

4.7 INITIAL SETTING VALUES IN THE SERVICE MENU

- The "initial values" serve only as an indication rough standard and therefore the values with which optimal display can be achieved may be different from the default values. But, don't change the values that are not written in "ADJUSTMENT PROCEDURE". They are fixed values.

4.7.1 SIGNAL BLOCK (*Item is not used)

Item No.	Item name	Vriable range	Setting value
SA [VIDEO-NTSC]			
S[A01]	CONTRAST	-064 ~ +063	000
S[A02]	BRIGHT HIGH	-128 ~ +127	000
S[A03]	CHROMA	-064 ~ +063	000
S[A04]	PHASE	-064 ~ +063	000
S[A05]	APERTURE	-064 ~ +063	+013
S[A06]	BRIGHT LOW	-128 ~ +127	000
S[A07]	Y DL	000 ~ 001	000
S[A08]	R-Y PHASE	000 ~ 003	000
S[A09]	R/B GAIN	000 ~ 003	000
S[A10]	G-Y PHASE	000 ~ 003	000
S[A11]	G/B GAIN	000 ~ 003	001
SB [-----] *Not used			
S[B01]	CONTRAST	-064 ~ +063	000
S[B02]	BRIGHT HIGH	-128 ~ +127	000
S[B03]	CHROMA	-064 ~ +063	000
S[B04]	PHASE	-064 ~ +063	000
S[B05]	APERTURE	-064 ~ +063	000
S[B06]	BRIGHT LOW	-128 ~ +127	000
S[B07]	Y DL	000 ~ 001	000
S[B08]	R-Y PHASE	000 ~ 003	000
S[B09]	R/B GAIN	000 ~ 003	000
S[B10]	G-Y PHASE	000 ~ 003	000
S[B11]	G/B GAIN	000 ~ 003	001
SC [VIDEO-PAL]			
S[C01]	CONTRAST	-064 ~ +063	000
S[C02]	BRIGHT HIGH	-128 ~ +127	000
S[C03]	CHROMA	-064 ~ +063	+005
S[C04]	PHASE	-064 ~ +063	000
S[C05]	APERTURE	-064 ~ +063	+013
S[C06]	BRIGHT LOW	-128 ~ +127	000
S[C07]	Y DL	000 ~ 001	000
S[C08]	R-Y PHASE	000 ~ 003	000
S[C09]	R/B GAIN	000 ~ 003	000
S[C10]	G-Y PHASE	000 ~ 003	000
S[C11]	G/B GAIN	000 ~ 003	001
SD [-----] *Not used			
S[D01]	CONTRAST	-064 ~ +063	000
S[D02]	BRIGHT HIGH	-128 ~ +127	000
S[D03]	CHROMA	-064 ~ +063	000
S[D04]	PHASE	-064 ~ +063	000
S[D05]	APERTURE	-064 ~ +063	000
S[D06]	BRIGHT LOW	-128 ~ +127	000
S[D07]	Y DL	000 ~ 001	000
S[D08]	R-Y PHASE	000 ~ 003	000
S[D09]	R/B GAIN	000 ~ 003	000
S[D10]	G-Y PHASE	000 ~ 003	000
S[D11]	G/B GAIN	000 ~ 003	001
SE [COMP.-480/60i]			
S[E01]	CONTRAST	-064 ~ +063	+003
S[E02]	BRIGHT HIGH	-128 ~ +127	000
S[E03]	CHROMA	-064 ~ +063	+006
S[E04]	PHASE	-064 ~ +063	000
S[E05]	APERTURE	-064 ~ +063	000
S[E06]	BRIGHT LOW	-128 ~ +127	000
S[E07]	Y DL	000 ~ 001	000
S[E08]	R-Y PHASE	000 ~ 003	000
S[E09]	R/B GAIN	000 ~ 003	002
S[E10]	G-Y PHASE	000 ~ 003	000
S[E11]	G/B GAIN	000 ~ 003	003
SF [COMP.-576/50i]			
S[F01]	CONTRAST	-064 ~ +063	+003
S[F02]	BRIGHT HIGH	-128 ~ +127	000
S[F03]	CHROMA	-064 ~ +063	+006
S[F04]	PHASE	-064 ~ +063	000
S[F05]	APERTURE	-064 ~ +063	000

Item No.	Item name	Vriable range	Setting value
S[F06]	BRIGHT LOW	-128 ~ +127	000
S[F07]	Y DL	000 ~ 001	000
S[F08]	R-Y PHASE	000 ~ 003	000
S[F09]	R/B GAIN	000 ~ 003	002
S[F10]	G-Y PHASE	000 ~ 003	002
S[F11]	G/B GAIN	000 ~ 003	003
SG [-----] *Not used			
S[G01]	CONTRAST	-064 ~ +063	000
S[G02]	BRIGHT HIGH	-128 ~ +127	000
S[G03]	CHROMA	-064 ~ +063	000
S[G04]	PHASE	-064 ~ +063	000
S[G05]	APERTURE	-064 ~ +063	000
S[G06]	BRIGHT LOW	-128 ~ +127	000
S[G07]	Y DL	000 ~ 001	000
S[G08]	R-Y PHASE	000 ~ 003	000
S[G09]	R/B GAIN	000 ~ 003	002
S[G10]	G-Y PHASE	000 ~ 003	002
S[G11]	G/B GAIN	000 ~ 003	003
SH [-----] *Not used			
S[H01]	CONTRAST	-064 ~ +063	000
S[H02]	BRIGHT HIGH	-128 ~ +127	000
S[H03]	CHROMA	-064 ~ +063	000
S[H04]	PHASE	-064 ~ +063	000
S[H05]	APERTURE	-064 ~ +063	000
S[H06]	BRIGHT LOW	-128 ~ +127	000
S[H07]	Y DL	000 ~ 001	000
S[H08]	R-Y PHASE	000 ~ 003	000
S[H09]	R/B GAIN	000 ~ 003	002
S[H10]	G-Y PHASE	000 ~ 003	002
S[H11]	G/B GAIN	000 ~ 003	003
SI [-----] *Not used			
S[I01]	CONTRAST	-064 ~ +063	-005
S[I02]	BRIGHT HIGH	-128 ~ +127	000
S[I03]	CHROMA	-064 ~ +063	+006
S[I04]	PHASE	-064 ~ +063	-002
S[I05]	APERTURE	-064 ~ +063	000
S[I06]	BRIGHT LOW	-128 ~ +127	000
S[I07]	Y DL	000 ~ 001	000
S[I08]	R-Y PHASE	000 ~ 003	000
S[I09]	R/B GAIN	000 ~ 003	003
S[I10]	G-Y PHASE	000 ~ 003	002
S[I11]	G/B GAIN	000 ~ 003	000
SJ [-----] *Not used			
S[J01]	CONTRAST	-064 ~ +063	-005
S[J02]	BRIGHT HIGH	-128 ~ +127	000
S[J03]	CHROMA	-064 ~ +063	+006
S[J04]	PHASE	-064 ~ +063	-002
S[J05]	APERTURE	-064 ~ +063	000
S[J06]	BRIGHT LOW	-128 ~ +127	000
S[J07]	Y DL	000 ~ 001	000
S[J08]	R-Y PHASE	000 ~ 003	000
S[J09]	R/B GAIN	000 ~ 003	003
S[J10]	G-Y PHASE	000 ~ 003	002
S[J11]	G/B GAIN	000 ~ 003	000
SK [-----] *Not used			
S[K01]	CONTRAST	-064 ~ +063	-005
S[K02]	BRIGHT HIGH	-128 ~ +127	000
S[K03]	CHROMA	-064 ~ +063	+006
S[K04]	PHASE	-064 ~ +063	-002
S[K05]	APERTURE	-064 ~ +063	000
S[K06]	BRIGHT LOW	-128 ~ +127	000
S[K07]	Y DL	000 ~ 001	000
S[K08]	R-Y PHASE	000 ~ 003	000
S[K09]	R/B GAIN	000 ~ 003	003
S[K10]	G-Y PHASE	000 ~ 003	002
S[K11]	G/B GAIN	000 ~ 003	000

Item No.	Item name	Variable range	Setting value
SL [-----] *Not used			
S[L01]	CONTRAST	-064 ~ +063	-005
S[L02]	BRIGHT HIGH	-128 ~ +127	000
S[L03]	CHROMA	-064 ~ +063	+006
S[L04]	PHASE	-064 ~ +063	-002
S[L05]	APERTURE	-064 ~ +063	000
S[L06]	BRIGHT LOW	-128 ~ +127	000
S[L07]	Y DL	000 ~ 001	000
S[L08]	R-Y PHASE	000 ~ 003	000
S[L09]	R/B GAIN	000 ~ 003	003
S[L10]	G-Y PHASE	000 ~ 003	002
S[L11]	G/B GAIN	000 ~ 003	000
SM [-----] *Not used			
S[M01]	CONTRAST	-064 ~ +063	-005
S[M02]	BRIGHT HIGH	-128 ~ +127	000
S[M03]	CHROMA	-064 ~ +063	+006
S[M04]	PHASE	-064 ~ +063	-002
S[M05]	APERTURE	-064 ~ +063	000
S[M06]	BRIGHT LOW	-128 ~ +127	000
S[M07]	Y DL	000 ~ 001	000
S[M08]	R-Y PHASE	000 ~ 003	000
S[M09]	R/B GAIN	000 ~ 003	003
S[M10]	G-Y PHASE	000 ~ 003	002
S[M11]	G/B GAIN	000 ~ 003	000
SN [-----] *Not used			
S[N01]	CONTRAST	-064 ~ +063	000
S[N02]	BRIGHT HIGH	-128 ~ +127	000
S[N03]	CHROMA	-064 ~ +063	+006
S[N04]	PHASE	-064 ~ +063	-002
S[N05]	APERTURE	-064 ~ +063	000
S[N06]	BRIGHT LOW	-128 ~ +127	000
S[N07]	Y DL	000 ~ 001	000
S[N08]	R-Y PHASE	000 ~ 003	000
S[N09]	R/B GAIN	000 ~ 003	003
S[N10]	G-Y PHASE	000 ~ 003	002
S[N11]	G/B GAIN	000 ~ 003	000
SO [-----] *Not used			
S[O01]	CONTRAST	-064 ~ +063	000
S[O02]	BRIGHT HIGH	-128 ~ +127	000
S[O03]	BRIGHT LOW	-128 ~ +127	000
SP [SCAN-UNDER]			
S[P01]	NTSC CONTRAST	-064 ~ +063	-005
S[P02]	NTSC BRIGHT HIGH	-128 ~ +127	000
S[P03]	NTSC BRIGHT LOW	-128 ~ +127	000
*S[P04]	NTSC-Y/C CONTRAST	-064 ~ +063	-005
*S[P05]	NTSC-Y/C BRIGHT HIGH	-128 ~ +127	000
*S[P06]	NTSC-Y/C BRIGHT LOW	-128 ~ +127	000
S[P07]	PAL CONTRAST	-064 ~ +063	-005
S[P08]	PAL BRIGHT HIGH	-128 ~ +127	000
S[P09]	PAL BRIGHT LOW	-128 ~ +127	000
*S[P10]	PAL-Y/C CONTRAST	-064 ~ +063	-005
*S[P11]	PAL-Y/C BRIGHT HIGH	-128 ~ +127	000
*S[P12]	PAL-Y/C BRIGHT LOW	-128 ~ +127	000
S[P13]	480/60i CONTRAST	-064 ~ +063	-005
S[P14]	480/60i BRIGHT HIGH	-128 ~ +127	000
S[P15]	480/60i BRIGHT LOW	-128 ~ +127	000
S[P16]	576/50i CONTRAST	-064 ~ +063	-005
S[P17]	576/50i BRIGHT HIGH	-128 ~ +127	000
S[P18]	576/50i BRIGHT LOW	-128 ~ +127	000
*S[P19]	480/60p CONTRAST	-064 ~ +063	-005
*S[P20]	480/60p BRIGHT HIGH	-128 ~ +127	000
*S[P21]	480/60p BRIGHT LOW	-128 ~ +127	000
*S[P22]	576/50p CONTRAST	-064 ~ +063	-005
*S[P23]	576/50p BRIGHT HIGH	-128 ~ +127	000
*S[P24]	576/50p BRIGHT LOW	-128 ~ +127	000
*S[P25]	1080/60i CONTRAST	-064 ~ +063	-005
*S[P26]	1080/60i BRIGHT HIGH	-128 ~ +127	000
*S[P27]	1080/60i BRIGHT LOW	-128 ~ +127	000
*S[P28]	1035/60i CONTRAST	-064 ~ +063	-005
*S[P29]	1035/60i BRIGHT HIGH	-128 ~ +127	000
*S[P30]	1035/60i BRIGHT LOW	-128 ~ +127	000
*S[P31]	1080/50i CONTRAST	-064 ~ +063	-005
*S[P32]	1080/50i BRIGHT HIGH	-128 ~ +127	000

Item No.	Item name	Variable range	Setting value
*S[P33]	1080/50i BRIGHT LOW	-128 ~ +127	000
*S[P34]	1080/24psf CONTRAST	-064 ~ +063	-005
*S[P35]	1080/24psf BRIGHT HIGH	-128 ~ +127	000
*S[P36]	1080/24psf BRIGHT LOW	-128 ~ +127	000
*S[P37]	720/60p CONTRAST	-064 ~ +063	-005
*S[P38]	720/60p BRIGHT HIGH	-128 ~ +127	000
*S[P39]	720/60p BRIGHT LOW	-128 ~ +127	000
*S[P40]	720/50p CONTRAST	-064 ~ +063	-005
*S[P41]	720/50p BRIGHT HIGH	-128 ~ +127	000
*S[P42]	720/50p BRIGHT LOW	-128 ~ +127	000
SQ [ASPECT]			
S[Q01]	NTSC OVER-SCAN CONTRAST	-064 ~ +063	-007
S[Q02]	NTSC OVER-SCAN BRIGHT HIGH	-128 ~ +127	000
S[Q03]	NTSC OVER-SCAN BRIGHT LOW	-128 ~ +127	000
S[Q04]	NTSC UNDER-SCAN CONTRAST	-064 ~ +063	-007
S[Q05]	NTSC UNDER-SCAN BRIGHT HIGH	-128 ~ +127	000
S[Q06]	NTSC UNDER-SCAN BRIGHT LOW	-128 ~ +127	000
*S[Q07]	NTSC-Y/C OVER-SCAN CONTRAST	-064 ~ +063	-007
*S[Q08]	NTSC-Y/C OVER-SCAN BRIGHT HIGH	-128 ~ +127	000
*S[Q09]	NTSC-Y/C OVER-SCAN BRIGHT LOW	-128 ~ +127	000
*S[Q10]	NTSC-Y/C UNDER-SCAN CONTRAST	-064 ~ +063	-007
*S[Q11]	NTSC-Y/C UNDER-SCAN BRIGHT HIGH	-128 ~ +127	000
*S[Q12]	NTSC-Y/C UNDER-SCAN BRIGHT LOW	-128 ~ +127	000
S[Q13]	PAL OVER-SCAN CONTRAST	-064 ~ +063	-007
S[Q14]	PAL OVER-SCAN BRIGHT HIGH	-128 ~ +127	000
S[Q15]	PAL OVER-SCAN BRIGHT LOW	-128 ~ +127	000
S[Q16]	PAL UNDER-SCAN CONTRAST	-064 ~ +063	-007
S[Q17]	PAL UNDER-SCAN BRIGHT HIGH	-128 ~ +127	000
S[Q18]	PAL UNDER-SCAN BRIGHT LOW	-128 ~ +127	000
*S[Q19]	PAL-Y/C OVER-SCAN CONTRAST	-064 ~ +063	-007
*S[Q20]	PAL-Y/C OVER-SCAN BRIGHT HIGH	-128 ~ +127	000
*S[Q21]	PAL-Y/C OVER-SCAN BRIGHT LOW	-128 ~ +127	000
*S[Q22]	PAL-Y/C UNDER-SCAN CONTRAST	-064 ~ +063	-007
*S[Q23]	PAL-Y/C UNDER-SCAN BRIGHT HIGH	-128 ~ +127	000
*S[Q24]	PAL-Y/C UNDER-SCAN BRIGHT LOW	-128 ~ +127	000
S[Q25]	480/60i OVER-SCAN CONTRAST	-064 ~ +063	-007
S[Q26]	480/60i OVER-SCAN BRIGHT HIGH	-128 ~ +127	000
S[Q27]	480/60i OVER-SCAN BRIGHT LOW	-128 ~ +127	000
S[Q28]	480/60i UNDER-SCAN CONTRAST	-064 ~ +063	-007
S[Q29]	480/60i UNDER-SCAN BRIGHT HIGH	-128 ~ +127	000
S[Q30]	480/60i UNDER-SCAN BRIGHT LOW	-128 ~ +127	000
S[Q31]	576/50i OVER-SCAN CONTRAST	-064 ~ +063	-007
S[Q32]	576/50i OVER-SCAN BRIGHT HIGH	-128 ~ +127	000
S[Q33]	576/50i OVER-SCAN BRIGHT LOW	-128 ~ +127	000
S[Q34]	576/50i UNDER-SCAN CONTRAST	-064 ~ +063	-007
S[Q35]	576/50i UNDER-SCAN BRIGHT HIGH	-128 ~ +127	000
S[Q36]	576/50i UNDER-SCAN BRIGHT LOW	-128 ~ +127	000
*S[Q37]	480/60p OVER-SCAN CONTRAST	-064 ~ +063	-007
*S[Q38]	480/60p OVER-SCAN BRIGHT HIGH	-128 ~ +127	000
*S[Q39]	480/60p OVER-SCAN BRIGHT LOW	-128 ~ +127	000
*S[Q40]	480/60p UNDER-SCAN CONTRAST	-064 ~ +063	-007
*S[Q41]	480/60p UNDER-SCAN BRIGHT HIGH	-128 ~ +127	000
*S[Q42]	480/60p UNDER-SCAN BRIGHT LOW	-128 ~ +127	000
*S[Q43]	576/50p OVER-SCAN CONTRAST	-064 ~ +063	-007
*S[Q44]	576/50p OVER-SCAN BRIGHT HIGH	-128 ~ +127	000
*S[Q45]	576/50p OVER-SCAN BRIGHT LOW	-128 ~ +127	000
*S[Q46]	576/50p UNDER-SCAN CONTRAST	-064 ~ +063	-007
*S[Q47]	576/50p UNDER-SCAN BRIGHT HIGH	-128 ~ +127	000
*S[Q48]	576/50p UNDER-SCAN BRIGHT LOW	-128 ~ +127	000
SR [COMMON]			
S[R01]	CONTRAST	000 ~ 127	040
S[R02]	BRIGHT HIGH	000 ~ 255	128
S[R03]	CHROMA	000 ~ 127	059
S[R04]	PHASE	000 ~ 127	064
S[R05]	APERTURE	000 ~ 127	025
S[R06]	BRIGHT LOW	-128 ~ +127	000
S[R07]	Y DL	000 ~ 001	000
S[R08]	R-Y PHASE	000 ~ 003	000
S[R09]	R/B GAIN	000 ~ 003	000
S[R10]	G-Y PHASE	000 ~ 003	000
S[R11]	G/B GAIN	000 ~ 003	001
SS [-----] *Not used			

