

## ■ 2.3 VF15-45/46 SCHEMATIC

**2.3.1**

No.	Module Name	Parts List	Parts Layout	Block Diagram	Controls	Schematic Diagram
2.3.1	VF15-45/46 GENERAL	*				*
	•LED BOARD	*				↑
	•TALLY BOARD	*				↑
	•LIGHT	*			*	↑
	•VIDEO BOARD	*	*		*	↑
	•VIDEO SUB	*	*		*	↑
	•DEF BOARD	*	*		*	↑

↑ : Same as above  
 \* : Existing

23.1

2.3.1 VF15-45/46  
 • GENERAL Parts List

2.3.1 - 1

GENERAL				360-070		1 9903	
NO.	DESCRIPTION	MFD.	PARTS-CODE	NO.	DESCRIPTION	MFD.	PARTS-CODE
V001	M04KAX07WB	MAT	1607040704				
DY001	ST-901142	MAT	2921114209				
CN001	ST-902623	HIR	2298236601				
CN002	ST-902141	QQQ	2270214105				
CN003	W-A3204-2B	SMK	2298320405				
CN003	W-T0873-11#01	SMK	2321687333				
CN102	ST-901850B	SMK	2298185006				
CN104	OP-2-2 (White)	MAC	2298002201				
CN203	W-A3204-2B	SMK	2298320405				
CN203	W-T0873-11#01	SMK	2321687333				

2.3.1

• LED BOARD Parts List

LED BOARD				360-040		1 9903	
NO.	DESCRIPTION	MFD.	PARTS-CODE	NO.	DESCRIPTION	MFD.	PARTS-CODE
D001	AY4523K-5	STL	1349452308				
D002	AY4523K-5	STL	1349452308				
D003	PG5551KY	STL	1349555100				
D004	SLP-162B	SYO	1349016202				
R001	ERDS1TJ 152T	MAT	3048015204				
CN103	ST-902225	JAE	2290222500				

• TALLY BOARD Parts List

TALLY BOARD				360-050		1 9903	
NO.	DESCRIPTION	MFD.	PARTS-CODE	NO.	DESCRIPTION	MFD.	PARTS-CODE
D005	TLR143	TOS	1312014309				
D006	TLR143	TOS	1312014309				
D007	TLR143	TOS	1312014309				
D008	TLR143	TOS	1312014309				

• LIGHT BOARD Parts List

LIGHT BOARD				360-060		1 9903	
NO.	DESCRIPTION	MFD.	PARTS-CODE	NO.	DESCRIPTION	MFD.	PARTS-CODE
R002	ERDS1TJ 100T	MAT	3048010007				
R003	ERDS1TJ 102T	MAT	3048010205				
PL001	H0947	HAM	3406094700				
S001	MS-22AAP1	NIK	2123002202				
S002	MS-12AAP1	NIK	2123001204				
CN003	W-P9004	SMK	2298900404				

