

Service Manual

ORDER NO. VRD0202004C2

Service Manual

Video Cassette Recorder



- NV-FJ623EG/NV-FJ623EGY/NV-FJ628EE

Z-MECHANISM



SPECIFICATIONS

ITEM	SPECIFICATION		ITEM	SPECIFICATION
POWER	SOURCE: 220-240 V AC 50/60 Hz		AUDIO	HEAD: 1 Stationary head (Normal-mono only) 2 channels (Hi-Fi Sound-Stereo)
	CONSUMPTION: 18 watts CONSUMPTION WHEN IN STANDBY MODE: Approx. 3W			INPUT: EURO AV (AV1) Connector (21 pin) More than -6dBV (500 mV), 10 k Ω
RECORDING SYSTEM	2 rotary heads, helical scanning system PAL			OUTPUT: EURO AV (AV1) Connector (21 pin) -6 dBV (500mV), Less than 1k Ω
TV TUNER SYSTEM	NV-FJ623EG/EGY	VHF: CHE2-CHE12 CHA-CH2 [ITALY] (PAL/SECAM B) UHF: CH21-CH69 (PAL/SECAM G) CATV: CHS01-CHS41 (PAL/SECAM B)	TAPE SPEED	SP: 23.99 mm/s LP: 11.695 mm/s EP: 7.796 mm/s Record/Playback Time: SP: 4 hours with 240 min. type tape LP: 8 hours with 240 min. type tape EP: 12 hours with 240min type tape FF/REW Time: 60 sec. with 180 min. type tape
	NV-FJ628EE	VHF: CHE2-CHE12 (PAL/SECAM B) CHR1-CHR12 (SECAM D) UHF: CH21-CH69 (PAL/SECAM G, SECAM K, PAL I) CATV: CHS01-CHS41 (PAL/SECAM B) 44MHz-470MHz (SECAM B)		OPERATING TEMPERATURE
RF OUT SYSTEM	NV-FJ623EG/EGY	UHF: CH21-CH69 (PAL/SECAM G) 71 \pm 3 dB μ , 75 Ω close	OPERATING HUMIDITY	35% - 80%
	NV-FJ628EE	UHF: CH21-CH69 (PAL/SECAM G, SECAM K, PAL I) 71 \pm 3 dB μ , 75 Ω close	DIMENSIONS	430 (W) \times 87 (H) \times 282 (D) mm
VIDEO	HEADS: 4 rotary heads 1 pair for recording and playback (L-R heads) 1 pair for trick play (L-R' heads)		WEIGHT	3.5 kg
	INPUT: EURO AV (AV1) Connector (21 pin) 1.0 Vp-p, 75 Ω terminated		STANDARD ACCESSORIES	1 pc. DIN-RF Cable 1 pc. AC Mains Lead 1 pc. Infra-red Remote Controller
	OUTPUT: EURO AV (AV1) Connector (21 pin) 1.0 Vp-p, 75 Ω terminated			

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

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WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

1. INTRODUCTION

This service manual contains technical information which will allow service personnel to understand and service this model.

If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

Note:

1. Adjustment procedures, Disassembly Procedures and Assembly Procedures for Mechanism Chassis are separate volume from this service manual./Please refer to the service manual for Z-Mechanism Chassis. (Order No. VRD9802005C2)
2. The Model No. is indicated on the Schematic Diagram and Circuit Board Diagrams as follows.

Model No.	Indication Mark
NV-FJ623EG	(EG)
NV-FJ623EGY	(EGY)
NV-FJ628EE	(EE)

2.1.1 REPLACING IC7702/EEPROM

When the EEPROM: IC7702 is replaced, applicable model code, option code and electrical adjustment data will not be available.

Therefore, enter and/or adjust the necessary data after replacing IC7702 by referring following procedure.

STEP1.REPLACE THE IC7702

1. Remove the C.B.A. with Mechanism unit by referring the Disassembly procedure.
2. Disconnect the AC plug and replace the IC7702.

STEP2.INPUT THE MODEL & OPTION CODE

1. Set up the applicable model code and option code by ordering the following table.

PROCEDURE	F.I.P. DISPLAY
Turn on the Service Mode 1.Press the FF key and the EJECT key simultaneously for more than 3 seconds.	
Activate the Service Mode 2 2.While keep placing FF key, press the EJECT key in twice.	
Activate the Entering Mode. 3.Press the EJECT key for more than 3 seconds.	
Set the Mode 2. 4.Press the CH UP key in twice.	
Display the Setting Code. 5.Press the POWER Button to turn the power on.	 (Colon starts flashing)
Enter the Model and Option Code. 6.Service Screen is displayed on the monitor. 7.Set the applicable Model and Option code by using REW, PLAY, STOP and FF keys on theRemote Controller. (See Fig.S1 & S2)	
Exit from Service Mode. 8.Press the POWER Button to turn the power off. 9. Press FF and EJECT keys simultaneously in 6 times.	 (Normal Indication)

Fig.S1 Service Secreen (sample)

Panasonic VCR	
Service	
MAIN	VXKJ0.07 * *
Time ref. pos.	NONE
Last error code	00
Model Code	81 (51h)
Option Code 1	8 (08h)
Option Code 2	212 (D4h)
Option Code 3	6 (06h)
Clock adjust	+ 0
VPS/PDC default	OFF (depend)

Model No.	Model Code	Option Code 1	Option Code 2	Option Code 3
NV-FJ623EG/EGY	65 (41h)	125 (7Dh)	196 (C4h)	6 (6h)
NV-FJ628EE	70 (46h)	121 (79h)	196 (C4h)	6 (6h)

Fig. S2 Model Code & Option Code

NOTE:

Since all electrical adjustments data is still not available, perform the Electrical Adjustment continuously.

2.1.2 CYLINDER UNIT REPLACEMENT

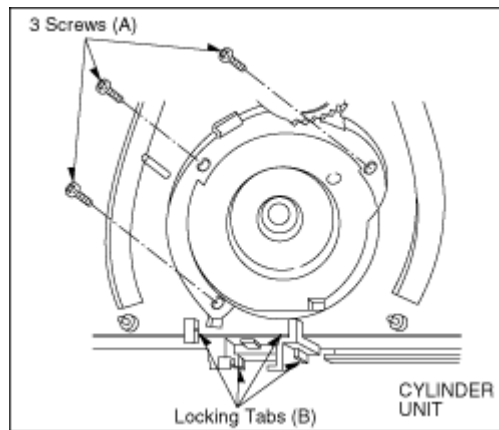
1. CYLINDER UNIT REPLACEMENT

- A. Remove the mechanism unit from MAIN C.B.A./Chassis by referring “SECTION 2. Disassembly Procedure”.
- B. Remove the 3 screws (A) of the CYLINDER UNIT with a screw driver.
- C. Unlock the 4 locking tabs (B) and disconnect the Cylinder flexible card from the FPC Holder.
- D. Remove the CYLINDER UNIT.

CAUTION:

Handle the Cylinder flexible card with care. When it damaged, you should replace whole Cylinder unit.

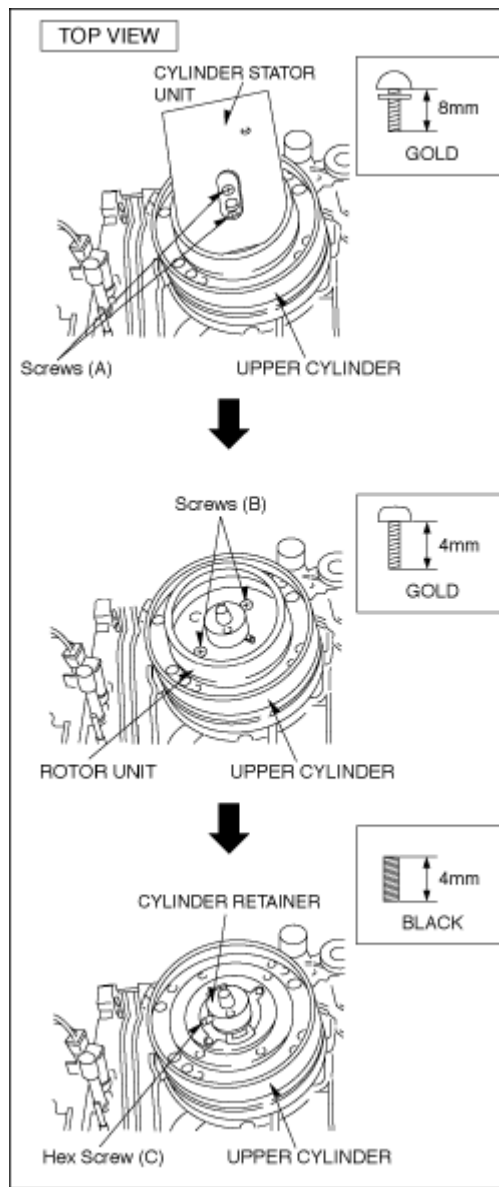
Fig. S3



2. UPPER CYLINDER DISASSEMBLY

- A. Remove 2 screws (A).
- B. Remove the Cylinder Stator Unit.
- C. Remove 2 screws (B).
- D. Remove the Cylinder Rotor Unit.
- E. Loosen Hex screw (C) (1.5 mm) and remove the CYLINDER RETAINER.
- F. Remove the Upper Cylinder.

Fig. S4



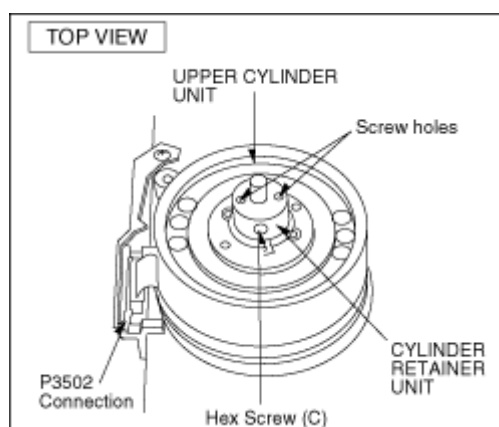
3. UPPER CYLINDER ASSEMBLY

When reassembling, perform the steps in the reverse order.

Notes:

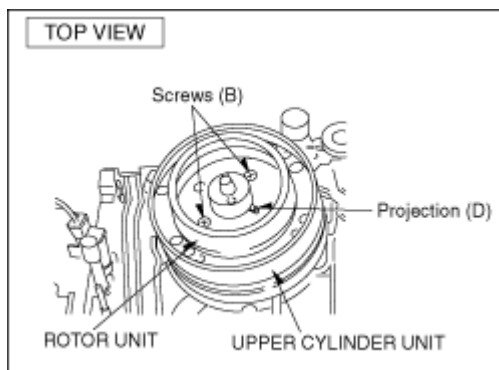
- A. Install the Cylinder Retainer so that the 2 holes on top of the Cylinder Retainer are at right angles with the P3502 Connection.
- B. Tighten the Hex screw (C) (1.5 mm) while pressing down on top of the Cylinder Retainer.

Fig. S5



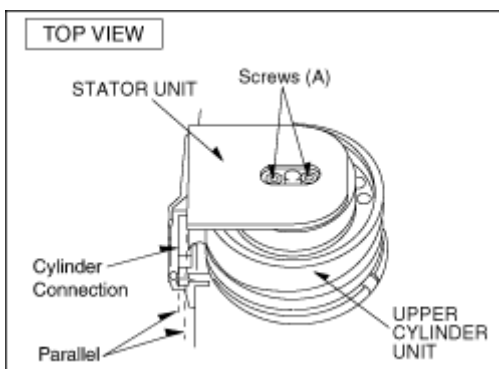
- C. Install the Cylinder Rotor Unit so that the inner hole of the Cylinder Rotor Unit fits to the small projection (D) on top of the Upper Cylinder.
- D. Tighten 2 screws (B).

Fig. S6



- E. install the Cylinder Stator Unit.
- F. Tighten 2 screws (A).

Fig. S7

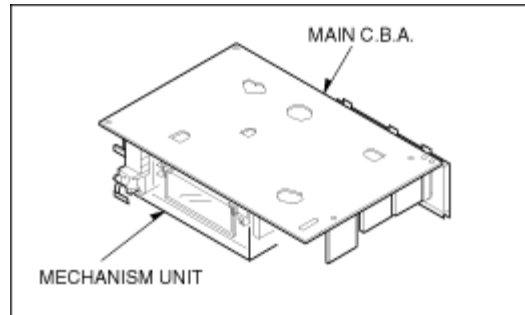


- G. Confirm the PG SHIFTER ADJUSTMENT with the alignment tape (PAL: VFJ8125H3F) and adjust it if necessary.

2.1.3 CHECKING OF MAIN C.B.A.

When servicing the MAIN C.B.A., take out the MAIN C.B.A. and mechanism from the frame and turn over.

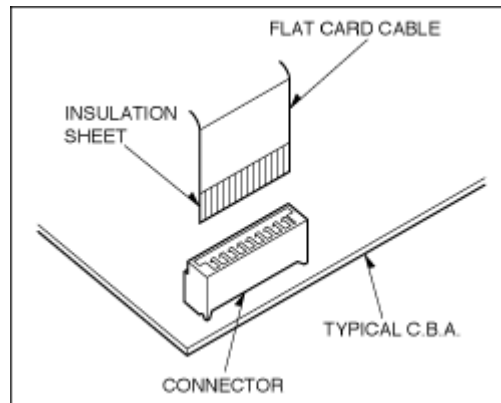
Fig. S8



2.1.4 FLAT CARD CABLE INSTALLATION

When installing the Flat Card Cable on the connector, install the Flat Card Cable with the cable contacts facing the connector contacts.

Fig. S9



2.2 REMOVAL OF CASSETTE TAPE

There are 2 ways to remove a cassette tape.

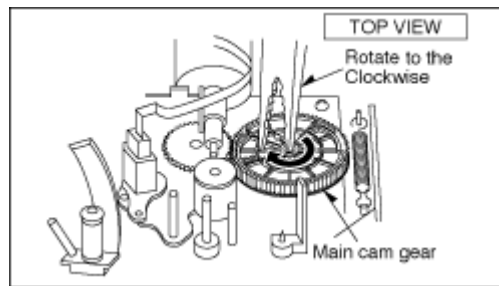
1. Service Information Display Operation

- A. Press the FF and EJECT keys simultaneously for 3 seconds and set the Service Mode 7.
- B. Press STOP key in order to rotate the Loading Motor for unloading operation. (Pay an attention of tape slack)

2. Manual Operation

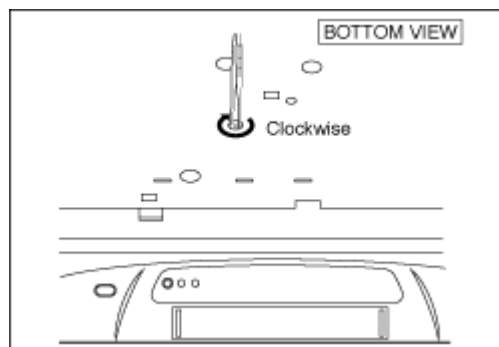
- A. Disconnect the AC Mains Lead and remove the Top Panel.
- B. Rotate the Main Cam Gear clockwise until the Loading Posts move to fully unloaded position as shown in Fig. S10 . (Tape is remaining)

Fig. S10



- C. Rotate the Capstan Motor clockwise from the bottom side to take up the tape.

Fig. S11




- D. Rotate the Main Cam Gear clockwise until the cassette tape is ejected.


2.3 INTRODUCTION OF VIDEO HEAD CLEANING CASSETTE/ (POLISHING TYPE)

1. We are pleased to introduce Panasonic Video Head Cleaning Cassette, [VFK0923FT](#) [for service purposes] and [VFK0923FSE](#) [for end users] for all VHS/SVHS VCP and VCR.
2. These cleaning cassettes are exclusive removing the hard and sticky clogging on video heads.
3. These improve the efficiency of video head cleaning service and shortening cleaning time for end users.

VFK0923FT (For Service usage)	
Type of Cassette	Full VHS Cassette
Cleaning Time	10 Seconds/Time
Tape Length	20 m
Usability in a Path	180 Times



VFK0823FSE (For end users)	
Type of Cassette	Full VHS Cassette
Cleaning Time	10 Seconds/Time
Tape Length	3.34 m
Usability in a Path	30 Times



Note:

The tape material itself is the same in both types.

2.4 SELF-DIAGNOSIS RESULT DISPLAY

The "SELF-DIAGNOSIS RESULT DISPLAY & MEMORY" function is built in this VTR.

It means that when the VCR detects undesirable condition, it can be displayed a "Error code (Two numbers from the right)" with Service Mode 2.

Since the "Error code" is stored in the EEPROM, it can be displayed although after disconnected the AC leads. It can be displayed with Service Mode 2.

(If a second error had been detected, only the most recent error is displayed.)

For more details, refer to the Service Manual for Z-Mechanism Chassis Order number VRD9802005C2.

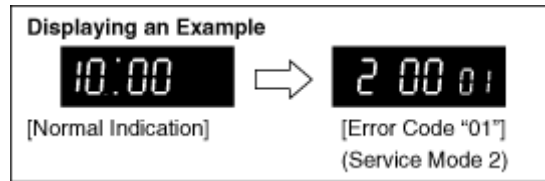


Fig. T1 Self-Test indication Display

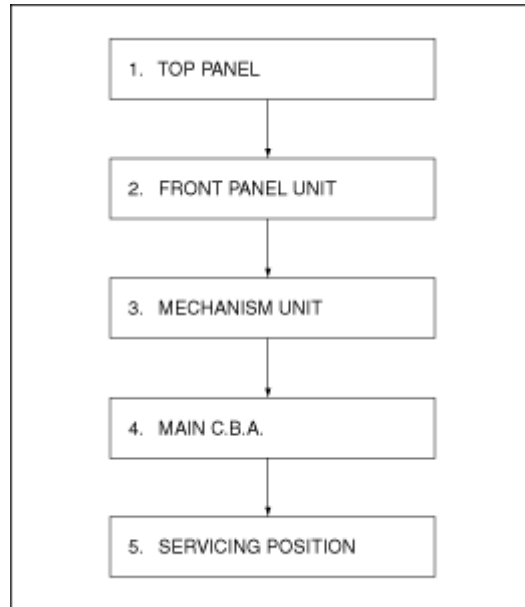
INDICATION	CAUSE	REMEDY/CHECK
01	After cylinder lock is detected, the cylinder does not start rotating again even after tape unloading.	Check the cylinder motor drive circuit.
02	Cassette tape is not wound up during the tape unloading except EJECT mode.	Check the capstan motor drive circuit.
03	Mechanism locks during mode transition except EJECT mode.	<ol style="list-style-type: none"> 1. Check the loading motor drive circuit. 2. Check the mechanism phase alignment. 3. Check the mode switch.
04	Mechanism locks during tape unloading.	<ol style="list-style-type: none"> 1. Check the loading motor drive circuit. 2. Check the mechanism phase alignment.
06	Mechanism locks after tape unloading in EJECT mode.	<ol style="list-style-type: none"> 1. Check the loading motor drive circuit. 2. Check the mechanism phase alignment for cassette holder unit.
07	During recording mode, recording signal is less than the normal condition.	Protection of the over-current flowing in transistor which produces the power supply for recording mode.
08	Recording circuit works except recording mode.	Check the recording circuit.
16	Cylinder lock detection.	Check the cylinder unit and the cylinder motor drive circuit.
17	Supply reel mechanism lock detection	Check the supply reel mechanism and the supply reel circuit.
18	Take-up reel mechanism lock detection	Check the Take-up reel mechanism and the Take-up reel circuit.
2*	PG shifter automatic adjustment error.	Check the servo/system control circuit and the cylinder unit.

3.1.1 DISASSEMBLY FLOW CHART

This flow chart indicates disassembly steps of the cabinet parts and the circuit boards in order to find the necessary items for servicing.

When reassembling, perform the steps in the reverse order.

Fig. D1

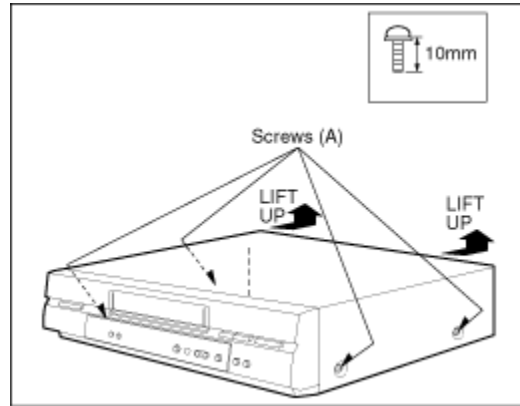


3.1.2 DETAIL OF DISASSEMBLY METHOD

1. REMOVAL OF THE TOP PANEL

Remove	4 Screws (A)
--------	--------------

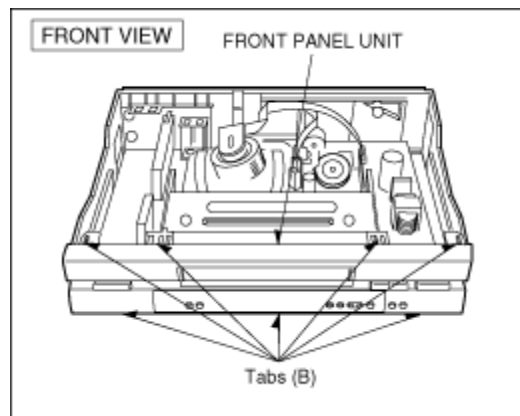
Fig.D2



2. REMOVAL OF THE FRONT PANEL UNIT

Unlock	7 Tabs (B)
--------	------------

Fig. D3



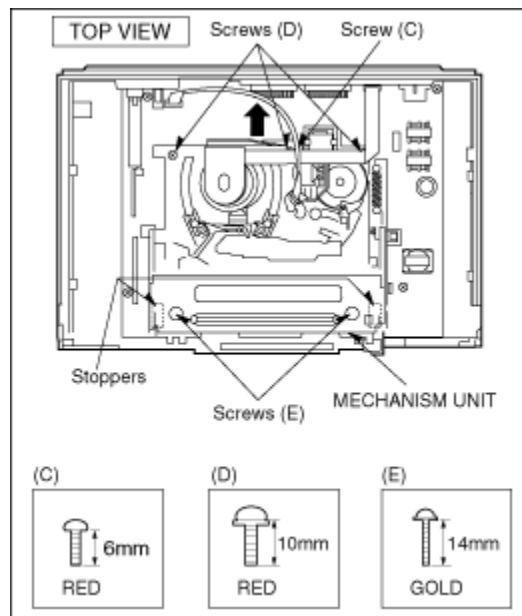
3. REMOVAL OF THE MECHANISM UNIT

Remove	Screw (C)
Remove	3 Screws (D)
Remove	2 Screws (E)

Note:

- Keep pressing 2 stoppers on Cassette Holder Plate and Press Cassette Holder Plate to the rear.
- Remove the Mechanism Unit after bend the Cylinder Shield in the direction of the arrow.