Item No.	Item name	Variable range	Setting value
S[S01]	NTSC CONTRAST	-064 ~ +063	000
S[S02]	NTSC BRIGHT HIGH	-128 ~ +127	000
S[S03]	NTSC BRIGHT LOW	-128 ~ +127	000
S[S04]	NTSC-Y/C CONTRAST	-064 ~ +063	000
S[S05]	NTSC-Y/C BRIGHT HIGH	-128 ~ +127	000
S[S06]	NTSC-Y/C BRIGHT LOW	-128 ~ +127	000
S[S07]	PAL CONTRAST	-064 ~ +063	000
S[S08]	PAL BRIGHT HIGH	-128 ~ +127	000
S[S09]	PAL BRIGHT LOW	-128 ~ +127	000
S[S10]	PAL-Y/C CONTRAST	-064 ~ +063	000
S[S11]	PAL-Y/C BRIGHT HIGH	-128 ~ +127	000
S[S12]	PAL-Y/C BRIGHT LOW	-128 ~ +127	000
S[S13]	480/60i CONTRAST	-064 ~ +063	000
S[S14]	480/60i BRIGHT HIGH	-128 ~ +127	000
S[S15]	480/60i BRIGHT LOW	-128 ~ +127	000
S[S16]	576/50i CONTRAST	-064 ~ +063	000
S[S17]	576/50i BRIGHT HIGH	-128 ~ +127	000
S[S18]	576/50i BRIGHT LOW	-128 ~ +127	000
S[S19]	480/60p CONTRAST	-064 ~ +063	000
S[S20]	480/60p BRIGHT HIGH	-128 ~ +127	000
S[S21]	480/60p BRIGHT LOW	-128 ~ +127	000
S[S22]	576/50p CONTRAST	-064 ~ +063	000
S[S23]	576/50p BRIGHT HIGH	-128 ~ +127	000
S[S24]	576/50p BRIGHT LOW	-128 ~ +127	000
S[S25]	1080/60i CONTRAST	-064 ~ +063	+007
S[S26]	1080/60i BRIGHT HIGH	-128 ~ +127	000
S[S27]	1080/60i BRIGHT LOW	-128 ~ +127	000
S[S28]	1035/60i CONTRAST	-064 ~ +063	+007
S[S29]	1035/60i BRIGHT HIGH	-128 ~ +127	000
S[S30]	1035/60i BRIGHT LOW	-128 ~ +127	000
S[S31]	1080/50i CONTRAST	-064 ~ +063	+007
S[S32]	1080/50i BRIGHT HIGH	-128 ~ +127	000
S[S33]	1080/50i BRIGHT LOW	-128 ~ +127	000
S[S34]	1080/24psf CONTRAST	-064 ~ +063	+007
S[S35]	1080/24psf BRIGHT HIGH	-128 ~ +127	000
S[S36]	1080/24psf BRIGHT LOW	-128 ~ +127	000
S[S37]	720/60p CONTRAST	-064 ~ +063	+007
S[S38]	720/60p BRIGHT HIGH	-128 ~ +127	000
S[S39]	720/60p BRIGHT LOW	-128 ~ +127	000
S[S40]	720/50p CONTRAST	-064 ~ +063	+007
S[S41]	720/50p BRIGHT HIGH	-128 ~ +127	000
S[S42]	720/50p BRIGHT LOW	-128 ~ +127	000
ST [SUB DATA (HD/SD)]			
S[T01]	NTSC CONTRAST	-064 ~ +063	000
S[T02]	NTSC BRIGHT HIGH	-128 ~ +127	000
S[T03]	NTSC BRIGHT LOW	-128 ~ +127	000
*S[T04]	NTSC-Y/C CONTRAST	-064 ~ +063	000
*S[T05]	NTSC-Y/C BRIGHT HIGH	-128 ~ +127	000
*S[T06]	NTSC-Y/C BRIGHT LOW	-128 ~ +127	000
S[T07]	PAL CONTRAST	-064 ~ +063	000
S[T08]	PAL BRIGHT HIGH	-128 ~ +127	000
S[T09]	PAL BRIGHT LOW	-128 ~ +127	000
*S[T10]	PAL-Y/C CONTRAST	-064 ~ +063	000
*S[T11]	PAL-Y/C BRIGHT HIGH	-128 ~ +127	000
*S[T12]	PAL-Y/C BRIGHT LOW	-128 ~ +127	000
S[T13]	480/60i CONTRAST	-064 ~ +063	000
S[T14]	480/60i BRIGHT HIGH	-128 ~ +127	000
S[T15]	480/60i BRIGHT LOW	-128 ~ +127	000
S[T16]	576/50i CONTRAST	-064 ~ +063	000
S[T17]	576/50i BRIGHT HIGH	-128 ~ +127	000
S[T18]	576/50i BRIGHT LOW	-128 ~ +127	000
SU [INPUT C/D (UNIT)]			
S[U01]	CONTRAST	-064 ~ +063	-005
S[U02]	BRIGHT HIGH	-128 ~ +127	-004
S[U03]	CHROMA	-064 ~ +063	+005
S[U04]	PHASE	-064 ~ +063	-002
S[U05]	APERTURE	-064 ~ +063	000
S[U06]	BRIGHT LOW	-128 ~ +127	000
S[U07]	Y DL	000 ~ 001	000
S[U08]	R-Y PHASE	000 ~ 003	000
S[U09]	R/B GAIN	000 ~ 003	000
S[U10]	G-Y PHASE	000 ~ 003	000
S[U11]	G/B GAIN	000 ~ 003	000

4.7.2 WHITE BALANCE BLOCK

Item No.	Item name	Variable range	Setting value
WA [NTSC HIGH]			
W[A01]	R DRIVE	-128 ~ +127	000
W[A02]	G DRIVE	-128 ~ +127	000
W[A03]	B DRIVE	-128 ~ +127	000
W[A04]	R CUTOFF	-128 ~ +127	000
W[A05]	G CUTOFF	-128 ~ +127	000
W[A06]	B CUTOFF	-128 ~ +127	000
WB [NTSC LOW]			
W[B01]	R DRIVE	-128 ~ +127	000
W[B02]	G DRIVE	-128 ~ +127	000
W[B03]	B DRIVE	-128 ~ +127	000
W[B04]	R CUTOFF	-128 ~ +127	000
W[B05]	G CUTOFF	-128 ~ +127	000
W[B06]	B CUTOFF	-128 ~ +127	000
WC [PAL HIGH]			
W[C01]	R DRIVE	-128 ~ +127	000
W[C02]	G DRIVE	-128 ~ +127	000
W[C03]	B DRIVE	-128 ~ +127	000
W[C04]	R CUTOFF	-128 ~ +127	000
W[C05]	G CUTOFF	-128 ~ +127	000
W[C06]	B CUTOFF	-128 ~ +127	000
WD [PAL LOW]			
W[D01]	R DRIVE	-128 ~ +127	000
W[D02]	G DRIVE	-128 ~ +127	000
W[D03]	B DRIVE	-128 ~ +127	+005
W[D04]	R CUTOFF	-128 ~ +127	000
W[D05]	G CUTOFF	-128 ~ +127	000
W[D06]	B CUTOFF	-128 ~ +127	000
WE [COMP.-480/60i, 576/50i, HIGH]			
W[E01]	R DRIVE	-128 ~ +127	000
W[E02]	G DRIVE	-128 ~ +127	000
W[E03]	B DRIVE	-128 ~ +127	000
W[E04]	R CUTOFF	-128 ~ +127	000
W[E05]	G CUTOFF	-128 ~ +127	000
W[E06]	B CUTOFF	-128 ~ +127	000
WF [COMP.-480/60i, 576/50i, LOW]			
W[F01]	R DRIVE	-128 ~ +127	000
W[F02]	G DRIVE	-128 ~ +127	000
W[F03]	B DRIVE	-128 ~ +127	000
W[F04]	R CUTOFF	-128 ~ +127	000
W[F05]	G CUTOFF	-128 ~ +127	000
W[F06]	B CUTOFF	-128 ~ +127	000
WG [----] *Not used			
W[G01]	R DRIVE	-128 ~ +127	000
W[G02]	G DRIVE	-128 ~ +127	000
W[G03]	B DRIVE	-128 ~ +127	000
W[G04]	R CUTOFF	-128 ~ +127	000
W[G05]	G CUTOFF	-128 ~ +127	000
W[G06]	B CUTOFF	-128 ~ +127	000
WH [----] *Not used			
W[H01]	R DRIVE	-128 ~ +127	000
W[H02]	G DRIVE	-128 ~ +127	000
W[H03]	B DRIVE	-128 ~ +127	+003
W[H04]	R CUTOFF	-128 ~ +127	000
W[H05]	G CUTOFF	-128 ~ +127	+006
W[H06]	B CUTOFF	-128 ~ +127	000
WI [----] *Not used			
W[I01]	R DRIVE	-128 ~ +127	000
W[I02]	G DRIVE	-128 ~ +127	000
W[I03]	B DRIVE	-128 ~ +127	000
W[I04]	R CUTOFF	-128 ~ +127	000
W[I05]	G CUTOFF	-128 ~ +127	000
W[I06]	B CUTOFF	-128 ~ +127	000
WJ [----] *Not used			
W[J01]	R DRIVE	-128 ~ +127	000
W[J02]	G DRIVE	-128 ~ +127	000
W[J03]	B DRIVE	-128 ~ +127	000
W[J04]	R CUTOFF	-128 ~ +127	000
W[J05]	G CUTOFF	-128 ~ +127	000
W[J06]	B CUTOFF	-128 ~ +127	000

Item No.	Item name	Variable range	Setting value
WK [----] *Not used			
W[K01]	R DRIVE	-128 ~ +127	000
W[K02]	G DRIVE	-128 ~ +127	000
W[K03]	B DRIVE	-128 ~ +127	000
W[K04]	R CUTOFF	-128 ~ +127	000
W[K05]	G CUTOFF	-128 ~ +127	000
W[K06]	B CUTOFF	-128 ~ +127	000
WL [----] *Not used			
W[L01]	R DRIVE	-128 ~ +127	000
W[L02]	G DRIVE	-128 ~ +127	000
W[L03]	B DRIVE	-128 ~ +127	000
W[L04]	R CUTOFF	-128 ~ +127	000
W[L05]	G CUTOFF	-128 ~ +127	000
W[L06]	B CUTOFF	-128 ~ +127	000
WM [----] *Not used			
W[M01]	R DRIVE	-128 ~ +127	000
W[M02]	G DRIVE	-128 ~ +127	000
W[M03]	B DRIVE	-128 ~ +127	000
W[M04]	R CUTOFF	-128 ~ +127	000
W[M05]	G CUTOFF	-128 ~ +127	000
W[M06]	B CUTOFF	-128 ~ +127	000
WN [----] *Not used			
W[N01]	R DRIVE	-128 ~ +127	000
W[N02]	G DRIVE	-128 ~ +127	000
W[N03]	B DRIVE	-128 ~ +127	000
W[N04]	R CUTOFF	-128 ~ +127	000
W[N05]	G CUTOFF	-128 ~ +127	000
W[N06]	B CUTOFF	-128 ~ +127	000
WO [----] *Not used			
W[O01]	R DRIVE	-128 ~ +127	000
W[O02]	G DRIVE	-128 ~ +127	000
W[O03]	B DRIVE	-128 ~ +127	000
W[O04]	R CUTOFF	-128 ~ +127	000
W[O05]	G CUTOFF	-128 ~ +127	000
W[O06]	B CUTOFF	-128 ~ +127	000
WP [----] *Not used			
W[P01]	R DRIVE	-128 ~ +127	000
W[P02]	G DRIVE	-128 ~ +127	000
W[P03]	B DRIVE	-128 ~ +127	000
W[P04]	R CUTOFF	-128 ~ +127	000
W[P05]	G CUTOFF	-128 ~ +127	000
W[P06]	B CUTOFF	-128 ~ +127	000
WQ [----] *Not used			
W[Q01]	R DRIVE	-128 ~ +127	000
W[Q02]	G DRIVE	-128 ~ +127	000
W[Q03]	B DRIVE	-128 ~ +127	000
W[Q04]	R CUTOFF	-128 ~ +127	000
W[Q05]	G CUTOFF	-128 ~ +127	000
W[Q06]	B CUTOFF	-128 ~ +127	000
WR [----] *Not used			
W[R01]	R DRIVE	-128 ~ +127	000
W[R02]	G DRIVE	-128 ~ +127	000
W[R03]	B DRIVE	-128 ~ +127	000
W[R04]	R CUTOFF	-128 ~ +127	000
W[R05]	G CUTOFF	-128 ~ +127	000
W[R06]	B CUTOFF	-128 ~ +127	000
WS [----] *Not used			
W[S01]	R DRIVE	-128 ~ +127	000
W[S02]	G DRIVE	-128 ~ +127	000
W[S03]	B DRIVE	-128 ~ +127	000
W[S04]	R CUTOFF	-128 ~ +127	000
W[S05]	G CUTOFF	-128 ~ +127	000
W[S06]	B CUTOFF	-128 ~ +127	000
WT [----] *Not used			
W[T01]	R DRIVE	-128 ~ +127	000
W[T02]	G DRIVE	-128 ~ +127	000
W[T03]	B DRIVE	-128 ~ +127	000
W[T04]	R CUTOFF	-128 ~ +127	000
W[T05]	G CUTOFF	-128 ~ +127	000
W[T06]	B CUTOFF	-128 ~ +127	000
WU [UNDER SCAN HIGH]			
W[U01]	R DRIVE	-128 ~ +127	-001
W[U02]	G DRIVE	-128 ~ +127	000

Item No.	Item name	Variable range	Setting value
W[U03]	B DRIVE	-128 ~ +127	-001
W[U04]	R CUTOFF	-128 ~ +127	000
W[U05]	G CUTOFF	-128 ~ +127	+003
W[U06]	B CUTOFF	-128 ~ +127	+002
WV [UNDER SCAN LOW]			
W[V01]	R DRIVE	-128 ~ +127	-001
W[V02]	G DRIVE	-128 ~ +127	000
W[V03]	B DRIVE	-128 ~ +127	-001
W[V04]	R CUTOFF	-128 ~ +127	+004
W[V05]	G CUTOFF	-128 ~ +127	000
W[V06]	B CUTOFF	-128 ~ +127	+003
WW [COMMON HIGH]			
W[W01]	R DRIVE	0 ~ 127	074
W[W02]	G DRIVE	0 ~ 127	063
W[W03]	B DRIVE	0 ~ 127	058
W[W04]	R CUTOFF	0 ~ 127	100
W[W05]	G CUTOFF	0 ~ 127	100
W[W06]	B CUTOFF	0 ~ 127	100
WX [COMMON LOW]			
W[X01]	R DRIVE	0 ~ 127	087
W[X02]	G DRIVE	0 ~ 127	063
W[X03]	B DRIVE	0 ~ 127	042
W[X04]	R CUTOFF	0 ~ 127	100
W[X05]	G CUTOFF	0 ~ 127	100
W[X06]	B CUTOFF	0 ~ 127	100

