0	0-3	0	(1)	(1)	Shift to Right by 1 font
	PDP1		PIP Display Position 1	0-7	0	(4)	(4)	Shift to Right by 1 font
	PDP2		PIP Display Position 2	0-7	0	(4)	(4)	Shift to Right by 1 font
	KILS		Color Killer SW	0, 1	1	1	1	0 : Not Available , 1 : Available
ID	ID-0	ID	ID-0	0-255	25	25	25	Fix
	ID-1		ID-1	0-255	63	63	63	Fix
	ID-2		ID-2	0-255	47	47	47	Fix
	ID-3		ID-3	0-255	0	0	0	Fix
	ID-4		ID-4	0-255	155	27	155	32"/34" : 27 35"/37" : 155
	ID-5		ID-5	0-255	143	143	143	Fix
	ID-6		ID-6	0-255	6	6	6	Fix
	ID-7		ID-7	0-255	32	32	32	Fix

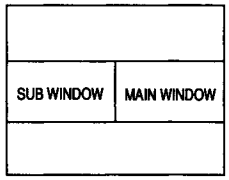
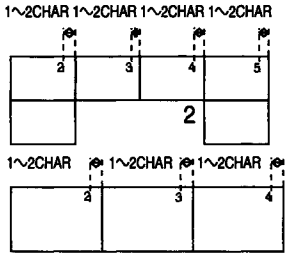
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
SUB CON ADJUSTMENT (SCON)				
1. Input a *signal.	*75%Color-bar pattern			ILLUSTRATION AND SHAPE AND NUMBER
2. Set to VIDEO mode = STANDARD, COLOR = minimum, PICTURE = 100%. " G ON " = " 0 " (OFF), " B ON " = " 0 " (OFF).		*CN351 Pin ① (C board)	G ON, B ON	
3. Set to Service adjustment Mode and Connect an *oscilloscope pin ① of CN351.				
4. Select " SCON " with [1] and [4].			SCON	
5. Adjust with [3] and [6] for the 1.85 ± 0.05Vp-p of level.				
6. Write into the memory by [MUTING] then [ENTER].				
SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)				
1. Input a *signal.	*Color-bar pattern			
2. Set to VIDEO mode = STANDARD, picture = 100%, color = 50%, HUE = 50%.				
3. Set to Service adjustment Mode and connect an *oscilloscope *Connector Pin (B OUT) of C board.	*Oscilloscope	*CN351 Pin ③ (C board)		
4. Select " SHUE " and " SCOL " with [1] and [4].			SHUE, SCOL	
5. Adjust with [3] and [6] for the V1 = V4 (SCOL) and V2 = V3 (SHUE).				
6. After adjust write " SHUE " data 1 step down.			SHUE	
7. Write into the memory by pressing [MUTING] then [ENTER].				

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
H SIZE ADJUSTMENT (HSIZ) 1. Input a *signal. 2. Set to Service adjustment Mode. 3. Select " HSIZ " with 1 and 4 . 4. Adjust with 3 and 6 for the best Horizontal size. 5. Write into the memory by pressing MUTING then ENTER .	*Monoscope pattern		HSIZ	H. SIZE
V. SIZE ADJUSTMENT (VSIZ) 1. Input a *signal. 2. Set to Service adjustment Mode. 3. Select " VSIZ " with 1 and 4 . 4. Adjust with 3 and 6 for the best vertical size. 5. Write into the memory by pressing MUTING then ENTER .	*Monoscope pattern		VSIZ	V. SIZE
V. POSITION ADJUSTMENT (VPOS) 1. Input a *signal. 2. Set to Service adjustment Mode. 3. Select " VPOS " with 1 and 4 . 4. Adjust with 3 and 6 for the best vertical center. 5. Write into the memory by pressing MUTING then ENTER .	*Monoscope pattern		VPOS	V. POSITION
H. POSITION ADJUSTMENT (H POS) Note : Perform this adjustment after H. FREQUENCY ADJUSTMENT (HFRE). 1. Input a *signal. 2. Set to Service adjustment Mode. 3. Select " HPOS " with 1 and 4 . 4. Adjust with 3 and 6 for the best horizontal center. 5. Write into the memory by pressing MUTING then ENTER .	*Monoscope pattern		HPOS	H. POSITION