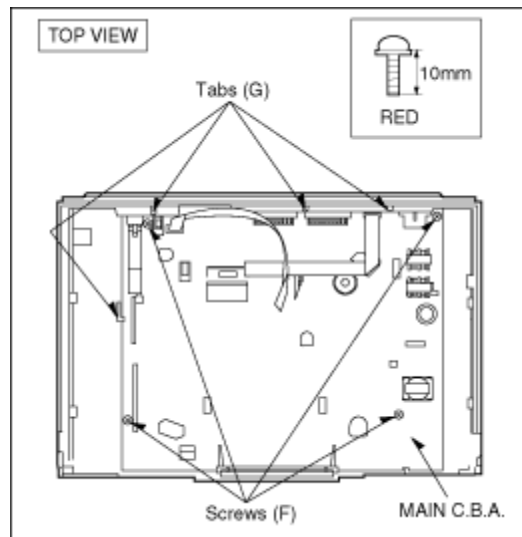
Fig. D4



4. REMOVAL OF THE MAIN C.B.A.

Remove	4 Screws (F)
Unlock	4 Tabs (G)

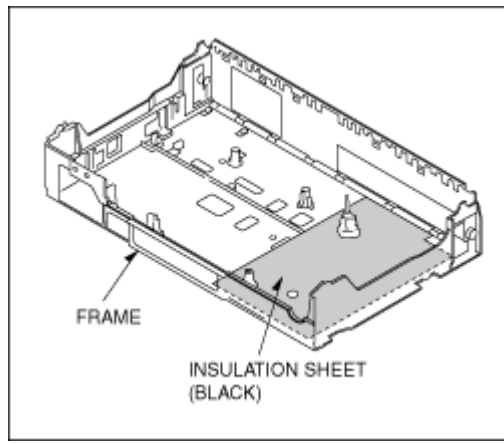
Fig. D5



NOTE:

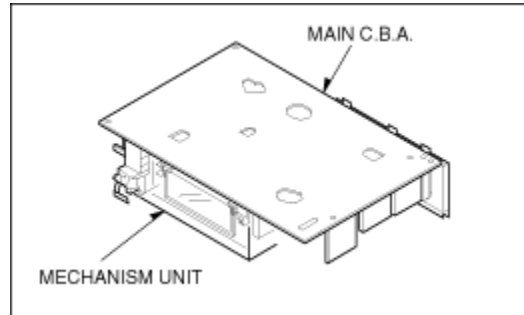
Before mounting the MAIN C.B.A. onto the frame, be sure to confirm that the insulation sheet is mounted on the frame as shown in [Fig. D6](#).

Fig. D6



5. SERVICING POSITION

Fig. D7



3.2 MECHANICAL ADJUSTMENT PROCEDURES

Refer to the Service Manual for Z-Mechanism Chassis./(Order No. VRD9802005C2)

3.3.1 TEST EQUIPMENT

The following equipments are required for Electrical Adjustments.

1. Dual-Trace Oscilloscope
 - Voltage Range: 0.005-5V/div
 - Frequency Range: DC-35MHz
 - Probes: 10:1 / 1:1
2. Frequency Counter
 - Frequency Range: 0-10MHz
 - Probes: 1:1
3. Universal Counter
4. Digital Volt Meter (D.V.M.)
5. Video Sweep Generator
6. Sinewave Generator
7. Video Pattern Generator
8. Monitor TV
9. DC Power Supply
10. VHS Blank Tape
11. VHS Alignment Tape
 - Parts No.: VFJ8125H3F(PAL)

3.3.2 VCR SETTING

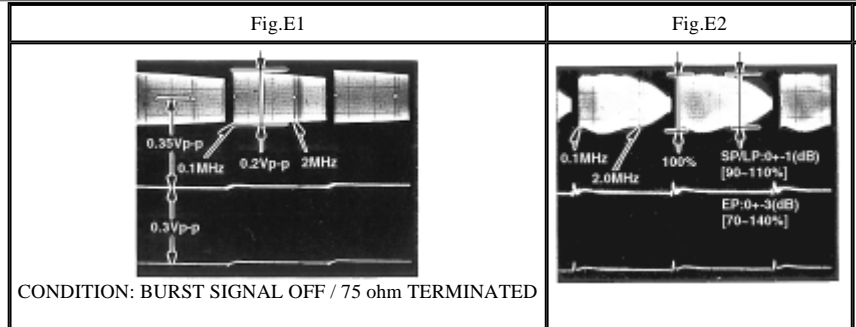
When no indication in the procedure, set each selector as follows:

1. TAPE SPEED: SP
2. CHANNEL: AV1

(Set to signal input terminal number)

3.3.3 ADJUSTMENTS

ITEM	TP	ADJ.	MODE	INPUT	TAPE	M. EQ.	SPEC.	REMARKS
PG SHIFTER ADJUSTMENT	---	---	PLAYBACK	---	ALIGNMENT TAPE (PAL)	---	---	Refer to procedure of PG SHIFTER ADJUSTMENT as shown in Fig.E3.
AI FUNCTION ADJUSTMENT	---	---	PLAYBACK (SELF-REC)	PAL COLOUR BAR	BLANK TAPE	---	---	Refer to the procedure of AI FUNCTION ADJUSTMENT as shown in Fig.E4.
VIDEO FREQUENCY RESPONSE ADJUSTMENT	VIDEO OUT	---	SP/LP/EP PLAYBACK (SELF-REC)	VIDEO SWEEP (See Fig.E1)	BLANK TAPE	OSCILLOSCOPE/ VIDEO SWEEP GENERATOR	SP: 0+1 (dB) (90-110%) LP: 0+1 (dB) (90-110%) EP: 0+3 (dB) (70-140%) (See Fig. E2)	Refer to the procedure of VIDEO FREQUENCY RESPONSE ADJUSTMENT as shown in Fig. E5.



3.3.4 PG SHIFTER ADJUSTMENT/(AUTOMATIC)

PROCEDURES	FIP DISPLAY
Press the FF and EJECT Keys simultaneously for 3 seconds.	0 00 00
Press the FF and EJECT Keys simultaneously twice.	2 00 00
Press the EJECT key for 3 seconds.	2 00 00
Press the CH UP key once.	2 01 00
Insert the Alignment cassette tape. (PAL:VFJ8125H3F)	2 01 00
When the sequence of the automatic adjustment has been terminated, the following action has been made. *SUCCEED: The cassette tape is ejected. *ERROR : The "F2" is displayed on the FIP. (Check the Servo/Sycon circuit and Cylinder unit.)	
Release the Service mode by pressing the EJECT and FF keys simultaneously in 6 times until the FIP becomes normal indication.	

Fig. E3

3.3.5 AI FUNCTION ADJUSTMENT (AUTOMATIC)


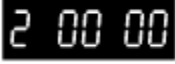



PROCEDURES	FIP DISPLAY
Press the FF and EJECT Keys simultaneously for 3 seconds.	
Press the FF and EJECT Keys simultaneously twice.	
Press the EJECT key for 3 seconds.	
Press the CH UP key in 3 times.	
Insert the blank cassette tape. (The adjustment is automatically started.)	
When the sequence of the automatic adjustment has been terminated successfully, the VCR goes to STOP mode.	
Release the Service mode by pressing the EJECT and FF keys simultaneously in 6 times until the FIP becomes normal indication.	

Fig. E4

3.3.6 VIDEO FREQUENCY RESPONSE ADJUSTMENT






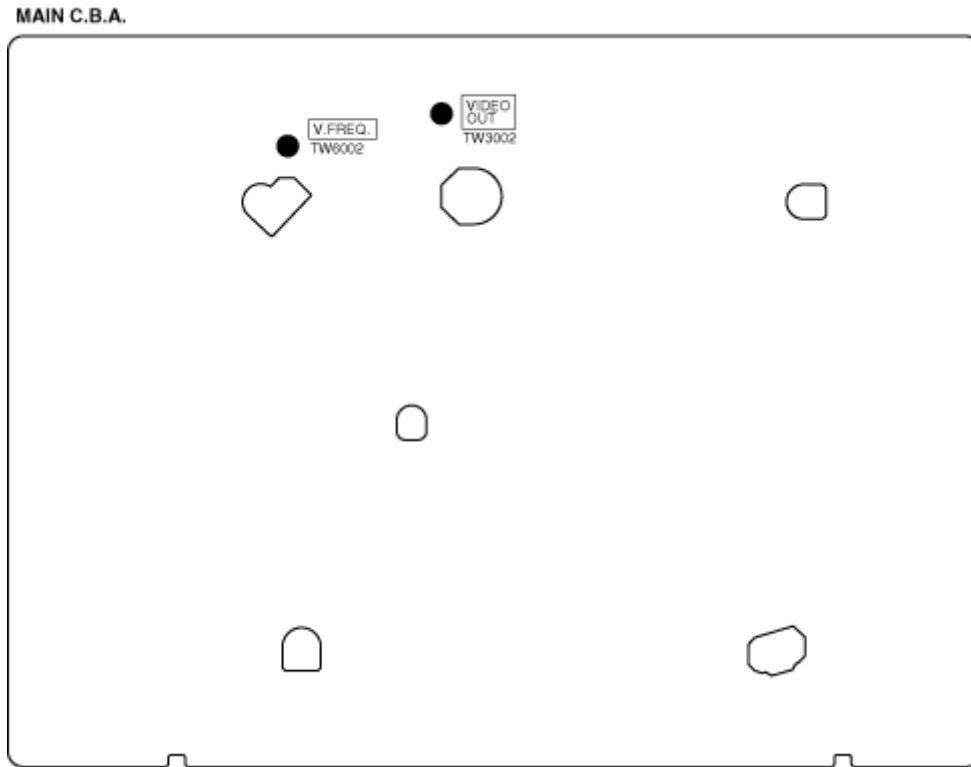
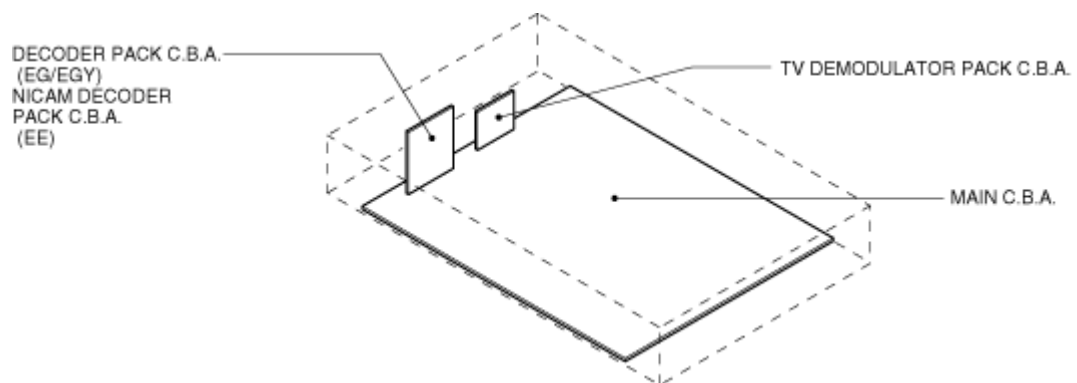
PROCEDURES	FIP DISPLAY
Input the Video sweep signal. (See Fig.E1)	
Press the FF and EJECT Keys simultaneously for 3 seconds.	
Press the FF and EJECT Keys simultaneously twice.	
Press the EJECT key for 3 seconds.	
Press the CH UP and/or CH DOWN key until "11" is displayed on FIP.	
Insert the Self-recorded tape and playback it. (SP/LP/EP mode)	
Connect the Oscilloscope to: *CH1....Video Out (TW3002). *CH2....V.FREQ.(TW6002)	
Press the "4" key on the remote controller. (Confirm that TW6002 becomes high(5V)).	
Adjust the Frequency response by pressing the "2"(increase) and/or "8"(decrease) key on the Remote Controller. (See Fig.E2)	
Store the Adjusted value by pressing the "5" key on the Remote Controller.	
Release the Service mode by pressing the EJECT and FF keys simultaneously in 6 times until the FIP becomes normal indication.	

Fig. E5

3.3.7 LOCATION OF TEST POINTS & CONTROLS



3.3.8 CIRCUIT BOARD LAYOUT



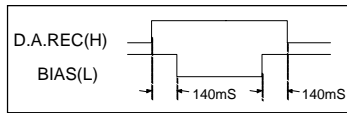
443NT [L]	4.43 NTSC (L)	BIL	BILINGUAL
A. COMP	AUDIO COMPONENT SIGNAL	BIL [L]	BILINGUAL (L)
A. COMPO	AUDIO COMPONENT SIGNAL	BIL. [H]	BILINGUAL (H)
A. D.P [L]	AUDIO DUBBING PAUSE (L)	BIL/M1 [L]	BILINGUAL (L)
A. D/L [L]	AUDIO DUBBING PAUSE (L)	BS CLOCK	BS CLOCK
A. DEF [S]	AUDIO DEFEAT	BS DATA	BS DATA
A. DEF [S] [L]	AUDIO DEFEAT	BS LCH IN	BS L CHANNEL INPUT
A. DUB P [L]	AUDIO DUBBING PAUSE (L)	BS MIX [H]	BS MIX (H)
A. DUB [H]	AUDIO DUBBING (H)	BS MON [H]	BS MONITOR (H)
A. ERASE	AUDIO ERASE	BS MONI [H]	BS MONITOR (H)
A. H. SW	AUDIO HEAD SWITCHING PULSE	BS RCH IN	BS R CHANNEL INPUT
A. HEAD [R]	AUDIO HEAD (REC)	BS VIDEO	BS VIDEO SIGNAL
A. HEAD [W]	AUDIO HEAD (PLAY)	BS VIDEO/BS1	BS VIDEO SIGNAL
A. IN [L]	AUDIO INPUT (L)	BS [H]	BS (H)
A. IN [R]	AUDIO INPUT (R)	BS. LEVEL	BS LEVEL
A. MUT [H]	AUDIO MUTE (H)	BS. M [H]	BS MONITOR (H)
A. MUTE [H]	AUDIO MUTE (H)	BS/VTR [H]	BS/VTR (H)
A. OUT [L]	AUDIO OUTPUT (L)	BUS CLK	BUS CLOCK
A. OUT [R]	AUDIO OUTPUT (R)	BUS LSN	BUS LISTEN
A. RF OUT	AUDIO RF SIGNAL OUTPUT	BUS TLK	BUS TALK
A/V/S. DATA	AV SW/SERIAL DATA	BUZZER	BUZZER
AC ONLINE	AC ONLINE	CAP EC	CAPSTAN TORQUE CONTROL
AC. O/EE. H	AC ONLINE/EE (H)	CAP M GND	CAPSTAN MOTOR GND
AFC S C	AFC S CURVE	CAP. ET	CAPSTAN TORQUE CONTROL
AFC [S]	AFC S CURVE	CAP. FG1	CAPSTAN FG1 PULSE
AFC. DEF	AFC DEFEAT	CAP. FG2	CAPSTAN FG2 PULSE
ARFC OUT	AUDIO RF SIGNAL OUTPUT	CAS. SW	CASSETTE SW
ART. V	ARTIFICIAL VERTICAL SYNC SIGNAL	CCN	PLAYBACK CONTROL SIGNAL (-)
ART. V. MM	ARTIFICIAL VERTICAL SYNC SIGNAL MONO MULTI	CCP	PLAYBACK CONTROL SIGNAL (+)
	ARTIFICIAL VERTICAL SYNC SIGNAL (H)/NORMAL	CHM	CONTROL SIGNAL (+)
ART. V/H/N	ARTIFICIAL VERTICAL SYNC SIGNAL (H)/NORMAL	CHP	CONTROL SIGNAL (-)
	ARTIFICIAL VERTICAL SYNC SIGNAL	CINEM [L]	CINEMA (L)
AT. V/H/N	ARTIFICIAL VERTICAL SYNC SIGNAL	CINEMA [L]	CINEMA (L)
ATSW/TEST/NOR/SE	TEST/NORMAL/SERVICE	CINEMA/MIX	CINEMA/MIX
AUDIO IN [L]	AUDIO INPUT (L)	CKL	RATCH LOCK
AUDIO IN [R]	AUDIO INPUT (R)	CKS	SHIFT LOCK
AUDIO OUT [L]	AUDIO OUTPUT (L)	CL	CLOCK
AUDIO OUT [R]	AUDIO OUTPUT (R)	CLK	CLOCK
AUDIO SELECT [H]	AUDIO SELECT (H)	CLK (C.G)	CLOCK
AUDIO. L	AUDIO (L)	CLOCK. IN	CLOCK INPUT
AUDIO. R	AUDIO (R)	CLP	CLAMP
AV CNT	AV CONTROL	COL/B/W/NOR	COLOUR/BLACK & WHITE/NORMAL
AV CTL	AV CONTROL	COLOR [H]	COLOUR (H)
AV CTL/S. CLK	AV CONTROL/SERIAL CLOCK	CONV	CONVERTOR
AV. C.M.	AV CONTROL MODE	CS	CHIP SELECT
AVCNT/METER. R	AV CONTROL/LEVEL METER (R)	CTL GND	CONTROL GND
AVSW/METER. L	AV SW/LEVEL METER (L)	CTL HEAD [+]	CONTROL HEAD (+)
B MODE. H	B MODE (H)	CTL HEAD [-]	CONTROL HEAD (-)
B.G.P	BURST GATE PULSE	CTL [+]	CONTROL HEAD (+)
BACKUP 5V	BACK UP 5V	CTL [-]	CONTROL HEAD (-)
BAND. U.E.	BAND U	CUE BIAS	CUE BIAS
BANDVL. D	BAND VL	CURRENT LIM	CURRENT LIMMITER
BI/MI [L]	BILINGUAL/MIX (L)	CYL ET	CYLINDER TORQUE CONTROL

CYL GND	CYLINDER GND	FULL. E. 12V	FULL ERASE 12V
D.F.M. REC [H]	DELAIED FM RECORDING (H)	GND [A]	GND (ANALOG)
D. FM REC [L]	DELAIED FM RECORDING (L)	GND [TU]	GND (TUNER)
D. GND	DIGITAL GND	GND/N. SW. 12V	GND/NON SW 12V
D. REC [H]	DELAYED RECORDING (H)	H. SYNC	HORIZONTAL SYNC
D4/S. LED	D4/STILL LED	H. AMP. SW	HEAD AMP SW PULSE
D4/STILLED	D4/STILL LED	H. P <R>	HEAD PHONE (R)
DAC [CLK]	TUNER DAC (CLOCK)	H. P <L>	HEAD PHONE (L)
DAC/FS	TUNER DAC/FS CHIP SELECT	H. P GND	HEAD PHONE GND
DAREC [H]	DELAYED AUDIO RECORDING (H)	H. P OUT [L]	HEAD PHONE OUTPUT (L)
DATA	DATA	H. P OUT [R]	HEAD PHONE OUTPUT (R)
DECODER [L]	DECODER (L)	H. SW	HEAD SW PULSE
DECODER [R]	DECODER (R)	HEAD PHONE [L]	HEAD PHONE (L)
DEW	DEW	HEAD PHONE [R]	HEAD PHONE (R)
DEW SNS	DEW SENSOR	HEAD SW	HEAD SW
DFMRE [H]	DELAYED FM AUDIO RECORDING (H)	HEATER [+]	HEATER (+)
E. REC 5V	EXCEPT RECORDING 5V	HEATER [-]	HEATER (-)
EC	ERROR TORQUE CONTROL	HSS	HORIZONTAL SYNC SIGNAL
ECR	ERROR TORQUE CONTROL	HTR [+]	HEATER (+)
	REFERENCE VOLTAGE	HTR [-]	HEATER (-)
EDT TRIG [L]	EDIT TRIGGER (L)	I RFE	REFERENCE CURRENT
EDIT [H]	EDIT (H)	ICL	CONTROL AGC CIRCUIT
EE [H]	EE (H)	IF	INTERMEDIATE FREQUENCY
EE [H]/INS [M]	EE (H)/INSERT (M)	IN SELA1	INPUT SELECT A1 POSITION
EE. VV. TR	EE/VV/TRICK PLAY	IN SELA2	INPUT SELECT A2 POSITION
EJECT. PO	EJECT POSITION	IN SELA3	INPUT SELECT A3 POSITION
EJECT/VDET	EJECT/REVERSE SLOW LOCK	INS L/R [L]	INSERT Lch/Rch (L)
ENV. SEL	ENVELOPE SELECT	INS. [H]	INSERT (H)
ENVE. OUT	ENVELOPE OUTPUT	INSEL A1	INPUT SELECT A1 POSITION
ENVE. SEL	ENVELOPE SELECT	INSEL A2	INPUT SELECT A2 POSITION
ENV SELECT	ENVELOPE SELECT	INSERT	INSERT
EP [H]	LP (H)	INSERT [H]	INSERT (H)
EP/LP [H]	LP (H)	IO CS	INPUT/OUTPUT CHIP SELECT
EP/LP/SP	LP/SP	JOG1	JOG1
EP/SS [H]	LP/SLOW/STILL/STOP (H)	JOG S3 LED/FOWRD	JOG LED/FORWARD LED
EPROMCS	EPROM CHIP SELECT	JOG/F. LED	JOG LED/FORWARD LED
EX. REC 5V	EXCEPT RECORDING 5V	JSB [H]	JSB (H)
FF/REW [L]	FIRST FORWARD/REWIND (L)	JST. CLCK	JUST CLOCK
FG1 IN	FG1 PULSE INPUT	JST. CLK	JUST CLOCK
FG2 IN	FG2 PULSE INPUT	JST. CLOCK	JUST CLOCK
FILTER ADJUSTMENT	FILTER ADJUSTMENT	L. OUT	Lch OUTPUT
FLY ERASE [H]	FLYING ERASE HEAD ON (H)	L. CH [H]	Lch (H)
FLY ON [H]	FLYING ERASE HEAD ON (H)	L. CH [L]	Lch (L)
FLY. E [H]	FLYING ERASE HEAD ON (H)	LED (MAIN)	LED (MAIN)
FM MUT [H]	FM AUDIO MUTE (H)	LED (STEREO)	LED (STEREO)
FM MUTE [H]	FM AUDIO MUTE (H)	LED (SUB)	LED (SUB)
FM OUT [L]	FM OUTPUT (L)	LED CKL	LED SERIAL CLOCK
FM OUT [R]	FM OUTPUT (R)	LED CKS	LED SERIAL CLOCK
FM PACK OUT [L]	FM PACK OUTPUT (L)	LED DATA	LED SERIAL DATA
FM PACK OUT [R]	FM PACK OUTPUT (R)	LINE IN 1 [L]	LINE INPUT 1 (L)
FM/BS SEL [L]	FM/BS SELECT (L)	LINE IN 1 [R]	LINE INPUT 1 (R)
FM/BS SEL [R]	FM/BS SELECT (R)	LINE IN 2 [L]	LINE INPUT 2 (L)
FS. CLK	FS CLOCK	LINE IN 2 [R]	LINE INPUT 2 (R)
FUL. E [H]	FULL ERASE HEAD ON (H)	LINE IN V	LINE INPUT VIDEO
FULL. E [H]	FULL ERASE HEAD ON (H)	LINE IN [L]	LINE INPUT (L)