4.7.3 DEFLECTION BLOCK

Item No.	Item name	Variable range	Setting value
DA [NTSC]			
D[A01]	H.SIZE	-064 ~ +064	000
D[A02]	V.SIZE	-064 ~ +064	000
D[A03]	H.POSITION	-064 ~ +064	000
D[A04]	V.POSITION	-064 ~ +064	000
D[A05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[A06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[A07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[A08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[A09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[A10]	H.ARC DISTORTION	-032 ~ +032	000
D[A11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[A12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DB [NTSC-UNDER]			
D[B01]	H.SIZE	-064 ~ +064	-018
D[B02]	V.SIZE	-064 ~ +064	-045
D[B03]	H.POSITION	-064 ~ +064	000
D[B04]	V.POSITION	-064 ~ +064	000
D[B05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[B06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[B07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[B08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[B09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[B10]	H.ARC DISTORTION	-032 ~ +032	000
D[B11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[B12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DC [PAL]			
D[C01]	H.SIZE	-064 ~ +064	+001
D[C02]	V.SIZE	-064 ~ +064	+002
D[C03]	H.POSITION	-064 ~ +064	-001
D[C04]	V.POSITION	-064 ~ +064	000
D[C05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[C06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[C07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[C08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[C09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[C10]	H.ARC DISTORTION	-032 ~ +032	000
D[C11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[C12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	+002
DD [PAL-UNDER]			
D[D01]	H.SIZE	-064 ~ +064	-019
D[D02]	V.SIZE	-064 ~ +064	-046
D[D03]	H.POSITION	-064 ~ +064	000

Item No.	Item name	Variable range	Setting value
D[D04]	V.POSITION	-064 ~ +064	001
D[D05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[D06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[D07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[D08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[D09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[D10]	H.ARC DISTORTION	-032 ~ +032	000
D[D11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[D12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DE [480/60i]			
D[E01]	H.SIZE	-064 ~ +064	-002
D[E02]	V.SIZE	-064 ~ +064	-003
D[E03]	H.POSITION	-064 ~ +064	+017
D[E04]	V.POSITION	-064 ~ +064	000
D[E05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[E06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[E07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[E08]	PARALLELOGRAM DISTORTION	-032 ~ +032	+003
D[E09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[E10]	H.ARC DISTORTION	-032 ~ +032	000
D[E11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[E12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DF [480/60i-UNDER]			
D[F01]	H.SIZE	-064 ~ +064	-015
D[F02]	V.SIZE	-064 ~ +064	-043
D[F03]	H.POSITION	-064 ~ +064	-000
D[F04]	V.POSITION	-064 ~ +064	000
D[F05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[F06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[F07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[F08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[F09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[F10]	H.ARC DISTORTION	-032 ~ +032	000
D[F11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[F12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DG [576/50i]			
D[G01]	H.SIZE	-064 ~ +064	+001
D[G02]	V.SIZE	-064 ~ +064	+003
D[G03]	H.POSITION	-064 ~ +064	+015
D[G04]	V.POSITION	-064 ~ +064	000
D[G05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[G06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[G07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[G08]	PARALLELOGRAM DISTORTION	-032 ~ +032	+004
D[G09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[G10]	H.ARC DISTORTION	-032 ~ +032	000
D[G11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[G12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DH [576/50i-UNDER]			
D[H01]	H.SIZE	-064 ~ +064	-015
D[H02]	V.SIZE	-064 ~ +064	-043
D[H03]	H.POSITION	-064 ~ +064	000
D[H04]	V.POSITION	-064 ~ +064	000
D[H05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[H06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[H07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[H08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[H09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[H10]	H.ARC DISTORTION	-032 ~ +032	000
D[H11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[H12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DI [-----] *Not used			
D[I01]	H.SIZE	-064 ~ +064	000
D[I02]	V.SIZE	-064 ~ +064	000
D[I03]	H.POSITION	-064 ~ +064	000
D[I04]	V.POSITION	-064 ~ +064	000
D[I05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[I06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[I07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[I08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[I09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[I10]	H.ARC DISTORTION	-032 ~ +032	000
D[I11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000

Item No.	Item name	Variable range	Setting value
D[J12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DJ [-----] *Not used			
D[J01]	H.SIZE	-064 ~ +064	000
D[J02]	V.SIZE	-064 ~ +064	000
D[J03]	H.POSITION	-064 ~ +064	000
D[J04]	V.POSITION	-064 ~ +064	000
D[J05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[J06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[J07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[J08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[J09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[J10]	H.ARC DISTORTION	-032 ~ +032	000
D[J11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[J12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DK [-----] *Not used			
D[K01]	H.SIZE	-064 ~ +064	000
D[K02]	V.SIZE	-064 ~ +064	000
D[K03]	H.POSITION	-064 ~ +064	000
D[K04]	V.POSITION	-064 ~ +064	000
D[K05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[K06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[K07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[K08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[K09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[K10]	H.ARC DISTORTION	-032 ~ +032	000
D[K11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[K12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DL [-----] *Not used			
D[L01]	H.SIZE	-064 ~ +064	000
D[L02]	V.SIZE	-064 ~ +064	000
D[L03]	H.POSITION	-064 ~ +064	000
D[L04]	V.POSITION	-064 ~ +064	000
D[L05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[L06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[L07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[L08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[L09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[L10]	H.ARC DISTORTION	-032 ~ +032	000
D[L11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[L12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DM [-----] *Not used			
D[M01]	H.SIZE	-064 ~ +064	-002
D[M02]	V.SIZE	-064 ~ +064	-013
D[M03]	H.POSITION	-064 ~ +064	+015
D[M04]	V.POSITION	-064 ~ +064	+002
D[M05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[M06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[M07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[M08]	PARALLELOGRAM DISTORTION	-032 ~ +032	+004
D[M09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[M10]	H.ARC DISTORTION	-032 ~ +032	000
D[M11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	+016
D[M12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DN [-----] *Not used			
D[N01]	H.SIZE	-064 ~ +064	-017
D[N02]	V.SIZE	-064 ~ +064	-048
D[N03]	H.POSITION	-064 ~ +064	-003
D[N04]	V.POSITION	-064 ~ +064	000
D[N05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[N06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[N07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[N08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[N09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[N10]	H.ARC DISTORTION	-032 ~ +032	000
D[N11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[N12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DO [-----] *Not used			
D[O01]	H.SIZE	-064 ~ +064	-001
D[O02]	V.SIZE	-064 ~ +064	000
D[O03]	H.POSITION	-064 ~ +064	+015
D[O04]	V.POSITION	-064 ~ +064	+004
D[O05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[O06]	CORNER DISTORTION (W)	-032 ~ +032	000

Item No.	Item name	Variable range	Setting value
D[007]	CORNER DISTORTION (S)	-032 ~ +032	000
D[008]	PARALLELOGRAM DISTORTION	-032 ~ +032	+004
D[009]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[010]	H.ARC DISTORTION	-032 ~ +032	000
D[011]	V.LINEARITY (S CORRECTION)	-016 ~ +016	+016
D[012]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DP [----] *Not used			
D[P01]	H.SIZE	-064 ~ +064	-018
D[P02]	V.SIZE	-064 ~ +064	-051
D[P03]	H.POSITION	-064 ~ +064	-003
D[P04]	V.POSITION	-064 ~ +064	000
D[P05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[P06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[P07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[P08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[P09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[P10]	H.ARC DISTORTION	-032 ~ +032	000
D[P11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[P12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DQ [----] *Not used			
D[Q01]	H.SIZE	-064 ~ +064	000
D[Q02]	V.SIZE	-064 ~ +064	-004
D[Q03]	H.POSITION	-064 ~ +064	+019
D[Q04]	V.POSITION	-064 ~ +064	+001
D[Q05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[Q06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[Q07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[Q08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[Q09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[Q10]	H.ARC DISTORTION	-032 ~ +032	000
D[Q11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	+016
D[Q12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DR [----] *Not used			
D[R01]	H.SIZE	-064 ~ +064	-018
D[R02]	V.SIZE	-064 ~ +064	-051
D[R03]	H.POSITION	-064 ~ +064	000
D[R04]	V.POSITION	-064 ~ +064	000
D[R05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[R06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[R07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[R08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[R09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[R10]	H.ARC DISTORTION	-032 ~ +032	000
D[R11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[R12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DS [----] *Not used			
D[S01]	H.SIZE	-064 ~ +064	-001
D[S02]	V.SIZE	-064 ~ +064	-010
D[S03]	H.POSITION	-064 ~ +064	+018
D[S04]	V.POSITION	-064 ~ +064	+002
D[S05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[S06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[S07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[S08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[S09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[S10]	H.ARC DISTORTION	-032 ~ +032	000
D[S11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	+016
D[S12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DT [----] *Not used			
D[T01]	H.SIZE	-064 ~ +064	-017
D[T02]	V.SIZE	-064 ~ +064	-048
D[T03]	H.POSITION	-064 ~ +064	000
D[T04]	V.POSITION	-064 ~ +064	000
D[T05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[T06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[T07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[T08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[T09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[T10]	H.ARC DISTORTION	-032 ~ +032	000
D[T11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[T12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DU [----] *Not used			
D[U01]	H.SIZE	-064 ~ +064	-003

Item No.	Item name	Variable range	Setting value
D[U02]	V.SIZE	-064 ~ +064	-015
D[U03]	H.POSITION	-064 ~ +064	+017
D[U04]	V.POSITION	-064 ~ +064	+002
D[U05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[U06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[U07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[U08]	PARALLELOGRAM DISTORTION	-032 ~ +032	+004
D[U09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[U10]	H.ARC DISTORTION	-032 ~ +032	000
D[U11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[U12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DV [----] *Not used			
D[V01]	H.SIZE	-064 ~ +064	-017
D[V02]	V.SIZE	-064 ~ +064	-049
D[V03]	H.POSITION	-064 ~ +064	-003
D[V04]	V.POSITION	-064 ~ +064	000
D[V05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[V06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[V07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[V08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[V09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[V10]	H.ARC DISTORTION	-032 ~ +032	000
D[V11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[V12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DW [----] *Not used			
D[W01]	H.SIZE	-064 ~ +064	+002
D[W02]	V.SIZE	-064 ~ +064	-007
D[W03]	H.POSITION	-064 ~ +064	+021
D[W04]	V.POSITION	-064 ~ +064	+001
D[W05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[W06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[W07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[W08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[W09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[W10]	H.ARC DISTORTION	-032 ~ +032	000
D[W11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	+016
D[W12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DX [----] *Not used			
D[X01]	H.SIZE	-064 ~ +064	-017
D[X02]	V.SIZE	-064 ~ +064	-049
D[X03]	H.POSITION	-064 ~ +064	000
D[X04]	V.POSITION	-064 ~ +064	000
D[X05]	SIDE PIN DISTORTION	-032 ~ +032	000
D[X06]	CORNER DISTORTION (W)	-032 ~ +032	000
D[X07]	CORNER DISTORTION (S)	-032 ~ +032	000
D[X08]	PARALLELOGRAM DISTORTION	-032 ~ +032	000
D[X09]	TRAPEZOIDAL DISTORTION	-032 ~ +032	000
D[X10]	H.ARC DISTORTION	-032 ~ +032	000
D[X11]	V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[X12]	V.LINEARITY (C CORRECTION)	-016 ~ +016	000
DY [ASPECT]			
D[Y01]	NTSC OVERSCAN V.SIZE	-064 ~ +064	-006
D[Y02]	NTSC OVERSCAN V.POSITION	-064 ~ +064	000
D[Y03]	NTSC OVERSCAN SIDE PIN DISTORTION	-032 ~ +032	000
D[Y04]	NTSC UNDERSCAN V.SIZE	-064 ~ +064	-008
D[Y05]	NTSC UNDERSCAN V.POSITION	-064 ~ +064	000
D[Y06]	NTSC UNDERSCAN SIDE PIN DISTORTION	-032 ~ +032	000
D[Y07]	PAL OVERSCAN V.SIZE	-064 ~ +064	-006
D[Y08]	PAL OVERSCAN V.POSITION	-064 ~ +064	000
D[Y09]	PAL OVERSCAN SIDE PIN DISTORTION	-032 ~ +032	000
D[Y10]	PAL UNDERSCAN V.SIZE	-064 ~ +064	-008
D[Y11]	PAL UNDERSCAN V.POSITION	-064 ~ +064	000
D[Y12]	PAL UNDERSCAN SIDE PIN DISTORTION	-032 ~ +032	000
D[Y13]	480/60i OVERSCAN V.SIZE	-064 ~ +064	-006
D[Y14]	480/60i OVERSCAN V.POSITION	-064 ~ +064	000
D[Y15]	480/60i OVERSCAN SIDE PIN DISTORTION	-032 ~ +032	000
D[Y16]	480/60i UNDERSCAN V.SIZE	-064 ~ +064	-008
D[Y17]	480/60i UNDERSCAN V.POSITION	-064 ~ +064	000
D[Y18]	480/60i UNDERSCAN SIDE PIN DISTORTION	-032 ~ +032	000
D[Y19]	576/50i OVERSCAN V.SIZE	-064 ~ +064	-006
D[Y20]	576/50i OVERSCAN V.POSITION	-064 ~ +064	000
D[Y21]	576/50i OVERSCAN SIDE PIN DISTORTION	-032 ~ +032	000
D[Y22]	576/50i UNDERSCAN V.SIZE	-064 ~ +064	-008

Item No.	Item name	Vriable range	Setting value
D[Y23]	576/50i UNDERSCAN V.POSITION	-064 ~ +064	000
D[Y24]	576/50i UNDERSCAN SIDE PIN DISTORTION	-032 ~ +032	000
D[Y25]	480/60p OVERSCAN V.SIZE	-064 ~ +064	-006
D[Y26]	480/60p OVERSCAN V.POSITION	-064 ~ +064	000
D[Y27]	480/60p OVERSCAN SIDE PIN DISTORTION	-032 ~ +032	000
D[Y28]	480/60p UNDERSCAN V.SIZE	-064 ~ +064	-008
D[Y29]	480/60p UNDERSCAN V.POSITION	-064 ~ +064	000
D[Y30]	480/60p UNDERSCAN SIDE PIN DISTORTION	-032 ~ +032	000
D[Y31]	576/50p OVERSCAN V.SIZE	-064 ~ +064	-006
D[Y32]	576/50p OVERSCAN V.POSITION	-064 ~ +064	000
D[Y33]	576/50p OVERSCAN SIDE PIN DISTORTION	-032 ~ +032	000
D[Y34]	576/50p UNDERSCAN V.SIZE	-064 ~ +064	-008
D[Y35]	576/50p UNDERSCAN V.POSITION	-064 ~ +064	000
D[Y36]	576/50p UNDERSCAN SIDE PIN DISTORTION	-032 ~ +032	000
DZ [----] *Not used			
D[Z01]	45 ~ 55Hz V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[Z02]	45 ~ 55Hz V.LINEARITY (C CORRECTION)	-016 ~ +016	000
D[Z03]	45 ~ 55Hz FOCUS (PARABOLA)	-032 ~ +032	000
D[Z04]	55 ~ 65Hz V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[Z05]	55 ~ 65Hz V.LINEARITY (C CORRECTION)	-016 ~ +016	000
D[Z06]	55 ~ 65Hz FOCUS (PARABOLA)	-032 ~ +032	000
D[Z07]	720/50p 720/60p V.LINEARITY (S CORRECTION)	-016 ~ +016	000
D[Z08]	720/50p 720/60p V.LINEARITY (C CORRECTION)	-016 ~ +016	000
D[Z09]	720/50p 720/60p FOCUS (PARABOLA)	-032 ~ +032	000
D1 [ROTATION/PURITY]			
D[101]	ROTATION	-032 ~ +031	000
D[102]	PURITY	-032 ~ +031	000
D2 [COMMON]			
D[201]	H.SIZE	000 ~ 127	064
D[202]	V.SIZE	000 ~ 127	068
D[203]	H.POSITION	000 ~ 127	048
D[204]	V.POSITION	000 ~ 127	107
D[205]	SIDE PIN DISTORTION	000 ~ 063	063
D[206]	CORNER DISTORTION (W)	000 ~ 063	031
D[207]	CORNER DISTORTION (S)	000 ~ 063	031
D[208]	PARALLELOGRAM DISTORTION	000 ~ 063	023
D[209]	TRAPEZOIDAL DISTORTION	000 ~ 063	031
D[210]	H.ARC DISTORTION	000 ~ 063	031
D[211]	V.LINEARITY (S CORRECTION)	000 ~ 031	020
D[212]	V.LINEARITY (C CORRECTION)	000 ~ 031	013
D[213]	V.MAX SIZE CONTROL	000 ~ 031	016
D[214]	FOCUS (PHASE)	000 ~ 063	031
D[215]	FOCUS (PARABOLA)	000 ~ 063	031
D3 [----] *Not used			
D[301]	H.SIZE	-064 ~ +064	-017
D[302]	V.SIZE	-064 ~ +064	-050
D[303]	H.POSITION	-064 ~ +064	000
D[304]	V.POSITION	-064 ~ +064	000
D[305]	SIDE PIN DISTORTION	-032 ~ +032	000