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
V LINEARITY (VLIN), V CORRECTION (VSCO), PIN AMP (PAMP) PIN PHASE (PPHA) AND OTHER ITEM ADJUSTMENTS 1. Input a *signal. 2. Set to Service adjustment Mode. 3. Select VLIN, VSCO, PAMP, PPHA and other item with [1] and [4] . 4. Adjust with [3] and [6] for the best picture. 5. Write the memory by Pressing [MUTING] then [ENTER] .	*Cross-hatch pattern		VLIN	V LINEARITY
			VSCO	VS CORRECTION
			PAMP	PIN AMP
			PPHA	PIN PHASE
			VANG	V ANGLE
			VBOW	V BOW
			UPIN	UPPER PIN
			LPIN	LOW PIN

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
A BOARD				[75Ω open level] Y LEVEL (INPUT)
Y/B–Y/R–Y LEVEL ADJUSTMENT				
1. Set to VIDEO mode = STANDARD, PICTURE = 100%, COLOR = 50%, HUE = 50%				
2. Set a select Video 4 (DVD) Mode.	*75% Color-bar pattern			
3. Input a * signal.				
4. Connect an* oscilloscope* CN351 pin ③ on A board.	*oscilloscope	*CN351 pin ③ (A board)		
5. Set to Service Mode and select " 2COL " and " 2HUE " with [1] and [4].			2COL, 2HUE	B-Y LEVEL (INPUT)
6. Adjust with [3] and [6] for " 2COL " and " 2HUE " so that even flat signal.			2COL, 2HUE	
7. After adjust write " 2HUE " data 4 steps down.			2HUE	
8. Write into the memory by pressing [MUTING] then [ENTER].				
				R-Y LEVEL (INPUT)
				
P&P SUB CONTRAST ADJUSTMENT (MSCO, ISCO)				
1. Input a *signal.	*75%Color-bar pattern			
2. Set to VIDEO mode = STANDARD, PICTURE = 100%, COLOR = minimum, " GON " = " 0 " (OFF), " BON " = " 0 (OFF).			G ON, B ON	
3. Set P&P mode.				
4. Connect an* oscilloscope* CN1103 pin ⑥ of A board and GND.	*Oscilloscope	*CN1103 Pin ⑥ (A board)		
5. Set to Service Mode and select " MSCO " (main window) and " ISCO " (sub window) with [1] and [4].			MSCO ISCO	
6. Adjust with [3] and [6] for the 1.75 ± 0.05Vp-p of level.				
7. Write into the memory by pressing [MUTING] then [ENTER].				

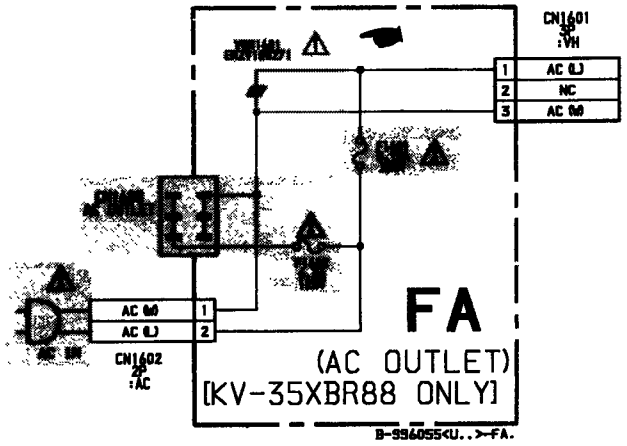
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
P&P SUB COLOR, SUB HUE ADJUSTMENT (MCOL, MSHU, ICOL, ISHU)				
1. Input a *signal.	*75%Color-bar pattern			
2. Set to VIDEO mode = STANDARD, PICTURE = 100%, COLOR = 50%, HUE = 50%.				
3. Set P&P mode.				
4. Connect an* oscilloscope* CN1103 pin ⑦ of A board and GND .	*Oscilloscope	*CN1103 Pin ⑦ (A board)		
5. Set to Service Mode and select " MCOL " , " MSHU " (main window) and " ICOL ", " ISHU " (sub window) with 1 and 4 .			MCOL, MSHU ICOL, ISHU	* SUB COLOR V1–V4 = ±0.1V V1'–V4' = ±0.1V
6. *Adjust with 3 and 6 .				SUB HUE V3–V2 = ±0.1V → 1 STEP DOWN V3'–V2' = ±0.1V → 1 STEP DOWN
7. After adjust write " MSHU " and " ISHU " data 1 step down.			MSHU, ISHU	
8. Write into the memory by pressing MUTING then ENTER .				
P&P ACQUISITION ADJUSTMENT (MAHP, MAVP)				NEED TO ADJUST AFTER GEOMETRIC ADJUST
1. Input a *signal.	*Monoscope pattern			 A–B = ±0.2 sg C–D = ±0.2 sg
2. Set to PICTURE = 100%.				
3. Set CHANNEL INDEX mode.				
4. Set to Service Mode and select " MAHP " " MAVP " with 1 and 4 .			MAHP, MAVP	
5. Adjust with 3 and 6 for the best* center (main window).				
6. Write the memory by pressing MUTING then ENTER .				
BACKGROUND POSITION ADJUSTMENT (BGHP, BGVP)				FREEZED •NEED TO ADJUST AFTER P&P (MAIN) ACQUISITION ADJUST
1. Input a *signal.	*Monoscope pattern			 A–B = ±0.2 sg C–D = ±0.2 sg
2. Set to VIDEO mode = STANDARD.				
3. Freeze a main picture.				
4. Set to Service Mode and select " BGHP " , "BGVP " with 1 and 4 .			BGHP, BGVP	
5. Adjust with 3 and 6 for the best* center.				
6. Write into the memory by pressing MUTING then ENTER .				
Note : Before this 「P&P ACQUISITION ADJUSTMENT」 must be done.				