LINE IN [R]	LINE INPUT (R)	P-OFF [H]	POWER OFF (H)
LINE OUT [L]	LINE OUTPUT (L)	P-OFF [L]	POWER OFF (L)
LINE OUT [R]	LINE OUTPUT (R)	P. FAIL	POWER FAILURE DETECT
LP [H]	LP (H)	P. OFF [H]	POWER OFF (H)
LPTRI [L]	LP TRICK PLAY (L)	P. OFF [L]	POWER OFF (L)
Lch/A. DUB	Lch/AUDIO DUBBING	PAL [H]	PAL (H)
M GND	MOTOR GND	PAL [L]/NTSC [H]	PAL (L)/NTSC (H)
M REG	MOTOR REGULATOR	PB ADJ OUT	PLAYBACK ADJUST OUTPUT
MAIN OUT	MAIN OUTPUT	PB OUT	PLAYBACK OUTPUT
MAIN [L]	MAIN (L)	PB. H	PLAYBACK (H)
MAIN/MONO	MAIN/MONAUURAL	PFG	PG/FG
MAX IN	MAXIMAM INPUT	PHOTSN +B	PHOTO SENSOR +B
MES [H]	MESECAM (H)	PICT. CNT	PICTURE CONTROL
MESE [H]	MESECAM (H)	PLAY LED/RVS LED	PLAY LED/REVERSE LED
MESE [L]	MESECAM (L)	PLAY. PO	PLAY POSITION
METER 5V	LEVEL METER 5V	PLAY/R. LED	PLAY LED/REVERSE LED
METER [L]	LEVEL METER (L)	PLY/DEW	PLAY/DEW (H)
METER [R]	LEVEL METER (R)	POWER OFF [L]	POWER OFF (L)
METER. L/AVS	LEVEL METER (L)	PREROLL [H]	PREROLL (H)
METER. R/AVC	LEVEL METER (R)	PWRFAIL	POWER FAILURE DETECT
MI/BI [L]	MIX (H)/BILIGUAL	R. CH [H]	Rch (H)
MIC GND	MIC GND	R. CH [L]	Rch (L)
MIC IN	MIC INPUT	R. ST	RESET
MIC IN [L]	MIC INPUT (L)	R/S/F	REVERSE (H)/STOP (M)/FORWARD (L)
MIC IN [R]	MIC INPUT (R)	RCH [H]	Rch (H)
MIC [H]	MIC (H)	REC 12V	RECORDING 12V
MIX [H]	MIX (H)	REC CHROMA	RECORDING CHROMINANCE SIGNAL
MIX [H]/CINEMA [L]	MIX (H)/CINEMA SOUND (L)	REC H	RECORDING (H)
MIX/CINE	MIX (H)/CINEMA SOUND (L)	REC IN	RECORDING INPUT
MIX/CINEMA [L]	MIX (H)/CINEMA SOUND (L)	REC OUT [L]	RECORDING OUTPUT (L)
MN. H/M. L	MONAURAL (H)/MAIN (L)	REC START	RECORDING START
MN. H/MAI. L	MONAURAL (H)/MAIN (L)	REC VR [C]	RECORDING VOLUME (COMMON)
MN2/MES. L	MONAURAL 2/MESECAM (L)	REC VR [L]	RECORDING VOLUME (L)
MODE SEL	AUDIO MODE SELECT	REC VR [R]	RECORDING VOLUME (R)
MODE SW	AUDIO MODE SW	REC Y	RECORDING LUMINANCE SIGNAL
MODE. S. IN	AUDIO MODE SELECT INPUT	REC [H]	RECORDING (H)
MODE. S. OUT	AUDIO MODE SELECT OUTPUT	REC. C	RECORDING CHROMINANCE SIGNAL
MONO [H]	MONAURAL (H)	REC. Y	RECORDING LUMINANCE SIGNAL
MONO [H]/MAIN [L]	MONAURAL (H)/MAIN (L)	REC/EE CTL	RECORDING/EE CONTROL
MONO2 [L]	MONAURAL 2	REEL-T	REEL PULSE (TAKE-UP)
MONO2/MESE [FM(L)]	MONAURAL 2/MESECAM (FM (L))	REEL-S	REEL PULSE (SUPPLY)
MOTOR GND	MOTOR GND	REGULATOR FILTER	REGULATOR FILTER
MUTE	MUTE	RESET	RESET
N. A. REC [L]	NORMAL AUDIO RECORDING	REV M F/R	REVIEW MOTOR
N. SW 12V	NON SW 12V		FORWARD/REVERSE
N. SW. 5. DET	NON SW 5V DETECT	REV M V1	REVIEW MOTOR V1
NICAM	NICAM	REV M V2	REVIEW MOTOR V2
NICAM [L]	NICAM (L)	REV MOTOR F/R	REVIEW MOTOR
NOL [H]	PAL (H)/4.43 NTSC (M)/3.58 NTSC (L)		FORWARD/REVERSE
NOR/SOFT [H]	NORMAL/SOFT TAPE PLAY (H)	REV MOTOR V1	REVIEW MOTOR V1
NORMAL [H]	NORMAL (H)	REV MOTOR V2	REVIEW MOTOR V2
NR BIAS	NR BIAS	REV MOTOR [+]	REVIEW MOTOR (+)
NTSC [L]	NTSC (L)	REV MOTOR [-]	REVIEW MOTOR (-)
OCH	CONTROL AGC CIRCUIT	REV. M. GND	REVIEW MOTOR GND
OUT	OUTPUT	RF. CHROMA	RF CHROMINANCE SIGNAL

RF OUT	RF OUTPUT	SYSCON 5V	SYSTEM CONTROL 5V
RF Y	RF LUMINANCE SIGNAL	SYSTEM	SYSTEM SW
RF. Y. IN	RF LUMINANCE SIGNAL INPUT	T-PHOTO	TAKE-UP PHOTO TRANSISTOR
RF. Y. OUT	RF LUMINANCE SIGNAL OUTPUT	T-RL. PLS	TAKE-UP REEL PULSE
ROTAR. SW	ROTARY SW	T. BUSCLK	TIMER BUS CLOCK
ROTARY	ROTARY SW	T. BUSLSN	TIMER BUS LISTEN
RST	RESET	T. BUSTLK	TIMER BUS TALK
RST [L]	RESET (L)	T. END [L]	TAPE END (L)
Rch/INST	Rch/INSERT	T. PHOTO	TAKE-UP PHOTO TRANSISTOR
S IN	SERIAL DATA INPUT	TAPE END [L]	TAPE END (L)
S OUT	SERIAL DATA OUTPUT	TAPE END [L]/CAM	TAPE END (L)/CAMERA PAUSE
S-PHOTO	SUPPLY PHOTO TRANSISTOR	TEST	TEST MODE
S-RL. PLS	SUPPLY REEL PULSE	TPZ	TRAPEZOIDAL WAVE CIRCUIT
S. CLK	SERIAL CLOCK	TRIC [L]	TRIC PLAY (L)
S. CLK/AV	SERIAL CLOCK/AV	TRICK [L]	TRIC PLAY (L)
S. DATA	SERIAL DATA	TRK. ENV	AUTO TRACKING ENVELOPE DETECT
S. DATA/A	SERIAL DATA	TU. AUDIO	TUNER AUDIO
S. PHOTO	SUPPLY PHOTO TRANSISTOR	TU. GND	TUNER GND
S. TAB [L]	SAFETY TAB SW ON (L)	TU. V. IN	TUNER VIDEO SIGNAL INPUT
S/P/N	SECAM/PAL/NTSC	TU. VIDEO	TUNER VIDEO
SC IN	SERIAL CLOCK INPUT	TUN NOR IN	TUNER NORMAL INPUT
SC OUT	SERIAL CLOCK OUTPUT	TUN R	TUNER AUDIO (R)
SCK SELECT	SERIAL CLOCK SELECT	TUN. AUDIO IN	TUNER AUDIO INPUT
SEL OUT [L]	SELECT OUTPUT (L)	TUNER 12V	TUNER 12V
SEL OUT [R]	SELECT OUTPUT (R)	TUNER L	TUNER AUDIO (L)
SHUTTLE 1	SHUTTLE 1	TUNER V IN	TUNER VIDEO SIGNAL INPUT
SIF	SOUND INTERMEDIATE FREQUENCY	TUNER [L]	TUNER AUDIO (L)
SLMUT [H]	INPUT SELECT MUTE (H)	TUNER [N]	TUNER AUDIO (NORMAL)
SLNID [+]	SOLENOID (+)	TUNER [R]	TUNER AUDIO (R)
SLNID [-]	SOLENOID (-)	TUNER. 12	TUNER 12V
SLW TR. MM	SLOW TRACKING MONO MULTI	TUOFF [H]	TUNER OFF (H)
SLW TR. REF	SLOW TRACKING REFERENCE	TV. AUDIO	TV AUDIO
	VOLTAGE	TV/VTR	TV/VTR
SNS. GND	SENSOR GND	TXTON [L]	TEXT ON (L)
SOFT [H]	SOFT TAPE PLAY (H)	U. REG45V	UNREGULATOR 45V
SOFT [H]/NORMAL	SOFT TAPE PLAY (H)/NORMAL (H)	UNREG	UNREGULATOR
SOLENOID ON [L]	SOLENOID ON (L)	UNREG19V	UNREGULATOR 19V
SP [H]	SP (H)	V. REF	REFERENCE VOLTAGE
SP/L/SLP	SP/LP	V. EE [H]	VIDEO EE (H)
SSS [L]	SLOW/STILL/STOP	V. EE [L]	VIDEO EE (L)
STEREO LED	STEREO LED	VCO REF	REFERENCE OSCILLATER
STEREO [H]	STEREO (H)	VD. IN	VIDEO SIGNAL INPUT
STEREO [L]	STEREO (L)	VD. OUT	VIDEO SIGNAL OUTPUT
STOP. PO	STOP POSITION	VIDEO EE [L]	VIDEO EE (L)
STOP/5V	STOP POSITION/5V	VIDEO IN	VIDEO SIGNAL INPUT
STOP1/TAPE SEL	STOP1 POSITION/TAPE SELECT	VIDEO OUT	VIDEO SIGNAL OUTPUT
STOP1/PAL:ST	STOP1 POSITION/PAL	VM	MOTOR VOLTAGE
STOP2. PO	STOP 2 POSITION	VM DOWN [L]	MOTOR VOLTAGE DOWN (L)
STOP2/S-TAB	STOP 2 POSITION/SAFETY TAB SW	VSS	VERTICAL SYNC SIGNAL
STREO [H]	STEREO (H)	VTR [H]	VTR (H)
SUB BIAS	SUB BIAS	VTR. 12V	VTR 12V
SUB. SW	SUB SW	X IN	OSCILLATOR INPUT
SVHS CAS [L]	S-VHS CASSETTE (L)	X OUT	OSCILLATOR OUTPUT
SW. 5. DET	SW 5V DETECT		
SYNC [L]	SYNC (L)		

No.	Port Name	I/O	Description	P-OFF	P-Save	P-FAIL	Reset
1	CURRENT_LIMIT	O	Capstan motor current limit terminal.	Low	Low	Low	Low
2	F ADJUST	O	Analogue voltage output for HEAD frequency response adjustment	Low	Low	Low	Low
3	N.C.	--	Low fix (No Connection.)	Low	Low	Low	Low
4	C EMPHA(H)	O	Terminal of the Current emphasis video/FM audio recording current. [HIFI/2HEAD]:Fix to Low (Normal mode) [4HEAD] :Fix to Low (factory mode) Fix to High (Insert/AV Insert mode) Others (Depend on tape speed)	Low	Low	Low	Low
5	TRACKING_ENVE	O	Playback envelope input for auto tracking adjustment and cvc.	In	In	In	In
6	SLP(H)	O	Tape running speed output terminal.(Output signal depends on tape speed) [High].....During NTSC_10H or PAL_9H mode [Low].....Except NTSC_10H or PAL_9H mode	Low	Low	Low	Low
7	LP(H)	O	Tape running speed output terminal.(Output signal depends on tape speed) [High].....During NTSC_4H/6H or PAL_6H/9H mode [Low].....Except NTSC_4H/6H or PAL_6H/9H mode 2HEAD model: Low Fix	Low	Low	Low	Low
8	CPB	I	Input terminal for "PB (H)" from AV2. [High].....3.85V - 5.0V [Mid].....1.82V - 2.84V [Low]..... 0V - 0.81V	In	In	In	In
9	AFC S	I	"S-curve" Input terminal from tuner.	In	In	In	In
10	A-MUTE(H)	O	Audio mute output terminal for RF Converter.	High	High	Low	High
11	AV1_8IN	I	Input terminal for "PB (H)" from AV1. [High].....3.85V - 5.0V [Mid].....1.82V - 2.84V [Low]..... 0V - 0.81V	In	In	In	In
12	N/S/T2/T3	I	Mode select terminal [NORMAL mode]: More than 4.0V [SERVICE mode]: 2.5V - 4.0V [TEST_2 mode]: 1.0V - 2.5V [TEST_3 mode]: 0V - 1.0V	In	In	In	In
13	S-PHOTO	I	Tape end sensor input terminal.(Photo sensor input from supply side) [Black Tape]: more than 2.6V [Lead Tape]: Less than 2.4V	In	In	In	In
14	T-PHOTO	I	Tape beginning sensor input terminal.(Photo sensor input from take-up side) [Black Tape]: more than 2.6V [Lead Tape]: Less than 2.4V	In	In	In	In
15	ABS_NORM(H)	I	(Input terminal for FM audio envelope output level detection)	In	In	In	In
16	N.C	--	Low fix (No Connection.)	Low	Low	Low	Low
17	PLAY_REC(L)	O	Output terminal for switching the capstan voltage. [Other than PLAY/REC mode].....Always "High". [JOG/Shuttle mode in PLAY mode].....Always "High". After 5 seconds from PLAY/REC mode completion, it changes to "Low". During "Low" outputs, it checks every main capstan FG, when the no FG is inputted in a rotation, it changes to "High" and it keeps "high" by cassette ejection.	Low	Low	Low	Low
18	VSYNC(L)	O	Output terminal for V_sync detection result. [Vsync exist] : "Low" [Vsync not exist: "High"	Low	Low	Low	Low
19	D.FM.REC(H)	O	Timing output terminal for FM_Audio recording current.	Low	Low	Low	Low
20	ART.V/H/N	O	Output terminal for Artificial V synchronization signal.	Low	Low	Low	Low

No.	Port Name	I/O	Description	P-OFF	P-Save	P-FAIL	Reset												
21	ROTARY.SW	O	Output terminal for rotary switch.	Low	Low	Low	Low												
22	H.A.SW	O	Output terminal for HEAD AMP switch.	Low	Low	Low	Low												
23	ENVE.SELECT	I	Input terminal for envelope selection.	Low	Low	Low	Low												
24	VIDEO.H.SW	O	Output terminal for video HEAD switch.	Low	Low	Low	Low												
25	A.H.SW	O	Output terminal for FM audio HEAD switch.	Low	Low	Low	Low												
26	A.DEF(H)	O	Audio Mute output terminal for tuner and decoder. [High].....During VCR mode is NORMAL PLAY and VV mode.	Low	Low	Low	Low												
27	PROG.ON(H)	O	I/O control to switch IIC bus for LW-programmer. H:IIC bus is connected to AV2. L:IIC bus is not connected to AV2.	Low	Low	Low	Low												
28	AVPB-H(L)	O	"PB-(H)"output terminal for AV2 *Details, refer to 21pin control specifications. *The signal output from Pin-8 of 21pin terminal is shown below. <table border="1" data-bbox="343 446 734 625"> <thead> <tr> <th>pin8 \ Name</th> <th>AVPB-H(L)</th> <th>AVPBM-(H)</th> </tr> </thead> <tbody> <tr> <td>High</td> <td>L</td> <td>Hi-Z</td> </tr> <tr> <td>Middle</td> <td>H</td> <td>Hi-Z</td> </tr> <tr> <td>Low</td> <td>H</td> <td>L</td> </tr> </tbody> </table>	pin8 \ Name	AVPB-H(L)	AVPBM-(H)	High	L	Hi-Z	Middle	H	Hi-Z	Low	H	L	High	High	Low	High
				pin8 \ Name	AVPB-H(L)	AVPBM-(H)													
				High	L	Hi-Z													
				Middle	H	Hi-Z													
Low	H	L																	
29	AVPB-M(H)	O		Low	Low	Low	Low												
30	GND(D)	--	GND	---	---	---	---												
31	20MHz.IN	I	Main oscillator input	---	STOP	STOP	---												
32	20MHz.OUT	O	Main oscillator output	---	STOP	STOP	---												
33	+5V(D)	I	5V input terminal	---	---	---	---												
34	32KHz IN	I	Sub oscillator input	---	---	---	---												
35	32KHz OUT	O	Sub oscillator output	---	---	---	---												
36	NC(VCONT)	I	Video Control	---	---	---	---												
37	V EE(L)	O	Output terminal for switch between EE and VV.	Low	Low	Low	Low												
38	D REC(H)	O	Output terminal for video recording current control.	Low	Low	Low	Low												
39	D.A.REC(H)	O	Control terminal for normal audio recording current.	Low	Low	Low	Low												
40	BIAS(L)	O	Bias oscillation Control terminal for Linear audio recording current. 	High	Hi-Z	Hi-Z	High												
41	FM.MUTE(H)	O	Output terminal for audio mute control.	High	High	Low	High												
42	FULL ERASE(L)	O	Output terminal for control FULL ERASE HEAD.	Low	Low	Low	Low												
43	POWER_KEY	I	Input terminal for the unit power button. It switches ON to OFF and/or OFF to ON when down edge is detected.	In	In	In	In												
44	POS.SW3	I	Input terminal for mecha position.	In	In	In	In												
45	POS.SW2	I	Input terminal for mecha position.	In	In	In	In												
46	POS.SW1	I	Input terminal for mecha position.	In	In	In	In												
47	POWER OFF(H)	O	ON/OFF Control terminal for power circuit. Power off condition: "High" is existed. ("Low" is existed when the mechanism and/or circuit operation is activated.)	High	High	Low	High												
48	FIP(L)	O	Output terminal for FIP on/off control signal. ("Low" is existed when the power off condition under the "FIP OFF" setting.)	Not fix	High	Low	Low												
49	P50 IN	I	Input terminal for Project 50 serial signal.	In	In	In	In												
50	LC.OSC IN	I	The oscillation input terminal for OSD dot clock.	---	---	---	---												

No.	Port Name	I/O	Description	P-OFF	P-Save	P-FAIL	Reset
51	LC.OSC OUT	O	The oscillation output terminal for OSD dot clock.	---	---	---	---
52	RESET(L)	I	Input terminal for microprocessor reset.	In	In	In	In
53	4FC.LPF	I	4fc clock input terminal	---	---	---	---
54	OSD.FSC IN	I	OSD clock input terminal	---	---	---	---
55	5V(OSD)	I	5V input terminal	---	---	---	---
56	CVIN	I	Input terminal for Composite video signal.	---	---	---	---
57	GND(OSD)	I	GND	---	---	---	---
58	LECHA	I	Input terminal for Composite video signal.(White level)	---	---	---	---
59	20M.START(H)	I	Switching terminal for stertring Mode.(High speed/Low speed)	---	---	---	---
60	MD0	I	Mode setting terminal for flash over-write.	---	---	---	---
61	CVOUT	O	Output terminal for CG Video.	---	---	---	---
62	HLF	O	LPF connecting terminal for the slicer. (For OSD dot clock.)	---	---	---	---
63	SECAM.V.IN	I	Chrominance input terminal for SECAM super impose.	---	---	---	---
64	GND	I	Connect to GND	In	In	In	In
65	S TAB(L)	I	Input terminal for the prevention tab. [EXIST] :LOW [NO EXIST] :HIGH	In	In	In	In
66	UNLOADING(H)	O	Control terminal for loading motor. [Reverse rotation / brake] : "High"	Low	Low	Low	Low
67	LOADING(H)	O	Control terminal for loading motor. [forward rotation / brake] : "High"	Low	Low	Low	Low
68	C.SYNC	I	Input terminal for composite V-sync signal.	In	In	In	In
69	EX.FF/REW(L)	I	Filter control terminal for PB-CTL signal in FF/REW.	Low	Low	Low	Low
70	PAL-I/BG/DK(SYS4)	O	Output terminal for TV broadcast system switching signal for video circuit control.	Not fix	Low	Low	Low
71	SECAM/PAL(SYS2)	O	Output terminal for TV broadcast system switching signal for video circuit control.	Not fix	Low	Low	Low
72	SLEEP(L)	O	Output terminal for super power save mode setting. P-OFF in the super power save mode..... "Low".	High	Low	Low	High
73	PB60Hz(H)	O	Switching terminal for NTSC FM Audio trap filter in PB. [VV (PB,Trick_PB/A-DUB, A-DUB-PS) mode and CTL is 60Hz] : "High" [Other than above condition] : "Low"	Low	Low	Low	Low
74	ADUB(H)	O	Switching terminal for Bias oscillation noise filter in A-DUB mode. [ADUB/ADUB-PS(Including Assemble/syncro/AV-Insert)] : "High" [Other than above condition] : "Hi-Z"	Hi-Z	Hi-Z	Hi-Z	Hi-Z
75	N.C(VBI1)	O	Fix to Low.	Low	Low	Low	Low
76	P FAIL	I	Input terminal for Interrupt signal for power fail detection.	In	In	In	In
77	IR	I	Input terminal for Interrupt signal from IR sensor emitted by Remo-Con.	In	In	In	In
78	P50 OUT	O	Output terminal for Project 50 serial data.	Not fix	Low	Low	Low
79	CAP.ET	O	Output terminal for Capstan Torque command.	0V	0V	Low	0V
80	CYL.ET	O	Output terminal for Cylinder Torque command.	4.213V	4.213V	Low	4.213V
81	DIGI.LINK	O	Control signal for switching IR sensor.[only LOEWE model]	Low	Low	Low	Low
82	HALF_WAVE(H)	O	Switching terminal for capstan driver speed mode.(FAST/SLOW)	In	In	In	In
83	CAP.R/F	O	Switching terminal for capstan motor rotating direction.	Low	Low	Low	Low
84	125Hz	O	125Hz pulse output terminal for clock adjustment.	Not fix	Low	Low	Low
85	SHORT_DN	I	Short Circuit detection terminal for oscillation circuit in REC. *When the "BIAS(H)" is "Low" and this terminal is "High", "F08" is displayed. *When the "BIAS(H)" is "High" and this terminal is "low", "F07" is displayed.	In	In	In	In
86	N.C	--	Fix to Low.	Low	Low	Low	Low
87	N.C	--	Fix to Low.	Low	Low	Low	Low
88	N.C	--	Fix to Low.	Low	Low	Low	Low
89	FLD/T2 CLK	O	Serial clock output terminal for FIP driver and TEST_2(Factory use).	Not fix	Low	Low	Low
90	FLD/T2 DATA IN	I	Serial data input terminal for FIP driver and TEST_2(Factory use).	Not fix	In	In	In

No.	Port Name	I/O	Description	P-OFF	P-Save	P-FAIL	Reset
91	FLD/T2 DATA OUT	O	Serial data output terminal for FIP driver and TEST_2(Factory use).	Not fix	Low	Low	Low
92	FLD_CS	O	Chip select terminal for FIP driver.	Not fix	Low	Low	Low
93	T.REEL.PULSE	I	Input terminal for Take-up Reel sensor pulse.	In	In	In	In
94	S.REEL.PULSE	I	Input terminal for Supply Reel sensor pulse.	In	In	In	In
95	DAVN	I	DAVN signal from Slicer	In	In	In	In
96	EED_WR	O	Write enable for EEPROM H:READ only L:Write	High	High	Low	High
97	OSD IIC CLK	O	IIC clock for EEPROM,I/O and slicer	Not fix	Low	Low	Low
98	OSD IIC DATA	I/O	IIC data for EEPROM,I/O and slicer	Not fix	Low	Low	Low
99	MAIN IIC CLK	O	IIC clock for AV1CHIP,FM audio,Tuner,Decoder and RFC	Not fix	Low	Low	Low
100	MAIN IIC DATA	I/O	IIC data for AV1CHIP,FM audio,Tuner,Decoder and RFC	Not fix	Low	Low	Low
101	N.C	--	Low fix terminal.	Low	Low	Low	Low
102	N.C	--	Low fix terminal.	Low	Low	Low	Low
103	FG.AMP.OUT	O	Output from internal FG Amplifier	---	---	---	---
104	FG.AMP.IN	I	Input for internal FG Amplifier	---	---	---	---
105	GND(A)	I	GND	---	---	---	---
106	GND	I	GND	---	---	---	---
107	PFG	I	Cylinder PG/FG input terminal	---	---	---	---
108	OREF	O	Output from internal reference voltage (2.5V)	---	---	---	---
109	IREF	I	Input for internal reference voltage	---	---	---	---
110	to GND	--	Connect to GND	---	---	---	---
111	CTL.HEAD(-)	I	Input signal from CTL HEAD(+)	---	---	---	---
112	CTL.HEAD(+)	I	Input signal from CTL HEAD(-)	---	---	---	---
113	CTL.AMP.REF	I	Input for internal CTL amplifier reference voltage	---	---	---	---
114	PB.CTL.OUT	O	Output from internal CTL amplifier	---	---	---	---
115	+5V(A)	I	5V input terminal	---	---	---	---
116	+5V(AD)	I	5V input terminal	---	---	---	---

INPUT CONDITION						VIDEO OUTPUT RESULT							AUDIO OUTPUT RESULT					
POWER	AV2 SELECT	TV/ VTR	EE/ VV	OSD ON(H)	INPUT CH	AV2 PB(H)	AV1 OUT	AV2 OUT	AV1 PB(H)	AV2 PB(H)	RGB SW	VCR IN	VCR OUT	AV1 Out	AV2 Out	RF (C)	AV1 Out Selector	AV2 Out Selector
OFF	---	---	---	---	---	L	AV2 In	AV1 In	L	L	OFF	TUN	TUN	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	M/H	L	ON	TUN	TUN	AV2 In	AV1 In	Mute	AV2 In	AV1 In
VPS STAND BY	EXT	---	---	L	NO.TU	L	AV2 In	AV1 In	L	L	OFF	TUN	TUN	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	*[M/H]	L	ON	TUN	TUN	AV2 In	AV1 In	Mute	AV2 In	AV1 In
or	or	---	---	L	C+.TU	L	AV2 In	AV1 In	L	L	OFF	TUN	TUN	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	*[M/H]	L	ON	TUN	TUN	AV2 In	AV1 In	Mute	AV2 In	AV1 In
or	TIMER1	---	---	L	AV1	L	AV2 In	AV1 In	L	L	OFF	AV1	AV1	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	*[M/H]	L	ON	AV1	AV1	AV2 In	AV1 In	Mute	AV2 In	AV1 In
Personal Planner Standby	or	---	---	L	AV2	L	AV2 In	AV1 In	L	L	OFF	AV2	AV2	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	*[M/H]	L	ON	AV2	AV2	AV2 In	AV1 In	Mute	AV2 In	AV1 In
	TIMER2	---	---	L	AV3	L	AV2 In	AV1 In	L	L	OFF	AV3	AV3	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	*[M/H]	L	ON	AV3	AV3	AV2 In	AV1 In	Mute	AV2 In	AV1 In
		---	---	L	SAT.NO	L	AV2 In	AV1 In	L	L	OFF	SAT	SAT	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	*[M/H]	L	ON	SAT	SAT	AV2 In	AV1 In	Mute	AV2 In	AV1 In
		---	---	L	SAT.C+	L	AV2 In	AV1 In	L	L	OFF	SAT	SAT	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	*[M/H]	L	ON	SAT	SAT	AV2 In	AV1 In	Mute	AV2 In	AV1 In
		---	---	H	NO.TU	L	VCR out	AV1 In	H	H	OFF	TUN	TUN	Mute	Mute	Mute	TUN	AV1 In
						M/H	VCR out	AV1 In	H	H	OFF	TUN	TUN	Mute	Mute	Mute	TUN	AV1 In
		---	---	H	C+.TU	L	VCR out	AV1 In	H	H	OFF	TUN	TUN	Mute	Mute	Mute	TUN	AV1 In
						M/H	VCR out	AV1 In	H	H	OFF	TUN	TUN	Mute	Mute	Mute	TUN	AV1 In
		---	---	H	AV1	L	VCR out	AV1 In	H	H	OFF	AV1	AV1	Mute	Mute	Mute	AV1 In	AV1 In
						M/H	VCR out	AV1 In	H	H	OFF	AV1	AV1	Mute	Mute	Mute	AV1 In	AV1 In
		---	---	H	AV2	L	VCR out	AV1 In	H	H	OFF	AV2	AV2	Mute	Mute	Mute	AV2 In	AV1 In
						M/H	VCR out	AV1 In	H	H	OFF	AV2	AV2	Mute	Mute	Mute	AV2 In	AV1 In
		---	---	H	AV3	L	VCR out	AV1 In	H	H	OFF	AV3	AV3	Mute	Mute	Mute	AV3 In	AV1 In
						M/H	VCR out	AV1 In	H	H	OFF	AV3	AV3	Mute	Mute	Mute	AV3 In	AV1 In
		---	---	H	SAT.NO	L	VCR out	AV1 In	H	H	OFF	SAT	SAT	Mute	Mute	Mute	SAT	AV1 In
						M/H	VCR out	AV1 In	H	H	OFF	SAT	SAT	Mute	Mute	Mute	SAT	AV1 In
		---	---	H	SAT.C+	L	VCR out	AV1 In	H	H	OFF	SAT	SAT	Mute	Mute	Mute	SAT	AV1 In
						M/H	VCR out	AV1 In	H	H	OFF	SAT	SAT	Mute	Mute	Mute	SAT	AV1 In
DECODER	---	---	---	L	NO.TU	L	AV2 In	AV1 In	L	L	OFF	TUN	TUN	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	M/H	L	ON	TUN	TUN	AV2 In	AV1 In	Mute	AV2 In	AV1 In
		---	---	L	C+.TU	L	AV2 In	AV1 In	L	L	OFF	TUN	TUN	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	M/H	L	ON	TUN	TUN	AV2 In	AV1 In	Mute	AV2 In	AV1 In
		---	---	L	AV1	L	AV2 In	AV1 In	L	L	OFF	AV1	AV1	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	M/H	L	ON	AV2	AV2	AV2 In	AV1 In	Mute	AV2 In	AV1 In
		---	---	L	AV2	L	AV2 In	AV1 In	L	L	OFF	AV2	AV2	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	M/H	L	ON	AV2	AV2	AV2 In	AV1 In	Mute	AV2 In	AV1 In
		---	---	L	AV3	L	AV2 In	AV1 In	L	L	OFF	AV3	AV3	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	M/H	L	ON	AV3	AV3	AV2 In	AV1 In	Mute	AV2 In	AV1 In
		---	---	L	SAT.NO	L	AV2 In	AV1 In	L	L	OFF	SAT	SAT	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	M/H	L	ON	SAT	SAT	AV2 In	AV1 In	Mute	AV2 In	AV1 In
		---	---	L	SAT.C+	L	AV2 In	AV1 In	L	L	OFF	SAT	SAT	AV2 In	AV1 In	Mute	AV2 In	AV1 In
						M/H	AV2 In	AV1 In	M/H	L	ON	SAT	SAT	AV2 In	AV1 In	Mute	AV2 In	AV1 In
		---	---	H	NO.TU	L	VCR out	AV1 In	H	L	OFF	TUN	TUN	Mute	Mute	Mute	TUN	AV1 In
						M/H	VCR out	AV1 In	H	L	OFF	TUN	TUN	Mute	Mute	Mute	TUN	AV1 In
		---	---	H	C+.TU	L	VCR out	AV1 In	H	L	OFF	TUN	TUN	Mute	Mute	Mute	TUN	AV1 In
						M/H	VCR out	AV1 In	H	L	OFF	TUN	TUN	Mute	Mute	Mute	TUN	AV1 In
		---	---	H	AV1	L	VCR out	AV1 In	H	L	OFF	AV1	AV1	Mute	Mute	Mute	AV1 In	AV1 In
						M/H	VCR out	AV1 In	H	L	OFF	AV2	AV2	Mute	Mute	Mute	AV2 In	AV1 In
		---	---	H	AV2	L	VCR out	AV1 In	H	L	OFF	AV2	AV2	Mute	Mute	Mute	AV2 In	AV1 In
						M/H	VCR out	AV1 In	H	L	OFF	AV2	AV2	Mute	Mute	Mute	AV2 In	AV1 In
		---	---	H	AV3	L	VCR out	AV1 In	H	L	OFF	AV3	AV3	Mute	Mute	Mute	AV3 In	AV1 In
						M/H	VCR out	AV1 In	H	L	OFF	AV3	AV3	Mute	Mute	Mute	AV3 In	AV1 In
		---	---	H	SAT.NO	L	VCR out	AV1 In	H	L	OFF	SAT	SAT	Mute	Mute	Mute	SAT	AV1 In
						M/H	VCR out	AV1 In	H	L	OFF	SAT	SAT	Mute	Mute	Mute	SAT	AV1 In
		---	---	H	SAT.C+	L	VCR out	AV1 In	H	L	OFF	SAT	SAT	Mute	Mute	Mute	SAT	AV1 In
						M/H	VCR out	AV1 In	H	L	OFF	SAT	SAT	Mute	Mute	Mute	SAT	AV1 In

INPUT CONDITION							VIDEO OUTPUT RESULT						AUDIO OUTPUT RESULT									
POWER	AV2 SELECT	TV/ VTR	EE/ VV	OSD ON(H)	INPUT CH	AV2 PB(H)	AV1 OUT	AV2 OUT	AV1 PB(H)	AV2 PB(H)	RGB SW	VCR IN	VCR OUT	AV1 Out	AV2 Out	RF (C)	AV1 Out Selector	AV2 Out Selector				
P.ON	EXT	TV	EE	L	NO.TU	---	VCR out	VCR out	L	L	OFF	TUN	TUN	TUN	TUN	TUN	TUN	TUN	INSEL			
					C+.TU	---	VCR out	VCR out	L	L	OFF	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	INSEL	
					AV1	---	VCR out	VCR out	L	L	OFF	AV1	AV1	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	INSEL	
					AV2	---	VCR out	VCR out	L	L	ON	AV2	AV2	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	INSEL	
					AV3	---	VCR out	VCR out	L	L	OFF	AV3	AV3	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	INSEL	
				SAT.NO	---	VCR out	VCR out	L	L	OFF	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	INSEL	
				SAT.C+	---	VCR out	VCR out	L	L	OFF	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	INSEL	
				H	NO.TU	---	VCR out	VCR out	H	H	OFF	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	INSEL
					C+.TU	---	VCR out	VCR out	H	H	OFF	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	INSEL
					AV1	---	VCR out	VCR out	H	H	OFF	AV1	AV1	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	INSEL
	AV2	---	VCR out		VCR out	H	H	OFF	AV2	AV2	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	INSEL			
	AV3	---	VCR out		VCR out	H	H	OFF	AV3	AV3	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	INSEL			
	VTR	EE	L	NO.TU	---	VCR out	VCR out	H	H	OFF	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	INSEL		
					C+.TU	---	VCR out	VCR out	H	H	OFF	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	INSEL	
					AV1	---	VCR out	VCR out	H	H	OFF	AV1	AV1	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	INSEL	
					AV2	L	VCR out	VCR out	H	H	ON	AV2	AV2	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	INSEL
					M/H	VCR out	VCR out	M/H	M/H	ON	AV2	AV2	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	INSEL	
				AV3	---	VCR out	VCR out	H	H	OFF	AV3	AV3	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	INSEL	
				SAT.NO	---	VCR out	VCR out	H	H	OFF	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	INSEL	
				SAT.C+	---	VCR out	VCR out	H	H	OFF	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	INSEL	
H				NO.TU	---	VCR out	VCR out	H	H	OFF	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	INSEL	
				C+.TU	---	VCR out	VCR out	H	H	OFF	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	INSEL	
	AV1	---	VCR out	VCR out	H	H	OFF	AV1	AV1	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	INSEL				
	AV2	---	VCR out	VCR out	H	H	OFF	AV2	AV2	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	INSEL				
	AV3	---	VCR out	VCR out	H	H	OFF	AV3	AV3	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	INSEL				
P.ON	EXT	VTR	EE	H	AV1	---	VCR out	VCR out	H	H	OFF	AV1	AV1	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	INSEL		
					AV2	---	VCR out	VCR out	H	H	OFF	AV2	AV2	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	INSEL	
					AV3	---	VCR out	VCR out	H	H	OFF	AV3	AV3	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	INSEL	
					SAT.NO	---	VCR out	VCR out	H	H	OFF	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	INSEL	
					SAT.C+	---	VCR out	VCR out	H	H	OFF	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	INSEL	
	VV		---	NO.TU	---	VCR out	VCR out	M/H	M/H	OFF	TUN	PB	PB	PB	PB	PB	PB	TUN	INSEL			
			C+.TU	---	VCR out	VCR out	M/H	M/H	OFF	TUN	PB	PB	PB	PB	PB	PB	TUN	INSEL				
			AV1	---	VCR out	VCR out	M/H	M/H	OFF	AV1	PB	PB	PB	PB	PB	PB	AV1 In	INSEL				
			AV2	---	VCR out	VCR out	M/H	M/H	OFF	AV2	PB	PB	PB	PB	PB	PB	AV2 In	INSEL				
			AV3	---	VCR out	VCR out	M/H	M/H	OFF	AV3	PB	PB	PB	PB	PB	PB	AV3 In	INSEL				
DECODER	TV	EE	L	NO.TU	L	VCR out	AV1 In	L	L	OFF	TUN	TUN	TUN	AV1 In	TUN	TUN	AV1 In	INSEL				
					M/H	AV2 In	AV1 In	M/H	L	ON	TUN	TUN	AV2 In	AV1 In	TUN	AV2 In	AV1 In	INSEL				
					C+.TU	L	VCR out	TUN IN	L	L	OFF	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	INSEL	
					M/H	VCR out	TUN IN	L	L	OFF	AV2	AV2	AV2 In	TUN	AV2 In	AV2 In	AV2 In	TUN	INSEL			
					AV1	L	VCR out	AV1 In	L	L	OFF	AV1	AV1	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	INSEL	
					M/H	AV2 In	AV1 In	M/H	L	ON	AV2	AV2	AV2 In	AV1 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	INSEL	
					AV2	L	VCR out	AV1 In	L	L	ON	AV2	AV2	AV2 In	AV1 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	INSEL
					M/H	AV2 In	AV1 In	M/H	L	ON	AV2	AV2	AV2 In	AV1 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	INSEL
					AV3	L	VCR out	AV1 In	L	L	OFF	AV3	AV3	AV3 In	AV1 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	INSEL
					M/H	AV2 In	AV1 In	M/H	L	ON	AV3	AV3	AV3 In	AV1 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	INSEL
H	SAT.NO	L	VCR out	AV1 In	L	L	OFF	SAT	SAT	SAT	AV1 In	SAT	AV1 In	SAT	AV1 In	SAT	AV1 In	INSEL				
	M/H	AV2 In	AV1 In	M/H	L	ON	SAT	SAT	AV2 In	AV1 In	SAT	AV2 In	SAT	AV2 In	AV2 In	AV2 In	AV2 In	INSEL				
	SAT.C+	L	VCR out	SAT IN	L	L	OFF	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	TUN				
	M/H	VCR out	SAT IN	L	L	OFF	AV2	AV2	AV2 In	SAT	AV2 In	AV2 In	AV2 In	TUN	INSEL							
	NO.TU	L	VCR out	AV1 In	H	L	OFF	TUN	TUN	TUN	AV1 In	TUN	TUN	TUN	AV1 In	TUN	TUN	AV1 In	INSEL			
	M/H	VCR out	AV1 In	H	L	OFF	TUN	TUN	TUN	AV1 In	TUN	TUN	TUN	TUN	TUN	TUN	TUN	AV1 In	INSEL			
	C+.TU	L	VCR out	TUN IN	H	L	OFF	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	INSEL			
	M/H	VCR out	TUN IN	H	L	OFF	AV2	AV2	AV2 In	TUN	AV2 In	AV2 In	AV2 In	TUN	INSEL							
	AV1	L	VCR out	AV1 In	H	L	OFF	AV1	AV1	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	INSEL			
	M/H	VCR out	AV1 In	H	L	OFF	AV2	AV2	AV2 In	AV1 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	INSEL			
AV2	L	VCR out	AV1 In	H	L	OFF	AV2	AV2	AV2 In	AV1 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	INSEL				
M/H	VCR out	AV1 In	H	L	OFF	AV2	AV2	AV2 In	AV1 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	INSEL				
AV3	L	VCR out	AV1 In	H	L	OFF	AV3	AV3	AV3 In	AV1 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	INSEL				
M/H	VCR out	AV1 In	H	L	OFF	AV3	AV3	AV3 In	AV1 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	INSEL				
SAT.NO	L	VCR out	AV1 In	H	L	OFF	SAT	SAT	SAT	AV1 In	SAT	AV1 In	SAT	AV1 In	SAT	SAT	AV1 In	INSEL				
M/H	VCR out	AV1 In	H	L	OFF	SAT	SAT	SAT	AV1 In	SAT	SAT	SAT	AV1 In	SAT	SAT	SAT	AV1 In	INSEL				
SAT.C+	L	VCR out	SAT IN	H	L	OFF	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT				
M/H	VCR out	SAT IN	H	L	ON	AV2	AV2	AV2 In	SAT	AV2 In	AV2 In	AV2 In	SAT	AV2 In	AV2 In	AV2 In	SAT					

INPUT CONDITION						VIDEO OUTPUT RESULT							AUDIO OUTPUT RESULT											
POWER	AV2 SELECT	TV/ VTR	EE/ VV	OSD ON(H)	INPUT CH	AV2 PB(H)	AV1 OUT	AV2 OUT	AV1 PB(H)	AV2 PB(H)	RGB SW	VCR IN	VCR OUT	AV1 Out	AV2 Out	RF (C)	AV1 Out Selector	AV2 Out Selector						
P.ON	DECODER	VTR	EE	L	NO.TU	L	VCR out	AV1 In	H	L	OFF	TUN	TUN	TUN	AV1 In	TUN	TUN	TUN	AV1 In					
						M/H	VCR out	AV1 In	H	L	OFF	TUN	TUN	TUN	AV1 In	TUN	TUN	TUN	AV1 In					
					C+.TU	L	VCR out	TUN IN	H	L	OFF	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	
						M/H	VCR out	TUN IN	M/H	L	ON	AV2	AV2	AV2 In	TUN	AV2 In	AV2 In	AV2 In	TUN					
					AV1	L	VCR out	AV1 In	H	L	OFF	AV1	AV1	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	
						M/H	VCR out	AV1 In	M/H	L	ON	AV2	AV2	AV2 In	AV1 In	AV2 In	AV2 In	AV2 In	AV1 In					
					AV2	L	VCR out	AV1 In	H	L	ON	AV2	AV2	AV2 In	AV1 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV1 In	
						M/H	VCR out	AV1 In	M/H	L	ON	AV2	AV2	AV2 In	AV1 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV1 In	
					AV3	L	VCR out	AV1 In	H	L	OFF	AV3	AV3	AV3 In	AV1 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV1 In	
						M/H	VCR out	AV1 In	M/H	L	OFF	AV3	AV3	AV3 In	AV1 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV1 In	
					SAT.NO	L	VCR out	AV1 In	H	L	OFF	SAT	SAT	SAT	AV1 In	SAT	SAT	SAT	AV1 In	SAT	SAT	SAT	AV1 In	
						M/H	VCR out	AV1 In	H	L	OFF	SAT	SAT	SAT	AV1 In	SAT	SAT	SAT	AV1 In	SAT	SAT	SAT	AV1 In	
					SAT.C+.	L	VCR out	SAT IN	H	L	OFF	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	
						M/H	VCR out	SAT IN	M/H	L	ON	AV2	AV2	AV2 In	SAT	AV2 In	AV2 In	AV2 In	SAT					
					H	NO.TU	L	VCR out	AV1 In	H	L	OFF	TUN	TUN	TUN	AV1 In	TUN	TUN	AV1 In	TUN	TUN	TUN	AV1 In	
							M/H	VCR out	AV1 In	H	L	OFF	TUN	TUN	TUN	AV1 In	TUN	TUN	TUN	AV1 In				
						C+.TU	L	VCR out	TUN IN	H	L	OFF	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	TUN	
							M/H	VCR out	TUN IN	H	L	OFF	AV2	AV2	AV2 In	TUN	AV2 In	AV2 In	TUN					
						AV1	L	VCR out	AV1 In	H	L	OFF	AV1	AV1	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	AV1 In	
							M/H	VCR out	AV1 In	H	L	OFF	AV2	AV2	AV2 In	AV1 In	AV2 In	AV2 In	AV2 In	AV1 In				
						AV2	L	VCR out	AV1 In	H	L	OFF	AV2	AV2	AV2 In	AV1 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV1 In	
							M/H	VCR out	AV1 In	H	L	OFF	AV2	AV2	AV2 In	AV1 In	AV2 In	AV2 In	AV2 In	AV2 In	AV2 In	AV1 In		
						AV3	L	VCR out	AV1 In	H	L	OFF	AV3	AV3	AV3 In	AV1 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV1 In	
							M/H	VCR out	AV1 In	H	L	OFF	AV3	AV3	AV3 In	AV1 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV3 In	AV1 In	
				SAT.NO		L	VCR out	AV1 In	H	L	OFF	SAT	SAT	SAT	AV1 In	SAT	SAT	SAT	AV1 In	SAT	SAT	SAT	AV1 In	
						M/H	VCR out	AV1 In	H	L	OFF	SAT	SAT	SAT	AV1 In	SAT	SAT	SAT	AV1 In	SAT	SAT	SAT	AV1 In	
				SAT.C+.		L	VCR out	SAT IN	H	L	OFF	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	SAT	
						M/H	VCR out	SAT IN	H	L	OFF	AV2	AV2	AV2 In	SAT	AV2 In	AV2 In	AV2 In	SAT					
				VV		---	NO.TU	L	VCR out	AV1 In	M/H	L	OFF	TUN	PB	PB	AV1 In	PB	TUN	PB	TUN	AV1 In		
								M/H	VCR out	AV1 In	M/H	L	OFF	TUN	PB	PB	AV1 In	PB	TUN	AV1 In				
							C+.TU	L	VCR out	TUN IN	M/H	L	OFF	TUN	PB	PB	TUN	PB	TUN	PB	TUN	PB	TUN	TUN
								M/H	VCR out	TUN IN	M/H	L	OFF	AV2	PB	PB	TUN	PB	AV2 In	TUN				
							AV1	L	VCR out	AV1 In	M/H	L	OFF	AV1	PB	PB	AV1 In	PB	AV1 In	PB	AV1 In	AV1 In	AV1 In	
								M/H	VCR out	AV1 In	M/H	L	OFF	AV2	PB	PB	AV1 In	PB	AV2 In	AV1 In				
							AV2	L	VCR out	AV1 In	M/H	L	OFF	AV2	PB	PB	AV1 In	PB	AV2 In	PB	AV2 In	AV1 In	AV1 In	
								M/H	VCR out	AV1 In	M/H	L	OFF	AV2	PB	PB	AV1 In	PB	AV2 In	PB	AV2 In	AV1 In		
							AV3	L	VCR out	AV1 In	M/H	L	OFF	AV3	PB	PB	AV1 In	PB	AV3 In	PB	AV3 In	AV1 In	AV1 In	
								M/H	VCR out	AV1 In	M/H	L	OFF	AV3	PB	PB	AV1 In	PB	AV3 In	PB	AV3 In	AV1 In		
					SAT.NO		L	VCR out	AV1 In	M/H	L	OFF	SAT	PB	PB	AV1 In	PB	SAT	PB	SAT	AV1 In	AV1 In		
							M/H	VCR out	AV1 In	M/H	L	OFF	SAT	PB	PB	AV1 In	PB	SAT	PB	SAT	AV1 In			
					SAT.C+.		L	VCR out	SAT IN	M/H	L	OFF	SAT	PB	PB	SAT	PB	SAT	PB	SAT	PB	SAT	SAT	
							M/H	VCR out	SAT IN	M/H	L	OFF	AV2	PB	PB	SAT	PB	AV2 In	SAT					

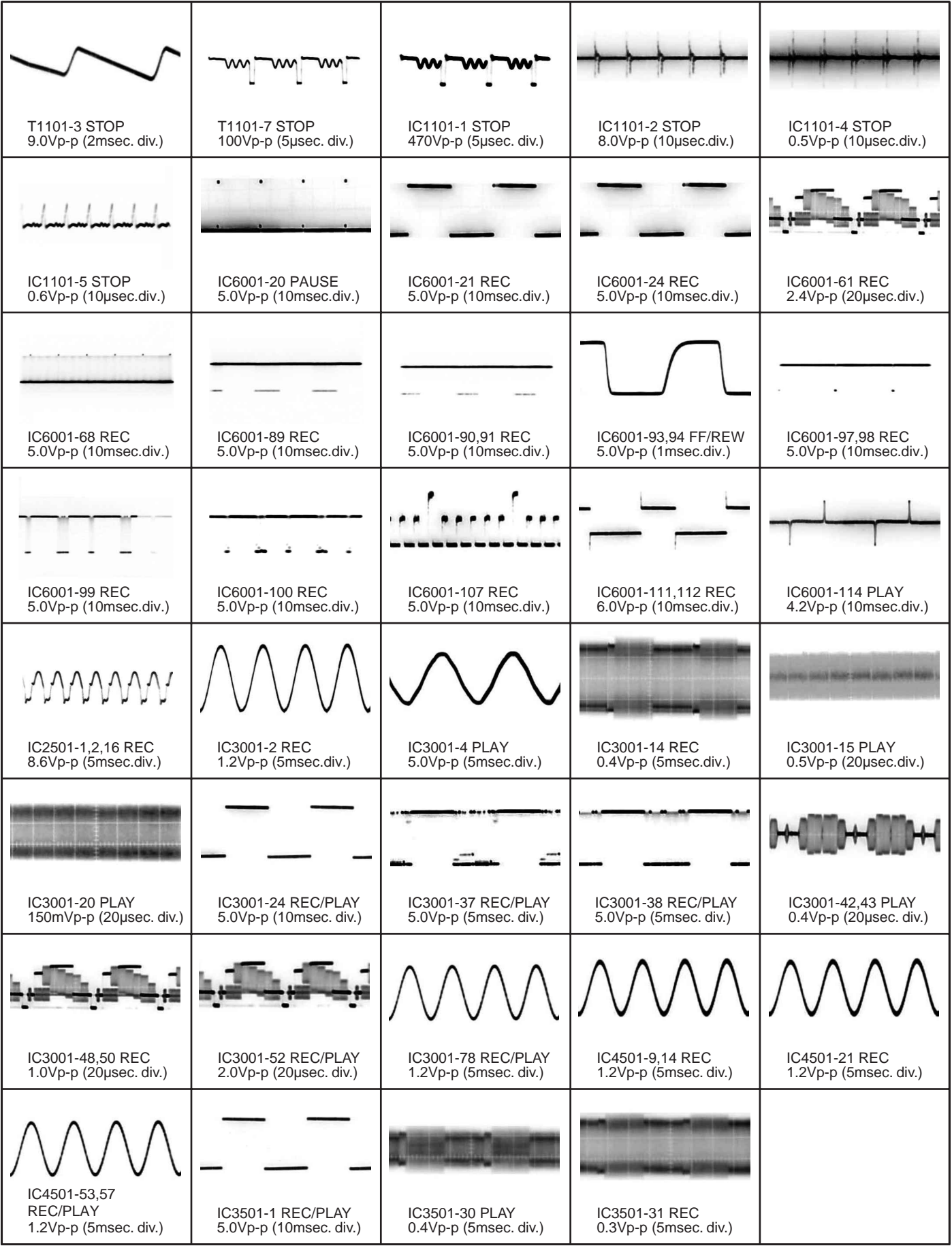
NOTE: NO.TU: Tuner position, DECODER OFF (e.g. ARD) RGB SW : OFF = HIGH, ON=LOW

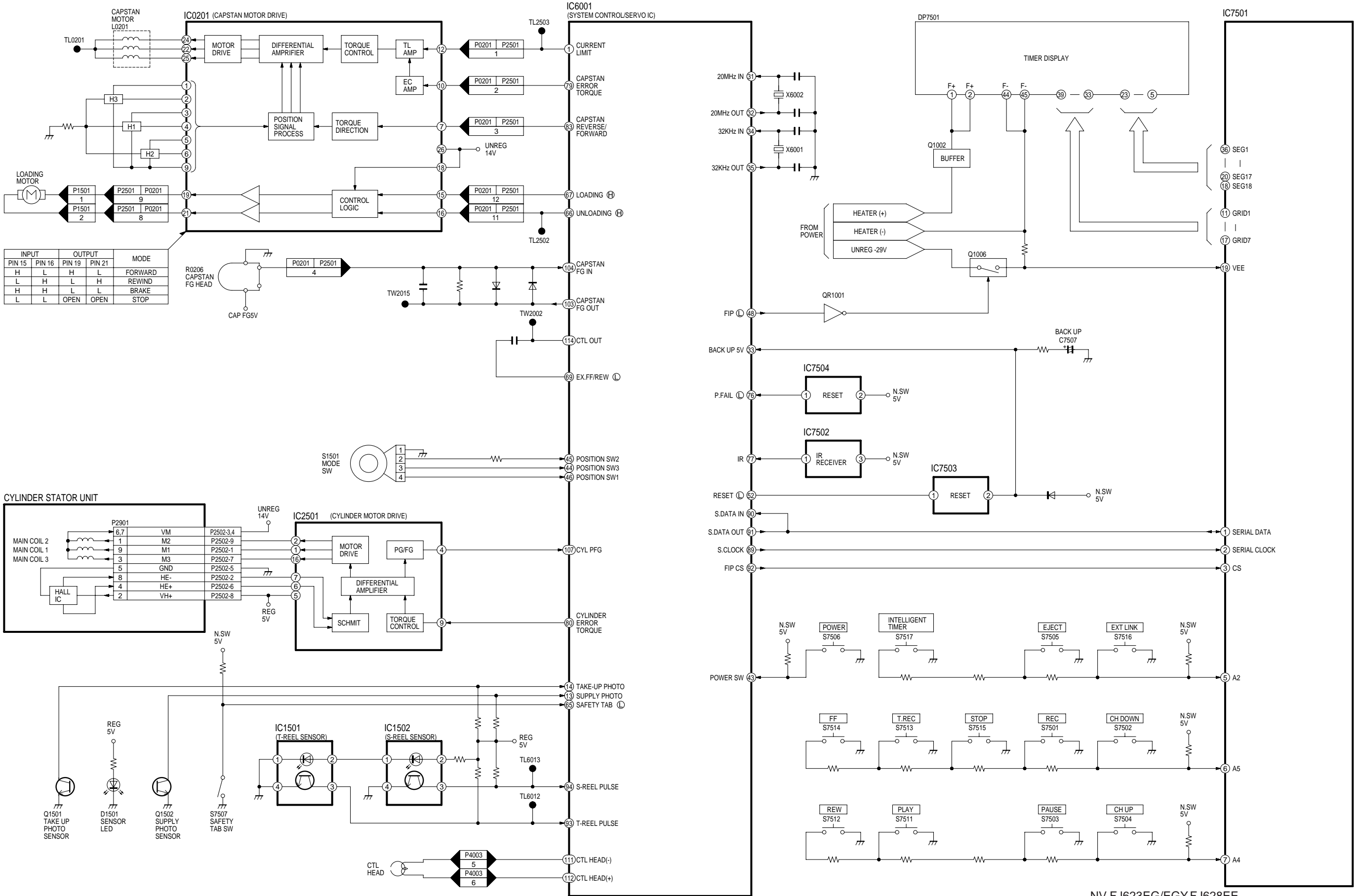
C+.TU: Tuner position, DECODER ON (e.g. PREMI)

EE : Non-Playback signal

VV:Playback signal

*[M/H] :In case of Personal Planner standby(not External Link), AV1 PB must not output 'M' or 'H'

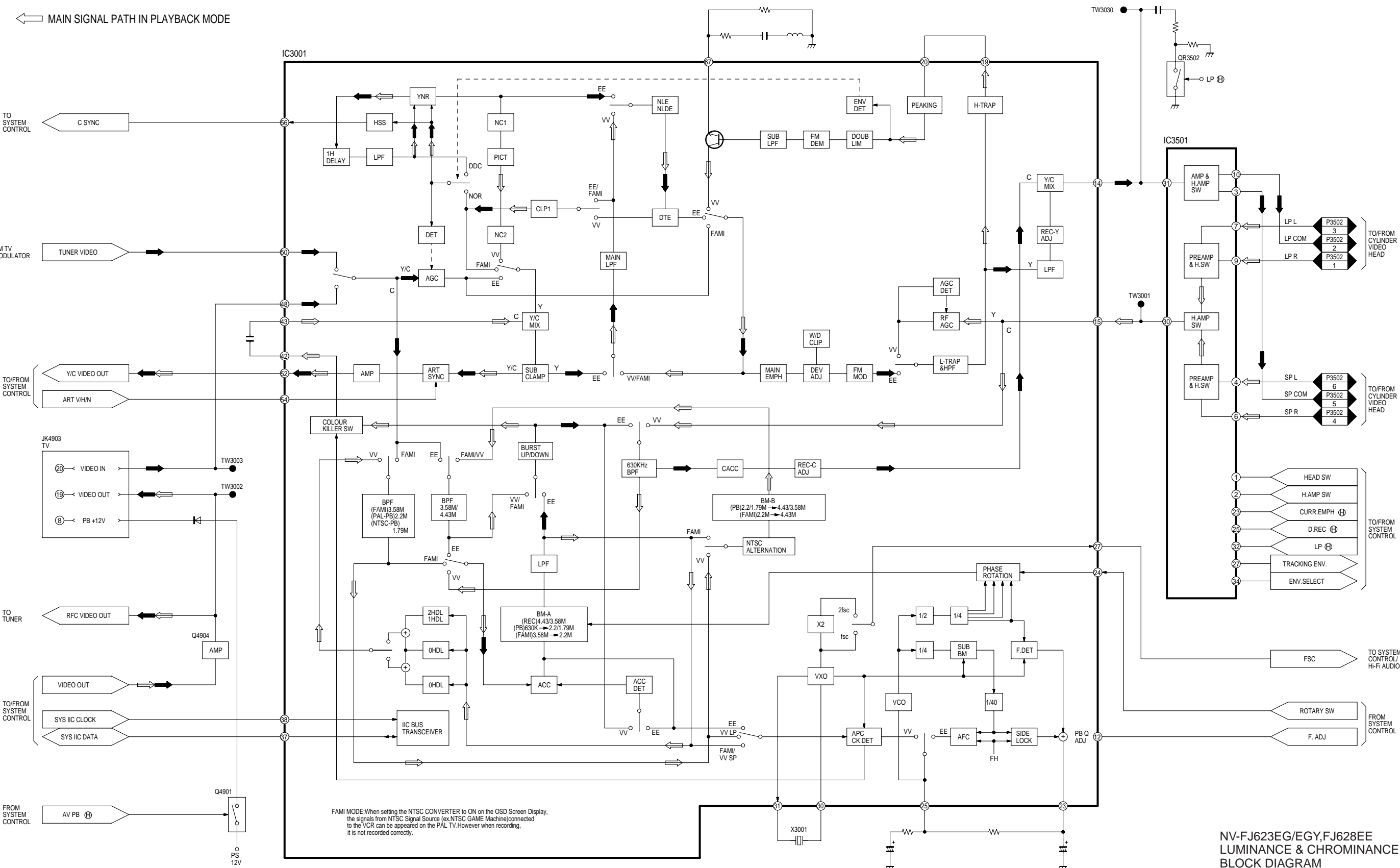




NV-FJ623EG/EGY,FJ628EE
SYSTEM CONTROL & SERVO BLOCK DIAGRAM

← MAIN SIGNAL PATH IN REC MODE

← MAIN SIGNAL PATH IN PLAYBACK MODE

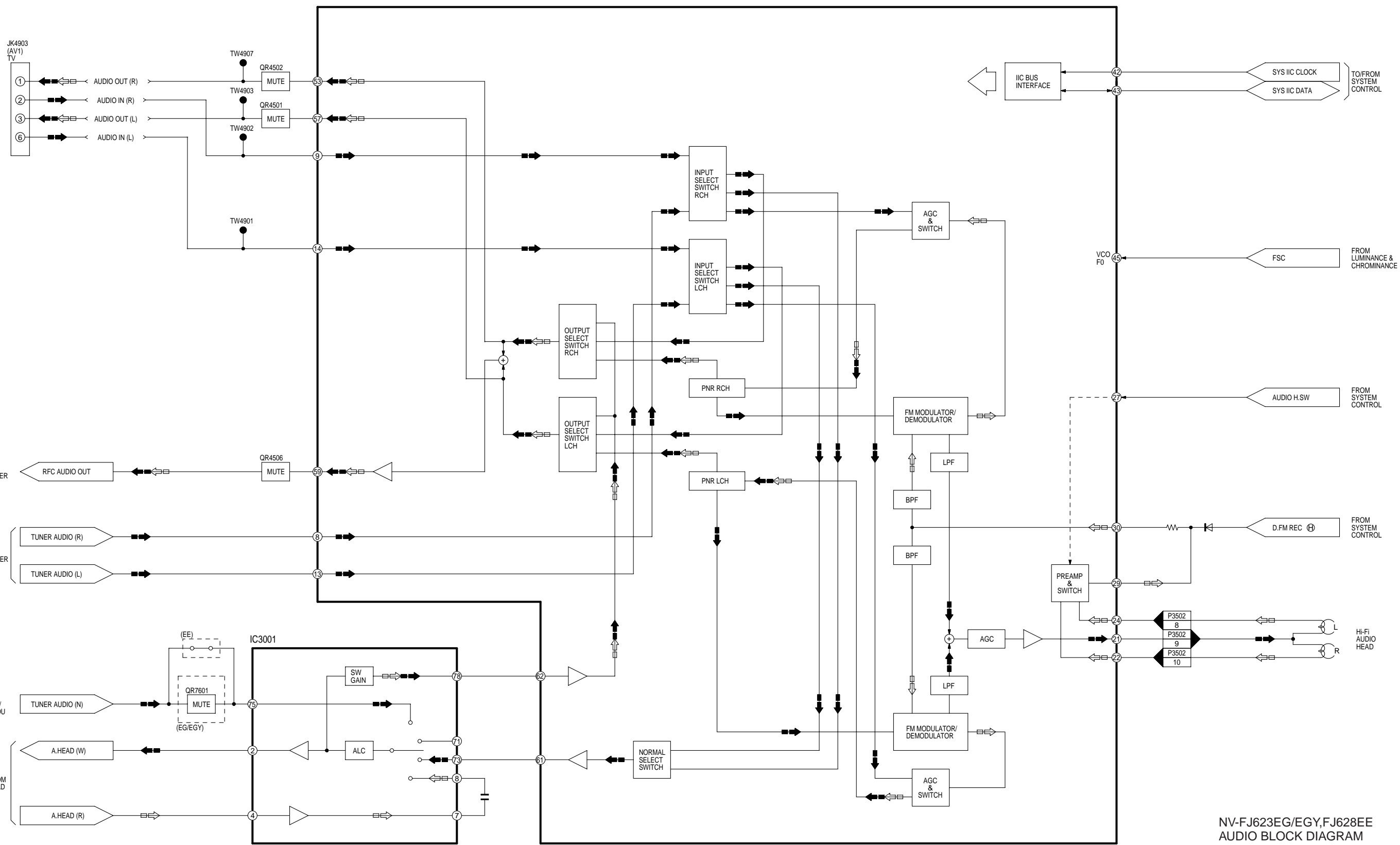


FAMI MODE: When setting the NTSC CONVERTER to ON on the OSD Screen Display, the signals from NTSC Signal Source (ex. NTSC GAME Machine) connected to the VCR can be appeared on the PAL TV. However when recording, it is not recorded correctly.

NV-FJ623EG/EGY, FJ628EE LUMINANCE & CHROMINANCE BLOCK DIAGRAM

← MAIN SIGNAL PATH IN REC MODE

⇐ MAIN SIGNAL PATH IN PLAYBACK MODE



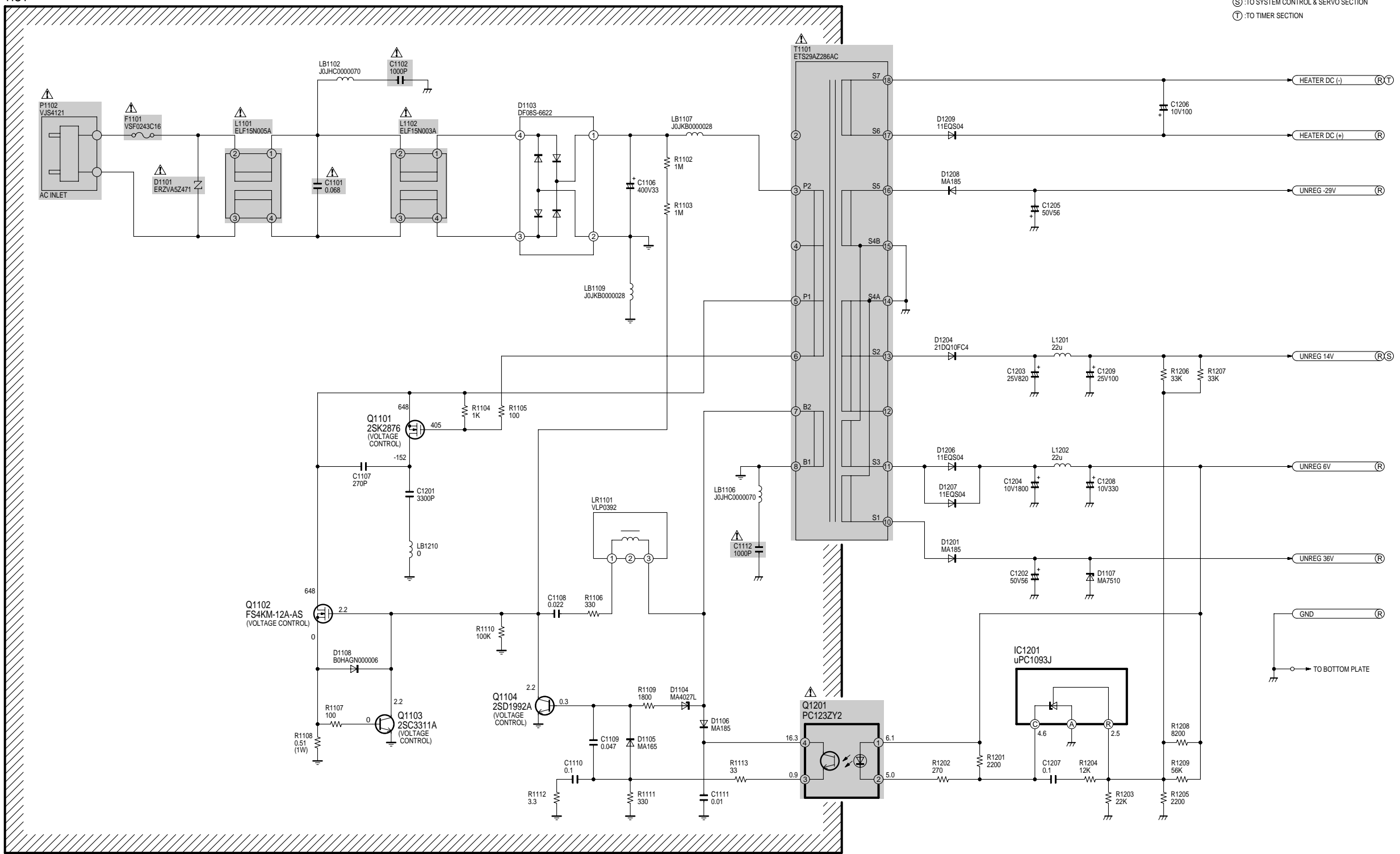
NV-FJ623EG/EGY, FJ628EE
AUDIO BLOCK DIAGRAM

CAUTION

THE STRIPED FRAME INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

Ⓡ :TO POWER SUPPLY/RF SECTION
Ⓢ :TO SYSTEM CONTROL & SERVO SECTION
Ⓣ :TO TIMER SECTION

HOT
F
E
D
C
B
A



NOTE1:WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT,SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
PRIMARY SIDE.....
SECONDARY SIDE...
NOTE2:THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 240V.

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 IS STOP MODE.

NV-FJ623EG/EGY,FJ628EE
POWER TRANSFORMER
SECTION SCHEMATIC DIAGRAM

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,USE ONLY THE SAME TYPE.

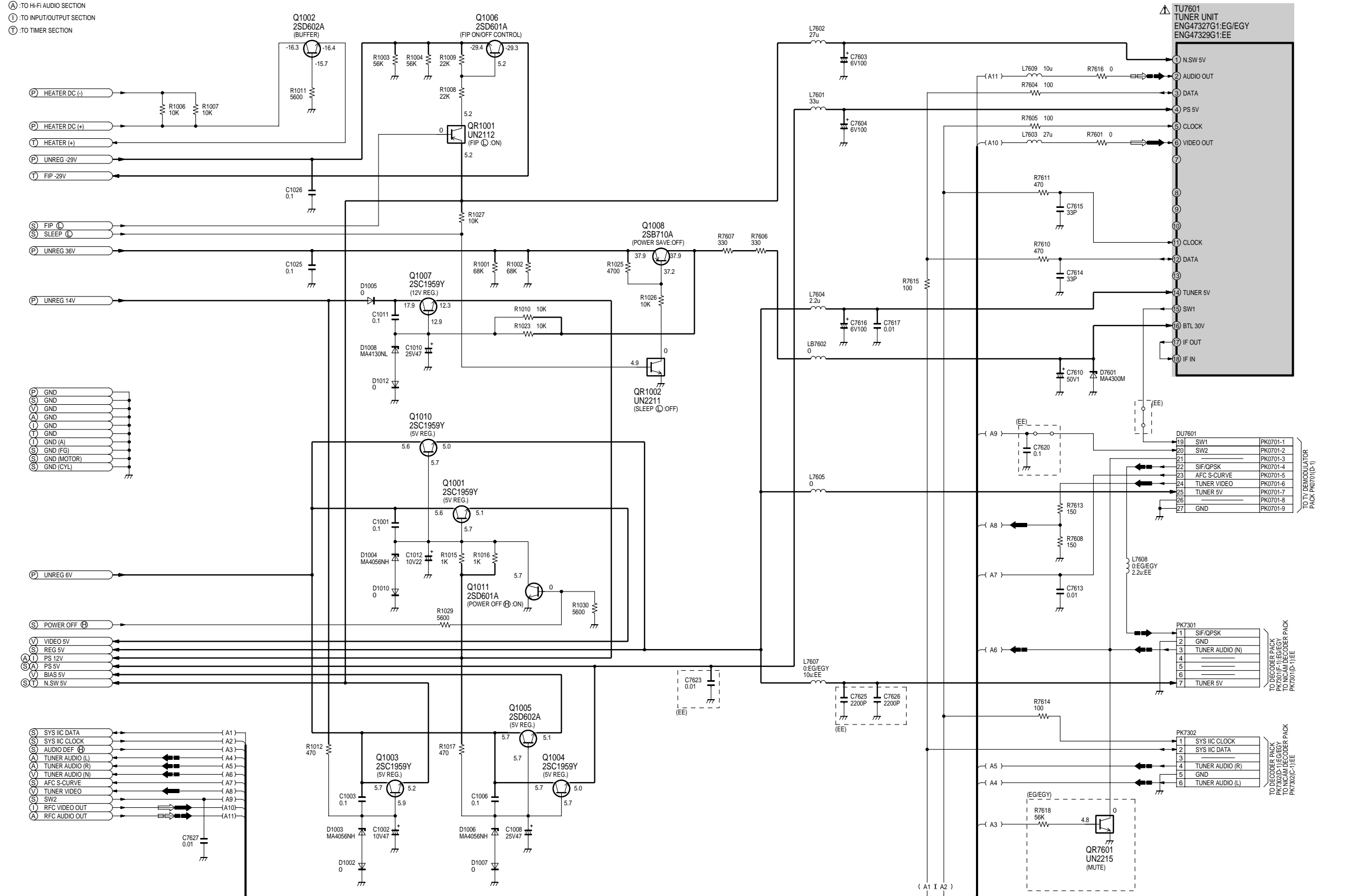
1 2 3 4 5 6 7 8 9 10

- Ⓟ :TO POWER TRANSFORMER SECTION
- Ⓢ :TO SYSTEM CONTROL & SERVO SECTION
- Ⓥ :TO LUMINANCE & CHROMINANCE/AUDIO SECTION
- Ⓐ :TO HI-FI AUDIO SECTION
- Ⓡ :TO INPUT/OUTPUT SECTION
- Ⓣ :TO TIMER SECTION

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

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

G
F
E
D
C
B
A



IMPORTANT SAFETY NOTICE:
 COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
 WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

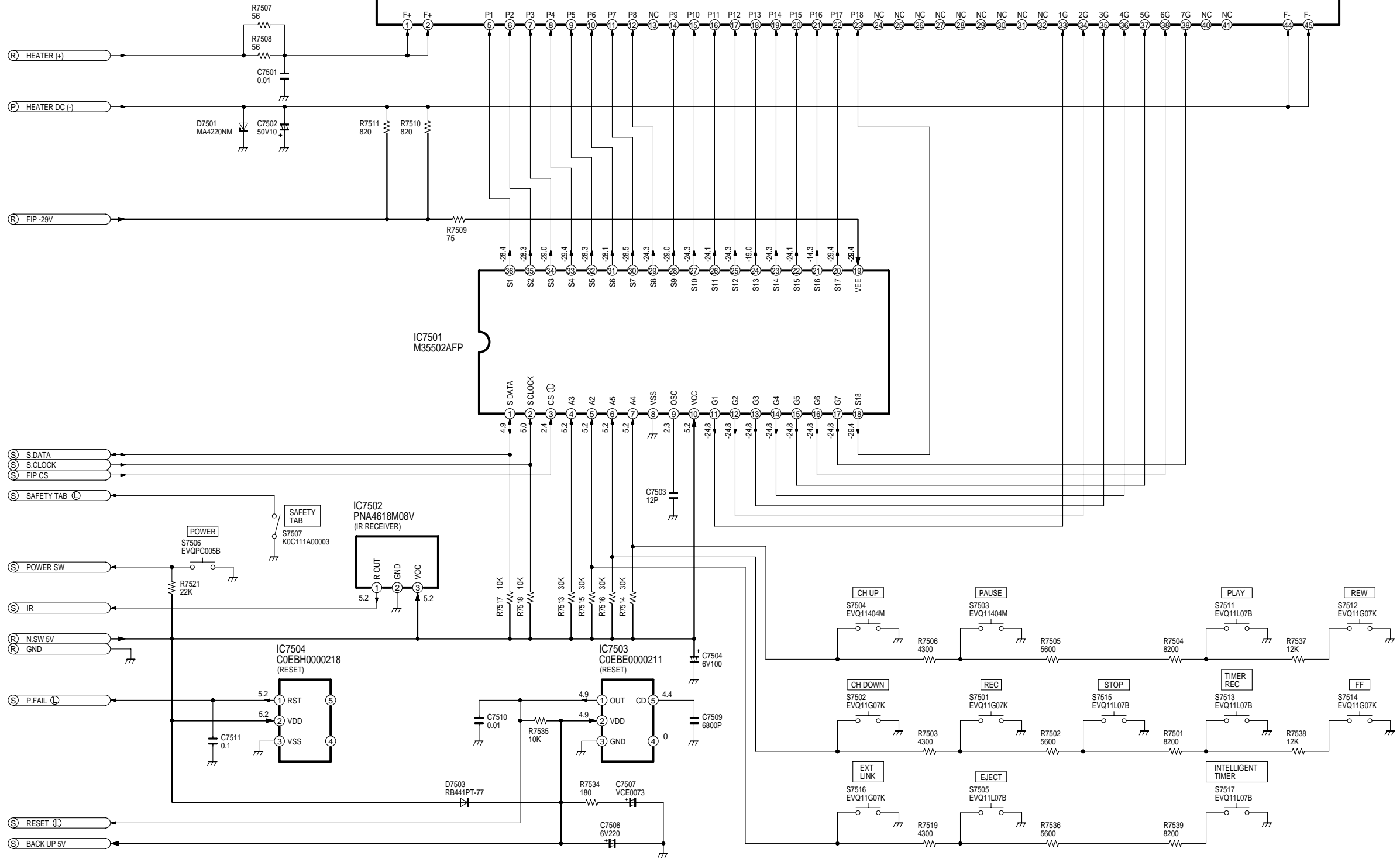
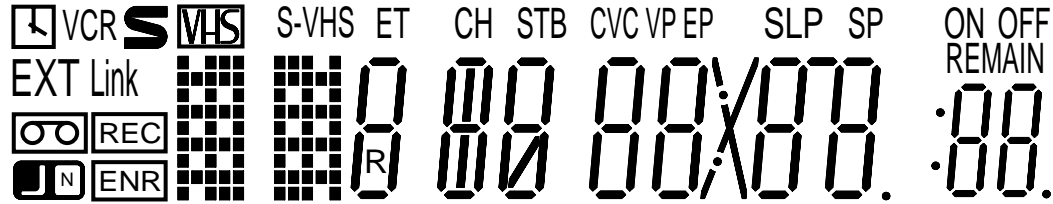
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NV-FJ623EG/EGY, FJ628EE
 POWER SUPPLY/RF
 SECTION SCHEMATIC DIAGRAM

1 2 3 4 5 6 7 8 9 10

(P) :TO POWER TRANSFORMER SECTION
 (R) :TO POWER SUPPLY/RF SECTION
 (S) :TO SYSTEM CONTROL & SERVO SECTION

DP7501
 A2BD0000040



NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

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

NV-FJ623EG/EGY,FJ628EE
 TIMER SECTION SCHEMATIC DIAGRAM

F

E

D

C

B

A

1 2 3 4 5 6 7 8 9

- Ⓟ :TO POWER TRANSFORMER SECTION
- Ⓡ :TO POWER SUPPLY/RF SECTION
- Ⓥ :TO LUMINANCE & CHROMINANCE/AUDIO SECTION
- Ⓐ :TO HI-FI AUDIO SECTION
- Ⓡ :TO INPUT/OUTPUT SECTION
- Ⓣ :TO TIMER SECTION

← CAPSTAN SERVO SPEED LOOP

← CAPSTAN SERVO PHASE LOOP

← CYLINDER SERVO SPEED LOOP

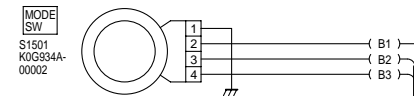
← CYLINDER SERVO PHASE LOOP

- Ⓡ SW2
- Ⓣ P.FAIL
- Ⓡ IR
- Ⓡ SHORT DET
- Ⓡ S.CLOCK
- Ⓡ S.DATA
- Ⓡ FIP CS
- Ⓡ SYS IIC CLOCK
- Ⓡ SYS IIC DATA
- Ⓡ CYL HEAD (-)
- Ⓡ CYL HEAD (+)
- Ⓡ ABS NORMAL
- Ⓡ AV1 PB 12V
- Ⓡ AUDIO MUTE
- Ⓡ LP
- Ⓡ PAL EP
- Ⓡ CURR. EMPH
- Ⓡ FREQ. ADJ.

- Ⓡ TRACING ENV.

- Ⓡ AFC S-CURVE

- Ⓡ PS 5V
- Ⓡ REG 5V
- Ⓡ GND
- Ⓡ GND (FG)
- Ⓡ GND (MOTOR)
- Ⓡ GND (CYL)