4.7.4 CPU BLOCK (*Item is not used)

Item No.	Item name	Vriable range	Setting value
CA [MENU]			
C[A01]	MENU DISPLAY TIME SETTING	000 ~ 001	000
C[A02]	MENU COLOR SETTING	000 ~ 008	000
C[A03]	ID SETTING	000 ~ 099	000
C[A04]	FPGA TEST PATTERN	000 ~ 255	000
*C[A05]	MENU HELP COLOR	000 ~ 255	000
C[A06]	OSDU DISPLAY TIME SETTING	000 ~ 255	003
C[A07]	NO-SYNC SIZE DATA CORRECTION	000 ~ 255	030
C[A08]	EMBEDDED AUDIO CONTROL	000 ~ 001	000
C[A09]	EMBEDDED AUDIO LEVEL	000 ~ 001	000
C[A10]	DEGAUSS_DELAY SETTING VALUE	000 ~ 255	005
CB [SIGNAL]			
C[B01]	CONTRAST MIN.	-255 ~ 000	-065
C[B02]	CONTRAST MAX.	000 ~ 255	035
C[B03]	BRIGHT MIN.	-255 ~ 000	-040
C[B04]	BRIGHT MAX.	000 ~ 255	025
C[B05]	CHROMA MIN.	-255 ~ 000	-040
C[B06]	CHROMA MAX.	000 ~ 255	040
C[B07]	PHASE MIN.	-255 ~ 000	-030

Item No.	Item name	Vriable range	Setting value
C[B08]	PHASE MAX.	000 ~ 255	030
C[B09]	APERTURE MIN.	-255 ~ 000	000
C[B10]	APERTURE MAX.	000 ~ 255	090
C[B11]	B DRIVE MIN.	000 ~ 127	000
C[B12]	B DRIVE MAX.	000 ~ 127	127
C[B13]	R DRIVE MIN.	000 ~ 127	000
C[B14]	R DRIVE MAX.	000 ~ 127	127
C[B15]	G CUTOFF MIN.	000 ~ 255	100
C[B16]	G CUTOFF MAX.	000 ~ 255	255
C[B17]	B CUTOFF MIN.	000 ~ 255	100
C[B18]	B CUTOFF MAX.	000 ~ 255	255
C[B19]	R CUTOFF MIN.	000 ~ 255	100
C[B20]	R CUTOFF MAX.	000 ~ 255	255
CC [SETTING]			
C[C01]	V LEADING RESET TIME	000 ~ 255	063
C[C02]	SIGNAL CHANGE WAITING TIMER	000 ~ 100	030
C[C03]	RS-232C TRANSMISSION RATE	000 ~ 002	000
*C[C04]	FV VOLTAGE DISTINCTION ERROR	000 ~ 255	130
*C[C05]	COMPONENT 27K FV VALUE	000 ~ 255	131
*C[C06]	COMPONENT 28K FV VALUE	000 ~ 255	189
*C[C07]	COMPONENT 31K FV VALUE	000 ~ 255	174
*C[C08]	COMPONENT 33K FV VALUE	000 ~ 255	164
*C[C09]	COMPONENT 45K FV VALUE	000 ~ 255	113
C[C10]	COMPONENT NTSC 15K FV VALUE	000 ~ 255	245
C[C11]	COMPONENT PAL FV VALUE	000 ~ 255	246
*C[C12]	COMPONENT 37K FV VALUE	000 ~ 255	140
C[C13]	DELAY TIME -SLOW	000 ~ 255	032
C[C14]	NTSC SET-UP -BRIGHT	-128 ~ +127	000
C[C15]	COMPONENT LEVEL(SMPTE) -BRIGHT	-128 ~ +127	000
C[C16]	COMPONENT LEVEL(SMPTE) -CHROMA	-064 ~ +063	000
C[C17]	COMPONENT LEVEL(SMPTE) -PHASE	-064 ~ +063	000
C[C18]	COMPONENT LEVEL(B75) -BRIGHT	-128 ~ +127	000
C[C19]	COMPONENT LEVEL(B75) -CHROMA	-064 ~ +063	-018
C[C20]	COMPONENT LEVEL(B75) -PHASE	-064 ~ +063	000
C[C21]	COMPONENT LEVEL(B00) -BRIGHT	-128 ~ +127	000
C[C22]	COMPONENT LEVEL(B00) -CHROMA	-064 ~ +063	-018
C[C23]	COMPONENT LEVEL(B00) -PHASE	-064 ~ +063	000
C[C24]	H.POSITION CORRECTION (BW60)	-064 ~ +063	+019
C[C25]	H.POSITION CORRECTION (BW50)	-064 ~ +063	+016
C[C26]	V.POSITION CORRECTION (16:9)	-064 ~ +063	000
*C[C27]	etc. PLUSE CROSS -B CUTOFF	-128 ~ +127	000
C[C28]	APERTURE OFF CONTRAST	-064 ~ +063	000
C[C29]	APERTURE 15K FILTER SELECT (L)	000 ~ 007	003
C[C30]	APERTURE 28K FILTER SELECT (L)	000 ~ 007	003
C[C31]	APERTURE 31K FILTER SELECT (L)	000 ~ 007	003
C[C32]	APERTURE 33K FILTER SELECT (L)	000 ~ 007	003
C[C33]	APERTURE 45K FILTER SELECT (L)	000 ~ 007	003
C[C34]	APERTURE 15K FILTER SELECT (H)	000 ~ 007	001
C[C35]	APERTURE 28K FILTER SELECT (H)	000 ~ 007	001
C[C36]	APERTURE 31K FILTER SELECT (H)	000 ~ 007	001
C[C37]	APERTURE 33K FILTER SELECT (H)	000 ~ 007	001
C[C38]	APERTURE 45K FILTER SELECT (H)	000 ~ 007	001
C[C39]	B1 ADJUST	-064 ~ +063	007
C[C40]	OSD VR BAR ON/OFF	000 ~ 001	000
C[C41]	OSD VR BAR SELECT	000 ~ 003	000
C[C42]	15K NO-SYNC OSD V.POSITION	000 ~ 255	145
C[C43]	ASPECT 4:3 V.SIZE MAX	000 ~ 031	025
C[C44]	ASPECT 16:9 V.SIZE MAX	000 ~ 031	000
C[C45]	ASPECT TRAPEZOIDAL DISTORTION CORRECTION	-032 ~ +032	000
*C[C46]	H.SIZE DATA VALUE (at SIGNAL CHANGE)	000 ~ 255	010
CD [DEFLECTION]			
C[D01]	NO-SYNC H.SIZE	-064 ~ +063	000
C[D02]	NO-SYNC V.SIZE	-064 ~ +063	000
C[D03]	NO-SYNC H.POSITION	-064 ~ +063	000
C[D04]	NO-SYNC V.POSITION	-064 ~ +063	000
CE [OSD etc]			
C[E01]	RANGE OF H.SYNC DETECTION ERROR	000 ~ 100	006
C[E02]	RANGE OF V.SYNC DETECTION ERROR	000 ~ 100	005
C[E03]	STATUS DISPLAY BEGINNING DELAY	000 ~ 100	030
C[E04]	SIGNAL DETECTION NUMBER OF TIMES SETTING	000 ~ 100	004
C[E05]	NTSC, 480/60i CORNER DISTORTION (W)	-032 ~ +031	000
C[E06]	NTSC, 480/60i CORNER DISTORTION (S)	-032 ~ +031	000
C[E07]	NTSC, 480/60i PARALLELOGRAM DISTORTION	-032 ~ +031	000

Item No.	Item name	Variable range	Setting value
C[E08]	NTSC, 480/60i TRAPEZOIDAL DISTORTION	-032 ~ +031	000
C[E09]	NTSC, 480/60i H.ARC DISTORTION	-032 ~ +031	000
C[E10]	PAL, 576/50i CORNER DISTORTION (W)	-032 ~ +031	000
C[E11]	PAL, 576/50i CORNER DISTORTION (S)	-032 ~ +031	000
C[E12]	PAL, 576/50i PARALLELOGRAM DISTORTION	-032 ~ +031	000
C[E13]	PAL, 576/50i TRAPEZOIDAL DISTORTION	-032 ~ +031	000
C[E14]	PAL, 576/50i H.ARC DISTORTION	-032 ~ +031	000
C[E15]	480/60p CORNER DISTORTION (W)	-032 ~ +031	000
C[E16]	480/60p CORNER DISTORTION (S)	-032 ~ +031	000
C[E17]	480/60p PARALLELOGRAM DISTORTION	-032 ~ +031	000
C[E18]	480/60p TRAPEZOIDAL DISTORTION	-032 ~ +031	000
C[E19]	480/60p H.ARC DISTORTION	-032 ~ +031	000
C[E20]	576/50p CORNER DISTORTION (W)	-032 ~ +031	000
C[E21]	576/50p CORNER DISTORTION (S)	-032 ~ +031	000
C[E22]	576/50p PARALLELOGRAM DISTORTION	-032 ~ +031	000
C[E23]	576/50p TRAPEZOIDAL DISTORTION	-032 ~ +031	000
C[E24]	576/50p H.ARC DISTORTION	-032 ~ +031	000
*C[E25]	BRIGHT VALUE (at V OFF)	000 ~ 255	000
C[E26]	SIGNAL CHANGE WAITING TIMER (V OUT of RANGE)	000 ~ 255	032

4.7.5 UPC1884 ADJ. (*Fixed values)

Item No.	Item name	Variable range	Setting value
U[P01]	H.FREQ.DET.MODE H.F/V MIN OSC	000 ~ 255	031
U[P02]	H-IN POLARITY CTRL AUTO, H. F/V SENSE	000 ~ 255	031
U[P03]	H. F/V CONTROL	000 ~ 255	128
U[P04]	FV CONTROL, H. OUTPUT, H.PLL CONTORL H.DUTY	000 ~ 255	015
U[P05]	20mSEC COUNTER	000 ~ 255	128
U[P06]	I2C-BUS WRITE, BCONT, WINK OUTPUT	000 ~ 255	064
U[P07]	CLAMP CONTROL, SIDE PIN	000 ~ 255	031
U[P08]	H-IN SELECT, PARALLELOGRAM CONTROL	000 ~ 255	031
U[P09]	WINK OUTPUT, V.POSITION	000 ~ 255	070
U[P10]	500K OSC, SIDE PIN W	000 ~ 255	065
U[P11]	VIDEO BLK OUTPUT, SIDE PIN	000 ~ 255	065
U[P12]	PIN2 OUTPUT, TRAPEZOID	000 ~ 255	031
U[P13]	F.H OSC MAX., H.SIZE	000 ~ 255	000
U[P14]	V LOCK, V.SIZE	000 ~ 255	000
U[P15]	V SYNC SEP., V.POSITION	000 ~ 255	001
U[P16]	V-IN SELECT, V. S LINEARITY	000 ~ 255	159
U[P17]	V MOIRE (d4-d3), V. C LINEARITY	000 ~ 255	015
U[P18]	V MOIRE 2 (d2-d0), V. OUTPUT MAX SIZE	000 ~ 255	015
U[P19]	SIDE PIN S	000 ~ 255	065
U[P20]	DF SELECT H. DYNAMIC FOCUS	000 ~ 255	031
U[P21]	H.DYNAMIC FOCUS PARABORA	000 ~ 255	031
U[P22]	V-IN POLARITY, H MOIRE	000 ~ 255	000

4.7.6 TA1276 ADJ. (*Fixed values)

Item No.	Item name	Variable range	Setting value
T[A01]	P-MUTE, CONTRAST	000 ~ 255	192
T[A02]	BRIGHT	000 ~ 255	128
T[A03]	CHROMA, Y-MUTE	000 ~ 255	129
T[A04]	TINT, YM-SW	000 ~ 255	128
T[A05]	SHARPNESS, YNR	000 ~ 255	000
T[A06]	RGB CONTRAST, WP5L	000 ~ 255	000
T[A07]	HI-BRT, RGB CONTRAST	000 ~ 255	000
T[A08]	SUB COLOR COLOR γ , CLT	000 ~ 255	129
T[A09]	SUB CONTRAST, Y- γ CURVE, FLESH	000 ~ 255	248
T[A10]	R DRIVE, DR-SW	000 ~ 255	128
T[A11]	B DRIVE, CDE	000 ~ 255	129
T[A12]	H.POSITION, HV-SEPL, V-OFF H-BLK	000 ~ 255	000
T[A13]	RCUTOFF	000 ~ 255	100
T[A14]	G CUTOFF	000 ~ 255	100
T[A15]	B CUTOFF	000 ~ 255	100
T[A16]	R-Y PHASE, R/B GAIN, G/B GAIN, G-Y PHASE	000 ~ 255	004
T[A17]	COLOR SYSTEM, P/N - ID, BB SW, OSD-SL, OS-ACL, TX-ACL	000 ~ 255	211
T[A18]	VSM PHASE, VSM GAIN, APACON PEAK FREQ., VSM-PB	000 ~ 255	000

Item No.	Item name	Variable range	Setting value
T[A19]	DC RESTORATION POINT, DC RESTORTION RATE, DE RESTTORTION LIMIT	000 ~ 255	000
T[A20]	BLACK STRETCH POINT, APL VS BPS, Y- γ PNT, VSM-H.PB FREQ.	000 ~ 255	000
T[A21]	SHR-TRACKING, TEST, RGB- γ , B.L.C, B.S.G, B.D.L, BS-ARE	000 ~ 255	199
T[A22]	DYNAMIC ABL POINT, DYNAMIC ABL GAIN, AKB MODE	000 ~ 255	001
T[A23]	ABL POINT, ABL GAIN, RGB OUT MODE	000 ~ 255	000
T[A24]	HD-OUT, V-BLK, V.FREQ., V.POSITION	000 ~ 255	064
T[A25]	Y-DL, C-TRAP, TOF FREQ., TOF-Q	000 ~ 255	000

4.7.7 SET FPGA : 100%_AREA (*Fixed value)

Item No.	Item name	Variable range	Setting value
IA [VIDEO-NTSC]			
I[A01]	AREA MARKER H.POSITION START	-128 ~ +127	+013
I[A02]	AREA MARKER H.POSITION END	-128 ~ +127	+017
I[A03]	AREA MARKER V.POSITION START	-128 ~ +127	+002
I[A04]	AREA MARKER V.POSITION END	-128 ~ +127	-001
IB [----] *Not used			
I[B01]	AREA MARKER H.POSITION START	-128 ~ +127	000
I[B02]	AREA MARKER H.POSITION END	-128 ~ +127	000
I[B03]	AREA MARKER V.POSITION START	-128 ~ +127	000
I[B04]	AREA MARKER V.POSITION END	-128 ~ +127	000
IC [VIDEO-PAL]			
I[C01]	AREA MARKER H.POSITION START	-128 ~ +127	+007
I[C02]	AREA MARKER H.POSITION END	-128 ~ +127	+010
I[C03]	AREA MARKER V.POSITION START	-128 ~ +127	+003
I[C04]	AREA MARKER V.POSITION END	-128 ~ +127	-001
ID [----] *Not used			
I[D01]	AREA MARKER H.POSITION START	-128 ~ +127	000
I[D02]	AREA MARKER H.POSITION END	-128 ~ +127	000
I[D03]	AREA MARKER V.POSITION START	-128 ~ +127	000
I[D04]	AREA MARKER V.POSITION END	-128 ~ +127	000
IE [COMP.-480/60i]			
I[E01]	AREA MARKER H.POSITION START	-128 ~ +127	+008
I[E02]	AREA MARKER H.POSITION END	-128 ~ +127	+019
I[E03]	AREA MARKER V.POSITION START	-128 ~ +127	+002
I[E04]	AREA MARKER V.POSITION END	-128 ~ +127	+003
IF [COMP.-576/50i]			
I[F01]	AREA MARKER H.POSITION START	-128 ~ +127	+002
I[F02]	AREA MARKER H.POSITION END	-128 ~ +127	+012
I[F03]	AREA MARKER V.POSITION START	-128 ~ +127	+002
I[F04]	AREA MARKER V.POSITION END	-128 ~ +127	+002
IG [----] *Not used			
I[G01]	AREA MARKER H.POSITION START	-128 ~ +127	000
I[G02]	AREA MARKER H.POSITION END	-128 ~ +127	000
I[G03]	AREA MARKER V.POSITION START	-128 ~ +127	000
I[G04]	AREA MARKER V.POSITION END	-128 ~ +127	000
IH [----] *Not used			
I[H01]	AREA MARKER H.POSITION START	-128 ~ +127	000
I[H02]	AREA MARKER H.POSITION END	-128 ~ +127	000
I[H03]	AREA MARKER V.POSITION START	-128 ~ +127	000
I[H04]	AREA MARKER V.POSITION END	-128 ~ +127	000
II [----] *Not used			
I[I01]	AREA MARKER H.POSITION START	-128 ~ +127	+004
I[I02]	AREA MARKER H.POSITION END	-128 ~ +127	+020
I[I03]	AREA MARKER V.POSITION START	-128 ~ +127	-007
I[I04]	AREA MARKER V.POSITION END	-128 ~ +127	+003
IJ [----] *Not used			
I[J01]	AREA MARKER H.POSITION START	-128 ~ +127	+005
I[J02]	AREA MARKER H.POSITION END	-128 ~ +127	+020
I[J03]	AREA MARKER V.POSITION START	-128 ~ +127	-018
I[J04]	AREA MARKER V.POSITION END	-128 ~ +127	-018
IK [----] *Not used			
I[K01]	AREA MARKER H.POSITION START	-128 ~ +127	+002

[illegible]

Item No.	Item name	Vriable range	Setting value
FM [-----]	*Not used		
F[M01]	AREA MARKER H.POSI/V.POSI START (4:3, 80%)	-128 ~ +127	000
F[M02]	AREA MARKER H.POSI/V.POSI END (4:3, 80%)	-128 ~ +127	000
F[M03]	AREA MARKER H.POSI/V.POSI START (4:3, 88%)	-128 ~ +127	000
F[M04]	AREA MARKER H.POSI/V.POSI END (4:3, 88%)	-128 ~ +127	000
F[M05]	AREA MARKER H.POSI/V.POSI START (4:3, 90%)	-128 ~ +127	000
F[M06]	AREA MARKER H.POSI/V.POSI END (4:3, 90%)	-128 ~ +127	000
F[M07]	AREA MARKER H.POSI/V.POSI START (13:9, 80%)	-128 ~ +127	000
F[M08]	AREA MARKER H.POSI/V.POSI END (13:9, 80%)	-128 ~ +127	000
F[M09]	AREA MARKER H.POSI/V.POSI START (13:9, 88%)	-128 ~ +127	000
F[M10]	AREA MARKER H.POSI/V.POSI END (13:9, 88%)	-128 ~ +127	000
F[M11]	AREA MARKER H.POSI/V.POSI START (13:9, 90%)	-128 ~ +127	000
F[M12]	AREA MARKER H.POSI/V.POSI END (13:9, 90%)	-128 ~ +127	000
F[M13]	AREA MARKER H.POSI/V.POSI START (14:9, 80%)	-128 ~ +127	000
F[M14]	AREA MARKER H.POSI/V.POSI END (14:9, 80%)	-128 ~ +127	000
F[M15]	AREA MARKER H.POSI/V.POSI START (14:9, 88%)	-128 ~ +127	000
F[M16]	AREA MARKER H.POSI/V.POSI END (14:9, 88%)	-128 ~ +127	000
F[M17]	AREA MARKER H.POSI/V.POSI START (14:9, 90%)	-128 ~ +127	000
F[M18]	AREA MARKER H.POSI/V.POSI END (14:9, 90%)	-128 ~ +127	000
F[M19]	AREA MARKER H.POSI/V.POSI START (16:9, 80%)	-128 ~ +127	000
F[M20]	AREA MARKER H.POSI/V.POSI END (16:9, 80%)	-128 ~ +127	000
F[M21]	AREA MARKER H.POSI/V.POSI START (16:9, 88%)	-128 ~ +127	000
F[M22]	AREA MARKER H.POSI/V.POSI END (16:9, 88%)	-128 ~ +127	000
F[M23]	AREA MARKER H.POSI/V.POSI START (16:9, 90%)	-128 ~ +127	000
F[M24]	AREA MARKER H.POSI/V.POSI END (16:9, 90%)	-128 ~ +127	000
FN [-----]	*Not used		
F[N01]	AREA MARKER H.POSI/V.POSI START (4:3, 80%)	-128 ~ +127	000
F[N02]	AREA MARKER H.POSI/V.POSI END (4:3, 80%)	-128 ~ +127	000
F[N03]	AREA MARKER H.POSI/V.POSI START (4:3, 88%)	-128 ~ +127	000
F[N04]	AREA MARKER H.POSI/V.POSI END (4:3, 88%)	-128 ~ +127	000
F[N05]	AREA MARKER H.POSI/V.POSI START (4:3, 90%)	-128 ~ +127	000
F[N06]	AREA MARKER H.POSI/V.POSI END (4:3, 90%)	-128 ~ +127	000
F[N07]	AREA MARKER H.POSI/V.POSI START (13:9, 80%)	-128 ~ +127	000
F[N08]	AREA MARKER H.POSI/V.POSI END (13:9, 80%)	-128 ~ +127	000
F[N09]	AREA MARKER H.POSI/V.POSI START (13:9, 88%)	-128 ~ +127	000
F[N10]	AREA MARKER H.POSI/V.POSI END (13:9, 88%)	-128 ~ +127	000
F[N11]	AREA MARKER H.POSI/V.POSI START (13:9, 90%)	-128 ~ +127	000
F[N12]	AREA MARKER H.POSI/V.POSI END (13:9, 90%)	-128 ~ +127	000
F[N13]	AREA MARKER H.POSI/V.POSI START (14:9, 80%)	-128 ~ +127	000
F[N14]	AREA MARKER H.POSI/V.POSI END (14:9, 80%)	-128 ~ +127	000
F[N15]	AREA MARKER H.POSI/V.POSI START (14:9, 88%)	-128 ~ +127	000
F[N16]	AREA MARKER H.POSI/V.POSI END (14:9, 88%)	-128 ~ +127	000
F[N17]	AREA MARKER H.POSI/V.POSI START (14:9, 90%)	-128 ~ +127	000
F[N18]	AREA MARKER H.POSI/V.POSI END (14:9, 90%)	-128 ~ +127	000
F[N19]	AREA MARKER H.POSI/V.POSI START (16:9, 80%)	-128 ~ +127	000
F[N20]	AREA MARKER H.POSI/V.POSI END (16:9, 80%)	-128 ~ +127	000
F[N21]	AREA MARKER H.POSI/V.POSI START (16:9, 88%)	-128 ~ +127	000
F[N22]	AREA MARKER H.POSI/V.POSI END (16:9, 88%)	-128 ~ +127	000
F[N23]	AREA MARKER H.POSI/V.POSI START (16:9, 90%)	-128 ~ +127	000
F[N24]	AREA MARKER H.POSI/V.POSI END (16:9, 90%)	-128 ~ +127	000

4.7.10 SET : H.BLANKING (*Fixed values)

Item No.	Item name	Vriable range	Setting value
BA [VIDEO-NTSC]			
B[A01]	H.BLK START POSITION (NORMAL)	-128 ~ +127	-055
B[A02]	H.BLK END POSITION (NORMAL)	-128 ~ +127	-053
B[A03]	H.BLK START POSITION (UNDER)	-128 ~ +127	-053
B[A04]	H.BLK END POSITION (UNDER)	-128 ~ +127	-057
B[A05]	H.BLK START POSITION (ZOOM)	-128 ~ +127	000
B[A06]	H.BLK END POSITION (ZOOM)	-128 ~ +127	000
B[A07]	H.BLK START POSITION (PULSE)	-128 ~ +127	000
B[A08]	H.BLK END POSITION (PULSE)	-128 ~ +127	000
BB [-----] *Not used			
B[B01]	H.BLK START POSITION (NORMAL)	-128 ~ +127	000
B[B02]	H.BLK END POSITION (NORMAL)	-128 ~ +127	000
B[B03]	H.BLK START POSITION (UNDER)	-128 ~ +127	000
B[B04]	H.BLK END POSITION (UNDER)	-128 ~ +127	000
B[B05]	H.BLK START POSITION (ZOOM)	-128 ~ +127	000
B[B06]	H.BLK END POSITION (ZOOM)	-128 ~ +127	000
B[B07]	H.BLK START POSITION (PULSE)	-128 ~ +127	000
B[B08]	H.BLK END POSITION (PULSE)	-128 ~ +127	000

Item No.	Item name	Vriable range	Setting value
BC [VIDEO-PAL]			
B[C01]	H.BLK START POSITION (NORMAL)	-128 ~ +127	-045
B[C02]	H.BLK END POSITION (NORMAL)	-128 ~ +127	-022
B[C03]	H.BLK START POSITION (UNDER)	-128 ~ +127	-043
B[C04]	H.BLK END POSITION (UNDER)	-128 ~ +127	-025
B[C05]	H.BLK START POSITION (ZOOM)	-128 ~ +127	000
B[C06]	H.BLK END POSITION (ZOOM)	-128 ~ +127	000
B[C07]	H.BLK START POSITION (PULSE)	-128 ~ +127	000
B[C08]	H.BLK END POSITION (PULSE)	-128 ~ +127	000
BD [----] *Not used			
B[D01]	H.BLK START POSITION (NORMAL)	-128 ~ +127	000
B[D02]	H.BLK END POSITION (NORMAL)	-128 ~ +127	000
B[D03]	H.BLK START POSITION (UNDER)	-128 ~ +127	000
B[D04]	H.BLK END POSITION (UNDER)	-128 ~ +127	000
B[D05]	H.BLK START POSITION (ZOOM)	-128 ~ +127	000
B[D06]	H.BLK END POSITION (ZOOM)	-128 ~ +127	000
B[D07]	H.BLK START POSITION (PULSE)	-128 ~ +127	000
B[D08]	H.BLK END POSITION (PULSE)	-128 ~ +127	000
BE [COMP.-480/60i]			
B[E01]	H.BLK START POSITION (NORMAL)	-128 ~ +127	-010
B[E02]	H.BLK END POSITION (NORMAL)	-128 ~ +127	-005
B[E03]	H.BLK START POSITION (UNDER)	-128 ~ +127	-010
B[E04]	H.BLK END POSITION (UNDER)	-128 ~ +127	-010
B[E05]	H.BLK START POSITION (ZOOM)	-128 ~ +127	000
B[E06]	H.BLK END POSITION (ZOOM)	-128 ~ +127	000
B[E07]	H.BLK START POSITION (PULSE)	-128 ~ +127	000
B[E08]	H.BLK END POSITION (PULSE)	-128 ~ +127	000
BF [COMP.-576/50i]			
B[F01]	H.BLK START POSITION (NORMAL)	-128 ~ +127	-016
B[F02]	H.BLK END POSITION (NORMAL)	-128 ~ +127	-006
B[F03]	H.BLK START POSITION (UNDER)	-128 ~ +127	-013
B[F04]	H.BLK END POSITION (UNDER)	-128 ~ +127	-005
B[F05]	H.BLK START POSITION (ZOOM)	-128 ~ +127	000
B[F06]	H.BLK END POSITION (ZOOM)	-128 ~ +127	000
B[F07]	H.BLK START POSITION (PULSE)	-128 ~ +127	000
B[F08]	H.BLK END POSITION (PULSE)	-128 ~ +127	000
BG [----] *Not used			
B[G01]	H.BLK START POSITION (NORMAL)	-128 ~ +127	000
B[G02]	H.BLK END POSITION (NORMAL)	-128 ~ +127	000
B[G03]	H.BLK START POSITION (UNDER)	-128 ~ +127	000
B[G04]	H.BLK END POSITION (UNDER)	-128 ~ +127	000
B[G05]	H.BLK START POSITION (ZOOM)	-128 ~ +127	000
B[G06]	H.BLK END POSITION (ZOOM)	-128 ~ +127	000
B[G07]	H.BLK START POSITION (PULSE)	-128 ~ +127	000
B[G08]	H.BLK END POSITION (PULSE)	-128 ~ +127	000
BH [----] *Not used			
B[H01]	H.BLK START POSITION (NORMAL)	-128 ~ +127	000
B[H02]	H.BLK END POSITION (NORMAL)	-128 ~ +127	000
B[H03]	H.BLK START POSITION (UNDER)	-128 ~ +127	000
B[H04]	H.BLK END POSITION (UNDER)	-128 ~ +127	000
B[H05]	H.BLK START POSITION (ZOOM)	-128 ~ +127	000
B[H06]	H.BLK END POSITION (ZOOM)	-128 ~ +127	000
B[H07]	H.BLK START POSITION (PULSE)	-128 ~ +127	000
B[H08]	H.BLK END POSITION (PULSE)	-128 ~ +127	000
BI [----] *Not used			
B[I01]	H.BLK START POSITION (NORMAL)	-128 ~ +127	000
B[I02]	H.BLK END POSITION (NORMAL)	-128 ~ +127	-007
B[I03]	H.BLK START POSITION (UNDER)	-128 ~ +127	-002
B[I04]	H.BLK END POSITION (UNDER)	-128 ~ +127	-003
B[I05]	H.BLK START POSITION (ZOOM)	-128 ~ +127	-001
B[I06]	H.BLK END POSITION (ZOOM)	-128 ~ +127	+001
B[I07]	H.BLK START POSITION (PULSE)	-128 ~ +127	000
B[I08]	H.BLK END POSITION (PULSE)	-128 ~ +127	000
BJ [----] *Not used			
B[J01]	H.BLK START POSITION (NORMAL)	-128 ~ +127	-006
B[J02]	H.BLK END POSITION (NORMAL)	-128 ~ +127	-007
B[J03]	H.BLK START POSITION (UNDER)	-128 ~ +127	-012
B[J04]	H.BLK END POSITION (UNDER)	-128 ~ +127	-005
B[J05]	H.BLK START POSITION (ZOOM)	-128 ~ +127	-010
B[J06]	H.BLK END POSITION (ZOOM)	-128 ~ +127	+005
B[J07]	H.BLK START POSITION (PULSE)	-128 ~ +127	000
B[J08]	H.BLK END POSITION (PULSE)	-128 ~ +127	000

Item No.	Item name	Vriable range	Setting value
BK [----] *Not used			
B[K01]	H.BLK START POSITION (NORMAL)	-128 ~ +127	-003
B[K02]	H.BLK END POSITION (NORMAL)	-128 ~ +127	-012
B[K03]	H.BLK START POSITION (UNDER)	-128 ~ +127	-009
B[K04]	H.BLK END POSITION (UNDER)	-128 ~ +127	-007
B[K05]	H.BLK START POSITION (ZOOM)	-128 ~ +127	-018
B[K06]	H.BLK END POSITION (ZOOM)	-128 ~ +127	-002
B[K07]	H.BLK START POSITION (PULSE)	-128 ~ +127	000
B[K08]	H.BLK END POSITION (PULSE)	-128 ~ +127	000
BL [----] *Not used			
B[L01]	H.BLK START POSITION (NORMAL)	-128 ~ +127	-007
B[L02]	H.BLK END POSITION (NORMAL)	-128 ~ +127	-010
B[L03]	H.BLK START POSITION (UNDER)	-128 ~ +127	-017
B[L04]	H.BLK END POSITION (UNDER)	-128 ~ +127	-015
B[L05]	H.BLK START POSITION (ZOOM)	-128 ~ +127	-013
B[L06]	H.BLK END POSITION (ZOOM)	-128 ~ +127	-006
B[L07]	H.BLK START POSITION (PULSE)	-128 ~ +127	000
B[L08]	H.BLK END POSITION (PULSE)	-128 ~ +127	000
BM [----] *Not used			
B[M01]	H.BLK START POSITION (NORMAL)	-128 ~ +127	+005
B[M02]	H.BLK END POSITION (NORMAL)	-128 ~ +127	-013
B[M03]	H.BLK START POSITION (UNDER)	-128 ~ +127	000
B[M04]	H.BLK END POSITION (UNDER)	-128 ~ +127	-020
B[M05]	H.BLK START POSITION (ZOOM)	-128 ~ +127	-015
B[M06]	H.BLK END POSITION (ZOOM)	-128 ~ +127	000
B[M07]	H.BLK START POSITION (PULSE)	-128 ~ +127	000
B[M08]	H.BLK END POSITION (PULSE)	-128 ~ +127	000
BN [----] *Not used			
B[N01]	H.BLK START POSITION (NORMAL)	-128 ~ +127	-013
B[N02]	H.BLK END POSITION (NORMAL)	-128 ~ +127	-028
B[N03]	H.BLK START POSITION (UNDER)	-128 ~ +127	-020
B[N04]	H.BLK END POSITION (UNDER)	-128 ~ +127	-021
B[N05]	H.BLK START POSITION (ZOOM)	-128 ~ +127	-006
B[N06]	H.BLK END POSITION (ZOOM)	-128 ~ +127	-002
B[N07]	H.BLK START POSITION (PULSE)	-128 ~ +127	000
B[N08]	H.BLK END POSITION (PULSE)	-128 ~ +127	000

4.8 ADJUSTMENT PROCEDURES

4.8.1 B1 VOLTAGE ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
B1 VOLTAGE	DC voltmeter Signal generator	TP-B1 [MAIN PWB] TP-E2 (GND) [LINE FILTER PWB]	SCREEN VR [FBT] [CPU BLOCK] C[C39] : B1 ADJUST	(1) Connect the DC voltmeter to TP-B1 on the MAIN PWB and TP-E2 (GND) on the LINE FILTER PWB. (2) Turn the MAIN and SUB power on. (3) Receive the NTSC crosshatch signal to INPUT A. (4) Gently turn the SCREEN VR to the left until the crosshatch pattern disappears. (5) Select "CPU BLOCK" in the SERVICE MENU. (6) Adjust < C[C39] > to set the B1 voltage to fall within $DC\ 117.0V \pm 0.2V$. (7) Gently turn the SCREEN VR to the right until the crosshatch pattern appears.

4.8.2 CRT HIGH VOLTAGE CHECK

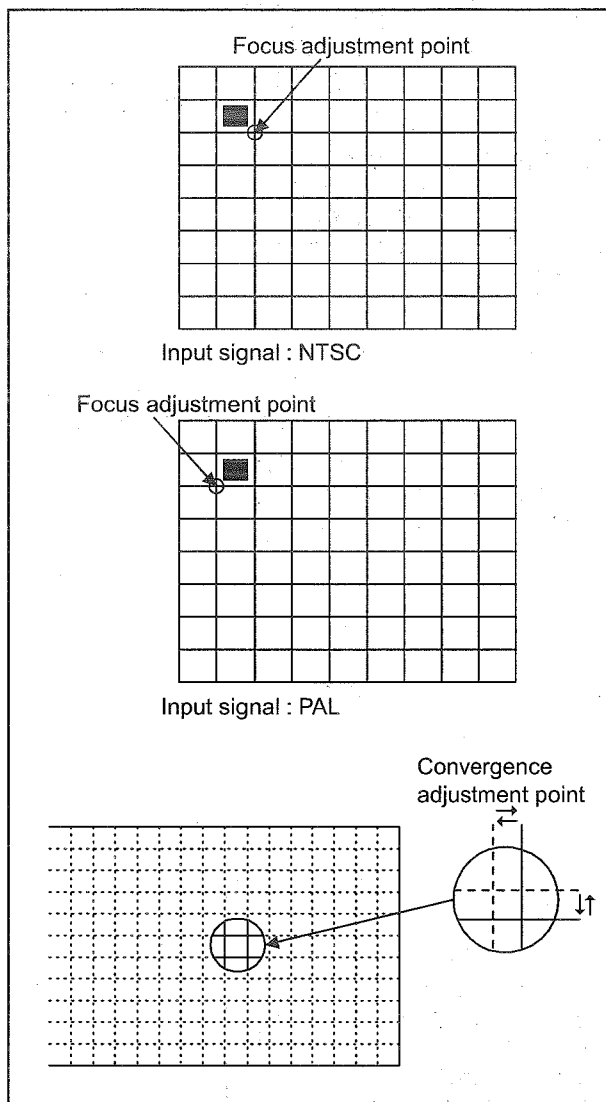
Item	Measuring instrument	Test point	Adjustment part	Description
CRT HIGH VOLTAGE	High-voltage voltmeter Signal generator	CRT anode	SCREEN VR [FBT]	• This adjustment must be done after the B1 VOLTAGE adjustment. (1) Connect the GND lead of the high-voltage voltmeter to the chassis ground. (2) Connect the high-voltage voltmeter probe to the CRT anode electrode. (3) Turn the MAIN and SUB power on. (4) Receive the NTSC crosshatch signal to INPUT A. (5) Gently turn the SCREEN VR to the left until the crosshatch pattern disappears. (6) Check the voltmeter reading is in the range of 20.7kV to 23.3kV. (7) Gently turn the SCREEN VR to the right until the crosshatch pattern appears.

4.8.3 X-RAY PROTECTOR OPERATION CHECK

Item	Measuring instrument	Test point	Adjustment part	Description
X-RAY PROTECTOR OPERATION	Signal generator Dummy load resistor (41k Ω) DC power supply (49V $\pm$ 1V)	Connector CN10S1 1-pin : X-ray1 2-pin : X-ray2 3-pin : GND [MAIN PWB]	SCREEN VR [FBT]	• This adjustment must be done after the B1 VOLTAGE adjustment. (1) Receive the NTSC crosshatch signal to INPUT A. (2) Gently turn the SCREEN VR to the left until the crosshatch pattern disappears. (3) Connect the dummy load resistor (41kΩ) to 1-pin (X-ray1) and 2-pin (X-ray2) at the connector CN10S1 on the MAIN PWB. (4) Confirm the horizontal oscillation is accordingly deactivated and no high voltage is being output. (5) Turn the MAIN power off and disconnect the dummy load resistor. (6) Turn the MAIN power on and confirm that the set starts operation in a normal manner. (7) Connect the DC power supply (49V $\pm$ 1V) to 2-pin (X-ray2) and 3-pin (GND) at the connector CN10S1 on the MAIN PWB. (8) Confirm the horizontal oscillation is accordingly deactivated and no high voltage is being output. (9) Turn the MAIN power off and disconnect the DC power supply. (10) Turn the MAIN power on and confirm that the set starts operation in a normal manner. (11) Gently turn the SCREEN VR to the right until the crosshatch pattern appears.

4.8.4 FOCUS / CONVERGENCE ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS / CONVERGENCE	Signal generator		FOCUS VR [FBT]	- This adjustment must be done after the B1 VOLTAGE adjustment. (1) Receive the NTSC crosshatch signal to INPUT A. (2) Adjust the FOCUS VR so that the vertical and horizontal lines will be clear and fine detail on the point specified in the left figure. (3) Receive the PAL crosshatch signal to INPUT A. (4) Adjust the FOCUS VR so that the vertical and horizontal lines will be clear and fine detail on the point specified in the left figure. CAUTION: The FOCUS adjustment must be done before the WHITE BALANCE adjustment. When the focus is adjusted after the WHITE BALANCE adjustment, the WHITE BALANCE adjustment must be re-done. (5) Receive the NTSC crosshatch signal to INPUT A. (6) Using 4-pole convergence magnets, overlap the red and blue lines in the centre of the screen and turn them to magenta (red/blue). (7) Using 6-pole convergence magnets, overlap the magenta (red/blue) and green lines in the centre of the screen and turn them to white. (8) Repeat (6) and (7) above, and make best convergence.



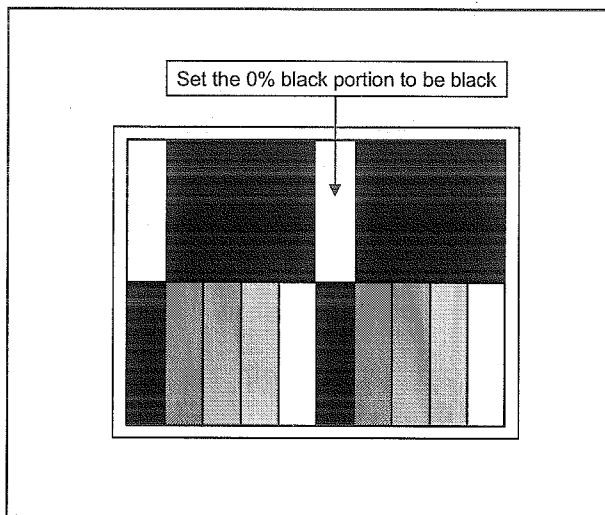
4.8.5 PURITY CORRECTION ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
PURITY CORRECTION	Signal generator		[DEFLECTION BLOCK] D[102] : PURITY (ROTATION / PURITY)	- This adjustment cancels the colour heterogeneity (unevenness) on the screen by means of a corrective function. (1) Receive a single colour signal (R, G, B or all-white) to INPUT A. (2) Select "DEFLECTION BLOCK" in the SERVICE MENU. (3) Adjust the < D[102] > value to cancel the heterogeneity.

4.8.6 VIDEO CIRCUIT ADJUSTMENTS

Item	Measuring instrument	Test point	Adjustment part	Description							
WHITE BALANCE LOW LIGHT	Signal generator		SCREEN VR [FBT] [WHITE BALANCE BLOCK] W[W04] : R CUTOFF (COMMON HIGH) W[W05] : G CUTOFF (COMMON HIGH) W[W06] : B CUTOFF (COMMON HIGH) W[X04] : R CUTOFF (COMMON LOW) W[X05] : G CUTOFF (COMMON LOW) W[X06] : B CUTOFF (COMMON LOW)	CAUTION: The values of < W[W04] > / < W[W05] > / < W[W06] > / < W[X04] > / < W[X05] > and < W[X06] > are set as the reference values. The settings for other adjusting items are therefore made as offset with respect to these reference values. In case these data are changed, all other subsequent signal data settings must be re-adjusted. (1) Receive the NTSC all-white signal to INPUT A. (2) Select "WHITE BALANCE BLOCK" in the SERVICE MENU. (3) Set the < W[W04] > / < W[W05] > and < W[W06] > values to all "100". (4) Select either of < W[W04] > / < W[W05] > or < W[W06] > and press [CONTRAST/BRIGHT] key to show the horizontal-single line adjustment screen. (5) Turn the SCREEN VR to the right until the first colour appears on the screen. (6) Increase the data other than the first colour data until the horizontal-single line becomes white. (7) Gently turn the SCREEN VR until the horizontal lines faintly appear. (8) Press the [CONTRAST/BRIGHT] key to cancel the horizontal-single line adjustment screen. (9) Set the < W[X04] > / < W[X05] > and < W[X06] > data to the same value as that of < W[W04] > / < W[W05] > and < W[W06] >. (10) Confirm if the white balance for Low-Light and High-Light are properly set. (11) If the Low-Light is found deviated, re-adjust the WHITE BALANCE LOW LIGHT. (12) Repeat (10) to (11) until the tracking is achieved.							
<table><tr><th>Setting item</th><th>Setting value</th></tr><tr><td>W[W04] R CUTOFF</td><td>100</td></tr><tr><td>W[W05] G CUTOFF</td><td>100</td></tr><tr><td>W[W06] B CUTOFF</td><td>100</td></tr></table>					Setting item	Setting value	W[W04] R CUTOFF	100	W[W05] G CUTOFF	100	W[W06] B CUTOFF
Setting item	Setting value										
W[W04] R CUTOFF	100										
W[W05] G CUTOFF	100										
W[W06] B CUTOFF	100										
WHITE BALANCE HIGH LIGHT (HIGH : D9300 / LOW : D6500)	Signal generator Colour analyzer (Colour temperature meter)		[WHITE BALANCE BLOCK] W[W01] : R DRIVE (COMMON HIGH) W[W03] : B DRIVE (COMMON HIGH) W[X01] : R DRIVE (COMMON LOW) W[X03] : B DRIVE (COMMON LOW)	• This adjustment must be performed after the WHITE BALANCE LOW LIGHT adjustment. (1) Receive the NTSC all-white signal to INPUT A. (2) Set COLOR TEMP. / BAL. in the SET UP MENU to "HIGH". (3) Select "WHITE BALANCE BLOCK" in the SERVICE MENU. (4) Adjust the < W[W01] > and < W[W03] > values so that the colour analyzer reads the values shown in the table. (5) Confirm if the white balance for Low-Light and High-Light are properly set. (6) If the Low-Light is found deviated, re-adjust the WHITE BALANCE LOW LIGHT. (7) Repeat (4) to (6) until the tracking is achieved. (8) Set COLOR TEMP. / BAL. in the SET UP MENU to "LOW". (9) Adjust the < W[X01] > and < W[X03] > values so that the colour analyzer reads the values specified in the table. (10) Confirm if the white balance for Low-Light and High-Light are properly set. (11) If the Low-Light is found deviated, re-adjust the WHITE BALANCE LOW LIGHT. (12) Repeat (10) to (11) until the tracking is achieved.							
<table><tr><th>Colour temperature</th><th>Adjustment value</th></tr><tr><td>HIGH : 9300K</td><td>X=0.283 Y=0.297</td></tr><tr><td>LOW : 6500K</td><td>X=0.313 Y=0.329</td></tr></table>				Colour temperature	Adjustment value	HIGH : 9300K	X=0.283 Y=0.297	LOW : 6500K	X=0.313 Y=0.329		
Colour temperature	Adjustment value										
HIGH : 9300K	X=0.283 Y=0.297										
LOW : 6500K	X=0.313 Y=0.329										

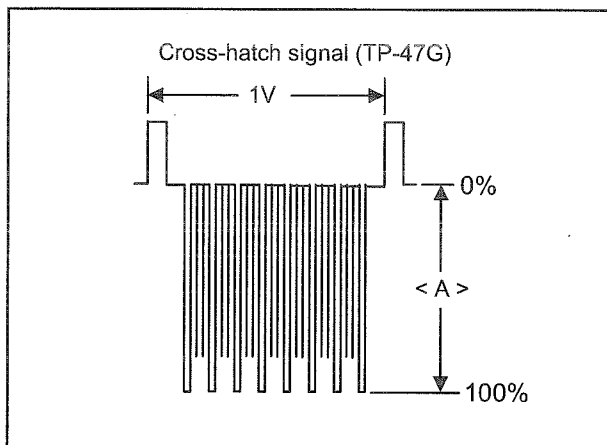
Item	Measuring instrument	Test point	Adjustment part	Description
SUB BRIGHT (HIGH / LOW)	Signal generator		[SIGNAL BLOCK] S[R02] : BRIGHT HIGH (COMMON) S[A02] : BRIGHT HIGH (NTSC) S[C02] : BRIGHT HIGH (PAL) S[U02] : BRIGHT HIGH (INPUT C/D (UNIT)) S[R06] : BRIGHT LOW (COMMON)	- This adjustment must be performed after the WHITE BALANCE LOW LIGHT adjustment. CAUTION: The < S[R02] > value is set as the reference value. The setting for other adjusting items is therefore made as offset with respect to the reference value. When the reference value is changed, re-adjustments are needed for all relevant signals. When adjusting the NTSC only, perform the "NTSC BRIGHT" adjustment. SUB BRIGHT HIGH - SETTING THE REFERENCE VALUE - (1) Receive the NTSC signal, carrying the brightness shades with 0% black included, to INPUT A. (2) Set COLOR TEMP. / BAL. in the SET UP MENU to "HIGH". (3) Press the [SCAN SIZE] key to set SCAN SIZE to "NORMAL SCAN MODE". (4) Set ASPECT in the MAIN MENU to "4-3". (5) Select "SIGNAL BLOCK" in the SERVICE MENU. (6) Adjust the < S[R02] > value to set the 0% black portion to be black. - NTSC BRIGHT - (1) Receive the NTSC signal, carrying the brightness shades with 0% black included, to INPUT A. (2) Adjust the < S[A02] > value to set the 0% black portion to be black. - PAL BRIGHT - (1) Receive the PAL signal, carrying the brightness shades with 0% black included, to INPUT A. (2) Adjust the < S[C02] > value to set the 0% black portion to be black. - SDI BRIGHT - (1) Receive the 480/576i signal, carrying the brightness shades with 0% black included, to INPUT C. (2) Adjust the < S[U02] > value to set the 0% black portion to be black. SUB BRIGHT LOW (1) Receive the NTSC (or PAL) signal, carrying the brightness shades with 0% black included, to INPUT A. (2) Set COLOR TEMP. / BAL. in the SET UP MENU to "LOW". (3) Press the [SCAN SIZE] key to set SCAN SIZE to "NORMAL SCAN MODE". (4) Set ASPECT in the MAIN MENU to "4-3". (5) Select "SIGNAL BLOCK" in the SERVICE MENU. (6) Adjust the < S[R06] > value to set the 0% black portion to be black.



Input signal	BRIGHT HIGH	Adjustment data
NTSC	S[R02]	Reference value
NTSC	S[A02]	Offset value
PAL	S[C02]	Offset value
480/576i	S[U02]	Offset value

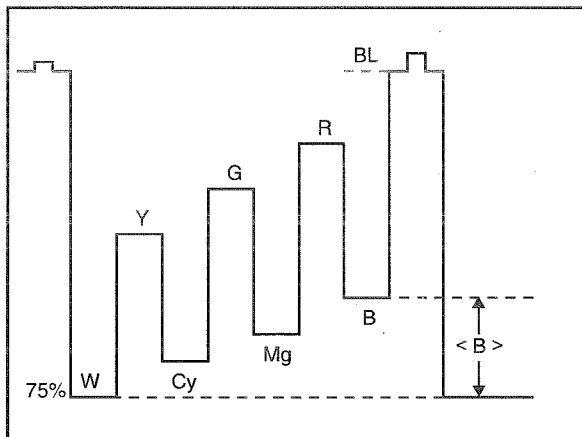
Input signal	BRIGHT LOW	Adjustment data
NTSC/PAL	S[R06]	Offset value

Item	Measuring instrument	Test point	Adjustment part	Description
SUB CONTRAST	Signal generator Oscilloscope	TP-47G TP-E (GND) [CRT SOCKET PWB]	[SIGNAL BLOCK] S[R01] : CONTRAST (COMMON) S[A01] : CONTRAST (NTSC) S[C01] : CONTRAST (PAL) S[U01] : CONTRAST (INPUT C/D (UNIT))	CAUTION: The < S[R01] > value is set as the reference value. The setting for other adjusting items is made as offset with respect to the reference value. When the reference value is changed, re-adjustments are needed for all relevant signals. When adjusting the NTSC only, perform the "NTSC CONTRAST" adjustment. - SETTING THE REFERENCE VALUE - (1) Receive the NTSC crosshatch signal with 100% white component included to INPUT A. (2) Connect the oscilloscope to TP-47G and TP-E (GND). (3) Select "SIGNAL BLOCK" in the SERVICE MENU. (4) Adjust the < S[R01] > value to set the < A > value in the left figure to $28V \pm 2V$. - NTSC CONTRAST - (1) Receive the NTSC crosshatch signal with 100% white component included to INPUT A (2) Adjust the < S[A01] > value to set the < A > value in the left figure to $28V \pm 2V$. - PAL CONTRAST - (1) Receive the PAL crosshatch signal with 100% white component included to INPUT A. (2) Adjust the < S[C01] > value to set the < A > value in the left figure to $28V \pm 2V$. - SDI CONTRAST - (1) Receive the 480/576i WINDOW pattern signal to INPUT C. (2) Adjust the < S[U01] > value to set the < A > value in the left figure to $25V \pm 2V$.



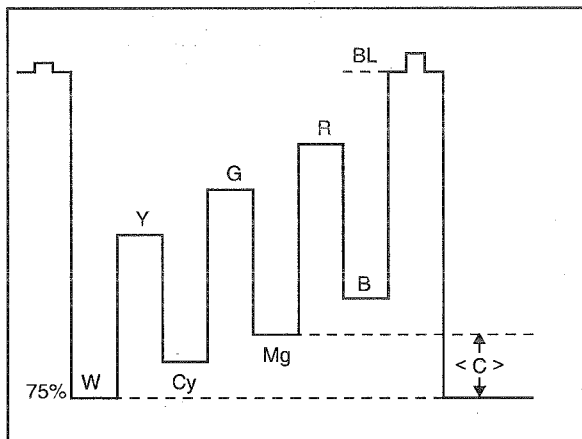
Input signal	CONTRAST	Adjustment data
NTSC	S[R01]	Reference value
NTSC	S[A01]	Offset value
PAL	S[C01]	Offset value
480/576i	S[U01]	Offset value

Item	Measuring instrument	Test point	Adjustment part	Description
SUB COLOUR	Signal generator Oscilloscope	TP-47B TP-E (GND) [CRT SOCKET PWB]	[SIGNAL BLOCK] S[R03] : CHROMA (COMMON) S[A03] : CHROMA (NTSC) S[C03] : CHROMA (PAL) S[U03] : CHROMA (INPUT C/D (UNIT))	- This adjustment must be done after the SUB CONTRAST adjustment. CAUTION: The < S[R03] > value is set as the reference value. The setting for the other adjusting items is made as offset with respect to the reference value. When the reference value is changed, re-adjustments are needed for all relevant signals. When adjusting the NTSC only, perform the "NTSC COLOR" adjustment. - SETTING THE REFERENCE VALUE - - Receive the NTSC colour bar signal with 75% white component included to INPUT A. - Connect the oscilloscope to TP-47B and TP-E (GND). - Select "SIGNAL BLOCK" in the SERVICE MENU. - Adjust the < S[R03] > value to set the < B > value in the left figure to $0V \pm 2V$. - NTSC COLOUR - - Receive the NTSC colour bar signal with a 75% white component included to INPUT A. - Adjust the < S[A03] > value to set the < B > value in the left figure to $0V \pm 2V$. - PAL COLOUR - - Receive the PAL colour bar signal with a 75% white component included to INPUT A. - Adjust the < S[C03] > value to set the < B > value in the left figure to $0V \pm 2V$. - SDI COLOUR - - Receive the 480/576i colour bar signal with a 75% white component included to INPUT C. - Adjust the < S[U03] > value to set the < B > value in the left figure to $0V \pm 2V$.



Input signal	CHROMA	Adjustment data
NTSC	S[R03]	Reference value
NTSC	S[A03]	Offset value
PAL	S[C03]	Offset value
480/576i	S[U03]	Offset value

Item	Measuring instrument	Test point	Adjustment part	Description
SUB PHASE	Signal generator Oscilloscope	TP-47B TP-E (GND) [CRT SOCKET PWB]	[SIGNAL BLOCK] S[R04] : PHASE (COMMON) S[A04] : PHASE (NTSC) S[U04] : PHASE (INPUT C/D (UNIT))	This adjustment must be done after the SUB CONTRAST adjustment. CAUTION: The < S[R04] > value is set as the reference value. The settings for other adjusting items are made as offset with respect to the reference value. When the reference value is changed, re-adjustments are needed for all relevant signals. When adjusting the NTSC only, perform the "NTSC PHASE" adjustment. - SETTING THE REFERENCE VALUE - (1) Receive the NTSC colour bar signal with a 75% white component included to INPUT A. (2) Connect the oscilloscope to TP-47B and TP-E (GND). (3) Select "SIGNAL BLOCK" in the SERVICE MENU. (4) Adjust the < S[R04] > value to set the < C > value in the left figure to $0V \pm 2V$. - NTSC PHASE - (1) Receive the NTSC colour bar signal with a 75% white component included to INPUT A. (2) Adjust the < S[A04] > value to set the < C > value in the left figure to $0V \pm 2V$. - SDI PHASE - (1) Receive the 480/576i colour bar signal with a 75% white component included to INPUT C. (2) Adjust the < S[U04] > value to set the < C > value in the left figure to $0V \pm 2V$.

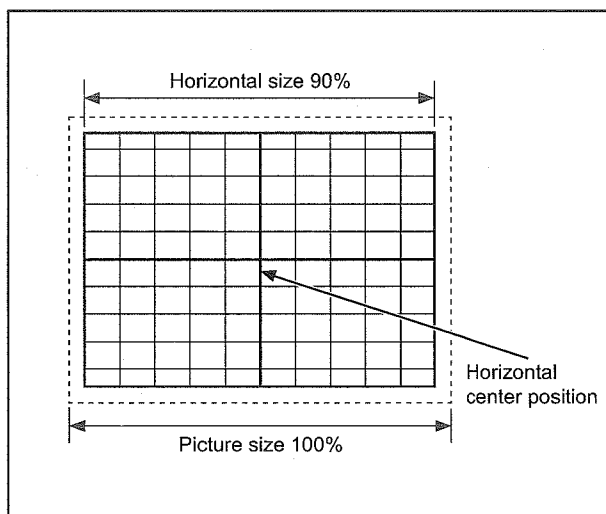


Input signal	PHASE	Adjustment data
NTSC	S[R04]	Reference value
NTSC	S[A04]	Offset value
480/576i	S[U04]	Offset value

4.8.7 DEFLECTION CIRCUIT ADJUSTMENTS

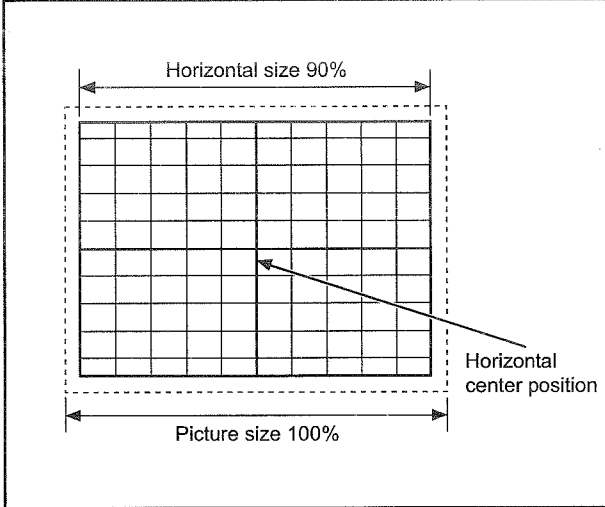
■NORMAL SCAN MODE

Item	Measuring instrument	Test point	Adjustment part	Description
VIDEO H.POSITION / H.SIZE	Signal generator		[DEFLECTION BLOCK] D[201] : H.SIZE (COMMON) D[203] : H.POSITION (COMMON) D[A01] : H.SIZE (NTSC) D[A03] : H.POSITION (NTSC) D[C01] : H.SIZE (PAL) D[C03] : H.POSITION (PAL)	- This adjustment must be done after the SUB BRIGHT and SUB CONTRAST adjustments. CAUTION: The < D[201] > and < D203 > values are set as the reference values. The setting for the other adjusting items is made as offset with respect to the reference values. When these values are changed, re-adjustments are needed for all relevant signals. When adjusting the NTSC only, perform the "NTSC H.POSITION / H.SIZE" adjustments. - SETTING THE REFERENCE VALUE - (1) Receive the NTSC crosshatch signal to INPUT A and demagnetize the monitor display. (2) Select "DEFLECTION BLOCK" in the SERVICE MENU. (3) Adjust the < D[203] > value to set the position at the horizontal picture center. (4) Adjust the < D[201] > value to set the horizontal screen size to 90% of the picture size. (5) If the position is found deviated from the horizontal picture center, re-adjust the H.POSITION and H.SIZE. - NTSC H.POSITION / H.SIZE - (1) Receive the NTSC crosshatch signal to INPUT A. (2) Adjust the < D[A03] > value to set the position at the horizontal picture center. (3) Adjust the < D[A01] > value to set the horizontal screen size to 90% of the picture size. (4) If the position is found deviated from the horizontal picture center, re-adjust the H.POSITION and H.SIZE. - PAL H.POSITION / H.SIZE - (1) Receive the PAL crosshatch signal to INPUT A. (2) Adjust the < D[C03] > value to set the position at the horizontal picture center. (3) Adjust the < D[C01] > value to set the horizontal screen size to 90% of the picture size. (4) If the position is found deviated from the horizontal picture center, re-adjust the H.POSITION and H.SIZE.



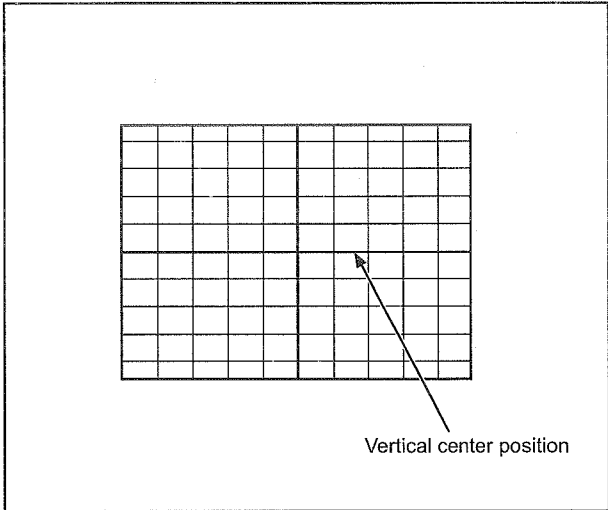
Input signal	H.SIZE	H.POSITION	Adjustment data
NTSC	D[201]	D[203]	Reference value
NTSC	D[A01]	D[A03]	Offset value
PAL	D[C01]	D[C03]	Offset value

Item	Measuring instrument	Test point	Adjustment part	Description
SDI H.POSITION / H.SIZE	Signal generator		[DEFLECTION BLOCK] D[E01] : H.SIZE (480/60i) D[E03] : H.POSITION (480/60i) D[G01] : H.SIZE (576/50i) D[G03] : H.POSITION (576/50i)	• This adjustment must be done after the SUB BRIGHT and SUB CONTRAST adjustments. - 480/60i H.POSITION / H.SIZE - (1) Receive the 480/60i crosshatch signal to INPUT C. (2) Adjust the < D[E03] > value to set the position at the horizontal screen center. (3) Adjust the < D[E01] > value to set the horizontal screen size to 90% of the picture size. (4) If the position is found deviated from the horizontal picture center, re-adjust the H.POSITION and H.SIZE. - 576/50i H.POSITION / H.SIZE - (1) Receive the 576/50i crosshatch signal to INPUT C. (2) Adjust the < D[G03] > value to set the position at the horizontal screen center. (3) Adjust the < D[G01] > value to set the horizontal screen size to 90% of the picture size. (4) If the position is found deviated from the horizontal picture center, re-adjust the H.POSITION and H.SIZE.

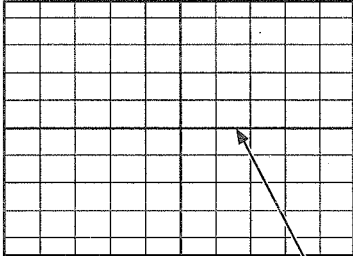
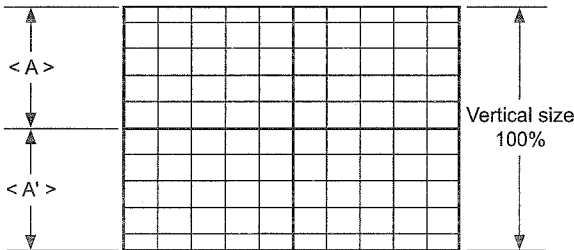


Input signal	H.SIZE	H.POSITION	Adjustment data
480/60i	D[E01]	D[E03]	Offset value
576/50i	D[G01]	D[G03]	Offset value

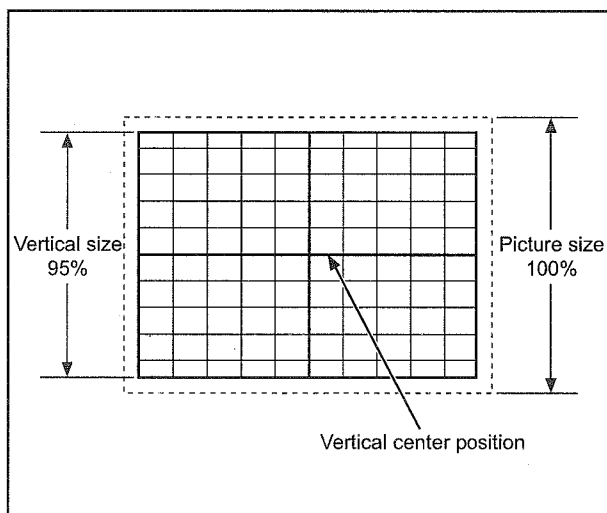
Item	Measuring instrument	Test point	Adjustment part	Description
VIDEO V.POSITION / ROTATION	Signal generator		[DEFLECTION BLOCK] D[204] : V.POSITION (COMMON) D[101] : ROTATION (ROTATION/PURITY) D[A04] : V.POSITION (NTSC) D[C04] : V.POSITION (PAL)	- This adjustment must be done after the SUB BRIGHT and SUB CONTRAST adjustments. CAUTION: The < D[204] > value is set as the reference value. The setting for the other adjusting items is made as offset with respect to the reference value. When the reference value is changed, re-adjustments are needed for all relevant signals. When adjusting the NTSC only, perform the "NTSC V.POSITION" adjustment - SETTING THE REFERENCE VALUE - (1) Receive the NTSC crosshatch signal to INPUT A. (2) Select "DEFLECTION BLOCK" in the SERVICE MENU. (3) Adjust the < D[204] > value to set the position at the vertical picture center. (4) If the entire screen display is found tilted, adjust < D[101] > for correction. (Rotation correction) NOTE: The rotation correction is made for the reference value setting only. - NTSC V.POSITION - (1) Receive the NTSC crosshatch signal to INPUT A. (2) Adjust the < D[A04] > value to set the position at the vertical picture center. - PAL V.POSITION - (1) Receive the PAL crosshatch signal to INPUT A. (2) Adjust the < D[C04] > value to set the position at the vertical picture center.



Input signal	V.POSITION	Adjustment data
NTSC	D[204]	Reference value
NTSC	D[A04]	Offset value
PAL	D[C04]	Offset value

Item	Measuring instrument	Test point	Adjustment part	Description									
SDI V.POSITION	Signal generator		[DEFLECTION BLOCK] D[E04] : V.POSITION (480/60i) D[G04] : V.POSITION (576/50i)	- This adjustment must be done after the SUB BRIGHT and SUB CONTRAST adjustments. - 480/60i V.POSITION - (1) Receive the 480/60i crosshatch signal to INPUT C. (2) Adjust the < D[E04] > value to set the position at the vertical picture center. - 576/50i V.POSITION - (1) Receive the 576/50i crosshatch signal to INPUT C. (2) Adjust the < D[G04] > value to set the position at the vertical picture center.									
 Vertical center position <table><tr><th>Input signal</th><th>H.POSITION</th><th>Adjustment data</th></tr><tr><td>480/60i</td><td>D[E04]</td><td>Offset value</td></tr><tr><td>576/50i</td><td>D[G04]</td><td>Offset value</td></tr></table>				Input signal	H.POSITION	Adjustment data	480/60i	D[E04]	Offset value	576/50i	D[G04]	Offset value	
Input signal	H.POSITION	Adjustment data											
480/60i	D[E04]	Offset value											
576/50i	D[G04]	Offset value											
V. LINEARITY	Signal generator		[DEFLECTION BLOCK] D[202] : V.SIZE (COMMON) D[212] : V.LINEARITY (C CORRECTION) (COMMON) D[211] : V.LINEARITY (S CORRECTION) (COMMON)	- This adjustment must be done after the SUB BRIGHT and SUB CONTRAST adjustments. (1) Receive the NTSC crosshatch signal to INPUT A. (2) Select "DEFLECTION BLOCK" in the SERVICE MENU. (3) Adjust the < D[202] > value to set the vertical screen size to 100% of the picture size. (4) Adjust the < D[212] > value to set the crosshatch pattern of the upper and lower to be equal; < A > = < A' >. (5) Adjust the < D[211] > value to set each crosshatch grid to be vertically equal in size in < A > and < A' > portions.									
													

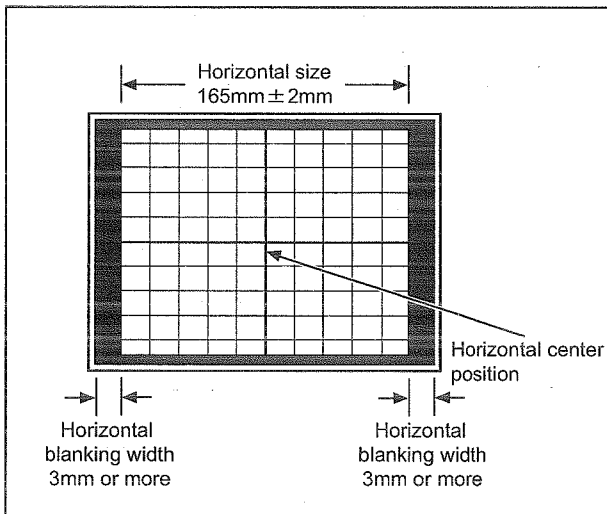
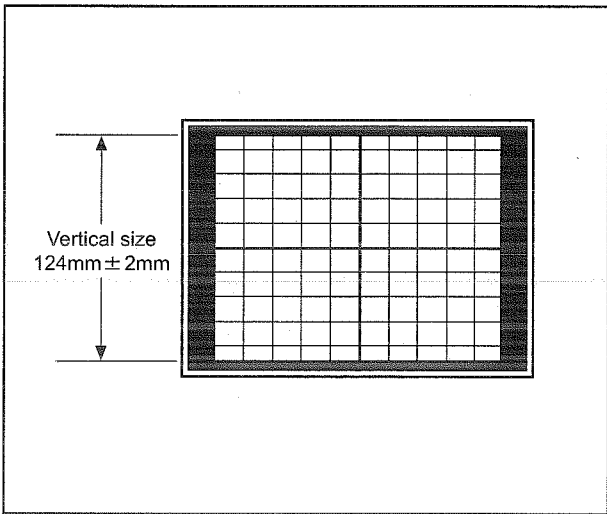
Item	Measuring instrument	Test point	Adjustment part	Description
V.SIZE (4:3)	Signal generator		[DEFLECTION BLOCK] D[202] : V.SIZE (COMMON) D[A02] : V.SIZE (NTSC) D[C02] : V.SIZE (PAL) D[E02] : V.SIZE (480/60i) D[G02] : V.SIZE (576/60i)	- This adjustment must be done after the SUB BRIGHT and SUB CONTRAST adjustments. CAUTION: The < D[202] > value is set as the reference value. The settings for other adjusting items are made as offset with respect to the reference value. When the reference value is changed, re-adjustments are needed for all relevant signals. When adjusting the NTSC only, perform the "NTSC V.SIZE" adjustment. - SETTING THE REFERENCE VALUE - (1) Receive the NTSC crosshatch signal to INPUT A. (2) Select "DEFLECTION BLOCK" in the SERVICE MENU. (3) Adjust the < D[202] > value to set the vertical screen size to 95% of the picture size. (4) If the position is found deviated from the vertical picture center, re-adjust the V.POSITION and V.SIZE. - NTSC V.SIZE - (1) Receive the NTSC crosshatch signal to INPUT A. (2) Adjust the < D[A02] > value to set the vertical screen size to 95% of the picture size. (3) If the position is found deviated from the vertical picture center, re-adjust the V.POSITION and V.SIZE. - PAL V.SIZE - (1) Receive the PAL crosshatch signal to INPUT A. (2) Adjust the < D[C02] > value to set the vertical screen size to 95% of the picture size. (3) If the position is found deviated from the vertical picture center, re-adjust the V.POSITION and V.SIZE. - 480/60i V.SIZE - (1) Receive the 480/60i crosshatch signal to INPUT C. (2) Adjust the < D[E02] > value to set the vertical screen size to 95% of the picture size. (3) If the position is found deviated from the vertical picture center, re-adjust the V.POSITION and V.SIZE. - 576/50i V.SIZE - (1) Receive the 576/50i crosshatch signal to INPUT C. (2) Adjust the < D[G02] > value to set the vertical screen size to 95% of the picture size. (3) If the position is found deviated from the vertical picture center, re-adjust the V.POSITION and V.SIZE.



Input signal	H.SIZE	Adjustment data
NTSC	D[202]	Reference value
NTSC	D[A02]	Offset value
PAL	D[C02]	Offset value
480/60i	D[E02]	Offset value
576/50i	D[G02]	Offset value

■ UNDER SCAN MODE

Item	Measuring instrument	Test point	Adjustment part	Description
VIDEO H. POSITION / H. SIZE	Signal generator		[DEFLECTION BLOCK] D[B01] : H.SIZE (NTSC-UNDER) D[B03] : H.POSITION (NTSC-UNDER) D[208] : PARALLEL (COMMON) D[209] : TRAPEZONTAL (COMMON) D[D01] : H.SIZE (PAL-UNDER) D[D03] : H.POSITION (PAL-UNDER)	- This adjustment must be made after the NORMAL SCAN MODE adjustments. CAUTION: The < D[208] > and < D[209] > values are set as the reference values. The settings for other adjusting items are made as offset with respect to the reference value. When reference values is changed, re-adjustments are needed for all relevant signals. When adjusting the NTSC only, perform the "NTSC H. POSITION / H. SIZE" adjustment. - SETTING THE REFERENCE VALUE - (1) Receive the NTSC crosshatch signal to INPUT A. (2) Press the [SCAN SIZE] key to set SCAN SIZE to "UNDER SCAN MODE". (3) Select "DEFLECTION BLOCK" in the SERVICE MENU. (4) Adjust the < D[208] > value to correct parallelogram distortion. (5) Adjust the < D[209] > value to correct trapezium distortion. - NTSC H. POSITION / H. SIZE - (1) Receive the NTSC crosshatch signal to INPUT A. (2) Adjust the < D[B03] > value to set the position at the horizontal picture center. (3) Adjust the < D[B01] > value to set the horizontal screen size to 165mm ± 2mm. (4) If the raster fly-back is observed, re-adjust the < D[B03] > value to set the horizontal blanking width not less than 3mm. - PAL H. POSITION / H. SIZE - (1) Receive the PAL crosshatch signal to INPUT A. (2) Adjust the < D[D03] > value to set the position at the horizontal picture center. (3) Adjust the < D[D01] > value to set the horizontal screen size to 165mm ± 2mm. (4) If the raster fly-back is observed, re-adjust the < D[D03] > value to set the horizontal blanking width not less than 3mm.
<				

Item	Measuring instrument	Test point	Adjustment part	Description																		
				- 480/60i H. POSITION / H. SIZE - (1) Receive the 480/60i crosshatch signal to INPUT C. (2) Adjust the < D[F03] > value to set the position at the horizontal picture center. (3) Adjust the < D[F01] > value to set the horizontal screen size to 165mm ± 2mm. (4) If the raster fly-back is observed, re-adjust the < D[F03] > value to set the horizontal blanking width not less than 3mm. - 576/50i H. POSITION / H. SIZE - (1) Receive the 576/50i crosshatch signal to INPUT C. (2) Adjust the < D[H03] > value to set the position at the horizontal picture center. (3) Adjust the < D[H01] > value to set the horizontal screen size to 165mm ± 2mm. (4) If the raster fly-back is observed, re-adjust the < D[H03] > value to set the horizontal blanking width not less than 3mm.																		
<table><tr><th>Input signal</th><th>H.SIZE</th><th>H.POSITION</th><th>PARALLEL</th><th>TRAPEZONTAL</th><th>Adjustment data</th></tr><tr><td>480/60i-UNDER</td><td>D[F01]</td><td>D[F03]</td><td>---</td><td>---</td><td>Offset value</td></tr><tr><td>576/60i-UNDER</td><td>D[H01]</td><td>D[H03]</td><td>---</td><td>---</td><td>Offset value</td></tr></table>				Input signal	H.SIZE	H.POSITION	PARALLEL	TRAPEZONTAL	Adjustment data	480/60i-UNDER	D[F01]	D[F03]	---	---	Offset value	576/60i-UNDER	D[H01]	D[H03]	---	---	Offset value	
Input signal	H.SIZE	H.POSITION	PARALLEL	TRAPEZONTAL	Adjustment data																	
480/60i-UNDER	D[F01]	D[F03]	---	---	Offset value																	
576/60i-UNDER	D[H01]	D[H03]	---	---	Offset value																	
V.SIZE (4:3)	Signal generator		[DEFLECTION BLOCK] D[B02] : V.SIZE (NTSC-UNDER) D[D02] : V.SIZE (PAL-UNDER) D[F02] : V.SIZE (480/60i-UNDER) D[H02] : V.SIZE (576/50i-UNDER)	• This adjustment must be made after the NORMAL SCAN MODE adjustments. - NTSC V.SIZE - (1) Receive the NTSC crosshatch signal to INPUT A. (2) Press the [SCAN SIZE] key to set SCAN SIZE to "UNDER SCAN MODE". (3) Select "DEFLECTION BLOCK" in the SERVICE MENU. (4) Adjust the < D[B02] > value to set the vertical screen size to 124mm ± 2mm. - PAL V.SIZE - (1) Receive the PAL crosshatch signal to INPUT A. (2) Adjust the < D[D02] > value to set the vertical screen size to 124mm ± 2mm. - 480/60i V.SIZE - (1) Receive the 480/60i crosshatch signal to INPUT C. (2) Adjust the < D[F02] > value to set the vertical screen size to 124mm ± 2mm. - 576/50i V.SIZE - (1) Receive the 576/50i crosshatch signal to INPUT C. (2) Adjust the < D[D02] > value to set the vertical screen size to 124mm ± 2mm.																		
																						
<table><tr><th>Input signal</th><th>H.SIZE</th><th>Adjustment data</th></tr><tr><td>NTSC-UNDER</td><td>D[B02]</td><td>Offset value</td></tr><tr><td>PAL-UNDER</td><td>D[D02]</td><td>Offset value</td></tr><tr><td>480/60i-UNDER</td><td>D[F02]</td><td>Offset value</td></tr><tr><td>576/50i-UNDER</td><td>D[H02]</td><td>Offset value</td></tr></table>				Input signal	H.SIZE	Adjustment data	NTSC-UNDER	D[B02]	Offset value	PAL-UNDER	D[D02]	Offset value	480/60i-UNDER	D[F02]	Offset value	576/50i-UNDER	D[H02]	Offset value				
Input signal	H.SIZE	Adjustment data																				
NTSC-UNDER	D[B02]	Offset value																				
PAL-UNDER	D[D02]	Offset value																				
480/60i-UNDER	D[F02]	Offset value																				
576/50i-UNDER	D[H02]	Offset value																				

4.8.8 ADJUSTMENT PROCEDURE

Item	Measuring instrument	Test point	Adjustment part	Description
SDI INPUT LEVEL	oscilloscope Signal generator	Conector <u>CN000A</u> [SDI INPUT PWB] 6-pin: Y_IN 8-pin: PB_IN 4-pin: PR_IN	Y VR (<u>R0347</u>) B-Y VR (<u>R0337</u>) R-Y VR (<u>R0357</u>) [SDI INPUT PWB]	(1) Receive the 480/50i colour bar signal with a 100% white component included to INPUT C. (2) Connect the oscilloscope to 6-pin (Y_IN) at the connector <u>CN000A</u>. (3) Adjust the Y VR (<u>R0347</u>) to set the < A > value in the left figure to 0.7V ±0.02V. (4) Connect the oscilloscope to 8-pin (PB_IN) at the connector <u>CN000A</u>. (5) Adjust the B-Y VR (<u>R0337</u>) to set the < B > value in the left figure to 0.7V ±0.02V. (6) Connect the oscilloscope to 4-pin (PR_IN) at the connector <u>CN000A</u>. (7) Adjust the R-Y VR (<u>R0357</u>) to set the < C > value in the left figure to 0.7V ±0.02V.
SDI INPUT LEVEL Adjustment point Y signal (CN000A : 6-pin) PB signal (CN000A : 8-pin) PR signal (CN000A : 4-pin)				

SECTION 5 TROUBLESHOOTING

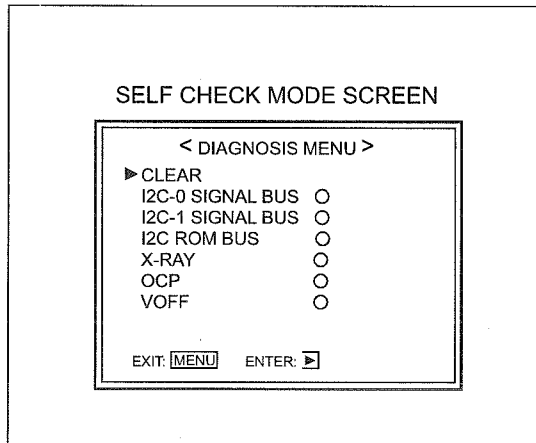
5.1 SELF CHECK FEATURE

5.1.1 OUTLINE

This unit comes with the "Self check" feature, which checks the operational state of the circuit and displays/saves it during failure. Diagnosis is performed when power is turned on, and information input to the main microcomputer is monitored at all time. Diagnosis is displayed in 2 ways via screen display and LED flashes. Failure detection is based on input state of I²C bus and the various control lines connected to the main microcomputer.

5.1.2 HOW TO ENTER THE SELF CHECK MODE

- (1) Press the [▼] key and [MARKER] key simultaneously.
The Δ mark appears on the screen.
- (2) Before the Δ mark disappears (within 5 seconds after it appears), press the [▼] key and [CHROMA/PHASE] key simultaneously.
The warning message "Please don't touch!" appears on the screen.
- (3) Before the warning message disappears (within 5 seconds after it appears), press the [▶] key.
The SERVICE MENU appears on the display.
- (4) With the SERVICE MENU displayed, press [▼] key to select the "DIAGNOSIS", then press [▶] key to enter the SELF CHECK MODE.



5.1.3 HOW TO EXIT THE SELF CHECK MODE

- (1) Press the [MENU] key to return to the SERVICE MENU.
- (2) Press the [MENU] key again to return to the normal screen.

5.1.4 HOW TO CLEAR FAILURE HISTORY

With the SELF CHECK MODE displayed, select the "CLEAR", and select the "YES" reset failure history.

5.1.5 FAILURE HISTORY

Failure history can be counted up to 9 times for each item. When the number exceeds 9, display will remain as 9. Failure history will be stored in the memory unless it has been deleted.

5.1.6 POINTS TO NOTE WHEN USING THE SELF CHECK FEATURE

In addition to circuit failures (abnormal operation), the following cases may also be diagnosed as "Abnormal" and displayed and counted as "NG".

- (1) Temporary defective transmissions across circuits due to pulse interruptions
- (2) Misalignment in the on/off timing of power for I²C bus (VCC) when turning on/off the main power.

Diagnosis may be impeded if a large number of items are displayed as "NG". As such, start Self check only after 3 seconds in the case of receivers and 5 seconds in the case of panels upon turning on the power. If recurrences are expected, ensure to clear (reset) the failure history and record the new diagnosis results.

5.1.7 METHOD OF DISPLAY WHEN A RASTER IS NOT OUTPUT

In the state where a raster is not output by breakdown of the set, an error is displayed by blink of the INPUT SIGNAL LED.

Detection item	Detection content	Diagnosis signal (line)	Flash INPUT SIGNAL LED	LED flash cycle
I ² C-0 SIGNAL BUS	Confirmation of reply of ACK signal which uses I ² C bus (Deflection IC) communication. [MAIN PWB : IC1571 / IC1951]	SDA0	INPUT A	Turnig on and off at 0.25 second intervals.
I ² C-1 SIGNAL BUS	Confirmation of reply of ACK signal which uses I ² C bus (Signal IC) communication. [INPUT PWB : IC6101 / IC6601 / IC6501 / IC6808]	SDA1	INPUT A	Turnig on and off at 1.0 second intervals.
I ² C ROM BUS	Confirmation of reply of ACK signal which uses I ² C bus (Main memory IC) communication. [INPUT PWB : IC6807]	SDA2	INPUT A	Turnig on and off at 0.5 second intervals.
X-RAY	Confirm the operation of the X-ray protection circuit. [MAIN PWB : D1571 / D1572]	X_RAY	INPUT B	Turnig on and off at 0.5 second intervals.
OCP	Confirm the operation of the over-current protection circuit. [MAIN PWB : Q1954]	OCP	INPUT C	Turnig on and off at 0.5 second intervals.
VOFF	Confirm the operation of the CRT neck-bleak prevention circuit. [MAIN : IC1452]	V_OFF_DET	INPUT D	Turnig on and off at 0.5 second intervals.

< Explanation of operation >

If error is detected, the power is turned off.

Shortly after a power is turned off, INPUT SIGNAL LED will be blinked.

Power cannot be turned on until the power cord takes out and inserts, after a power is turned off.