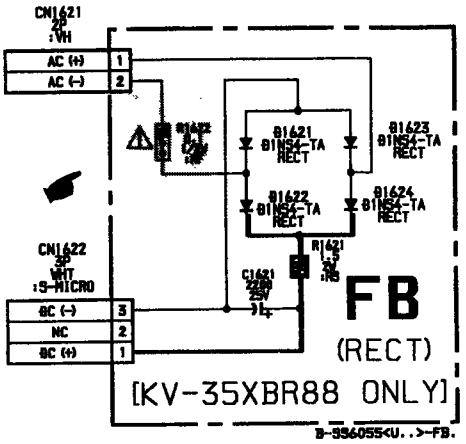
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
P&P WHITE BALANCE ADJUSTMENT (MUPE, MVPE, IUPE, IVPE) 1. Input a *signal. 2. Set to VIDEO mode = STANDARD. 3. Set to P&P mode. 4. Set to Service Mode and select " MUPE " " MVPE " (main window), "IUPE " " IVPE (sub window) with [1] and [4] . 5. Adjust with [3] and [6] for white balance. 6. Write into the memory by pressing [MUTING] then [ENTER] .	*40 IRE WHITE pattern		MUPE, MVPE IUPE, IVPE	NEED TO ADJUST AFTER MAIN PICTURE (NOT P&P) W/B ADJUST 
P&P OSD ADJUSTMENT (PDPS) 1. Input a *signal. 2. Set to channel INDEX mode. 3. Adjust for right side edge of P&P OSD is there for 1∼2char from border. ADJUST.....PDPS (OP) If necessary, adjust " PDP 0 " " PDP 1 " " PDP 2 " 4. Push the P&P off. 5. Push the return key for favorite ch. 6. Confirm 1∼2char distance. 7. Write the memory by pressing [MUTING] then [ENTER] .	*Monoscope pattern		PDPS PDP0, PDP1 PDP2	* 9300°K + 8MPCD  ⇔: CRT Usable Area.
OSD POSITION ADJUSTMENT (DISP) 1. Input a *signal. 2. Set to Service adjustment Mode. 3. Select " DISP " with [1] and [4] . 4. Adjust with [3] and [6] for the bar center. 5. Write into the memory by pressing [MUTING] then [ENTER] .	*Color-bar pattern		DISP	

SECTION 5. DIAGRAMS

5-3. PRINTED WRING BOARDS AND SCHEMATIC DIAGRAMS

(See page 90)





SECTION 7. ELECTRICAL PARTS LIST

FA BOARD, COMPLETE (KV-35XBR88) (See page 115)

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<VARISTORTOR>	
VDR1601⚠	1-801-074-41	VARISTOR ERZV10D271	

FB BOARD, COMPLETE (KV-35XBR88) (See page 116)

REF. NO.	PART NO.	DESCRIPTION	REMARK
R1622 ⚠	1-202-933-61	FUSIBLE 0.1 10% 1/2W F	

MISCELLANEOUS (See page 116)

REF. NO.	PART NO.	DESCRIPTION	REMARK
⚠	1-431-520-11	TRANSFORMER, POWER (KV-35XBR88)	

NOTES: