

Service Manual

Panasonic **VHS**

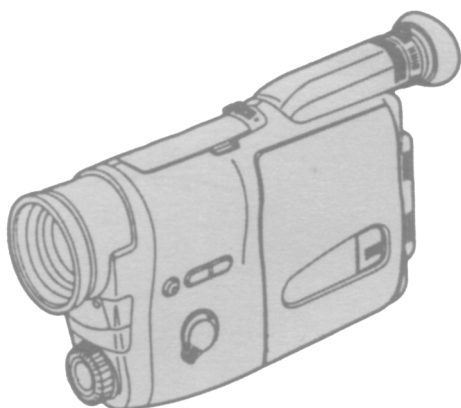
PAL

HQ

VHS-C Movie

NV-RX6EN

DL-MECHANISM



SPECIFICATIONS/ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ
TECHNICAL INFORMATION/ТЕХНИЧЕСКАЯ ИНФОРМАЦИЯ
ADJUSTMENT PROCEDURES/МЕТОДИКА РЕГУЛИРОВКИ

Disassembly procedures/методика разборки

Disassembly procedures of lens unit/методика разборки модуля линз

Electrical adjustment procedures for E.V.F. section/процедура электрической регулировки (секция видеоискателя)

Circuit board layout/размещение монтажных плат

BLOCK DIAGRAMS AND SCHEMATIC DIAGRAMS/БЛОК-СХЕМЫ И ПРИНЦИПИАЛЬНЫЕ СХЕМЫ

Sensor block diagram/блок-схема фотоэлектронного преобразователя

Process block diagram/блок-схема обработки видеосигнала

Lens drive block diagram/блок-схема привода линз

Power block diagram/блок-схема электропитания

System control and servo block diagram/блок-схема системы управления и сервопривода

Luminance/chrominance and head AMP block diagram/блок-схема каналов яркости/цветности и усилителя видеоголовок

CCD flexible card schematic diagram/принципиальная схема ПЗС матрицы

Sensor schematic diagram/принципиальная схема фотоэлектронного преобразователя

Lens drive schematic diagram/принципиальная схема привода линз

Process schematic diagram/принципиальная схема обработки видеосигнала

System control and servo schematic diagram/принципиальная схема системы управления и сервопривода

Power schematic diagram/принципиальная схема электропитания

Sub servo schematic diagram/принципиальная схема сервопривода (дополнительная)

Luminance/chrominance and head AMP schematic diagram/принципиальная схема каналов яркости/цветности и усилителя видеоголовок

Audio schematic diagram/принципиальная схема аудиоусилителя

E.V.F. schematic diagram/принципиальная схема видеоискателя

DC jack schematic diagram/принципиальная схема разъема подключения источника постоянного тока

AV jack schematic diagram/принципиальная схема аудио\видео разъема

MIC schematic diagram/принципиальная схема микрофона

Front operation schematic diagram/принципиальная схема панели управления

EXPLODED VIEWS AND MECHANICAL REPLACEMENT PARTS LIST/СБОРОЧНЫЕ ЧЕРТЕЖИ И СПИСОК МЕХАНИЧЕСКИХ ЗАПАСНЫХ ЧАСТЕЙ

VTR mechanism section (1)/механизм видеомэгнитофона (секция 1)

VTR mechanism section (2)/механизм видеомэгнитофона (секция 2)

VTR mechanism section (3)/механизм видеомэгнитофона (секция 3)

Camera lens section/модуль оптики

Frame and casing parts section/корпус и шасси

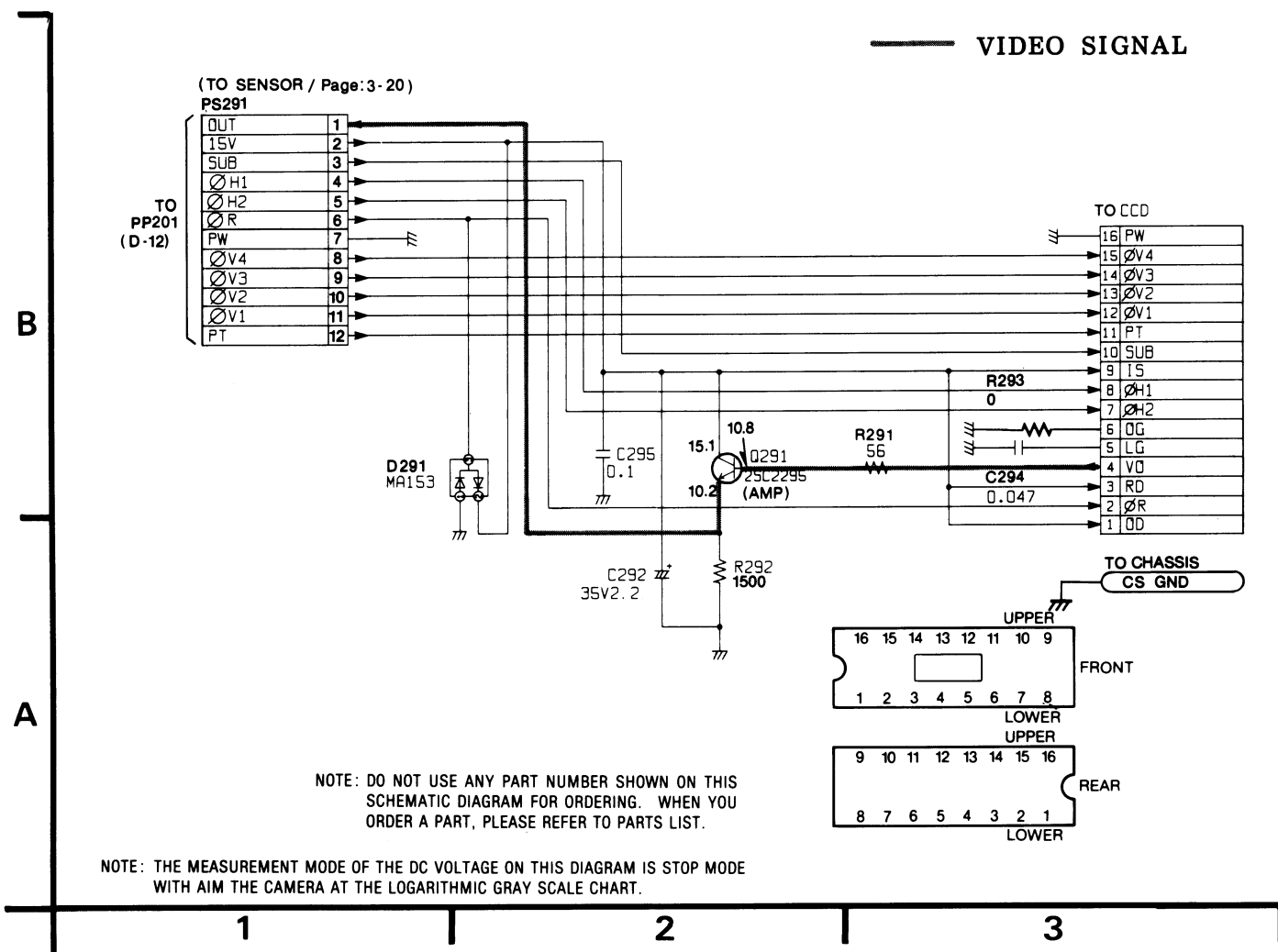
Packing parts and accessories section/упаковочные материалы и принадлежности

ELECTRICAL REPLACEMENT PART LIST/СПИСОК ЭЛЕКТРИЧЕСКИХ ЗАПАСНЫХ ЧАСТЕЙ

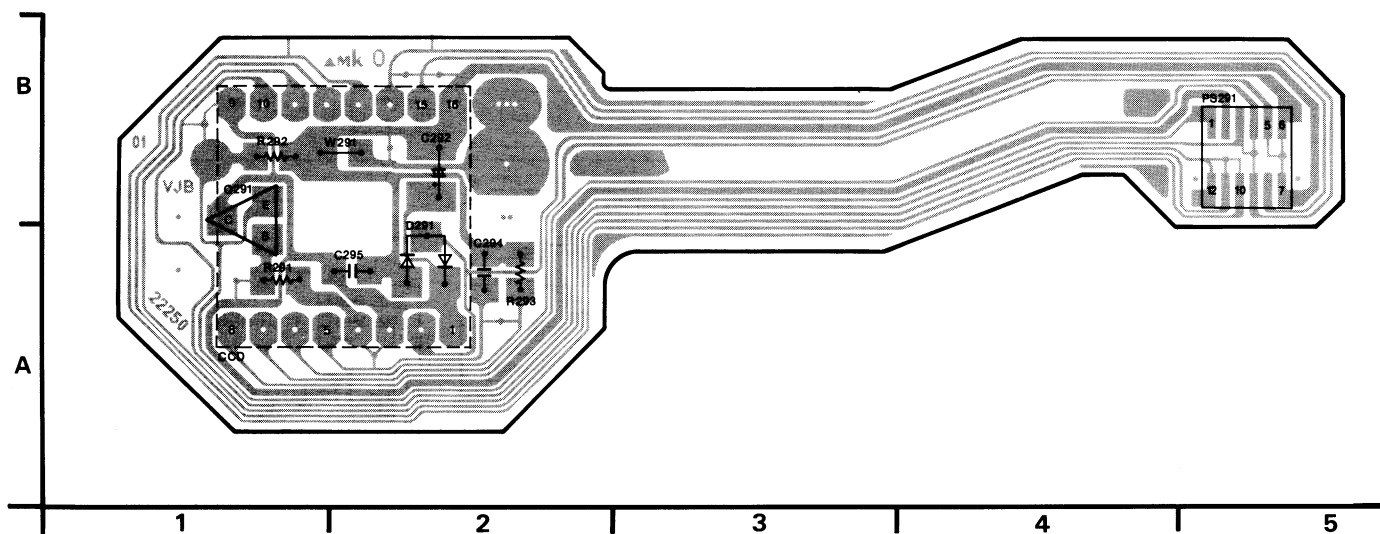
Panasonic

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3-8. CCD FLEXIBLE CARD SCHEMATIC DIAGRAM



3-9. CCD FLEXIBLE CARD C.B.A. (VEP22250B)