## • VIDEO BOARD Parts List

## VIDEO BOARD

360-010

2 9903

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NO.	DESCRIPTION	MFD.	PARTS-CODE	NO.	DESCRIPTION	MFD.	PARTS-CODE
IC101	PC4081G2-T1	NEC	1044408126	C207	ECEA JHKN010	MAT	2616101008
IC201	HA11441MS	HIT	1007144114	C208	CM21WSR 223M50VAT	KYC	2641223660
IC202	TC4501FTE85L	TOS	1056040106	C209	ECEA ICKA101	MAT	2616110108
TR101			2330010014	C210	FK22COG1H 472K	TDK	2690147208
TR113	2SA 950-O	TOS	1201095005	C211	267M 1602 105MR	NCC	2642105056
TR203	2SA 812-M6 T1B	NEC	1241081213	C212	CM43CH 103G25VBT A4	KYC	2641103078
TR204	2SA 812-M6 T1B	NEC	1241081213	C213	CM43CH 103G25VBT A4	KYC	2641103078
TR205	2SA 812-M6 T1B	NEC	1241081213	C214	RPE131R333K 50V	MUR	2690433509
TR206	2SC1623-L6,7 T1B	NEC	1203607005	C216	CM21WSR 472M50VAT	KYC	2641047267
TR211	2SC1623-L6,7 T1B	NEC	1203607005	C232	RPE131R333K 50V	MUR	2690433509
TR212	2SA 812-M6 T1B	NEC	1241081213	C233	DM05C 101J3	SOS	2505010104
TR213	2SC1623-L6,7 T1B	NEC	1203607005	C234	ECEA IEKA100	MAT	2541210015
D101	RD6R2MB2 T1B	NEC	1304046228	C236	RPE110R472K 50V	MUR	2690347501
D205	RD7R5MB	NEC	1304047523	C237	RPE110R332K 50V	MUR	2690333501
D206	IS2838L-A6	NEC	1321283812	C239	CM21CH 820J50AT	KYC	2640820268
R067	ERDS1TJ 122T	MAT	3048012201	C278	267M 1602 105MR	NCC	2642105056
R068	ERDS1TJ 102T	MAT	3048010205	L101	ST-202246A-1	ITC	2990202240
R101	RR1220P 270 Ω D	SSM	3152327023	L101	BF04-5X5X2	TDK	3390345506
R102			2330010014	F101	DM10 (1A)	DITC	3411010105
R103	RR1220P 5.6K Ω D	SSM	3152456020	S101	B-12JH	NIK	2111201212
R104	RR1220P 7.5K Ω D	SSM	3152475020	S102	B-12JH	NIK	2111201212
R105	RR1220P 3.3K Ω D	SSM	3152433029	CN103	LX-8P-DT1-PI	JAE	2290081005
R158	RR1220P 3.3K Ω D	SSM	3152433029	CN107	PM-6 3pin	MAC	2290063003
R159	RR1220P 4.7K Ω D	SSM	3152447029	CN108	PM-6 2pin	MAC	2290062005
R160	ERDS1TJ 100T	MAT	3048010007	CN109	PM-6 3pin	MAC	2290063003
R162	ERDS1TJ 511	MAT	3048051100	CN110	PM-6 3pin	MAC	2290063003
R201	RR1220P 100 Ω D	SSM	3152310029				
R202	RR1220P 1K Ω D	SSM	3152410027				
R203	RR1220P 39K Ω D	SSM	3152539023				
R204	RR1220P 5.1K Ω D	SSM	3152451021				
R205	RMC1/10 470K Ω F	KAM	3153647007				
R206	RR1220P 15K Ω D	SSM	3152515023				
R207	RR1220P 100 Ω D	SSM	3152310029				
R208	RR1220Q 56 Ω D	SSM	3152256024				
R209	RR1220P 18K Ω D	SSM	3152518027				
R210	RR1220P 2.2K Ω D	SSM	3152422022				
R211	RR1220P 100K Ω D	SSM	3152610022				
R212	RR1220P 13K Ω D	SSM	3152513028				
R213	RR1220P 8.2K Ω D	SSM	3152482026				
R214	RR1220P 3.9K Ω D	SSM	3152439026				
R215	RR1220P 8.2K Ω D	SSM	3152482026				
R216	RR1220Q 56 Ω D	SSM	3152256024				
R217	RR1220P 18K Ω D	SSM	3152518027				
R218	RR1220P 2.2K Ω D	SSM	3152422022				
R219	RR1220P 33K Ω D	SSM	3152533026				
R220	RMC1/10 270K Ω F	KAM	3153627009				
R221	RR1220P 12K Ω D	SSM	3152512020				
R222	RR1220P 68K Ω D	SSM	3152568022				
R223	RR1220P 6.2K Ω D	SSM	3152462028				
R224	RN26C 2C 10K Ω FT	KOA	3141510028				
R225	RR1220P 470 Ω D	SSM	3152347021				
R226	RR1220P 680 Ω D	SSM	3152368027				
R227	RR1220P 1K Ω D	SSM	3152410027				
R242	RR1220P 13K Ω D	SSM	3152513028				
R243	ERDS2TJ 103T	MAT	3048010304				
R247	RR1220P 36K Ω D	SSM	3152536029				
R248	RR1220P 18K Ω D	SSM	3152518027				
R249	RR1220P 1K Ω D	SSM	3152410027				
R250	RR1220P 470 Ω D	SSM	3152347021				
R251	RR1220P 1K Ω D	SSM	3152410027				
R252	RR1220P 330 Ω D	SSM	3152333021				
R253	RR1220P 2.2K Ω D	SSM	3152422022				
R254	RR1220P 10K Ω D	SSM	3152510024				
R255	RR1220P 2.2K Ω D	SSM	3152422022				
R257	R20 R-02J 471	RHM	3046347054				
VR001	EVU-E20F15B14	MAT	2705151401				
VR002	EVU-E20F15B13	MAT	2705151302				
VR101	ST-4TB 1K Ω	CPL	2752410056				
VR201	ST-4TB 100K Ω	CPL	2752610051				
VR202	ST-4TB 5K Ω	CPL	2752450052				
VR203	ST-4TB 5K Ω	CPL	2752450052				
VR208	ST-4TB 200K Ω	CPL	2752620050				
C101	KRE 25 VB 33	NCH	2624233132				
C102	KMG 16 VB 470	NCH	2623347008				
C201	KRE 16 VB 47	NCH	2624247124				
C202	267M 3502 224MR	NCC	2642224055				
C203	267M 1602 106MR	NCC	2642106054				
C204	CM21CH 101J50VAT	KYC	2640101065				
C205	DN1V 2R2 MIS	NEC	2501122069				
C206	16SA 100K/M	SYO	2625310137				

• VIDEO SUB BOARD Parts List

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VIDEO SUB BOARD

360-020

3 9903

NO.	DESCRIPTION	MFD.	PARTS-CODE	NO.	DESCRIPTION	MFD.	PARTS-CODE
TR102	2SC1623-L6,7 T1B	NEC	1203607005				
TR103	2SK 192A-Y	TOS	1251019202				
TR104	2SC1623-L6,7 T1B	NEC	1203607005				
TR105	2SC1623-L6,7 T1B	NEC	1203607005				
TR106	2SC1623-L6,7 T1B	NEC	1203607005				
TR107	2SC1623-L6,7 T1B	NEC	1203607005				
TR108	2SA 812-M6 T1B	NEC	1241081213				
TR109	2SC1623-L6,7 T1B	NEC	1203607005				
TR110	2SC1623-L6,7 T1B	NEC	1203607005				
TR111	2SC1623-L6,7 T1B	NEC	1203607005				
TR112	2SC1623-L6,7 T1B	NEC	1203607005				
TR114	2SC1623-L6,7 T1B	NEC	1203607005				
TR115	2SK 192A-Y	TOS	1251019202				
TR116	2SA 812-M6 T1B	NEC	1241081213				
D102	1SS123-A7 T1B	NEC	1321012310				
D103	1SS123-A7 T1B	NEC	1321012310				
R100	RMC1/10 JP TP (0 Ω)	KAM	3153000009				
R106	RR1220P 120 Ω D	SSM	3152312025				
R112	RR1220P 36K Ω D	SSM	3152536029				
R113	RR1220P 33K Ω D	SSM	3152533026				
R114	RR1220Q 22 Ω D	SSM	3152222018				
R115	RR1220P 100 Ω D	SSM	3152310029				
R116	RR1220P 100 Ω D	SSM	3152310029				
R117	RR1220P 100 Ω D	SSM	3152310029				
R118	RR1220P 100 Ω D	SSM	3152310029				
R119	RR1220Q 91 Ω D	SSM	3152291013				
R120	RR1220P 100 Ω D	SSM	3152310029				
R121	RR1220P 100 Ω D	SSM	3152310029				
R122	RR1220P 100 Ω D	SSM	3152310029				
R123	RR1220P 200 Ω D	SSM	3152320028				
R124	RR1220P 75K Ω D	SSM	3152575027				
R125	RR1220P 33K Ω D	SSM	3152533026				
R126	RR1220P 300 Ω D	SSM	3152330027				
R127	RR1220P 10K Ω D	SSM	3152510024				
R128	RR1220P 47K Ω D	SSM	3152547026				
R129	RR1220P 100 Ω D	SSM	3152310029				
R130	RR1220P 680 Ω D	SSM	3152368027				
R131	RR1220P 100 Ω D	SSM	3152310029				
R132	RR1220P 4.7K Ω D	SSM	3152447029				
R133	RR1220P 4.7K Ω D	SSM	3152447029				
R134	RR1220P 1K Ω D	SSM	3152410027				
R135	RR1220P 220 Ω D	SSM	3152322024				
R136	RR1220P 1.1K Ω D	SSM	3152411025				
R137	RR1220P 10K Ω D	SSM	3152510024				
R138	RR1220P 330 Ω D	SSM	3152333021				
R140	RR1220P 1.1K Ω D	SSM	3152411025				
R141	RR1220P 10K Ω D	SSM	3152510024				
R142	RR1220P 1.5K Ω D	SSM	3152415026				
R143	RR1220P 6.8K Ω D	SSM	3152468025				
R144	ERC-14GJ 106	MAT	3099810008				
R145	ERDS2EJ 101	MAT	3048010106				
R165	ERDS1TJ 332T	MAT	3048033207				
R166	RR1220P 10K Ω D	SSM	3152510024				
R167	RR1220P 1K Ω D	SSM	3152410027				
R168	RR1220P 470 Ω D	SSM	3152347021				
R169	RR1220P 20K Ω D	SSM	3152520023				
R170	RR1220P 6.8K Ω D	SSM	3152468025				
R171	RMC1/10 JP TP (0 Ω)	KAM	3153000009				
R172	RR1220P 10K Ω D	SSM	3152510024				
VR104	ST-4TB 500 Ω	CPL	2752350054				
C103	SME 10 VB 470	NCH	2608347114				
C105	KRE 10 VB 33	NCH	2624233116				
C106	ECEA 0JKA221	MAT	2616022105				
C107	267M 6301 225MR	NCC	2642225052				
C108	KRE 16 VB 10	NCH	2624210122				
C109	KRE 16 VB 10	NCH	2624210122				
C112	KRE 16 VB 10	NCH	2624210122				
C113	ECEA 1HU470	MAT	2616147001				
C115	RPE132R104K 50V	MUR	2690510413				
C116	ECEA 1VKN4R7	MAT	2616047011				
C118	267M 6301 225MR	NCC	2642225052				
C119	CM21CH 471J50VAT	KYC	2640471567				
C120	CM21CH 151J50VAT	KYC	2640151565				
C121	CM21CH 471J50VAT	KYC	2640471567				
C122	CM21CH 471J50VAT	KYC	2640471567				
DL101	J10DT150C	TKO	2910415013				
DL102	J10DT150C	TKO	2910415013				
CN111	SY-003 21pin	MAC	2298003217				

2.3.1

## • DEF BOARD Parts List

## DEF BOARD

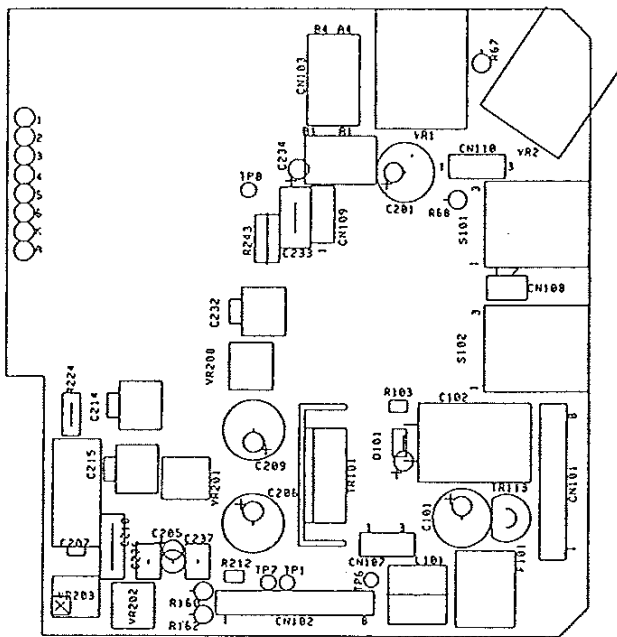
360-030

4

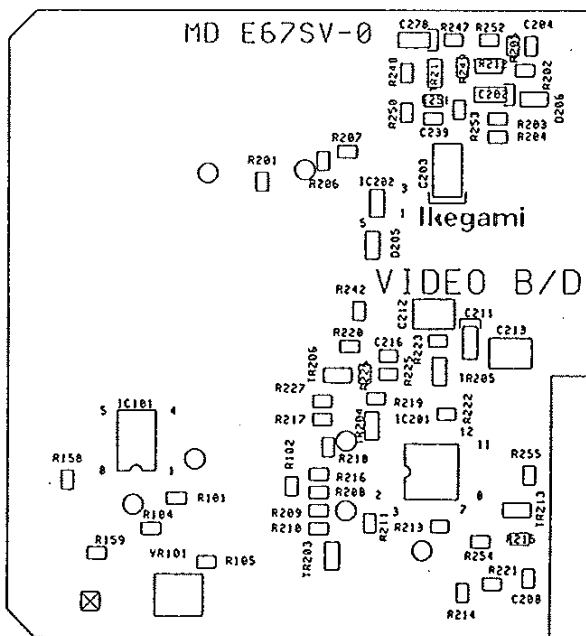
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NO.	DESCRIPTION	MFD.	PARTS-CODE	NO.	DESCRIPTION	MFD.	PARTS-CODE
TR207	2SD1083VS	HIT	1204108300				
TR208	2SC1623-L6.7 T1B	NEC	1203607005				
TR209	2SA 812-M6 T1B	NEC	1241081213				
TR210	2SC1623-L6.7 T1B	NEC	1203607005				
D201	ISS154-BA TE85L	TOS	1321015420				
D202	1S1835	TOS	1321183509				
D203	1S1835	TOS	1321183509				
D204	ISS123-A7 T1B	NEC	1321012310				
D207	1S1835	TOS	1321183509				
R228	RR1220P 1.1K Ω D	SSM	3152411025				
R231	RR1220P 560 Ω D	SSM	3152356022				
R232	RR1220P 160 Ω D	SSM	3152316026				
R233	RR1220P 4.7K Ω D	SSM	3152447029				
R234	RR1220P 3.3K Ω D	SSM	3152433029				
R235	SN14L2C 4R7 Ω F	KOA	3209147028				
R236	RR1220P 47K Ω D	SSM	3152547026				
R237	RR1220P 1K Ω D	SSM	3152410027				
R239	RR1220P 120 Ω D	SSM	3152312025				
R240	ERDS1TJ 220	MAT	3048022002				
R241	RR1220P 180 Ω D	SSM	3152318022				
R244	RK14B2H 6R8M Ω F	KOA	3123768024				
R245	RK14B2H 3R3M Ω F	KOA	3123733028				
R246	ERG-1SJ 753	MAT	3034575054				
R256	RMC1/10 1M Ω F	KAM	3153710003				
VR003	EVU-E20F15B15	MAT	2705151500				
VR204	ST-4TB 500 Ω	CPL	2752350054				
VR205	ST-4TB 200 Ω	CPL	2752320057				
VR206	3321P-1-505	MUR	2791750009				
VR207	3321P-1-104	MUR	2791710409				
C217	ECEA 1E6E101	MAT	2616110116				
C218	ECEA 1HKA3R3	MAT	2616130304				
C219	CK06 BX 272K	AVX	2690627209				
C220	CK06 BX 272K	AVX	2690627209				
C222	16SA 47K	SYO	2625247115				
C223	CK06 BX 392K	AVX	2690239005				
C224	RPE131R183K 50V	MUR	2690418302				
C225	ECEA 1E6E101	MAT	2616110116				
C226	ECEA 1EKA100	MAT	2541210015				
C227	ECEA 0JU471	MAT	2616047102				
C229	DNIC 2R2M 1S	NEC	2501122051				
C230	DE1510E 472Z 2KV	MUR	2564447007				
C231	TCD30E 2E 104M	MAR	2690210402				
C235	DD05-63B 471K500	MUR	2690471012				
C240	ECEA 2CU100	MAT	2616210007				
L201	ST-901463A	ITC	2990146306				
L202	EL0607SKI-121K	TDK	2990712107				
T201	IT-SP-11278 (ST-902128)	KIM	2990127801				
CN203	W-P9004	SMK	2298900404				

2.3.1



A SIDE



B SIDE

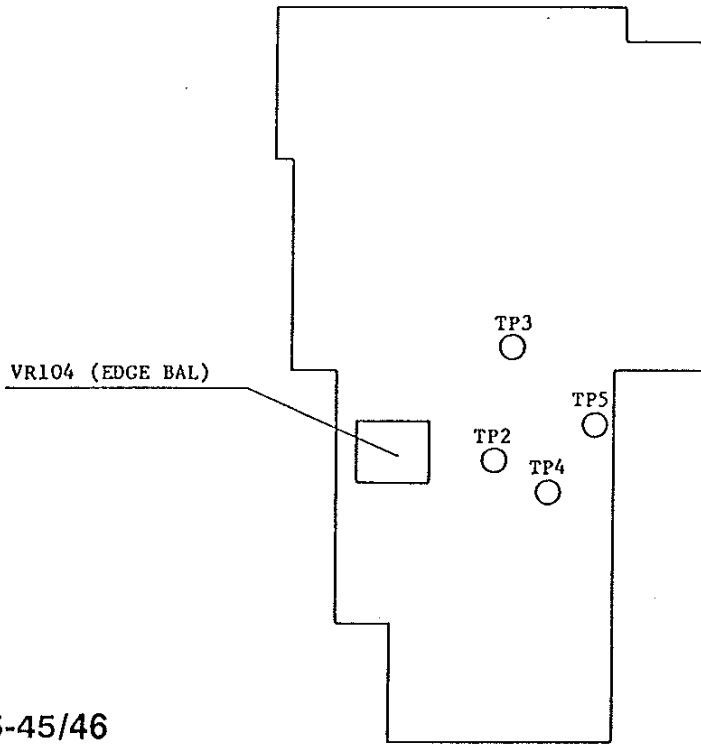
A side : Discrete parts are attached on the A side of the module.  
B side : Only chip parts are attached on the B side of the module.

**VF15-45/46  
VIDEO BOARD  
Parts Layout**

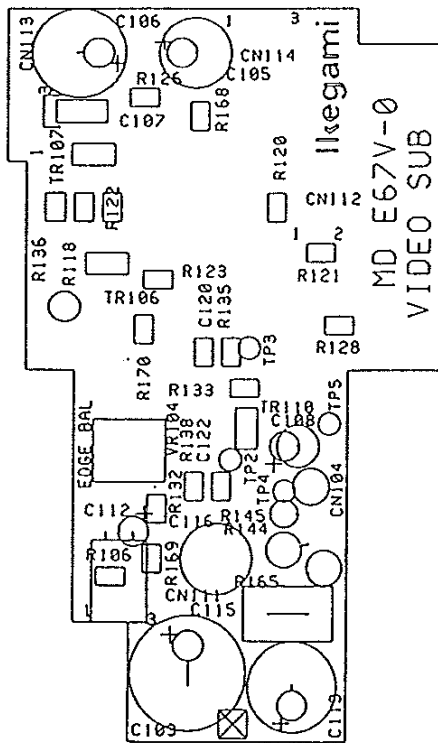
298

HL-45 S/M 298

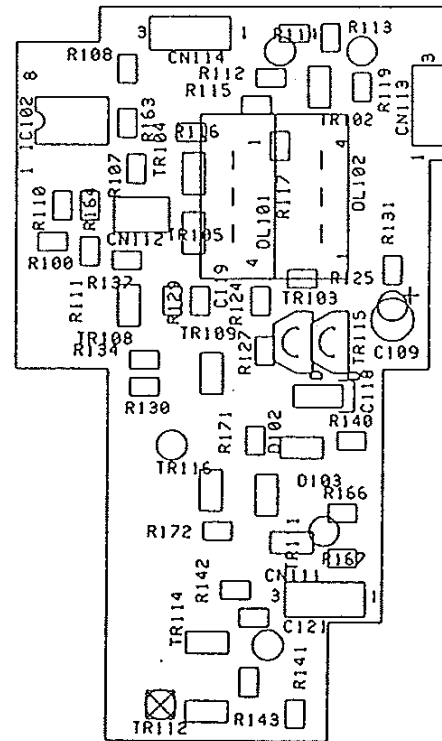
3.3.1 - 6  
2.3.1 - 6



**VF15-45/46  
VIDEO SUB  
Controls**



A SIDE

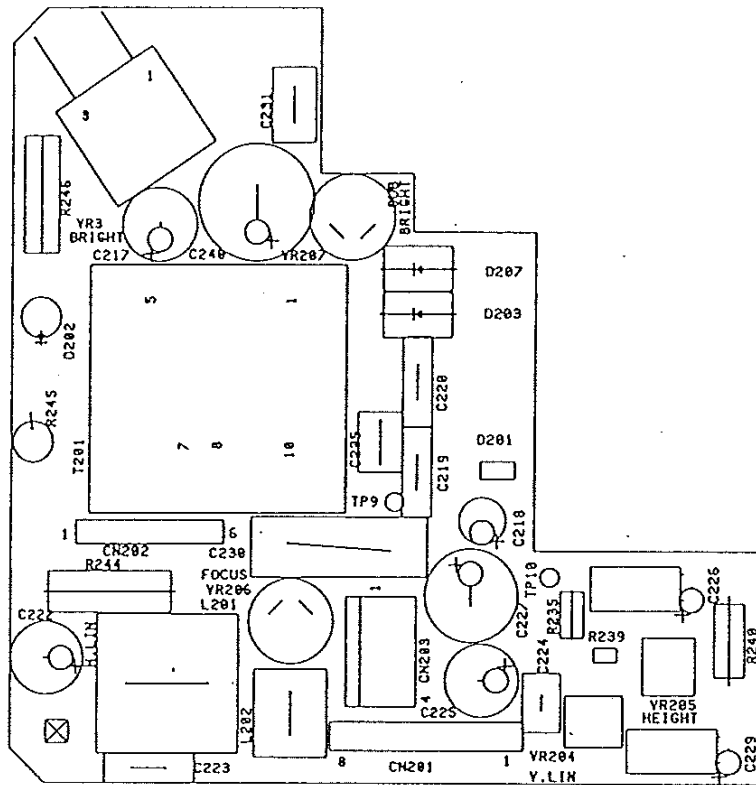


B SIDE

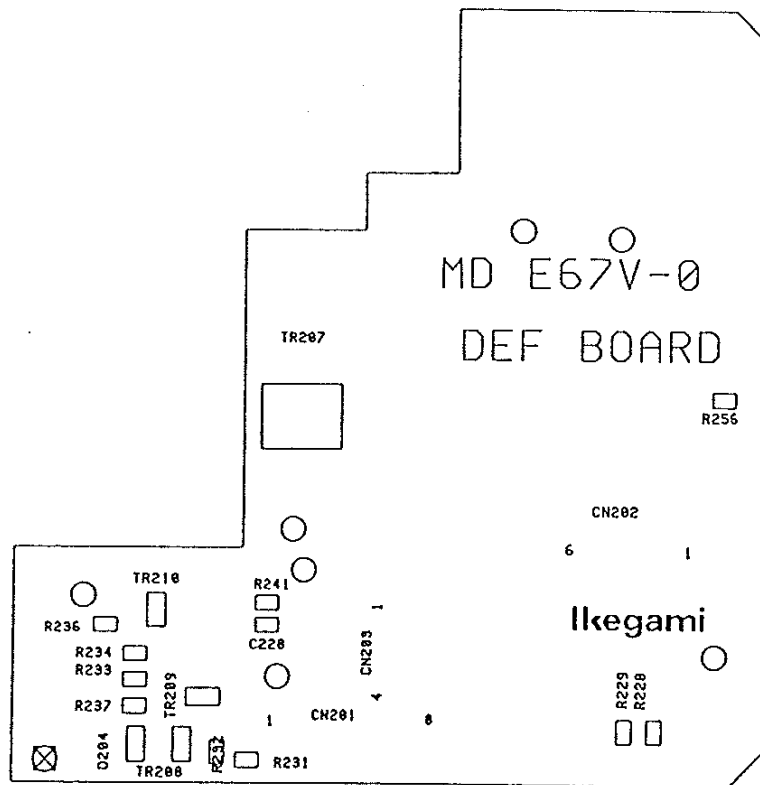
**VF15-45/46  
VIDEO SUB  
Parts Layout**

A side : Discrete parts are attached on the A side of the module.  
B side : Only chip parts are attached on the B side of the module.





A SIDE



B SIDE

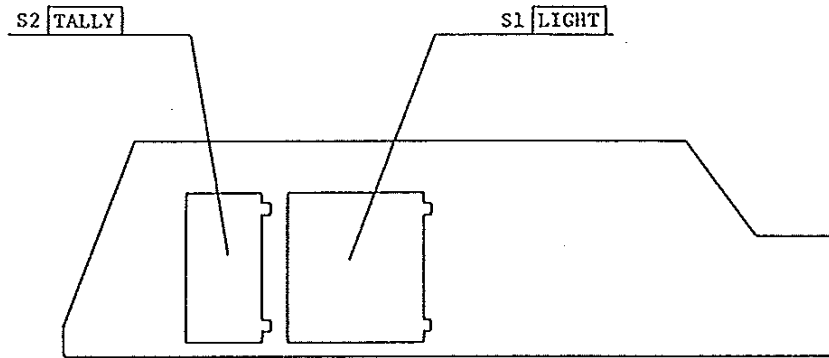
A side : Discrete parts are attached on the A side of the module.  
B side : Only chip parts are attached on the B side of the module.

**VF15-45/46  
DEF BOARD  
Parts Layout**

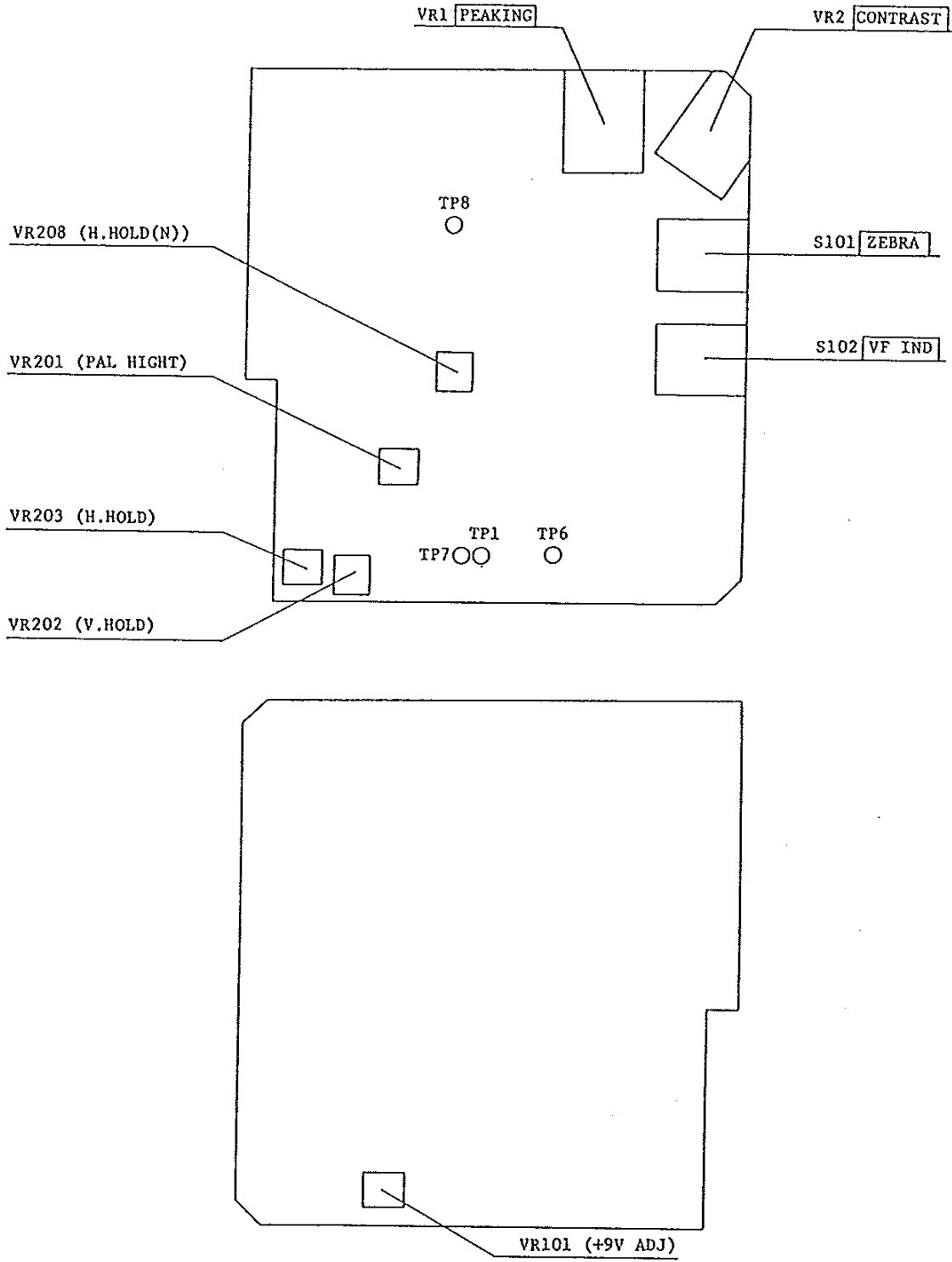
392

HL-45 S/M 300

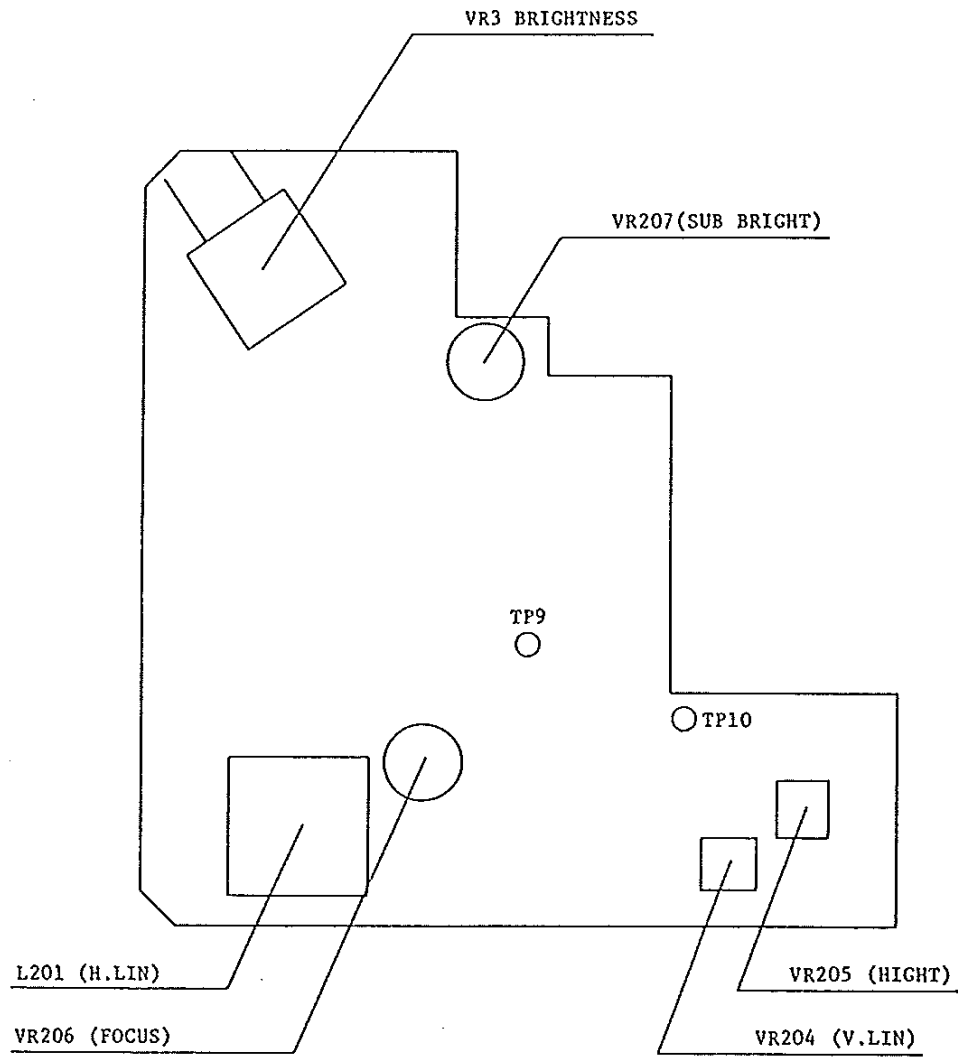
3.3.1 - 8  
2.3.1 - 8



**VF15-45/46**  
**LIGHT**  
**Controls**

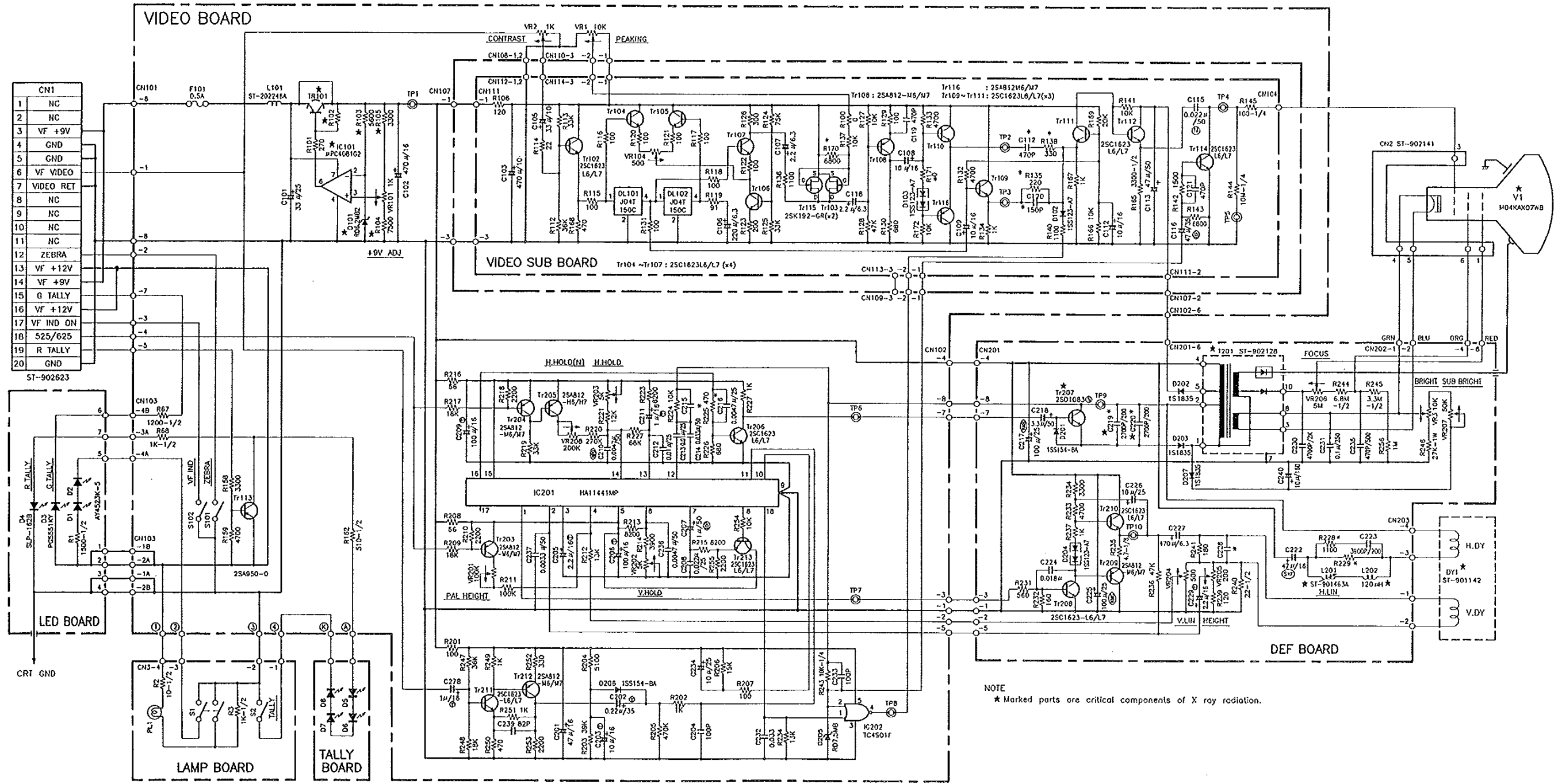


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HL-45 S/M 302



VF15-45/46  
DEF BOARD  
Controls

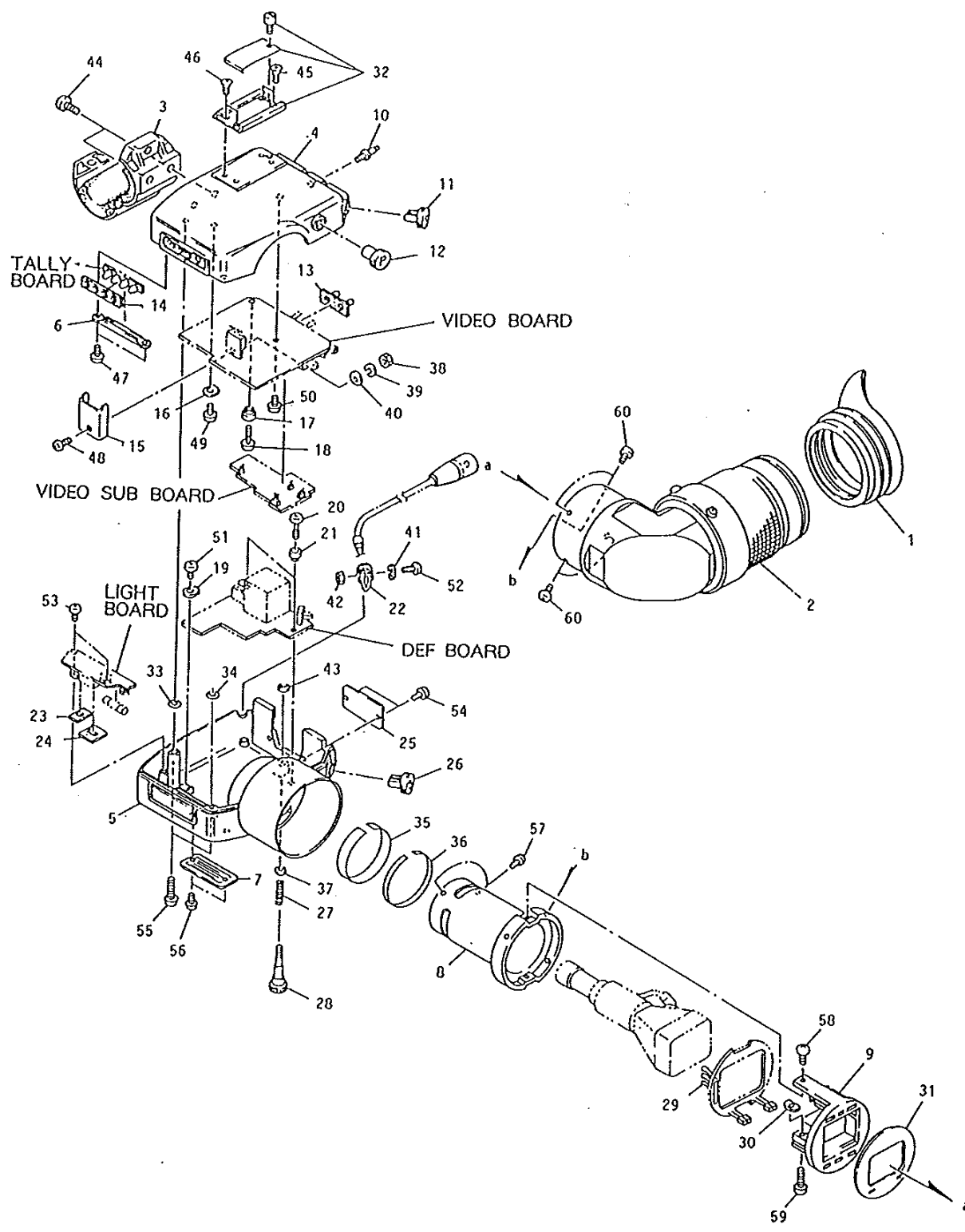
TR101,R102 Not Mount



NOTE  
\* Marked parts are critical components of X ray radiation.

VF15-45/46  
Schematic Diagram  
EC00422-00-30

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**VF15-45/46  
 VIEWFINDER  
 Exploded View  
 FK00196-00-303G**

HL  
 S/M 350