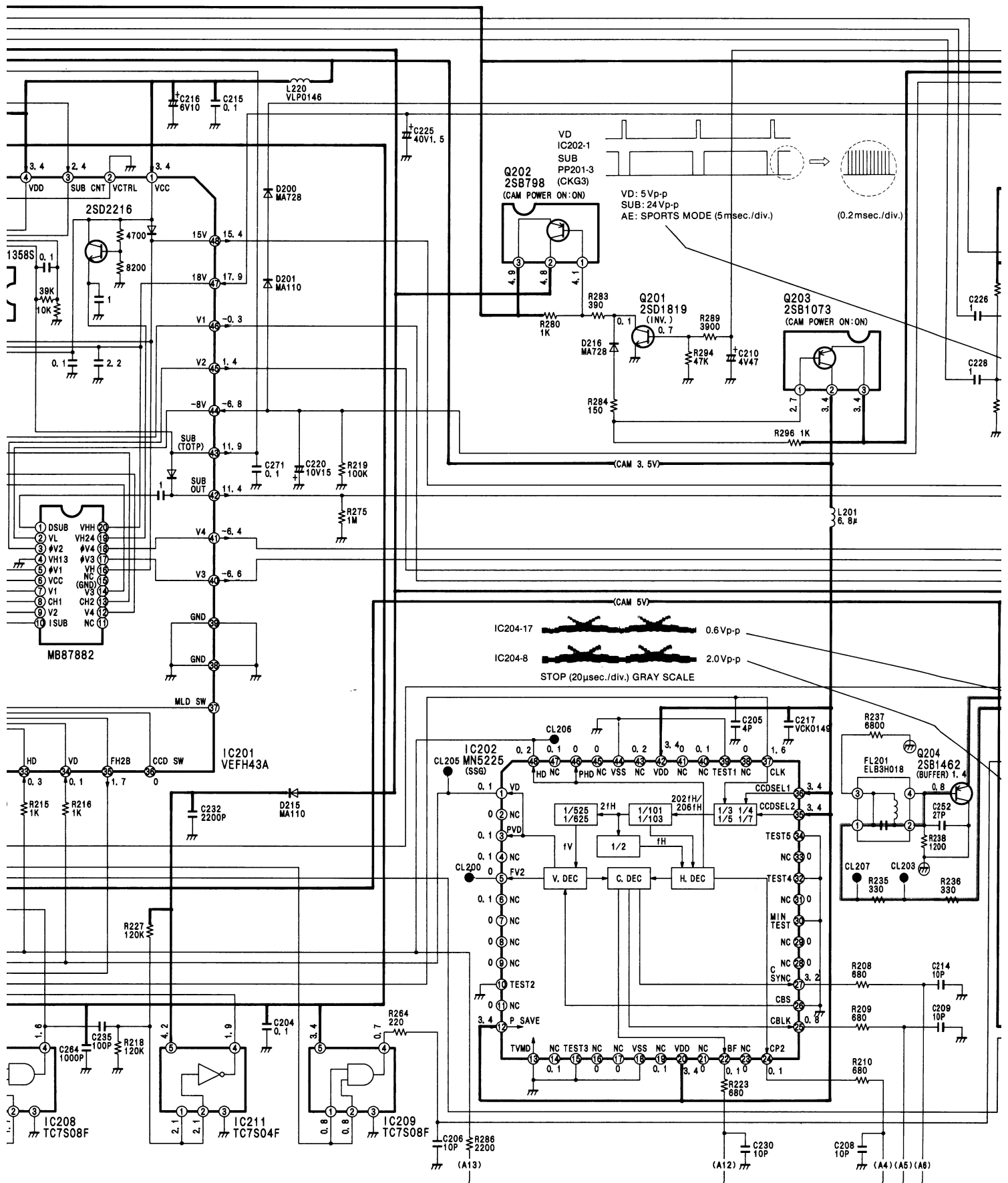


TO LENS DRIVE/PAGE:3-23

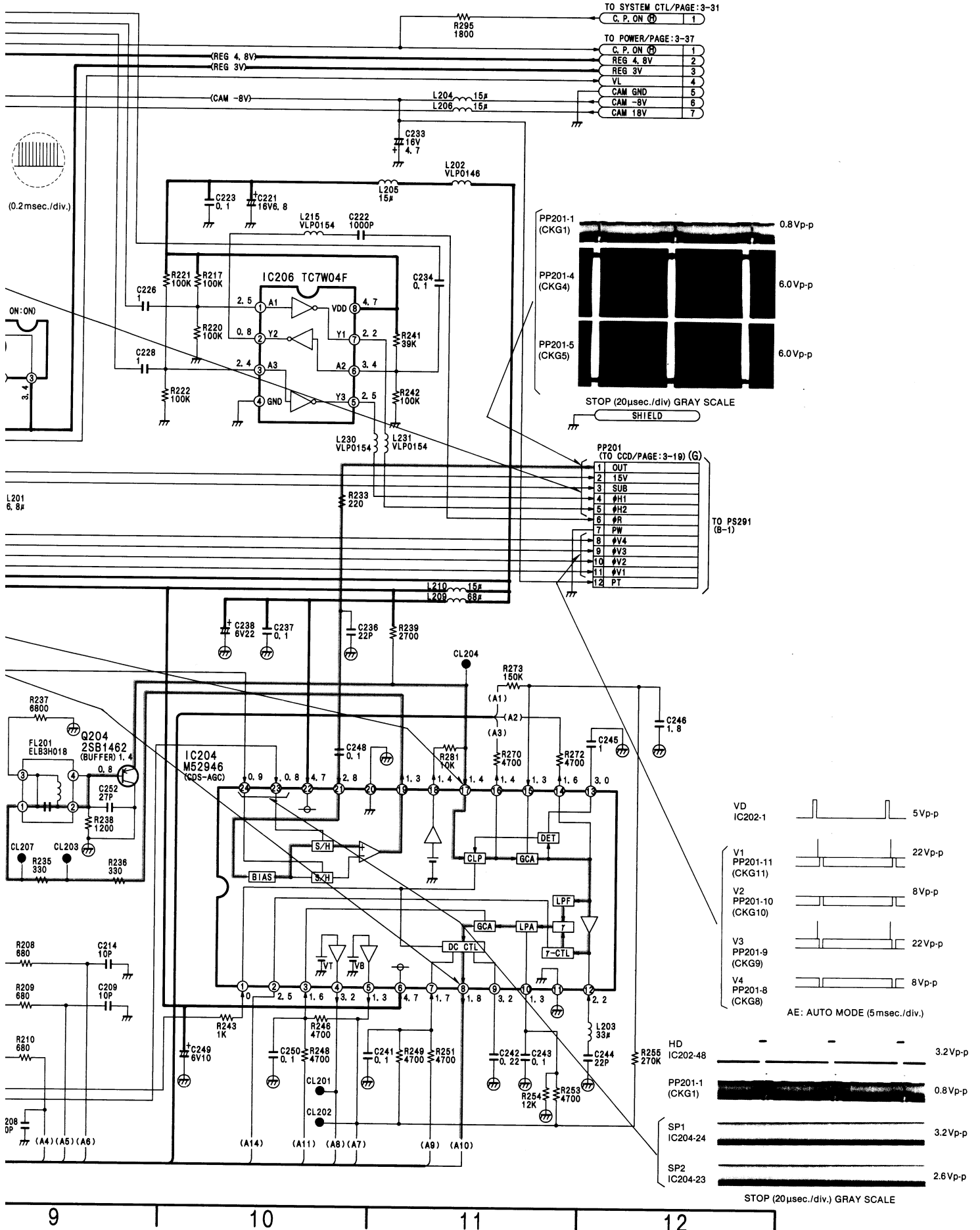
TO PROCESS/PAGE:3-27

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

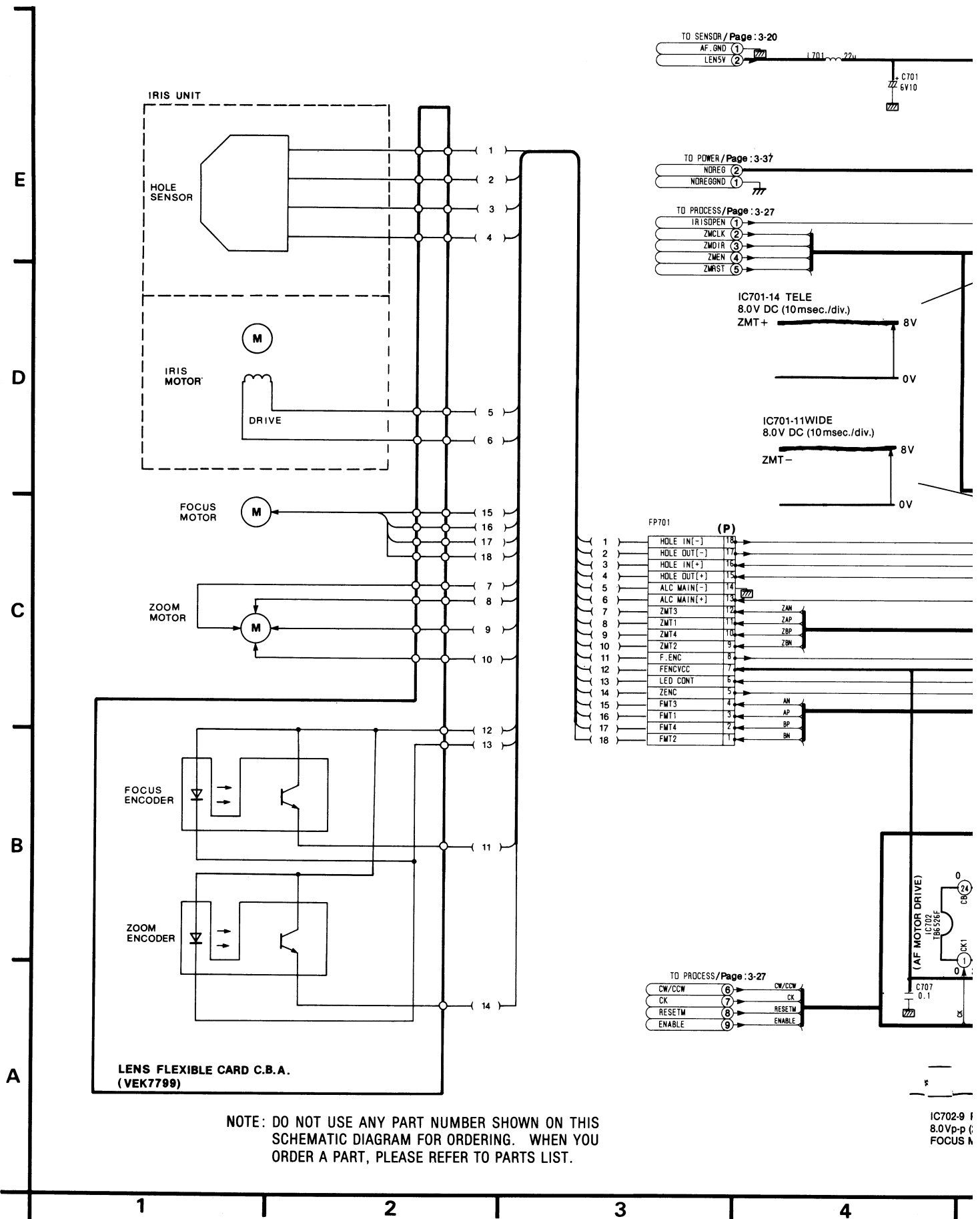


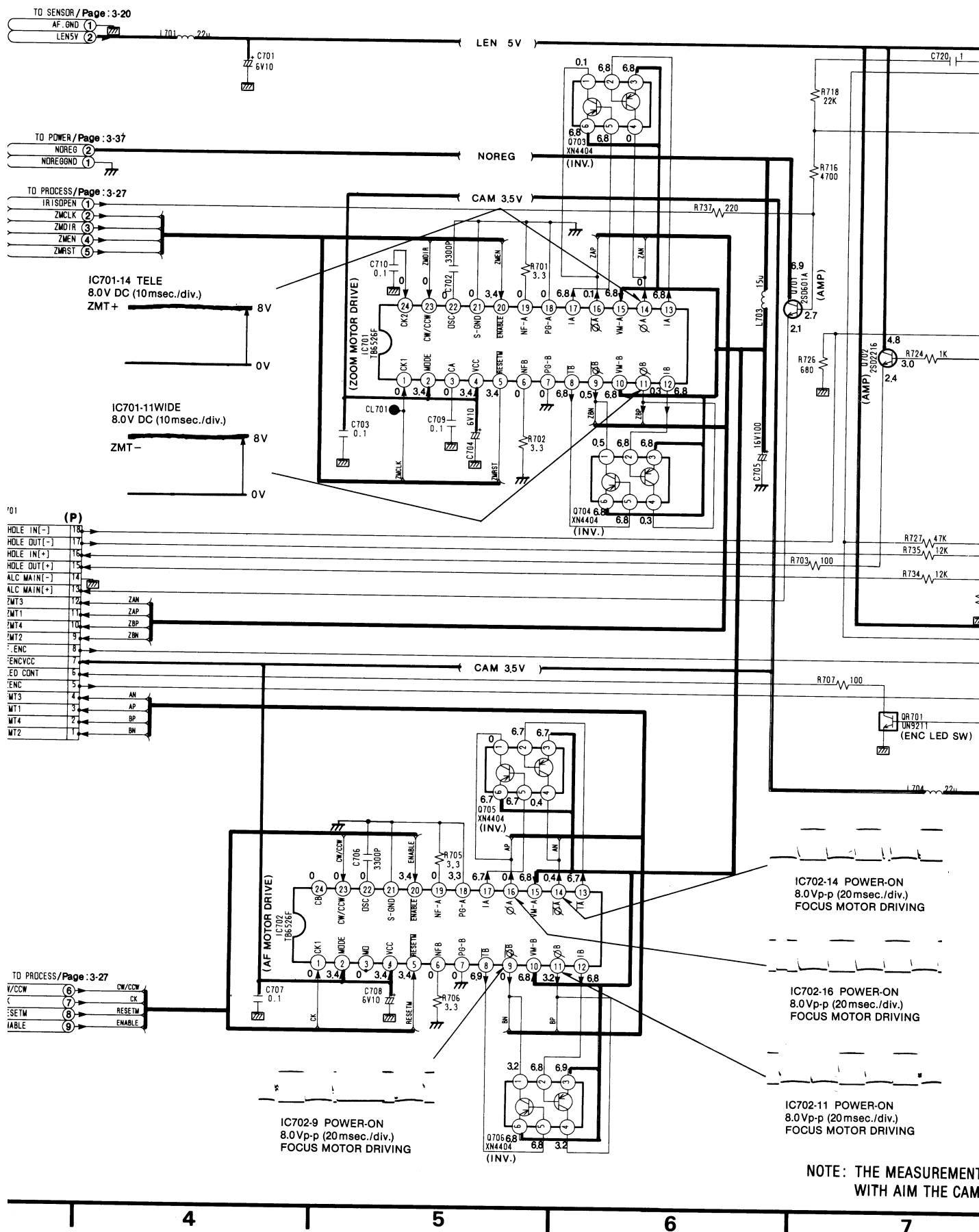


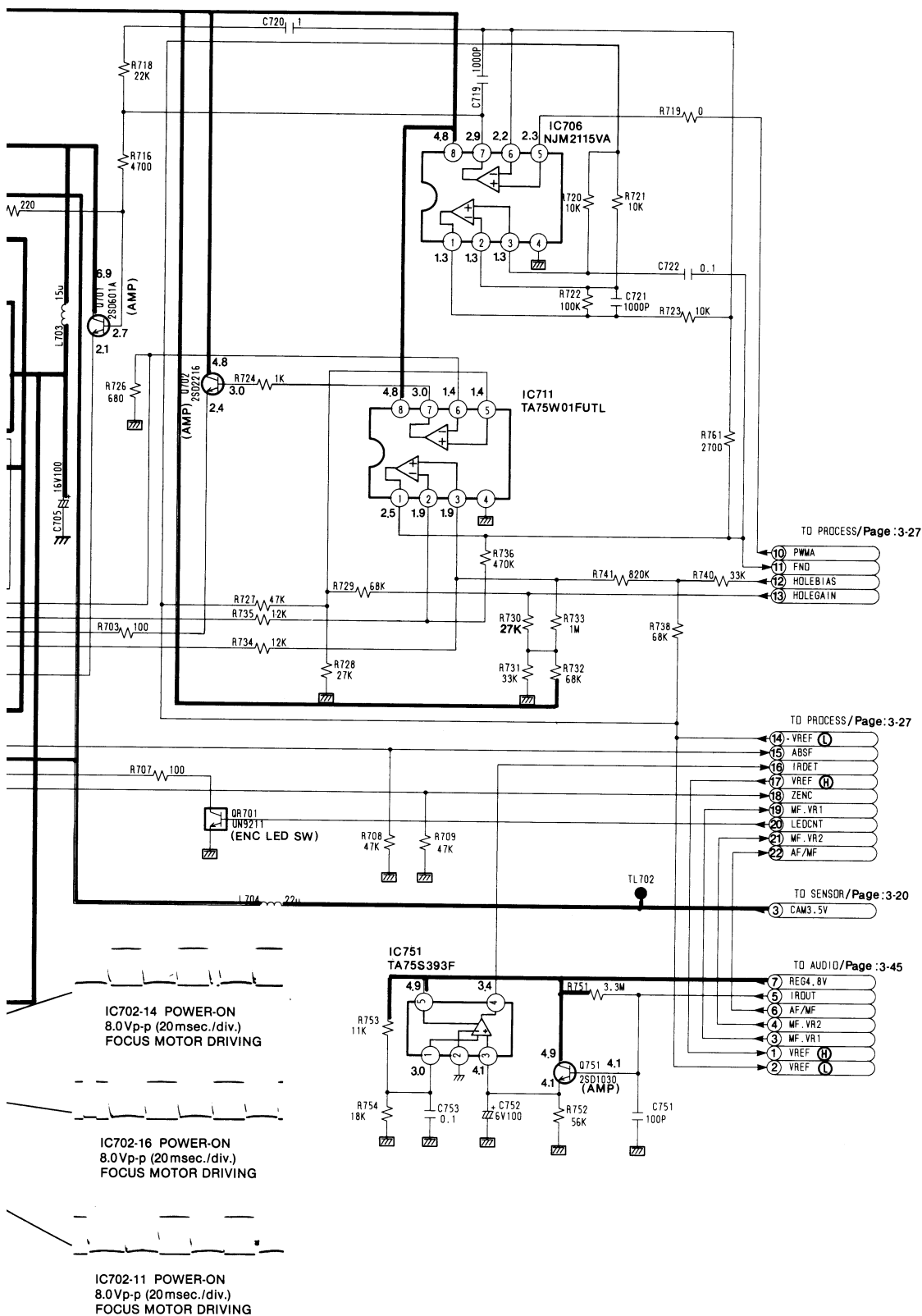
VIDEO SIGNAL



3-11. LENS DRIVE SCHEMATIC DIAGRAM







IC701, 702 (TB6512AF)
(LOCATION: D-5, B-5)

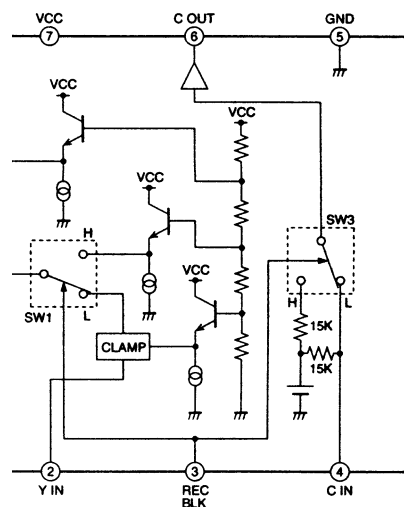
IC310 (MM1166AFBE)
(LOCATION: F-15)

IC306 (MN673)
(LOCATION:

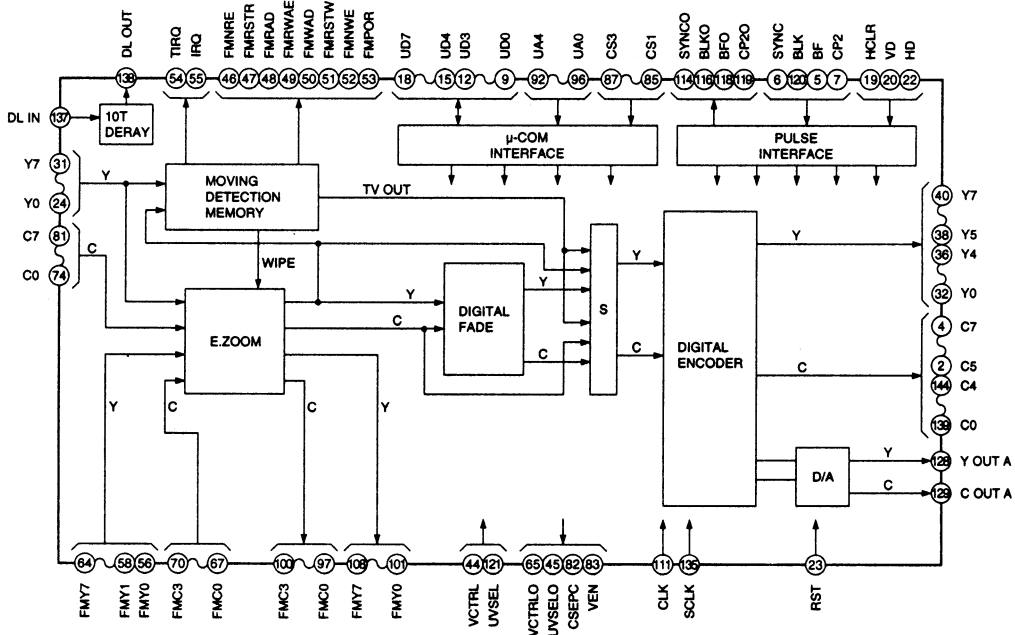
IC311 (MN4792FBP)
(LOCATION: G-8)

IC302 (MN67323)
(LOCATION: F-4)

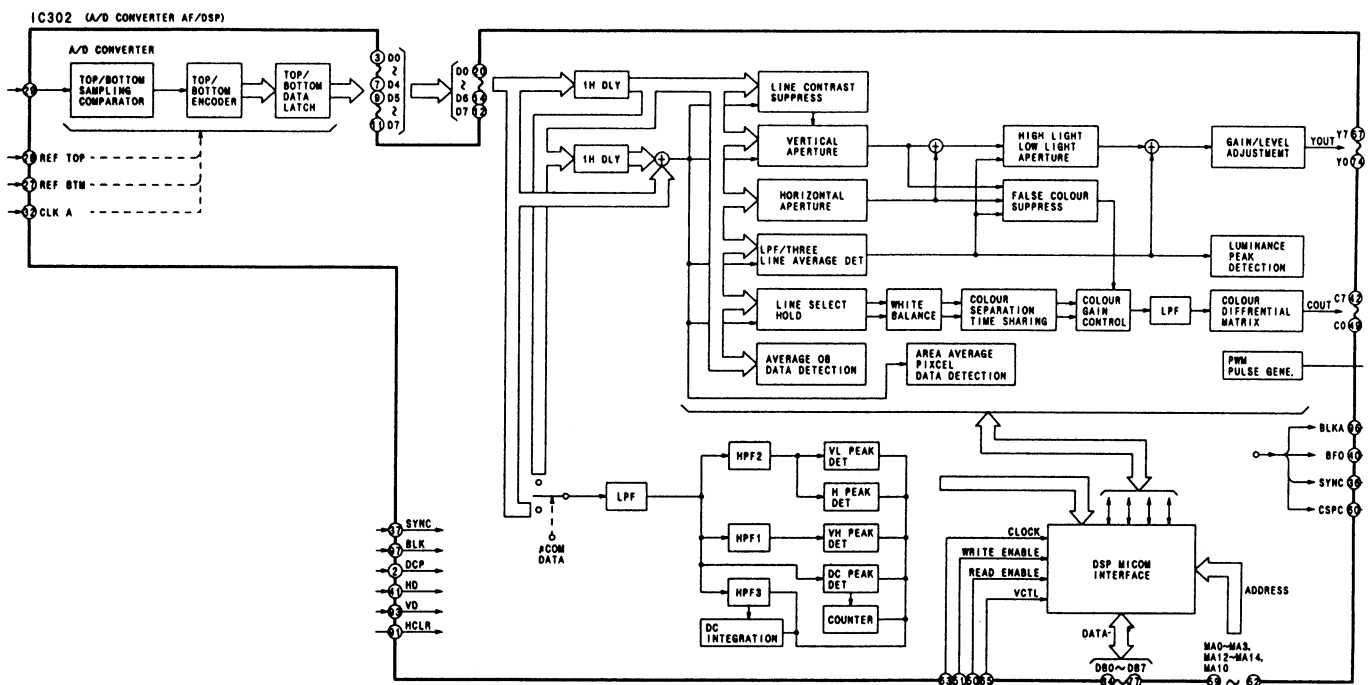
36AFBE)
F-15)



IC306 (MN67355)
(LOCATION: D-7)



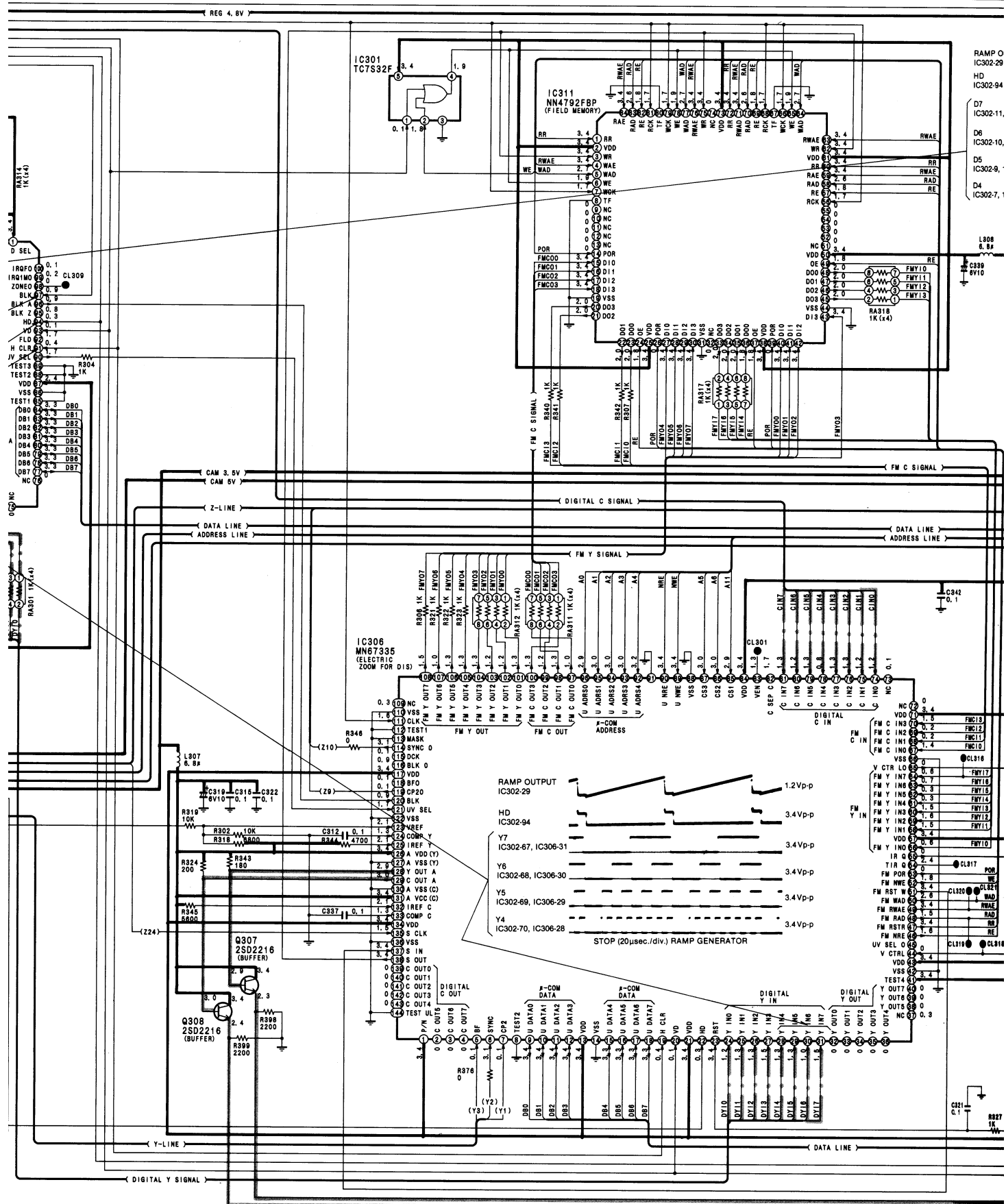
IC302 (MN67323)
(LOCATION: F-4)

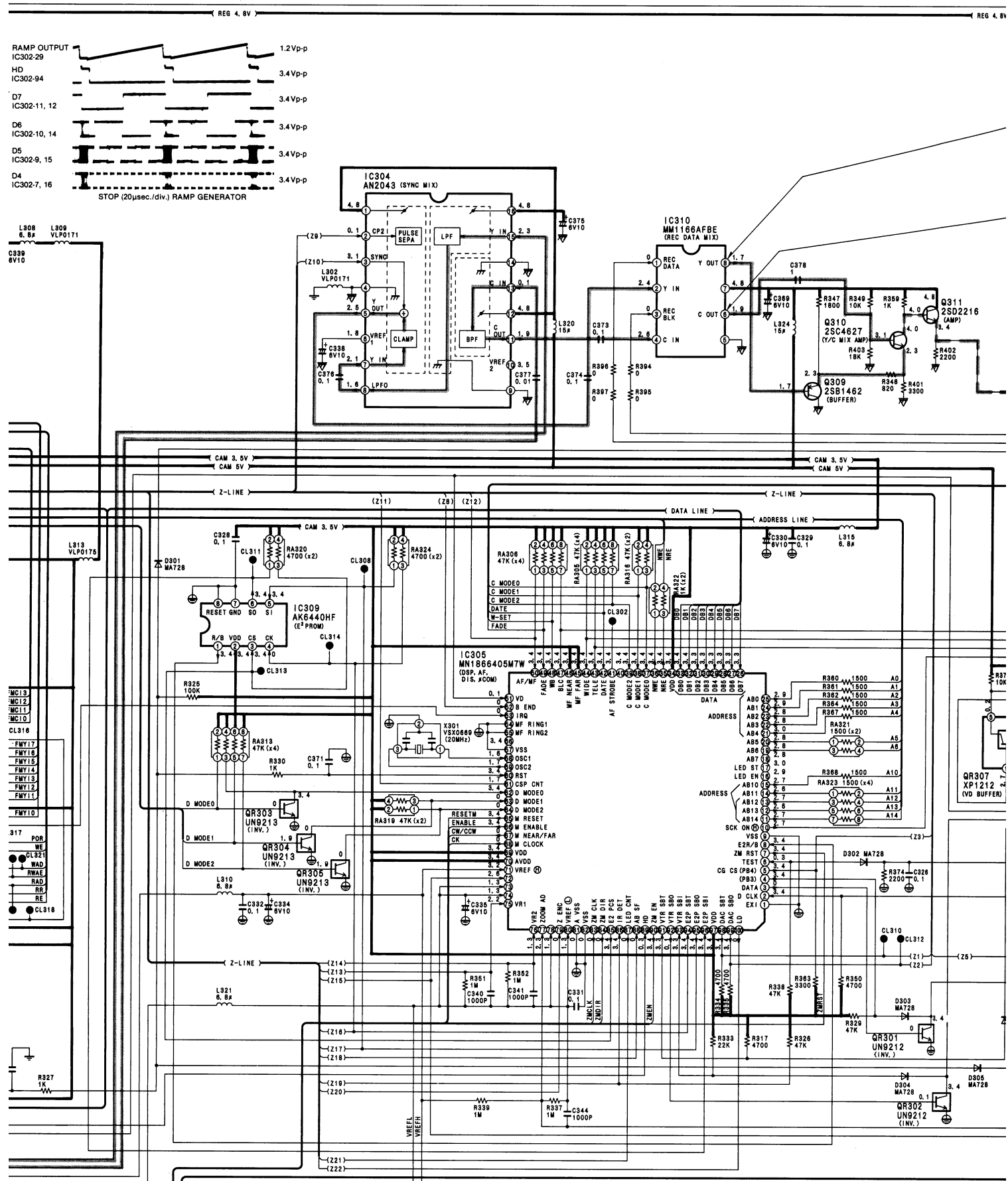


A

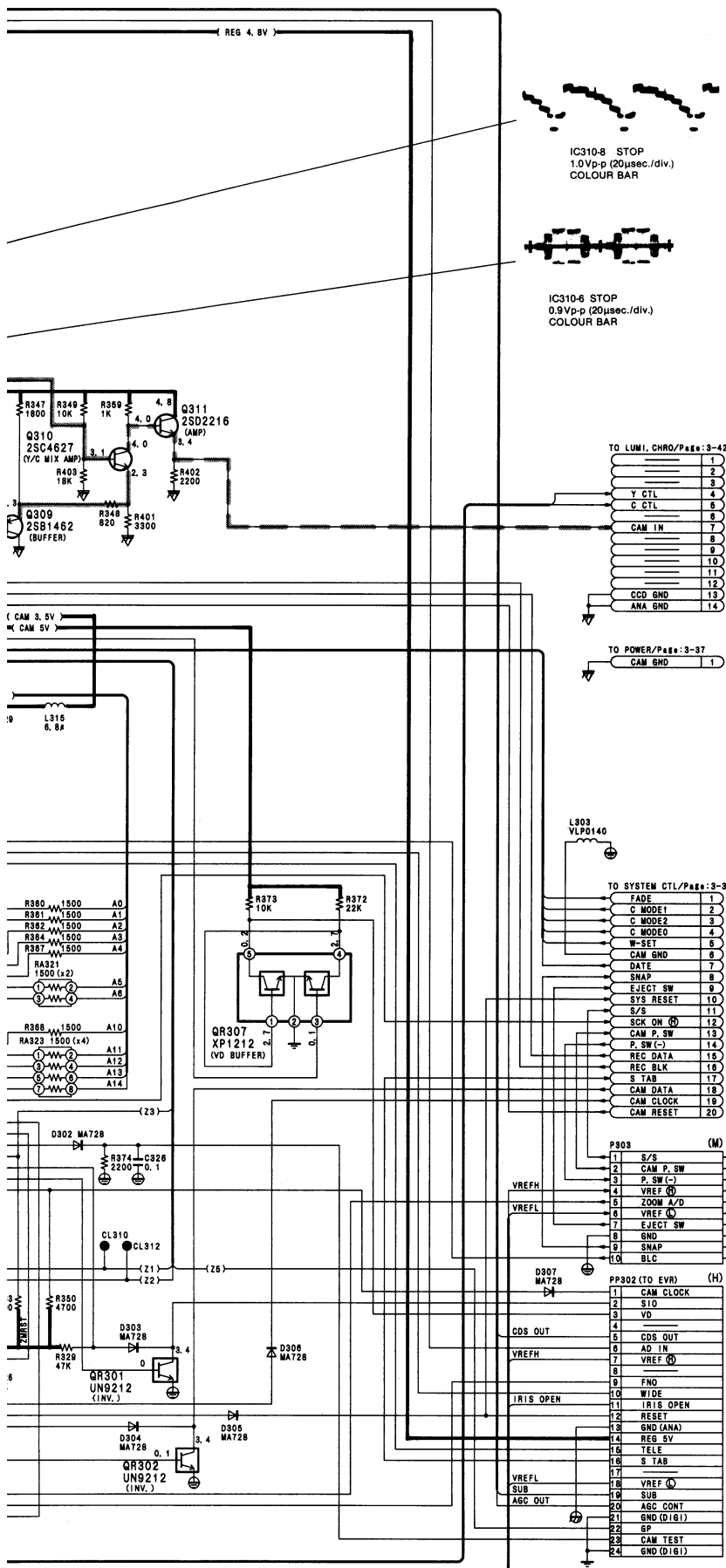


VIDEO SIGNAL

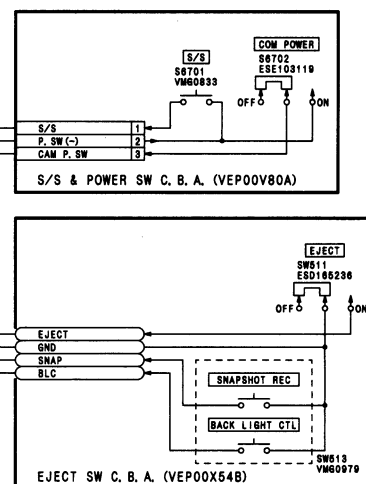




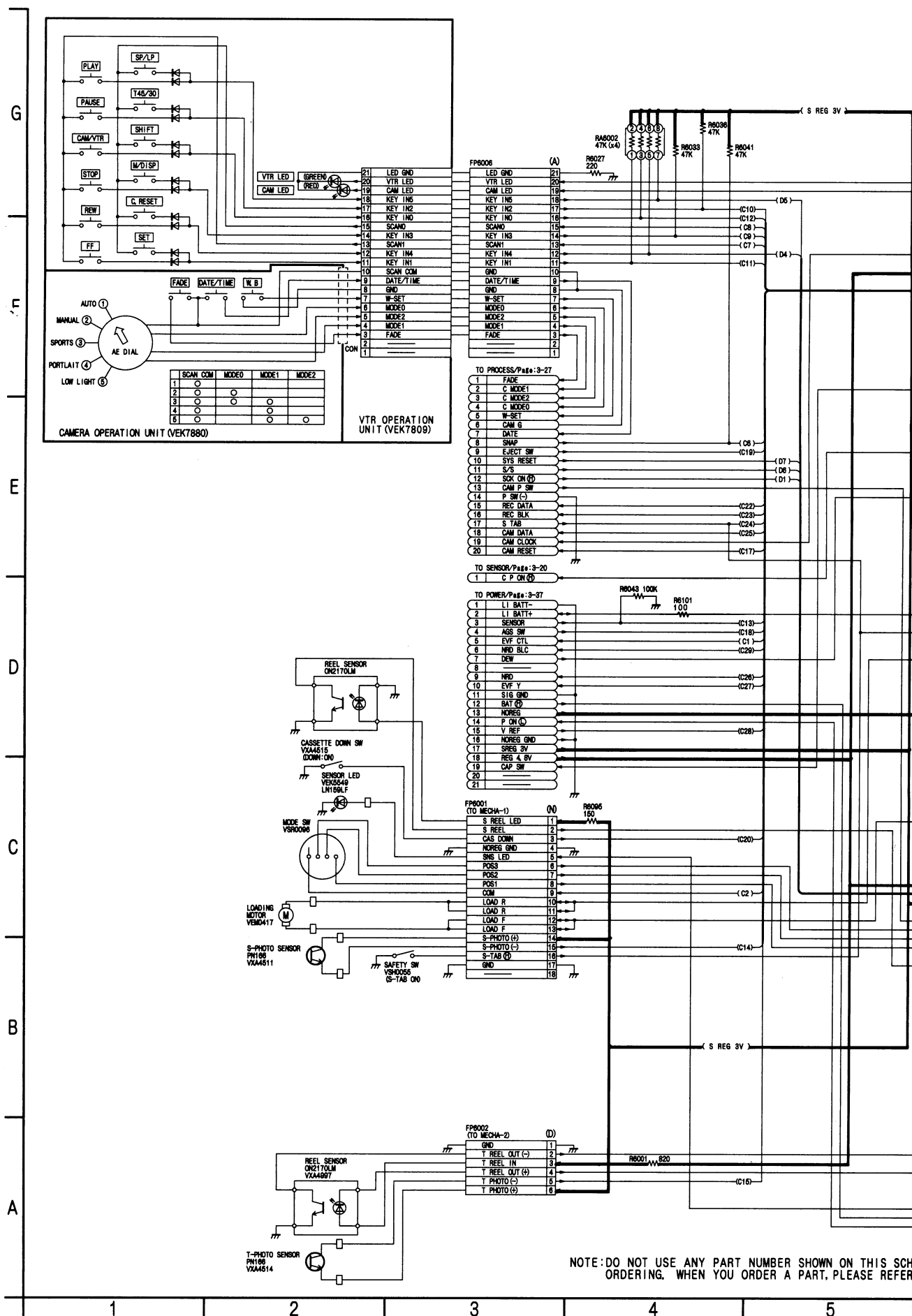
— Y SIGNAL ——— C SIGNAL



MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE
AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.



3-13. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM



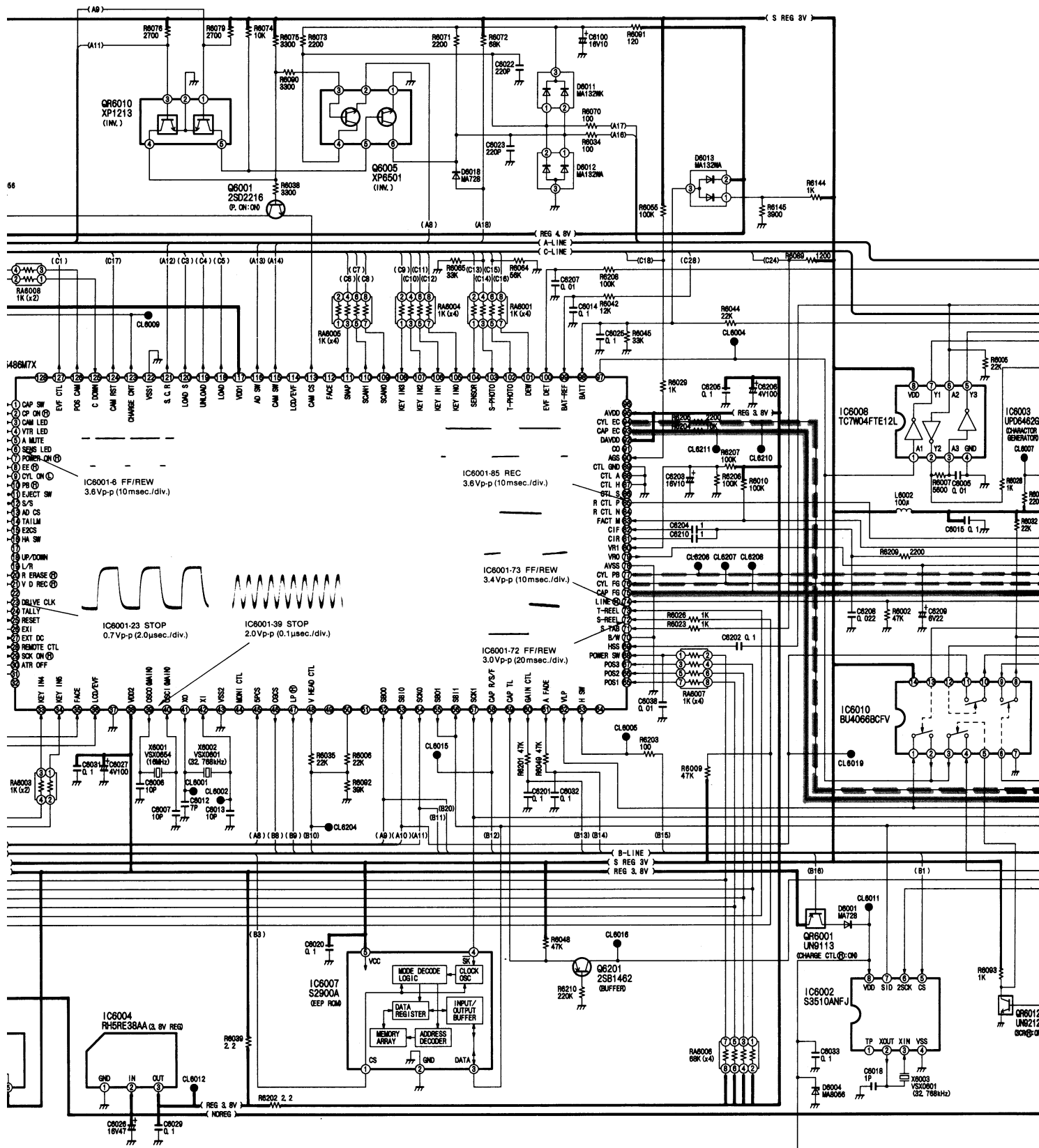
CAPSTAN SERVO



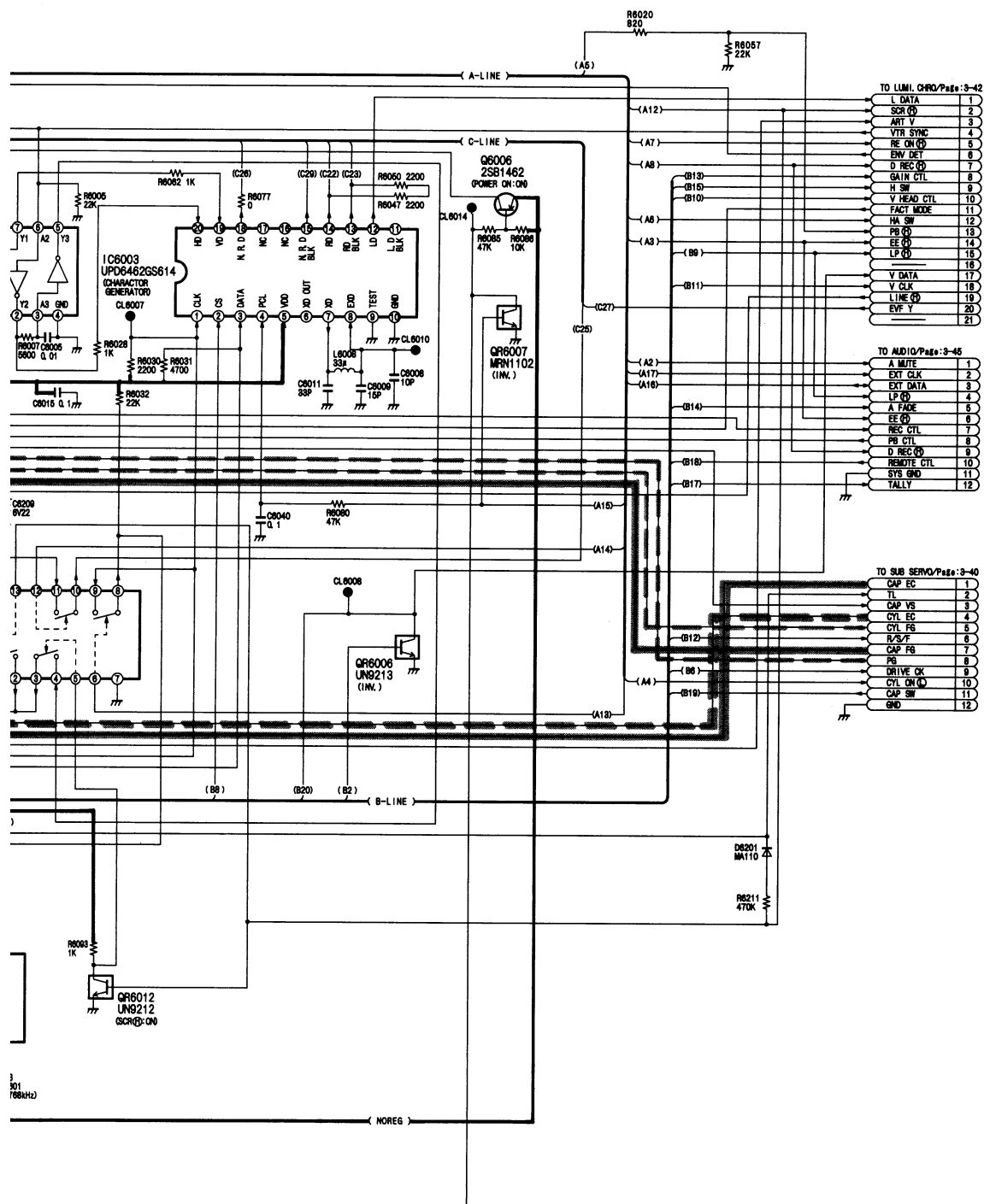
ERVO SPEED LOOP

CAPSTAN SERVO PHASE LOOP

CYLINDER SERVO



DER SERVO SPEED LOOP ~~REMOVE~~ CYLINDER SERVO PHASE LOOP



SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE)

REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	3.6	3.7	0	3.7	3.7	3.7	3.7	3.7	0	3.7	3.4	1.8	0	0	0	3.7	0	0	0
PLAY	0	0	3.7	0	0	3.7	3.7	0	0	3.2	3.7	3.4	1.8	0	0	1.8	3.7	0	0	0
F.F	0	3.7	3.7	0	3.7	3.5	3.7	3.7	0	0	3.7	3.4	1.8	0	0	1.8	3.7	0	0	0
REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	1.9	3.7	3.7	0	3.7	3.4	3.4	0	0	0	3.4	3.4	3.4	3.3	0	3.8	1.9	1.8
PLAY	0	0	1.9	3.7	3.7	0	3.7	3.4	3.4	0	0	0	3.4	3.4	3.4	3.4	0	3.8	1.9	1.8
F.F	0	0	1.9	3.7	3.7	0	3.7	3.4	3.4	0	0	0	3.4	3.4	3.4	3.4	0	3.8	1.9	1.8
REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	1.8	1.6	0	0	2.8	3.6	0	0	0	0	0.1	3.1	3.1	3.0	1.8	1.8	3.4	1.6	3.7	1.3
PLAY	1.8	1.6	0	0	2.8	3.5	0	0.2	0.1	0.1	0.2	3.1	3.2	3.0	1.8	1.8	3.4	0	3.7	1.3
F.F	1.8	1.6	0	0	2.8	3.3	0	0	0	0	0	3.1	3.2	3.0	3.3	3.3	3.4	0	3.7	1.3
REF. NO.	IC6001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	0	3.7	0	3.7	0	3.7	0	1.5	0	0	3.0	3.4	1.2	3.4	3.4	0	0	1.9	1.9
PLAY	0	0	1.7	0	3.7	3.7	0	0	1.5	0	0	1.6	1.6	1.1	1.7	1.7	0	0	1.9	1.9
F.F	0	0	1.8	0	3.7	3.7	0.1	0	1.5	0	0	1.6	1.7	1.1	1.7	1.8	0.2	0	1.9	1.9
REF. NO.	IC6001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	1.7	2.0	3.7	0	0	1.1	0	0	0	3.4	0	3.8	0.1	3.5	3.8	0	0	3.3	2.4	2.0
PLAY	1.7	2.0	3.7	0	1.0	1.0	0	0	0	3.4	0	3.8	1.6	1.6	3.8	0	0	3.3	2.4	2.8
F.F	1.7	2.0	3.7	0	0.9	0.9	0	0	0	3.4	0	3.8	1.4	1.6	3.8	0	0	3.3	2.4	2.0
REF. NO.	IC6001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	0	0	0	0	3.4	3.4	3.4	3.4	3.7	3.7	3.4	3.7	2.6	3.7	1.0	0.1	3.8	0	0	0
PLAY	0	0	0	0	3.4	3.4	3.4	3.4	3.7	3.7	3.4	3.7	3.7	3.7	0	0.1	3.8	0	0	0
F.F	0	0	0	0	3.4	3.4	3.4	3.4	3.7	3.7	3.4	3.7	2.6	3.7	0.7	0.1	3.8	0	0	0
REF. NO.	IC6001																			
MODE	121	122	123	124	125	126	127	128												
STOP	0	0	0	3.7	0	0	3.7	0												
PLAY	0	0	0	0	0	0	3.7	0												
F.F	0	0	0	3.7	0	0	3.7	0												
REF. NO.	IC6002																			
MODE	1	2	3	4	5	6	7	8												
STOP	0	0.8	0.5	0	1.8	3.4	1.8	3.6												
PLAY	0	0.8	0.5	0	1.8	0	1.8	3.6												
F.F	0	0.8	0.5	0	1.8	3.4	3.3	3.6												
REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.4	3.4	1.8	3.7	3.4	0	1.4	1.4	0	0	0	0.1	0	0	0.1	0	0	0	3.4	3.2
PLAY	3.4	3.4	1.8	3.7	3.4	0	1.4	1.4	0	0	0	0.1	0	0	0	0	0	0	3.4	3.2
F.F	3.4	3.4	3.3	3.7	3.4	0	1.4	1.4	0	0	0	0.1	0	0	0.1	0	0	0	3.4	3.2
REF. NO.	IC6004										IC6005									
MODE	1	2	3								1	2	3	4	5	6	7	8		
STOP	0	6.9	3.8								0	6.9	4.9	0	0	3.0	0	0		
PLAY	0	6.9	3.8								2.1	6.9	4.9	0	0	3.0	2.0	0		
F.F	0	6.9	3.8								2.9	6.9	4.9	0	0	3.0	2.5	0		
REF. NO.	IC6006										IC6007									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5					
STOP	3.4	0.7	0.8	0	0	0	0	4.9			0	0	1.8	3.4	3.4					
PLAY	0	0.7	0.8	0	0	0	0	4.9			0	0	1.8	3.4	3.4					
F.F	1.6	0.7	0.7	0	0	0	0	4.9			0	0	3.3	3.4	3.4					
REF. NO.	IC6008										IC6009									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5					
STOP	0	3.2	3.2	0	0	0.3	3.4	3.4			0	0	0	3.7	3.7					
PLAY	0	3.2	3.2	0	0	0.2	3.4	3.4			0	0	0	3.7	3.7					
F.F	0	3.2	3.2	0	0	0.3	3.4	3.4			0	0	0	3.7	3.7					
REF. NO.	IC6010																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	0	0	0	0	0	0	0	3.4	3.4	3.2	3.1	0.7	0	3.4						
PLAY	0	0	0	0	0	0.1	0	3.4	3.4	0	3.2	0	0	3.4						
F.F	0	0	0	0	0	0.1	0	3.4	3.4	3.3	3.1	0.9	0	3.4						

SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (SP MODE)

REF. NO.	Q6001			Q6002			Q6005						Q6006			Q6201		
MODE	E	C	B	E	C	B	1	2	3	4	5	6	E	C	B	E	C	B
STOP	2.6	3.2	0.2	0.1	6.9	0	0	2.8	0.2	4.7	0.1	4.7	6.9	6.9	6.3	3.7	3.7	3.2
PLAY	3.7	1.8	0.3	0.2	6.9	0	0	1.7	0.3	4.7	0.1	4.5	6.9	6.9	6.3	3.7	3.7	3.2
F.F	2.6	3.2	0.2	0.8	6.9	0.5	0	2.8	0.2	4.7	0.1	4.5	6.9	6.7	6.1	3.7	3.7	3.2

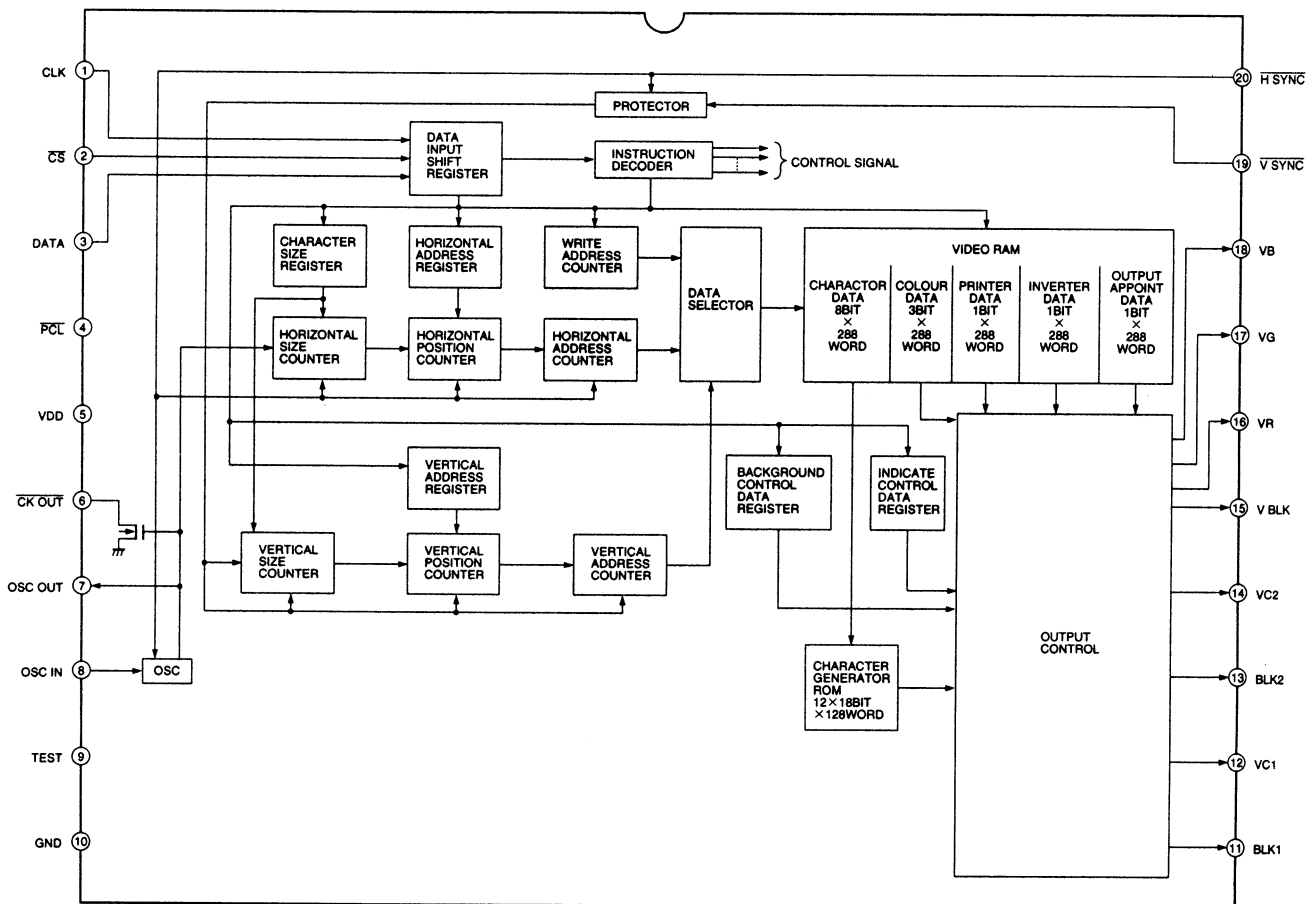
REF. NO.	QR6001			QR6002			QR6003			QR6004						QR6006		
MODE	E	C	B	E	C	B	E	C	B	1	2	3	4	5	6	E	C	B
STOP	3.7	3.7	0	3.4	0	3.7	3.4	0	3.7	3.8	3.7	3.3	3.4	0	0	0	3.2	0
PLAY	3.7	3.7	0	3.4	0	3.7	3.4	0	3.7	3.8	3.7	3.3	3.4	0	0	0	3.2	0
F.F	3.7	3.7	0	3.4	0	3.7	3.4	0.3	3.5	3.8	3.7	3.3	3.4	0	0	0	3.1	0

REF. NO.	QR6007			QR6010					QR6014			QR6015					
MODE	E	C	B	1	2	3	4	5	E	C	B	E	C	B			
STOP	0	0	3.7	3.2	0	3.0	0.3	0.1	0	3.7	0	0	6.7	0			
PLAY	0	0	3.7	3.2	0	3.0	0.3	0.1	0	3.7	0	0	6.6	0			
F.F	0	0	3.7	3.1	0	3.0	0.3	0.1	0	3.7	0	0	6.1	0			

REF. NO.	QR6050																			
MODE	1	2	3	4	5															
STOP	0	0	0	0	0															
PLAY	0	0	0	0	0															
F.F	0	0	0	0	0															

IC BLOCK

IC6003 (μPD6462GS614)
(LOCATION: E-15)



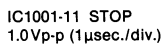
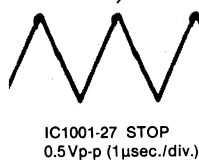
3-14. POWER SCHEMATIC DIAGRAM

(TO DC JACK/Page :3-57)
PS1001

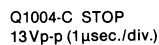
PP1601-13	EVF_CTL	1
PP1601-14	NRD_BLC	2
PP1601-15	DEW	3
PP1601-16	AGS_SW	4
PP1601-17	SENSOR	5
PP1601-18	REGEVF_5V	6
PP1601-19		7
PP1601-20	NOREGND	8
PP1601-21	NOREGND	9
PP1601-22	NOREGND	10
PP1601-23	DC_IN	11
PP1601-24	DC_IN	12
PP1601-1	DC_IN	13
PP1601-2	DC_IN	14
PP1601-3	DC_IN	15
PP1601-4	NOREGND	16
PP1601-5	NOREGND	17
PP1601-6	EVF_GND	18
PP1601-7	EVF_GND	19
PP1601-8	LI_BATT(+)	20
PP1601-9	BAT (+)	21
PP1601-10	LI_BATT(-)	22
PP1601-11	NRD	23
PP1601-12	EVF_Y	24

TO SYSTEM CTL/
Page:3-31

- LI_BATT- (1)
- LI_BATT+ (2)
- SENSOR (3)
- AGSW (4)

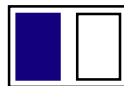


(CAM -8V SW)
Q1004
2SD2210



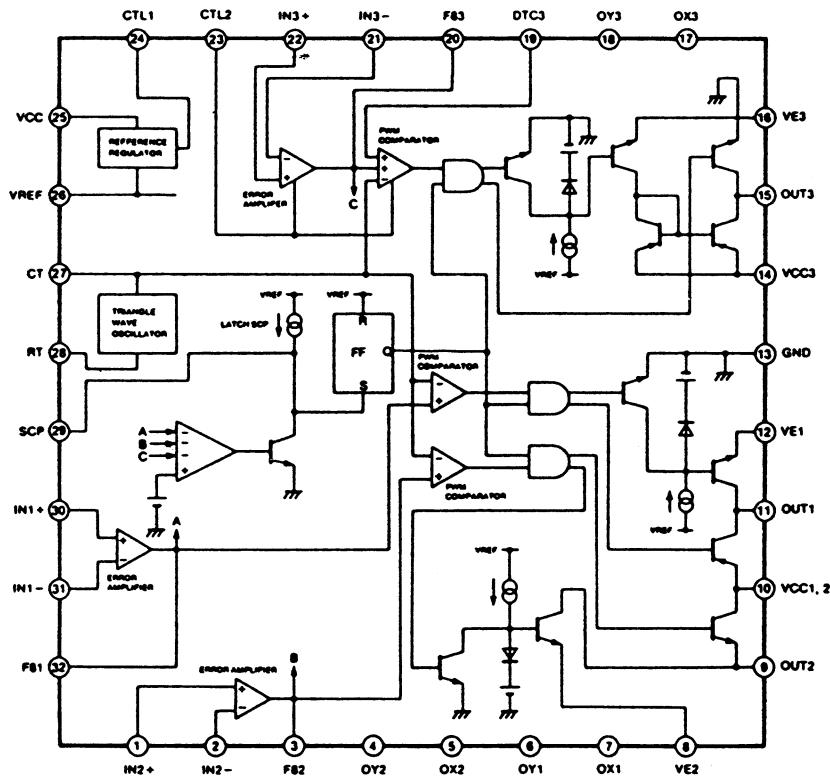
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM

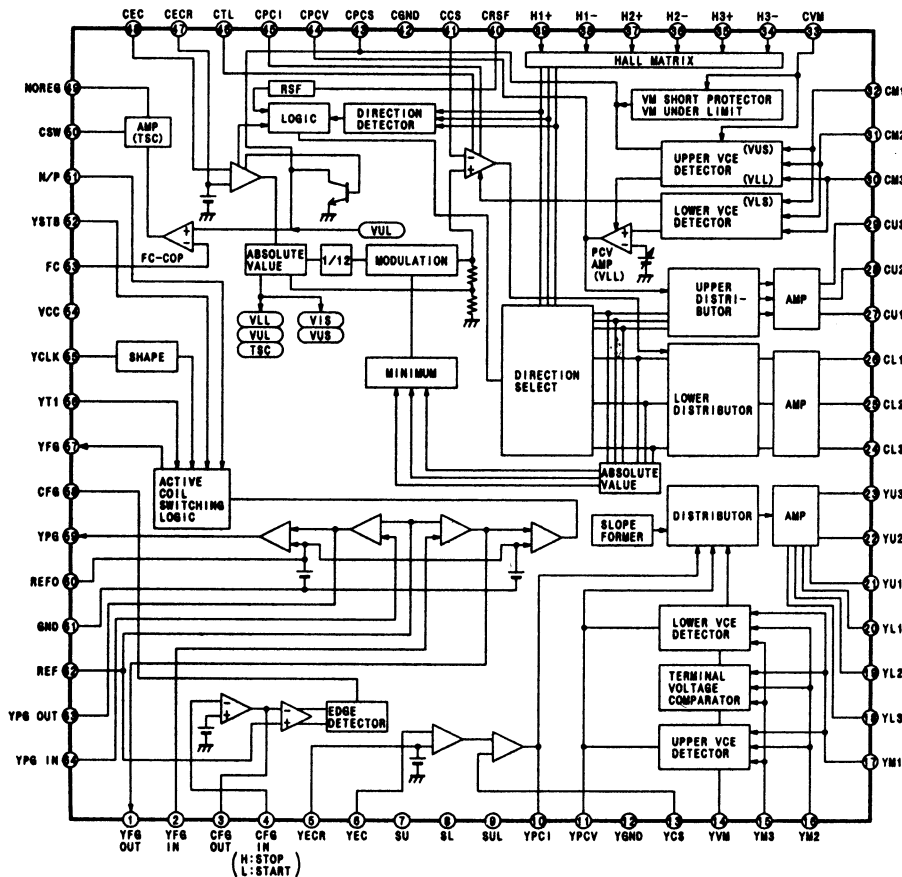


IC BLOCK

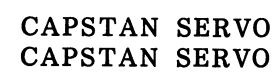
IC1001 (BA9706K)
(LOCATION: C-3)



IC2001 (TB6518F)
(LOCATION: B-4)



A
B
C
D



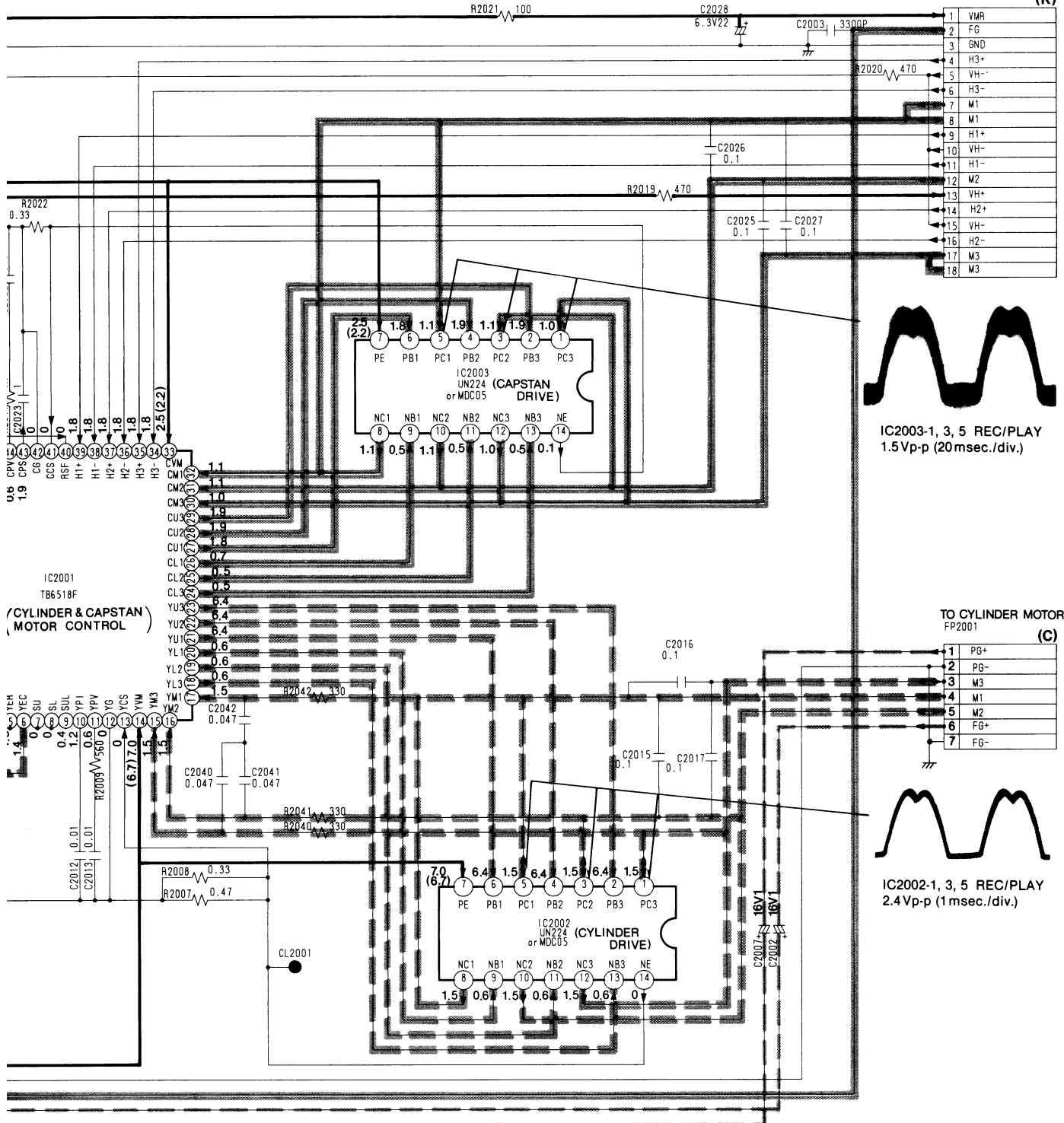
NOTE: THE MEASUREMENT
THE MEASUREMENT



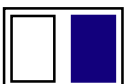
- CAPSTAN SERVO SPEED LOOP
- CAPSTAN SERVO PHASE LOOP

--- CYLINDER SERVO SPEED LOOP
--- CYLINDER SERVO PHASE LOOP

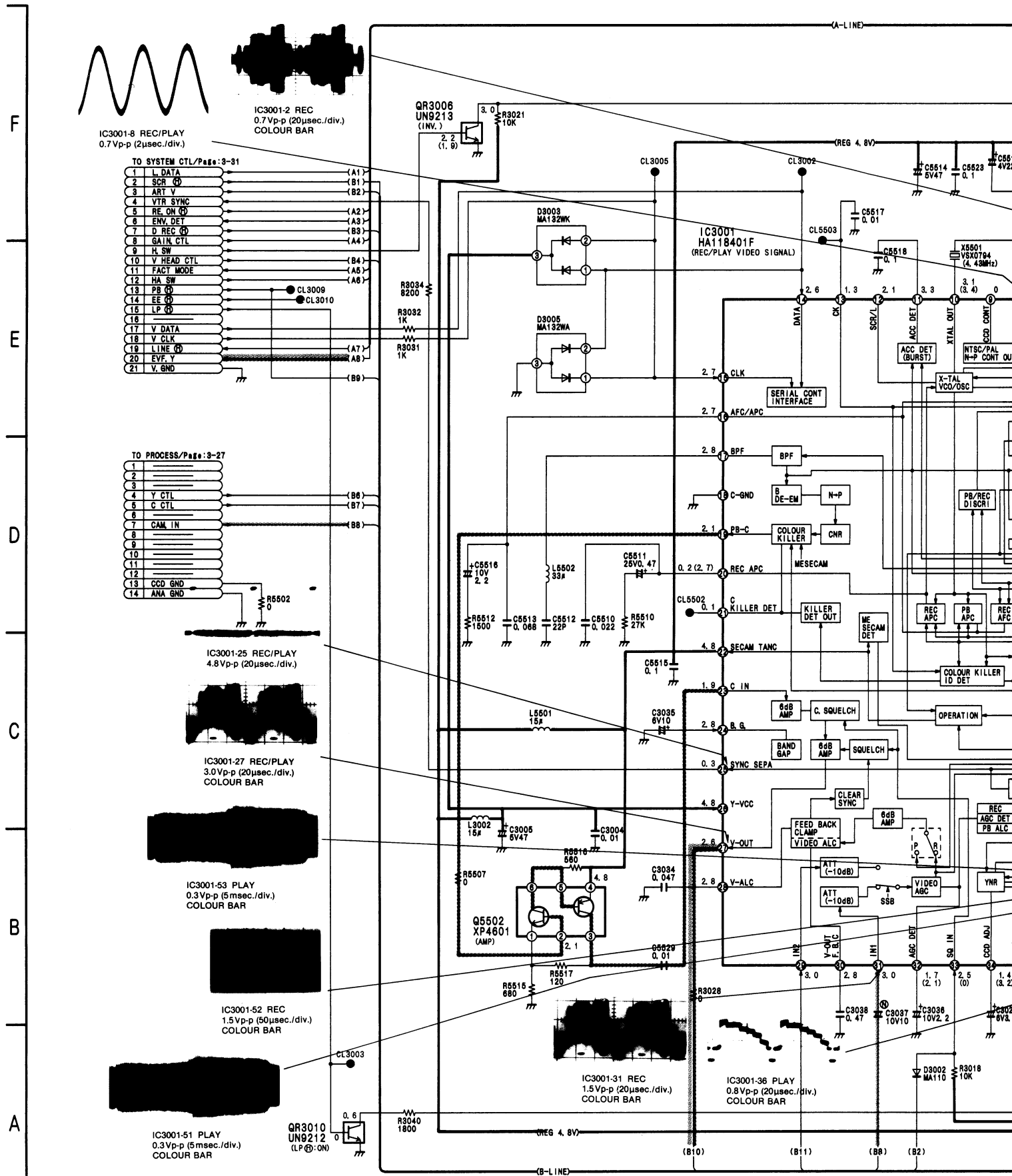
TO CAPSTAN MOTOR
FP2002 (K)



NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS () ON THIS DIAGRAM IS RECORD MODE.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE.

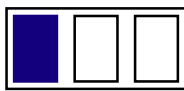


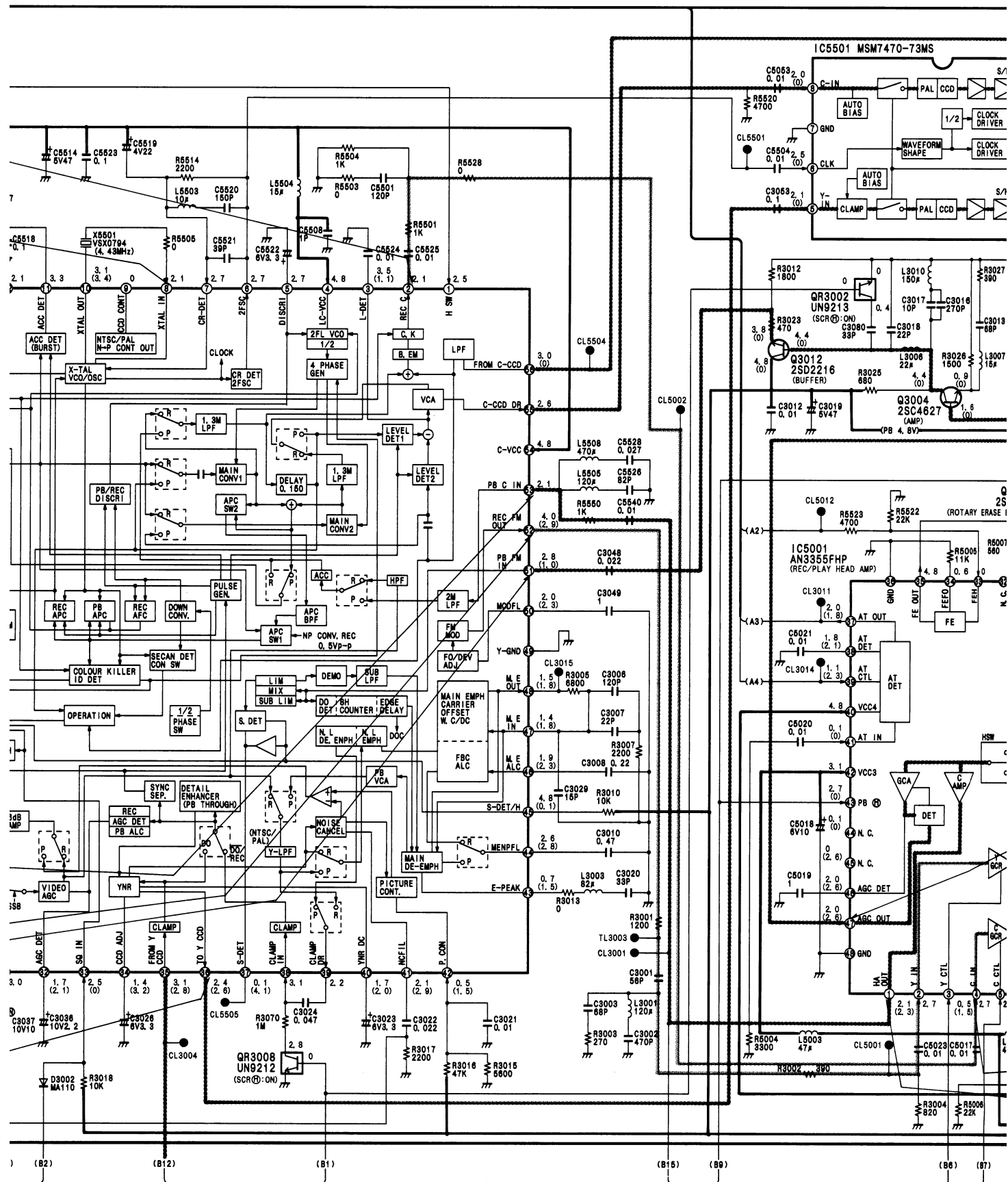
3-16. LUMINANCE/CHROMINANCE & HEAD AMP SCHEMATIC DIAGRAM



NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERRIG. WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:THE MEASUREMENT MODE WITH AIM THE CAMERA A





MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS () ON THIS DIAGRAM IS RECORD MODE
AIM THE CAMERA AT THE COLOUR CHART. (SP MODE)

THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS () ON THIS DIAGRAM IS RECORD MODE
WITH PAL COLOUR SIGNAL.

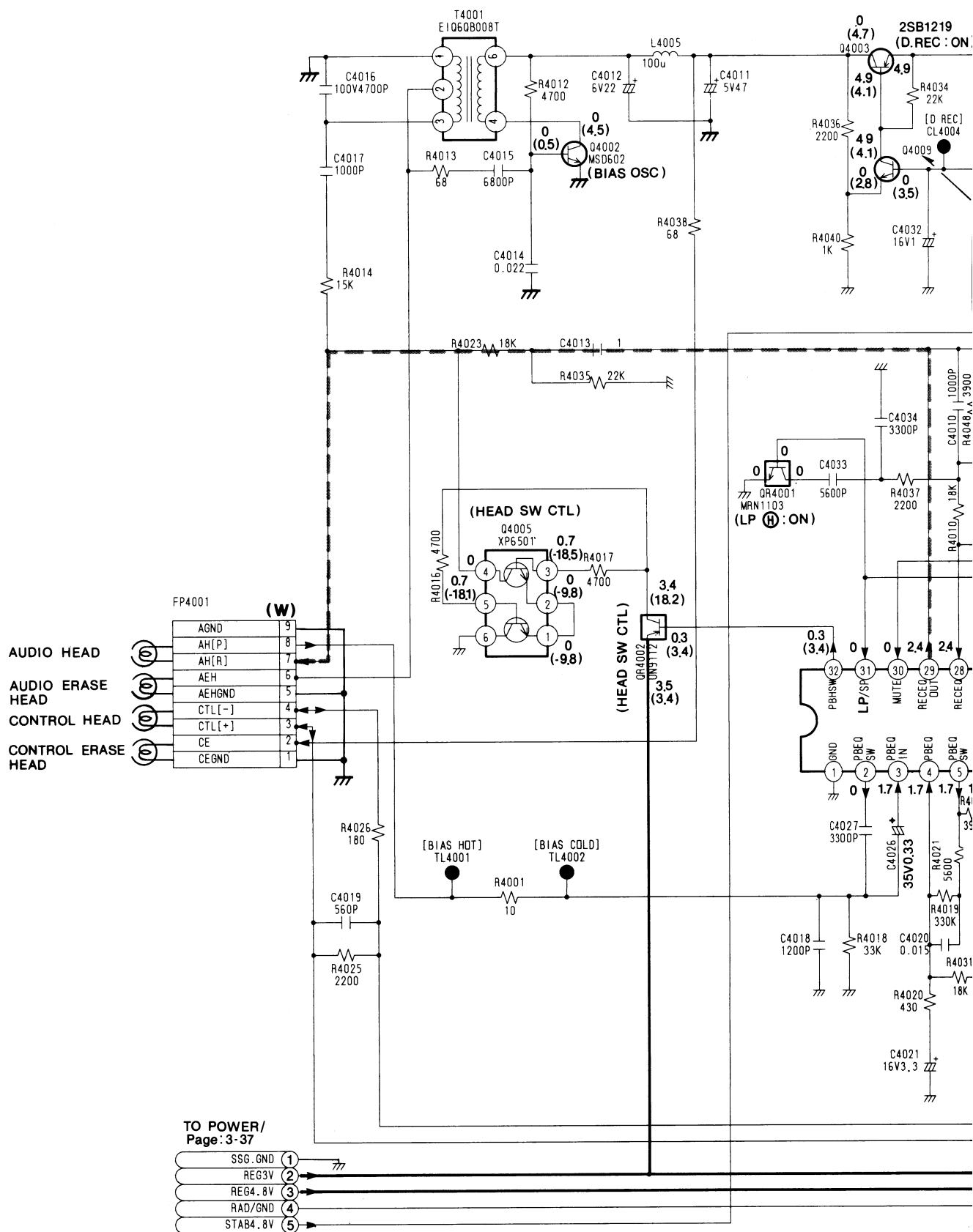
5 6 7 8 9



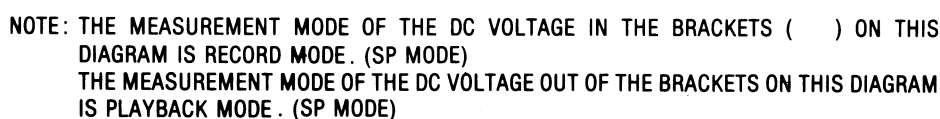
MAIN SIGNAL PATH IN PLAYBACK MODE



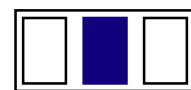
3-17. AUDIO SCHEMATIC DIAGRAM



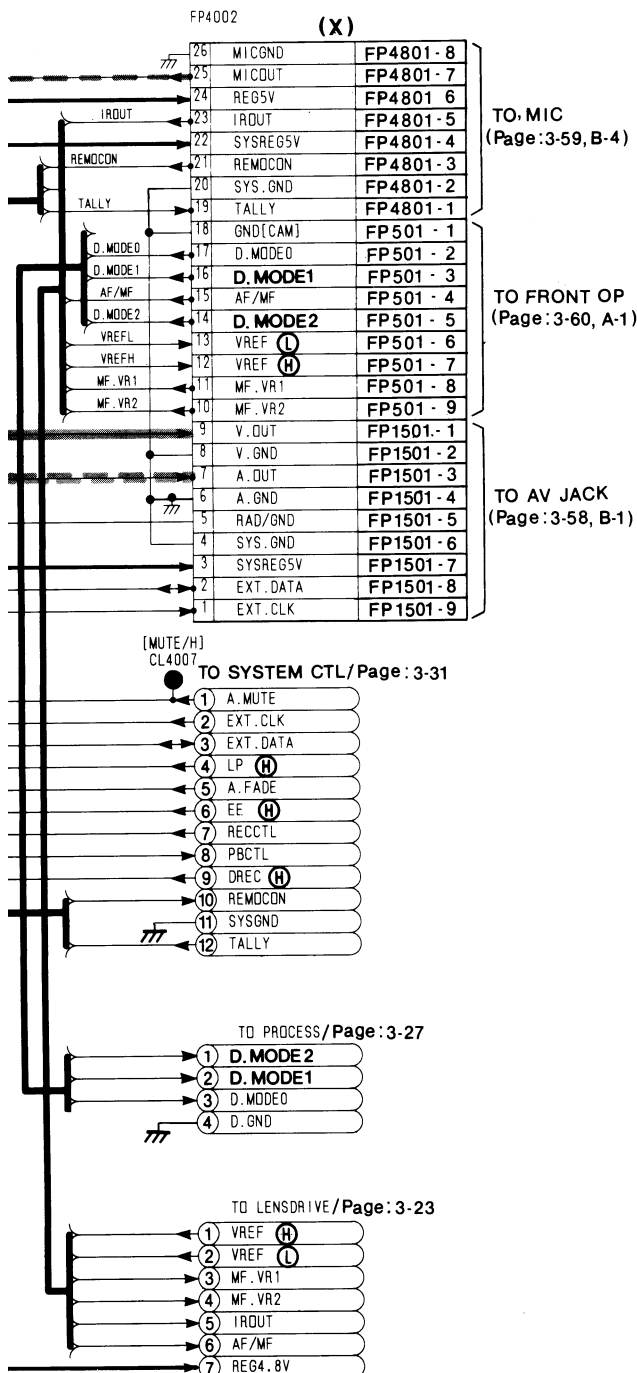
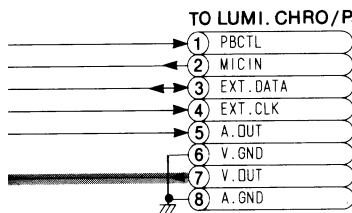
AUDIO MAIN SIGNAL PAT
AUDIO MAIN SIGNAL PAT



6

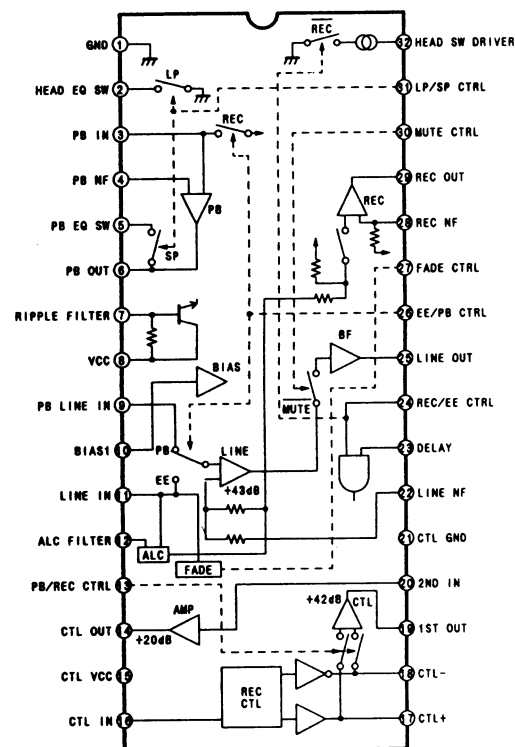


MAIN SIGNAL PATH IN REC MODE MAIN SIGNAL PATH IN PLAYBACK MODE



IC BLOCK

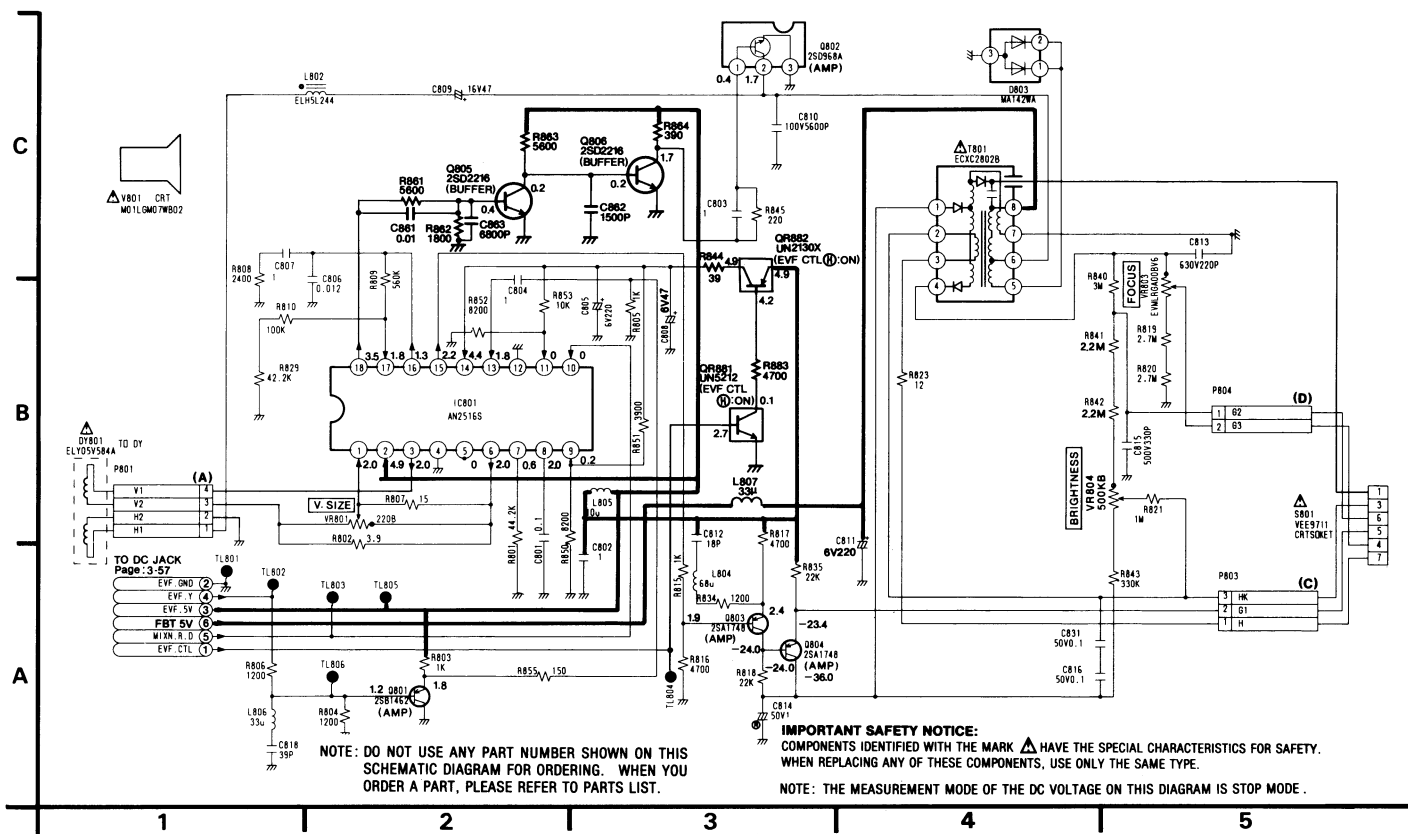
IC4001 (BA7758FS)
(LOCATION: B-5)



ON THIS

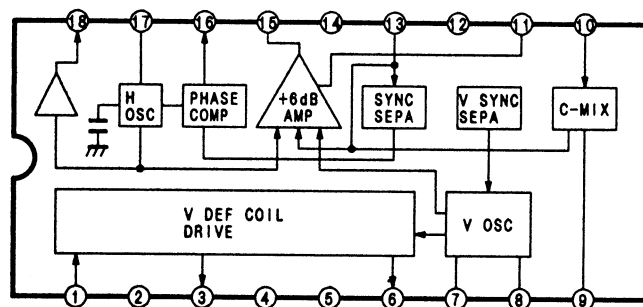
DIAGRAM

3-19. E.V.F. SCHEMATIC DIAGRAM

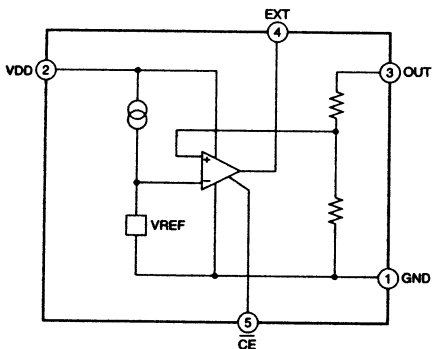


IC BLOCK

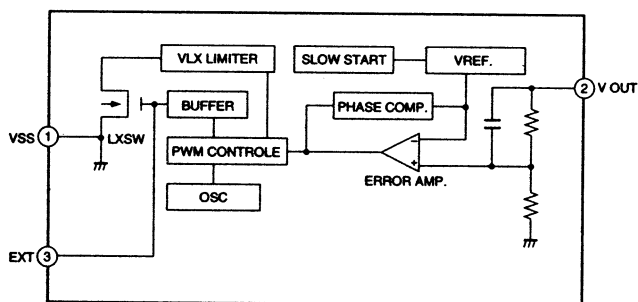
IC801 (AN2516S)
(LOCATION: B-2)



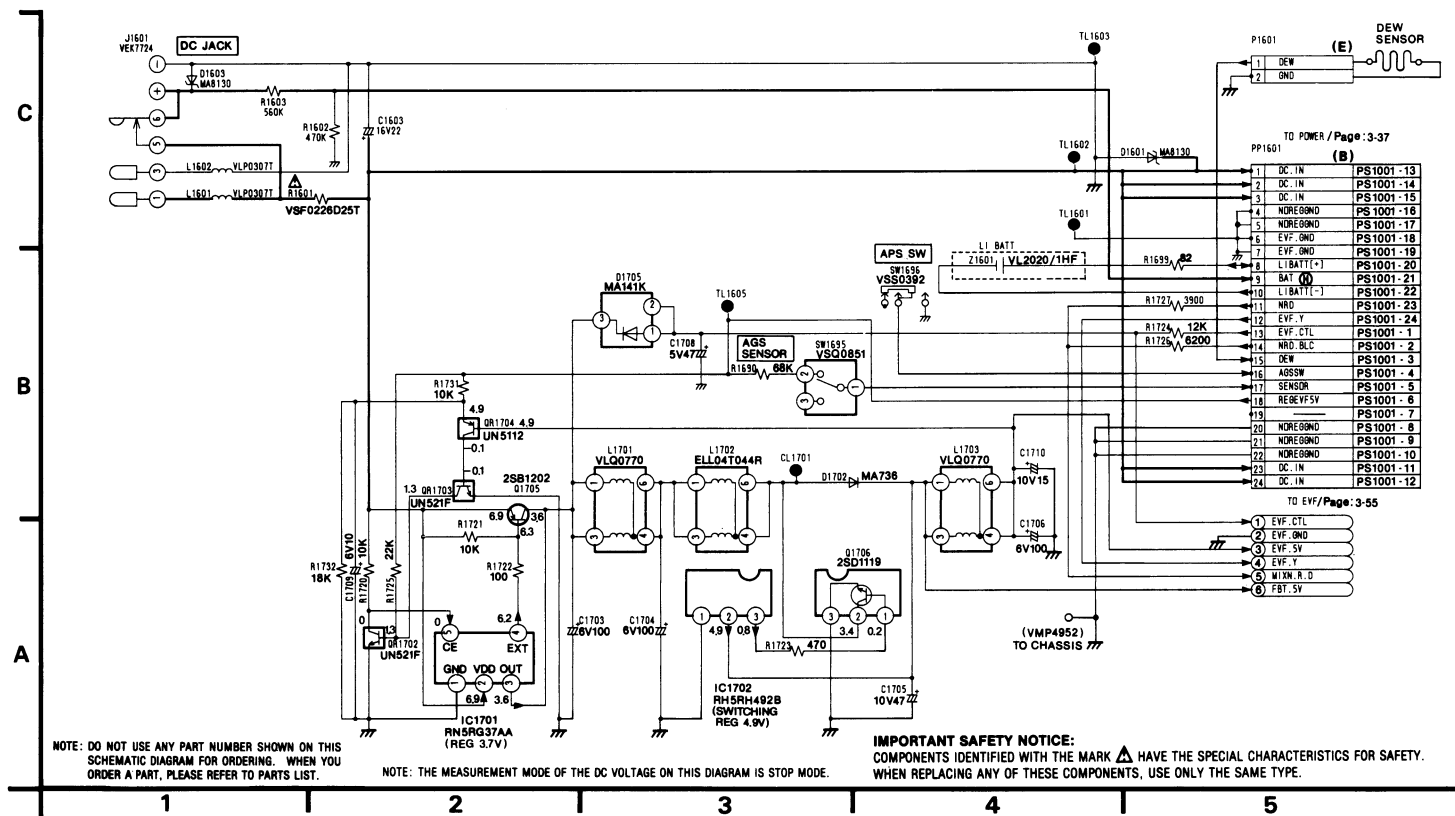
IC1701 (RN5RG37AA)
(LOCATION: A-2)



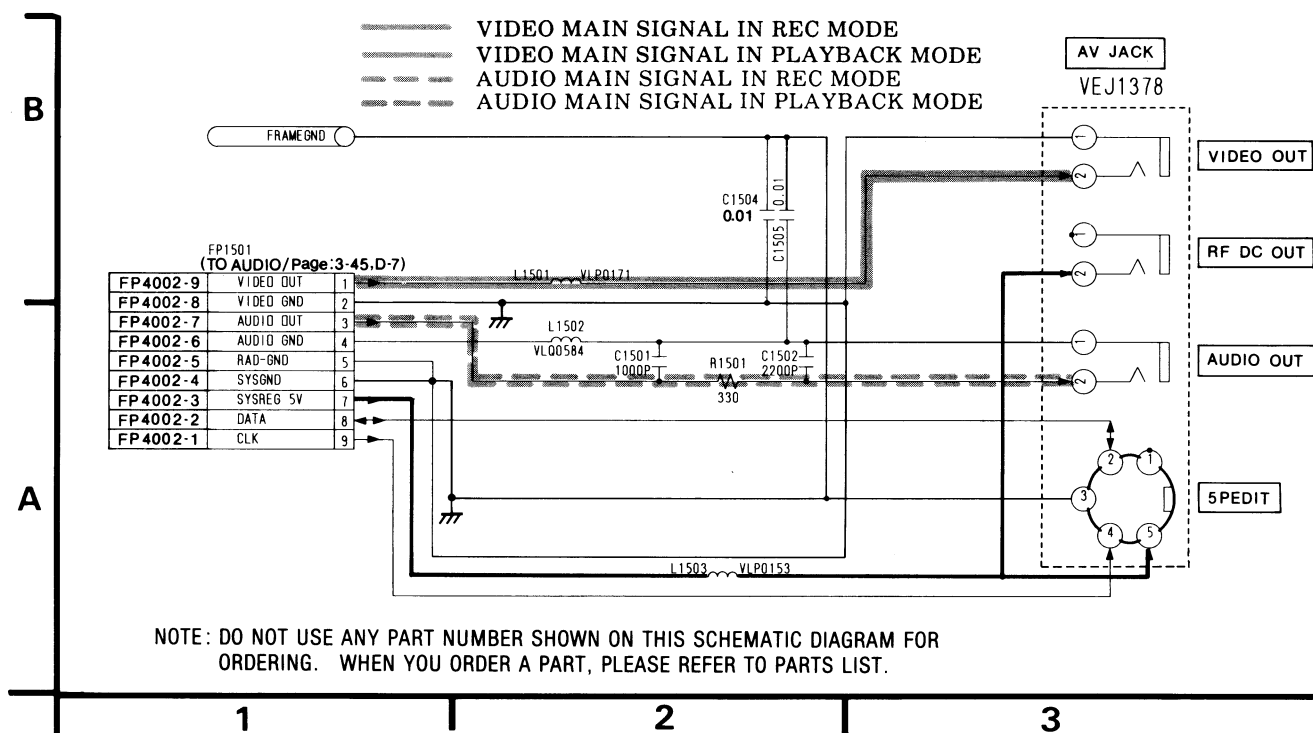
IC1702 (RH5RH492B)
(LOCATION: A-3)



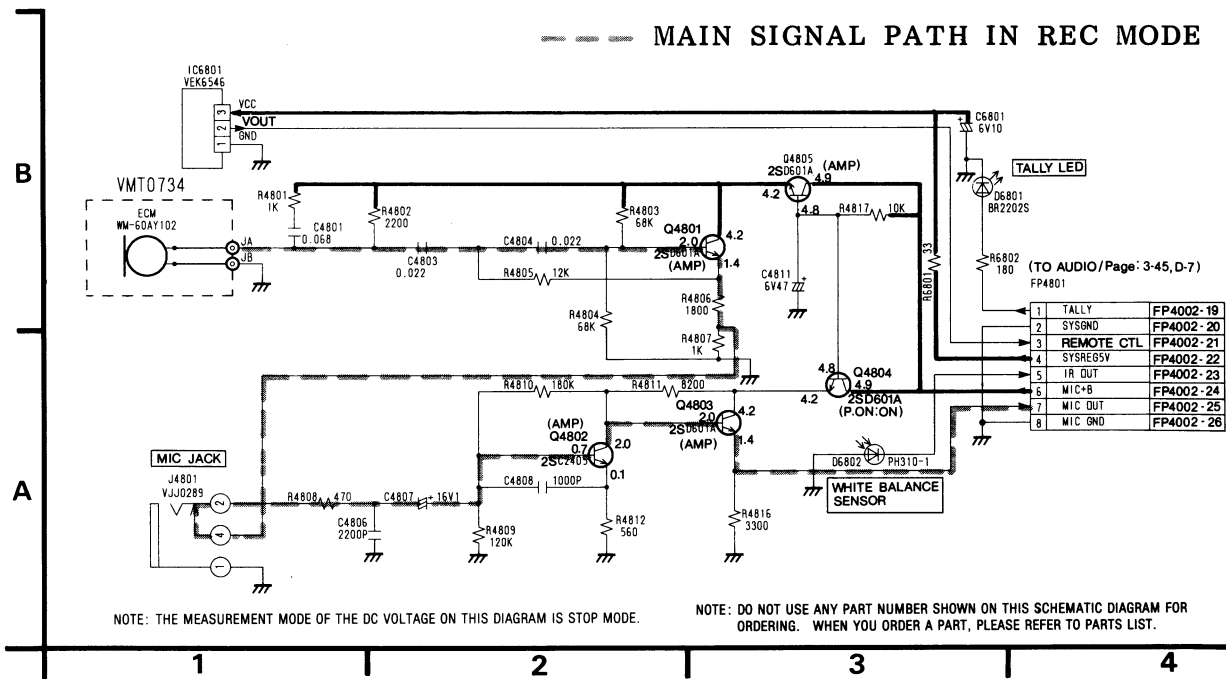
3-21. DC JACK SCHEMATIC DIAGRAM



3-22. AV JACK SCHEMATIC DIAGRAM



3-24. MIC SCHEMATIC DIAGRAM



3-26. FRONT OPERATION SCHEMATIC DIAGRAM