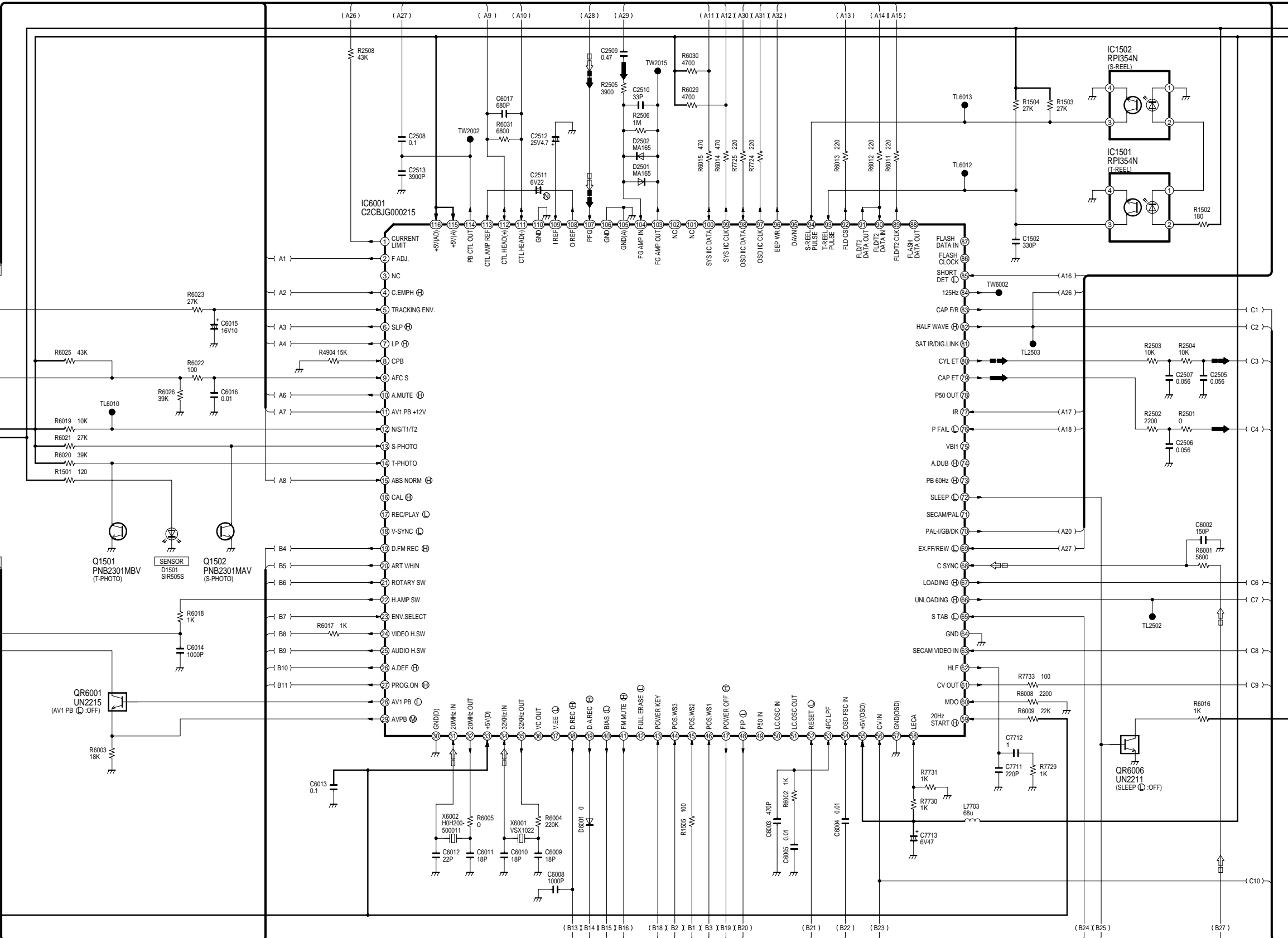
- Ⓡ HAMP SW
- Ⓡ AV1 PB

- Ⓡ D.FM REC
- Ⓡ ART V/HN
- Ⓡ ROTARY SW
- Ⓡ ENV SELECT
- Ⓡ HEAD SW
- Ⓡ A.HEAD SW
- Ⓡ AUDIO DEF
- Ⓡ PROG. ON

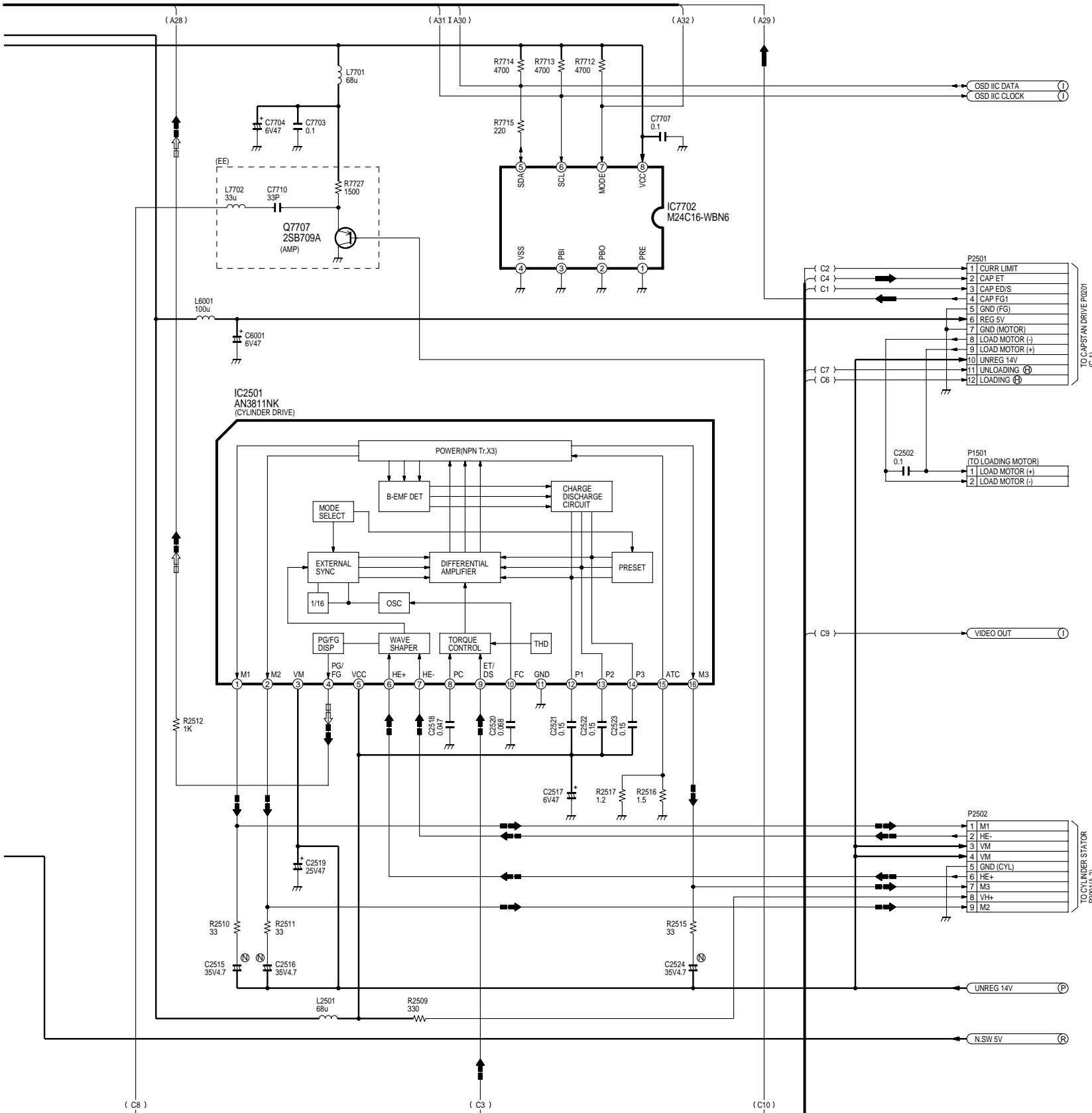
- Ⓡ D.REC
- Ⓡ D.A.REC
- Ⓡ BIAS
- Ⓡ MUTE

- Ⓡ POWER SW
- Ⓡ POWER OFF
- Ⓡ FIP
- Ⓡ RESET
- Ⓡ FSC
- Ⓡ Y/C VIDEO OUT
- Ⓡ SAFETY TAB
- Ⓡ SLEEP
- Ⓡ C SYNC

- Ⓡ BACK UP 5V



NV-FJ623EG/EGY,FJ628EE
SYSTEM CONTROL & SERVO SECTION SCHEMATIC DIAGRAM



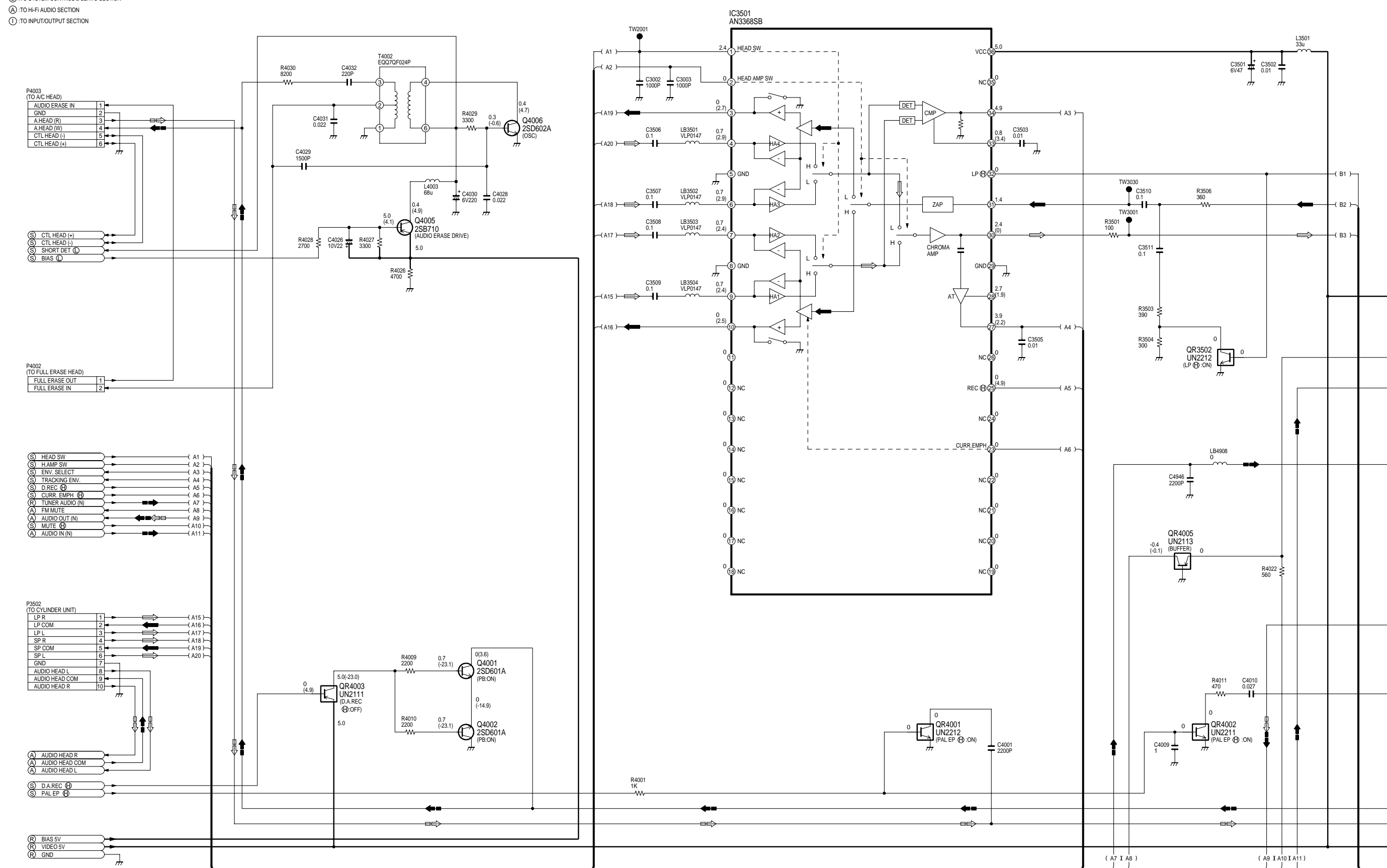
NV-FJ623EG/EGY,FJ628EE
SYSTEM CONTROL & SERVO SECTION SCHEMATIC DIAGRAM

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

NV-FJ623EG/EGY,FJ628EE
SYSTEM CONTROL & SERVO
SECTION SCHEMATIC DIAGRAM

- Ⓡ :TO POWER SUPPLY/RF SECTION
- Ⓢ :TO SYSTEM CONTROL & SERVO SECTION
- ⓐ :TO HI-FI AUDIO SECTION
- Ⓛ :TO INPUT/OUTPUT SECTION

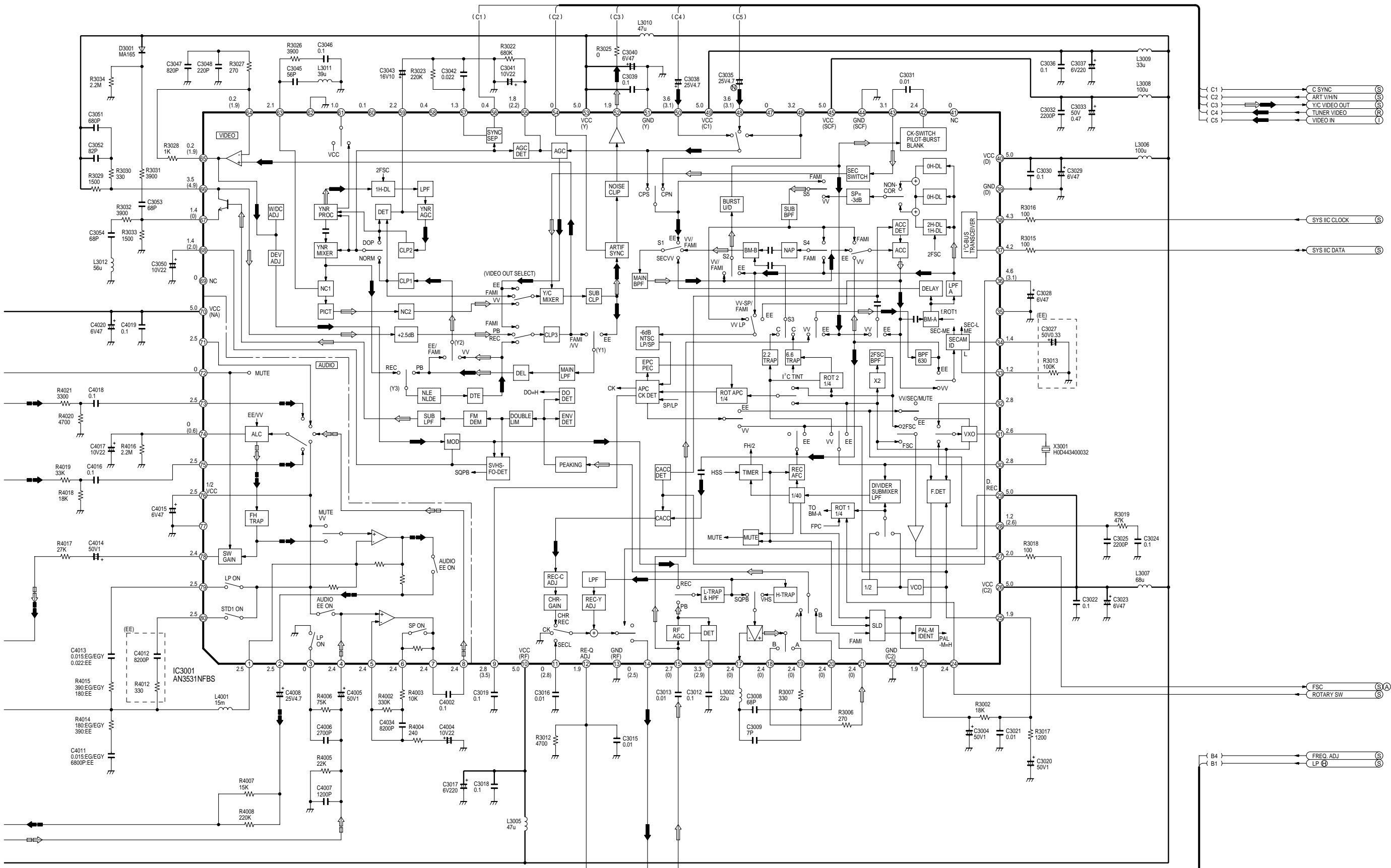
← VIDEO MAIN SIGNAL PATH IN REC MODE
← VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
← AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE



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

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.(SP MODE)

NV-FJ623EG/EGY.FJ628EE LUMINANCE & CHROMINANCE/AUDIO SECTION SCHEMATIC DIAGRAM



NV-FJ623EG/EGY, FJ628EE
LUMINANCE & CHROMINANCE/AUDIO SECTION SCHEMATIC DIAGRAM

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

NV-FJ623EG/EGY, FJ628EE
LUMINANCE & CHROMINANCE/AUDIO SECTION SCHEMATIC DIAGRAM

← AUDIO MAIN SIGNAL PATH IN REC MODE

↔ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

- Ⓜ : TO POWER SUPPLY/RF SECTION
- Ⓢ : TO SYSTEM CONTROL & SERVO SECTION
- Ⓥ : TO LUMINANCE & CHROMINANCE/AUDIO SECTION
- Ⓛ : TO INPUT/OUTPUT SECTION

- Ⓢ MUTE (Ⓜ)
- Ⓢ SYS IIC CLOCK
- Ⓢ SYS IIC DATA
- Ⓥ FSC

- Ⓛ AUDIO OUT1 (R)

- Ⓛ AUDIO OUT1 (L)

- Ⓥ FM MUTE

- Ⓜ PS 5V
- Ⓜ PS 12V
- Ⓜ GND
- Ⓜ GND (IN)

- Ⓥ AUDIO IN (N)

- Ⓥ AUDIO OUT (N)

- Ⓜ RFC AUDIO OUT

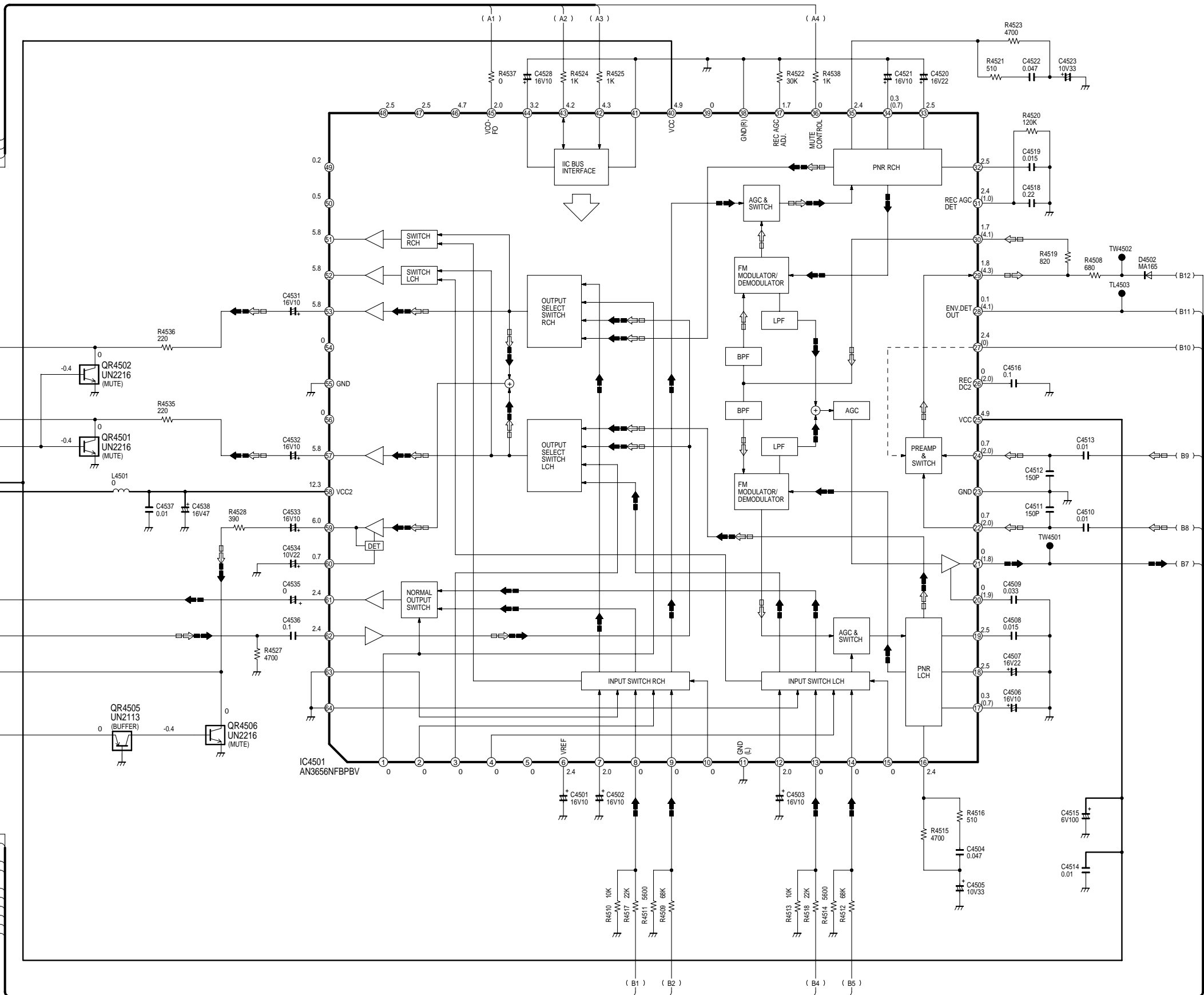
- Ⓢ AUDIO MUTE (Ⓜ)

- Ⓜ TUNER AUDIO (R)
- Ⓛ AUDIO IN1 (R)

- Ⓜ TUNER AUDIO (L)
- Ⓛ AUDIO IN1 (L)

- Ⓥ AUDIO HEAD COM
- Ⓥ AUDIO HEAD R
- Ⓥ AUDIO HEAD L

- Ⓢ A-HEAD SW
- Ⓢ ABS NORMAL (Ⓜ)
- Ⓢ D-FM REC (Ⓜ)



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

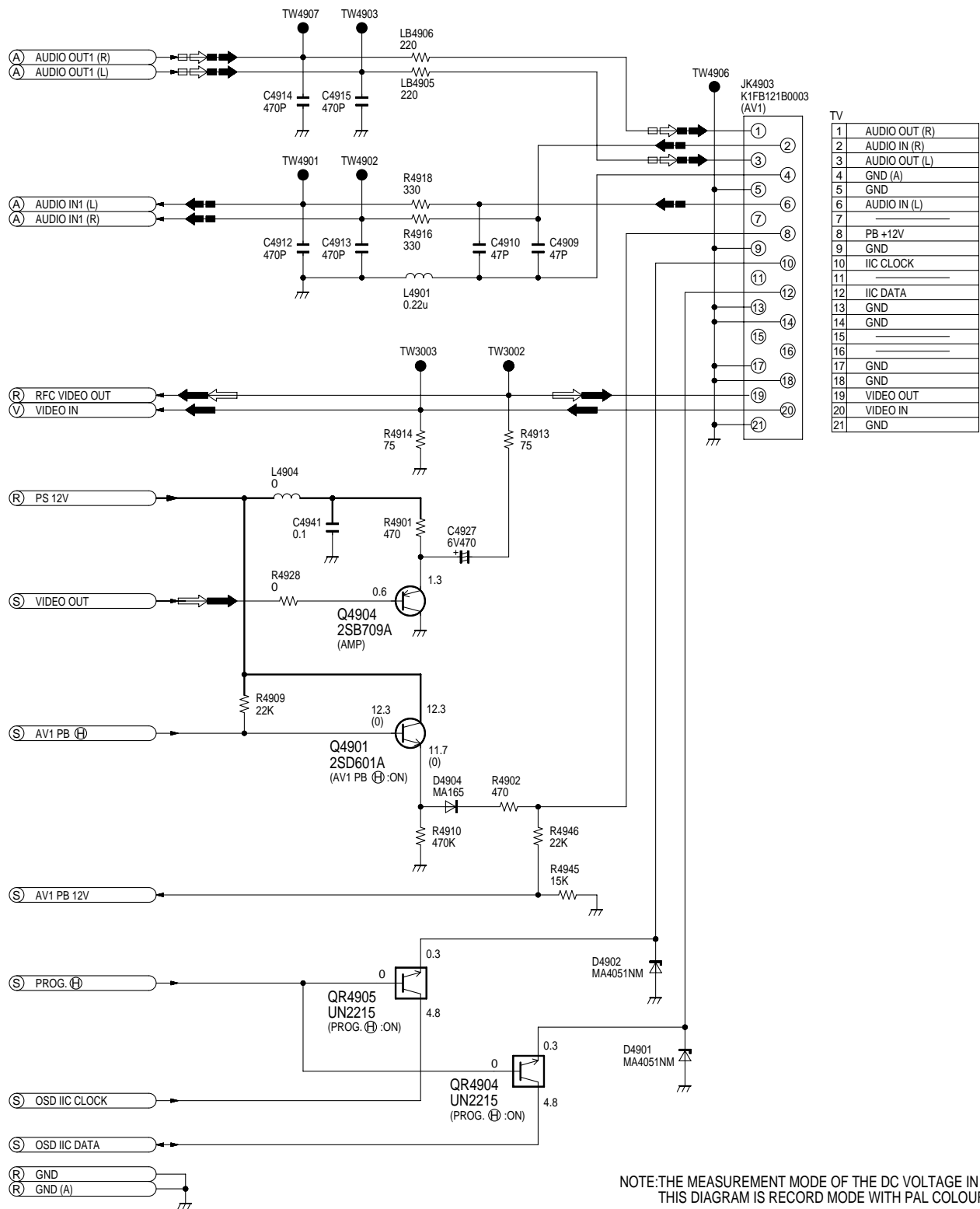
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

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

NV-FJ623EG/EGY, FJ628EE
Hi-Fi AUDIO SECTION SCHEMATIC DIAGRAM

- (R) :TO POWER SUPPLY/RF SECTION
- (S) :TO SYSTEM CONTROL & SERVO SECTION
- (V) :TO LUMINANCE & CHROMINANCE/AUDIO SECTION
- (A) :TO HI-FI AUDIO SECTION

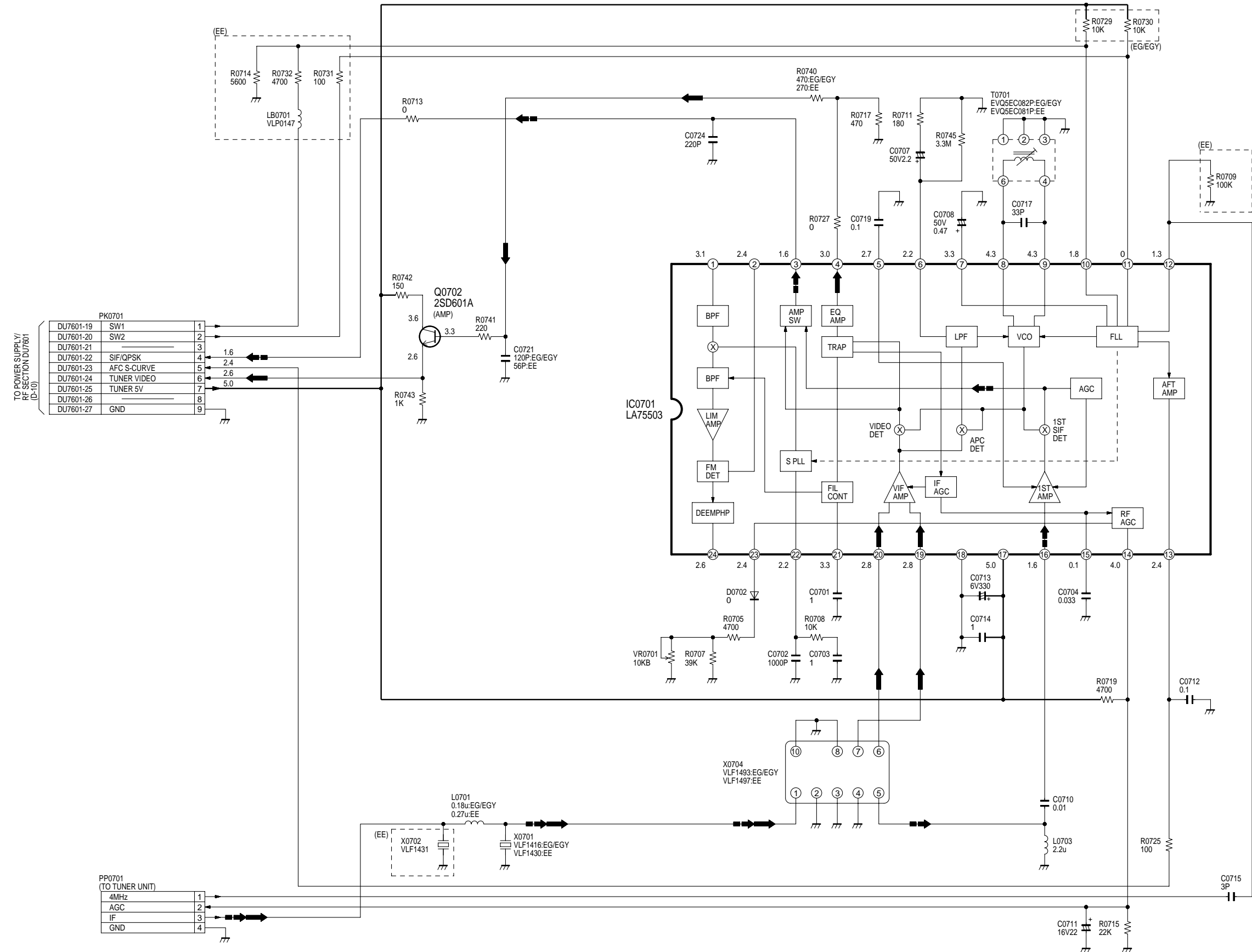
- ← VIDEO MAIN SIGNAL PATH IN REC MODE
- ⇐ VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
- ← AUDIO MAIN SIGNAL PATH IN REC MODE
- ⇐ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE



NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS() ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR.(SP MODE)
 THE MEASUREMENT MODE OF THE DC VOLTAGE OUT THE BRACKETS() ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.(SP MODE)
 NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NV-FJ623EG/EGY,FJ628EE
 INPUT/OUTPUT SECTION
 SCHEMATIC DIAGRAM

← VIDEO SIGNAL PATH ← AUDIO SIGNAL PATH



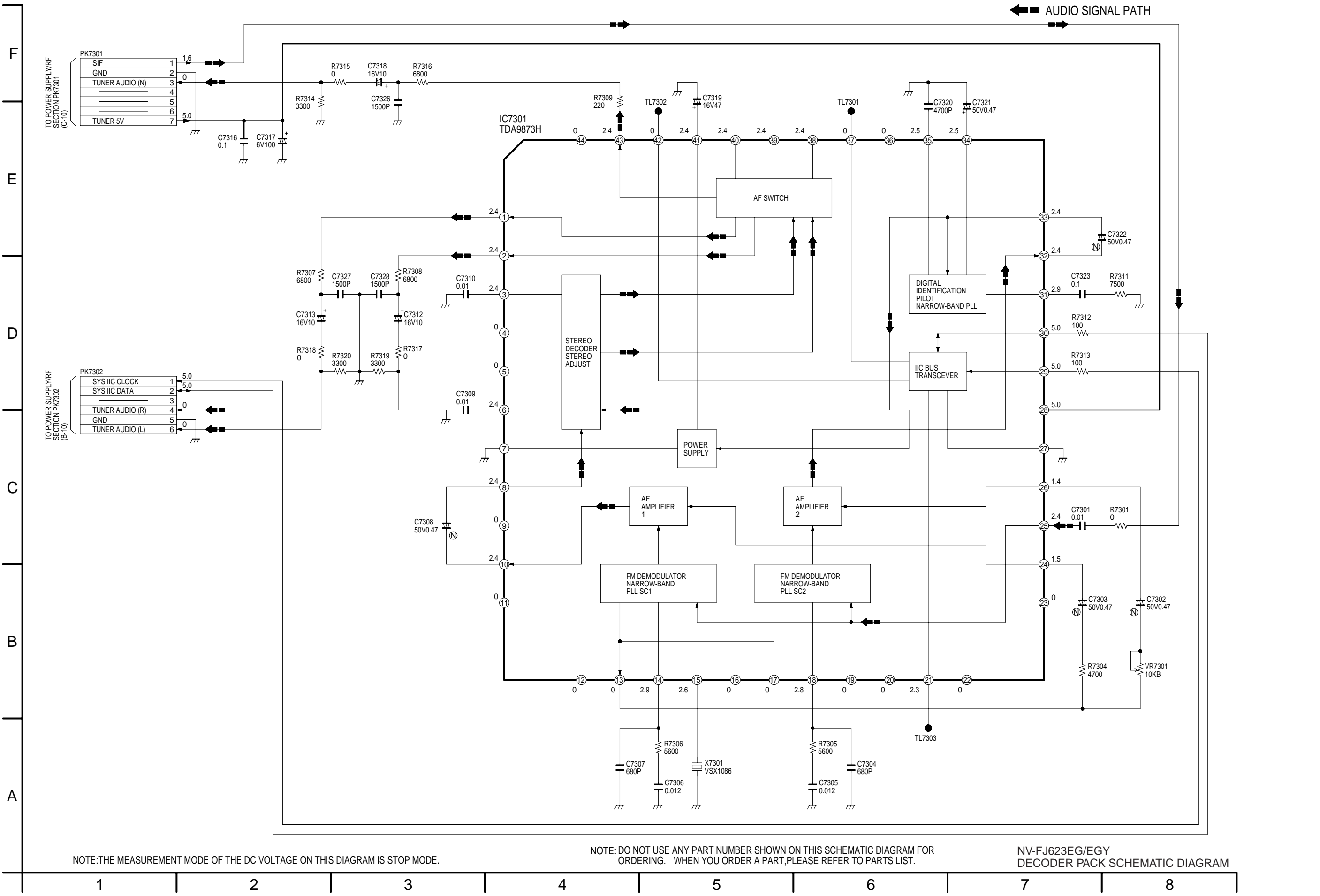
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

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

NV-FJ623EG/EGY, FJ628EE
TV DEMODULATOR PACK SCHEMATIC DIAGRAM

F
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C
B
A

1 2 3 4 5 6 7 8



TO POWER SUPPLY/RF SECTION PK7301 (C-10)

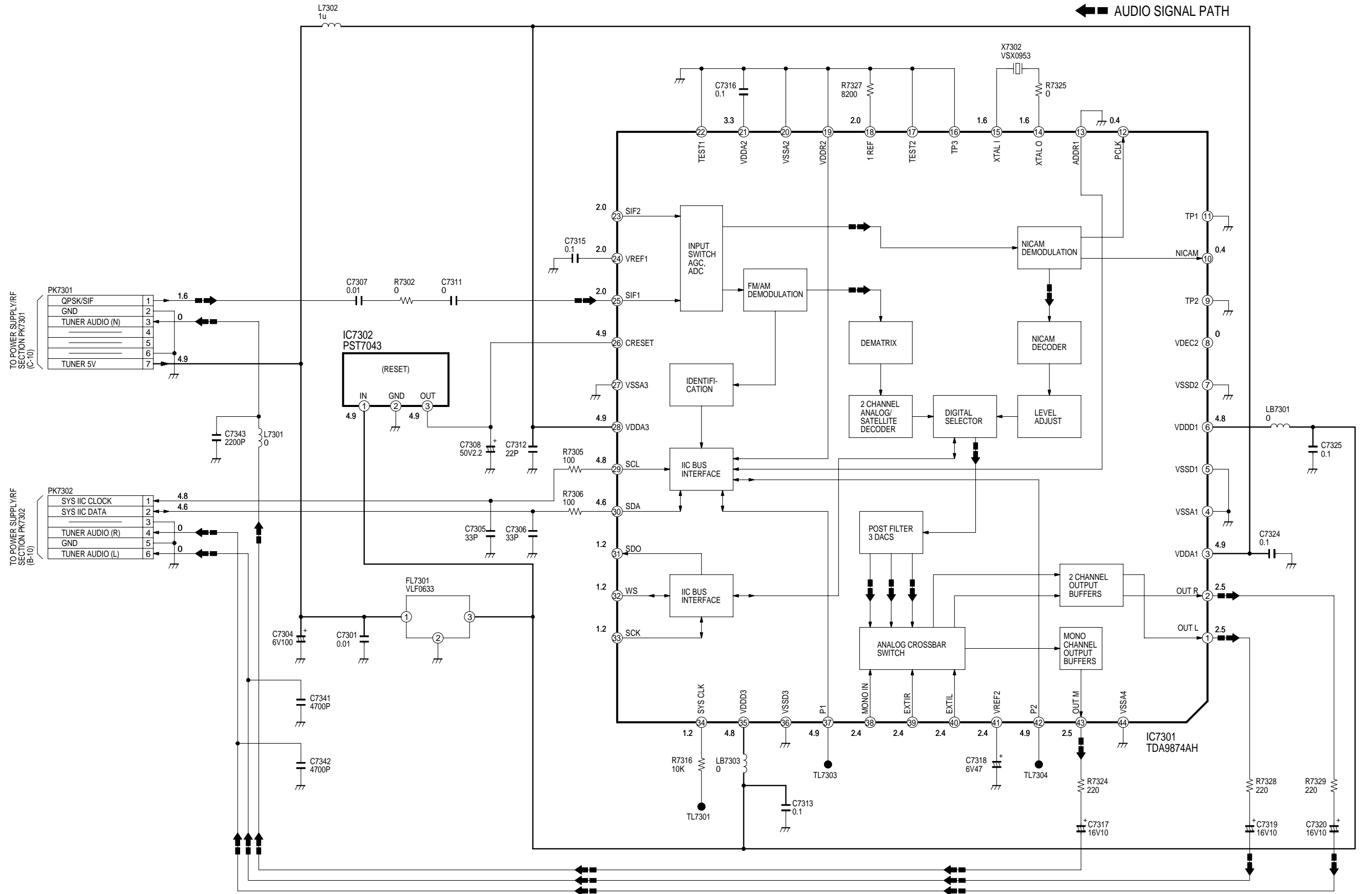
PK7301	SIF	1	1.6
	GND	2	0
	TUNER AUDIO (N)	3	0
		4	5.0
		5	
		6	
	TUNER 5V	7	

TO POWER SUPPLY/RF SECTION PK7302 (B-10)

PK7302	SYS IIC CLOCK	1	5.0
	SYS IIC DATA	2	5.0
		3	0
	TUNER AUDIO (R)	4	0
	GND	5	0
	TUNER AUDIO (L)	6	0

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

NV-FJ623EG/EGY
DECODER PACK SCHEMATIC DIAGRAM

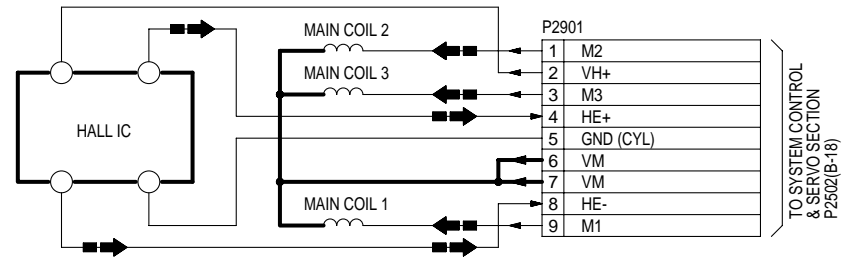


NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

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

NV-FJ628EE
NICAM DECODER PACK SCHEMATIC DIAGRAM

← CYLINDER SERVO SPEED LOOP



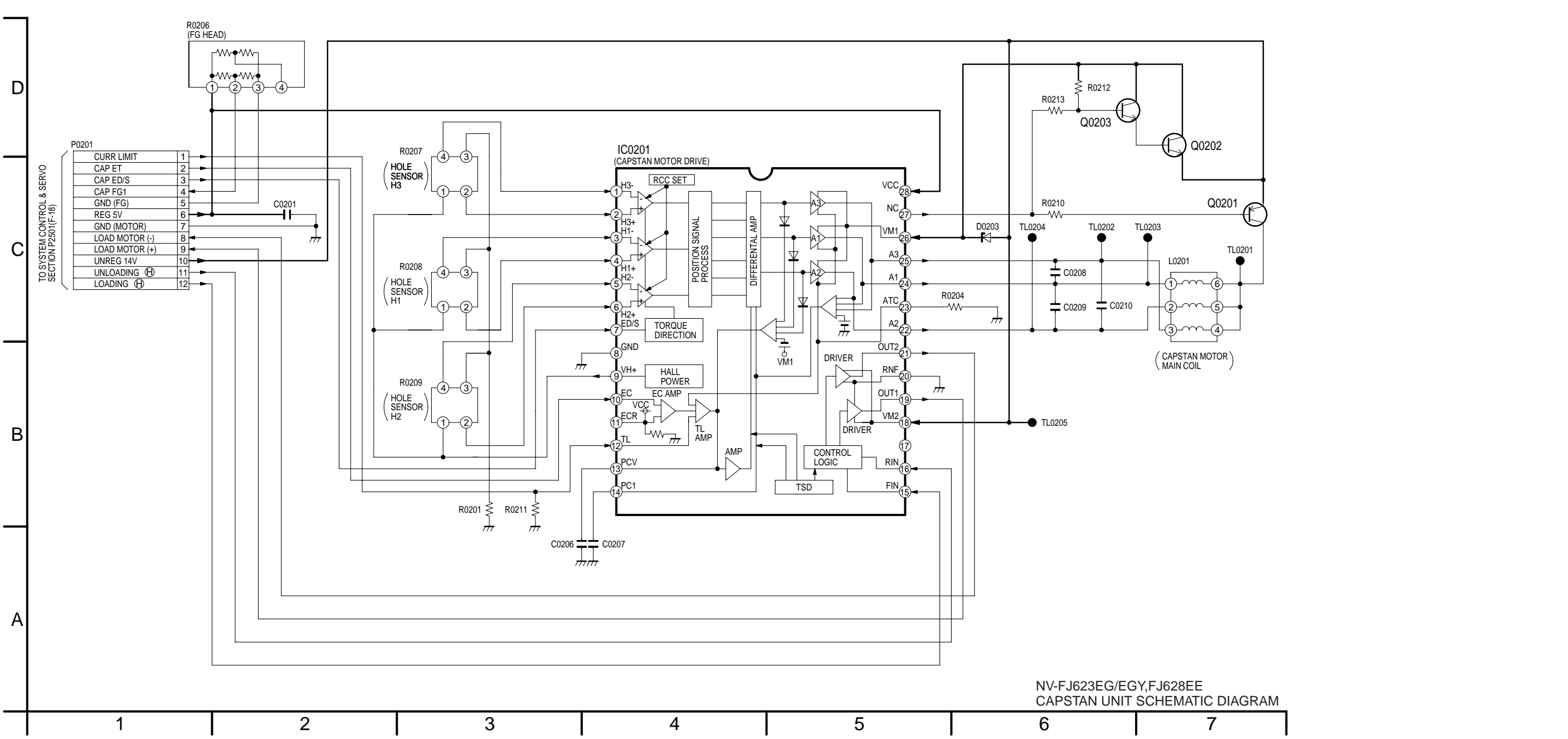
NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NV-FJ623EG/EGY,FJ628EE
CYLINDER STATOR SCHEMATIC DIAGRAM

1

2

3

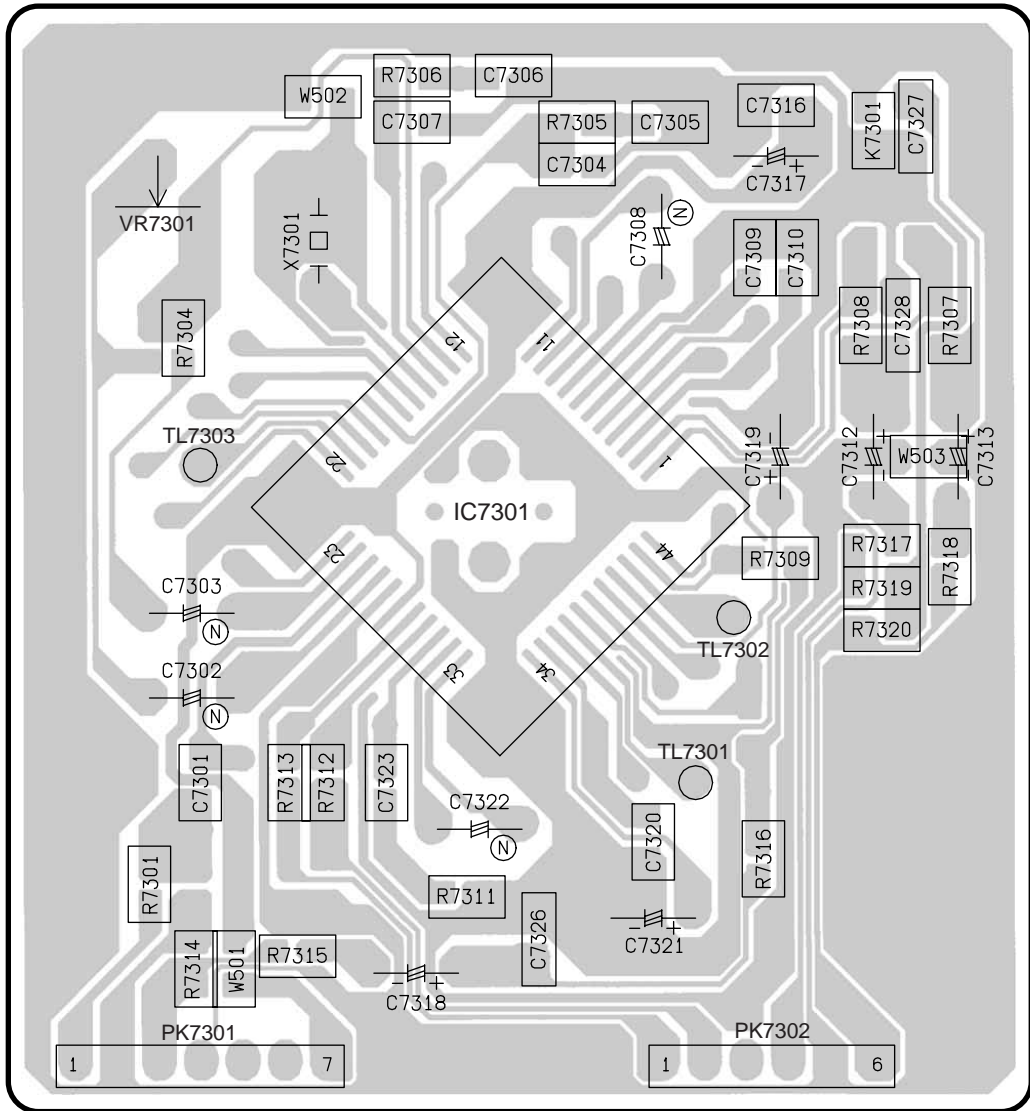


NV-FJ623EG/EGY,FJ628EE
CAPSTAN UNIT SCHEMATIC DIAGRAM

DECODER PACK C.B.A.	
Integrated Circuit	
IC7301	B-2
Test Point	
TL7301	A-2
TL7302	B-2
TL7303	B-1
Adjustment	
VR7301	C-1
Connector	
PK7301	A-1
PK7302	A-2

ADDRESS INFORMATION

(VEP07A16A:NV-FJ623EG/EGY)



NV-FJ623EG/EGY
DECODER PACK C.B.A.

1

2

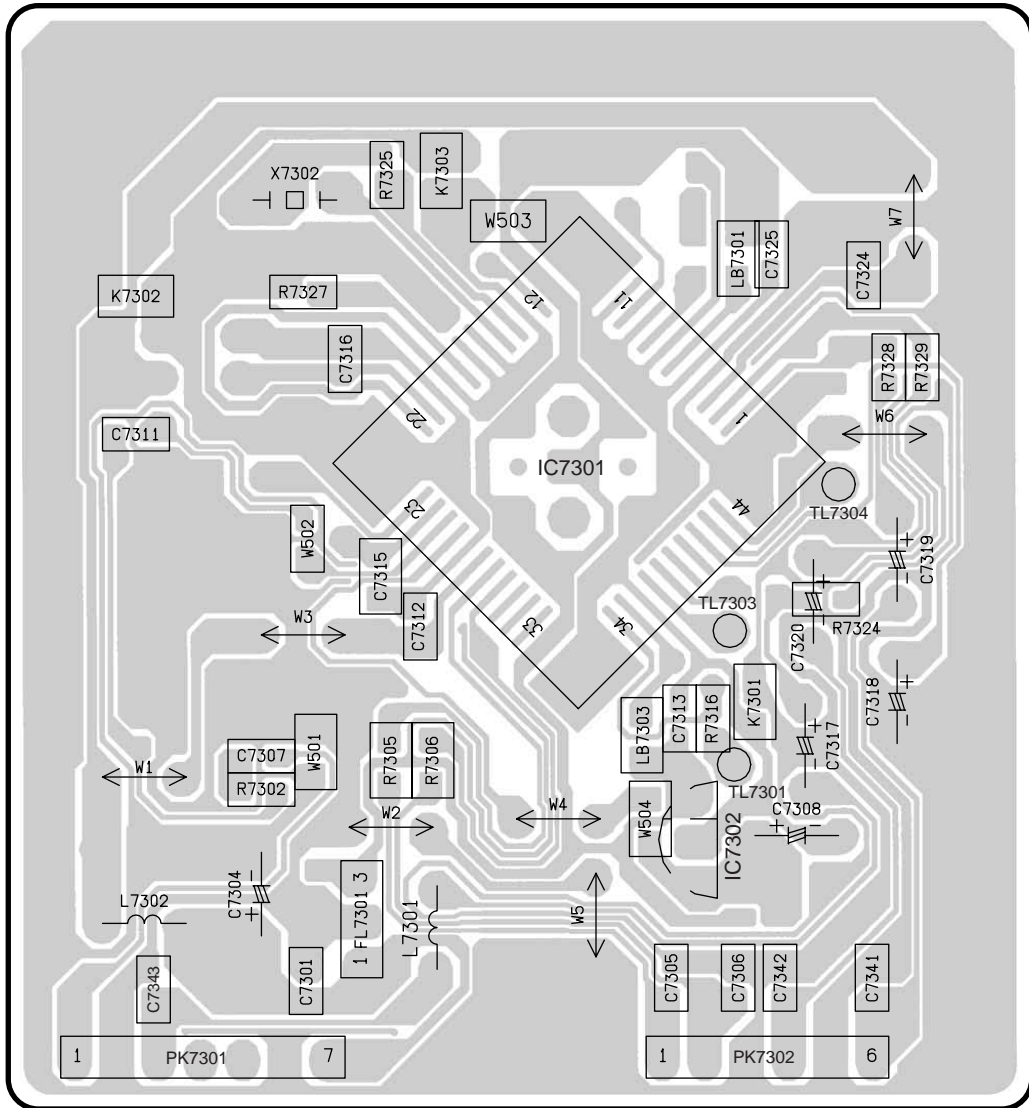
3

NICAM DECODER PACK C.B.A.

Integrated Circuit	
IC7301	B-2
IC7302	A-2
Test Point	
TL7301	A-2
TL7303	B-2
TL7304	B-2
Integrated Circuit	
PK7301	A-1
PK7302	A-2

ADDRESS INFORMATION

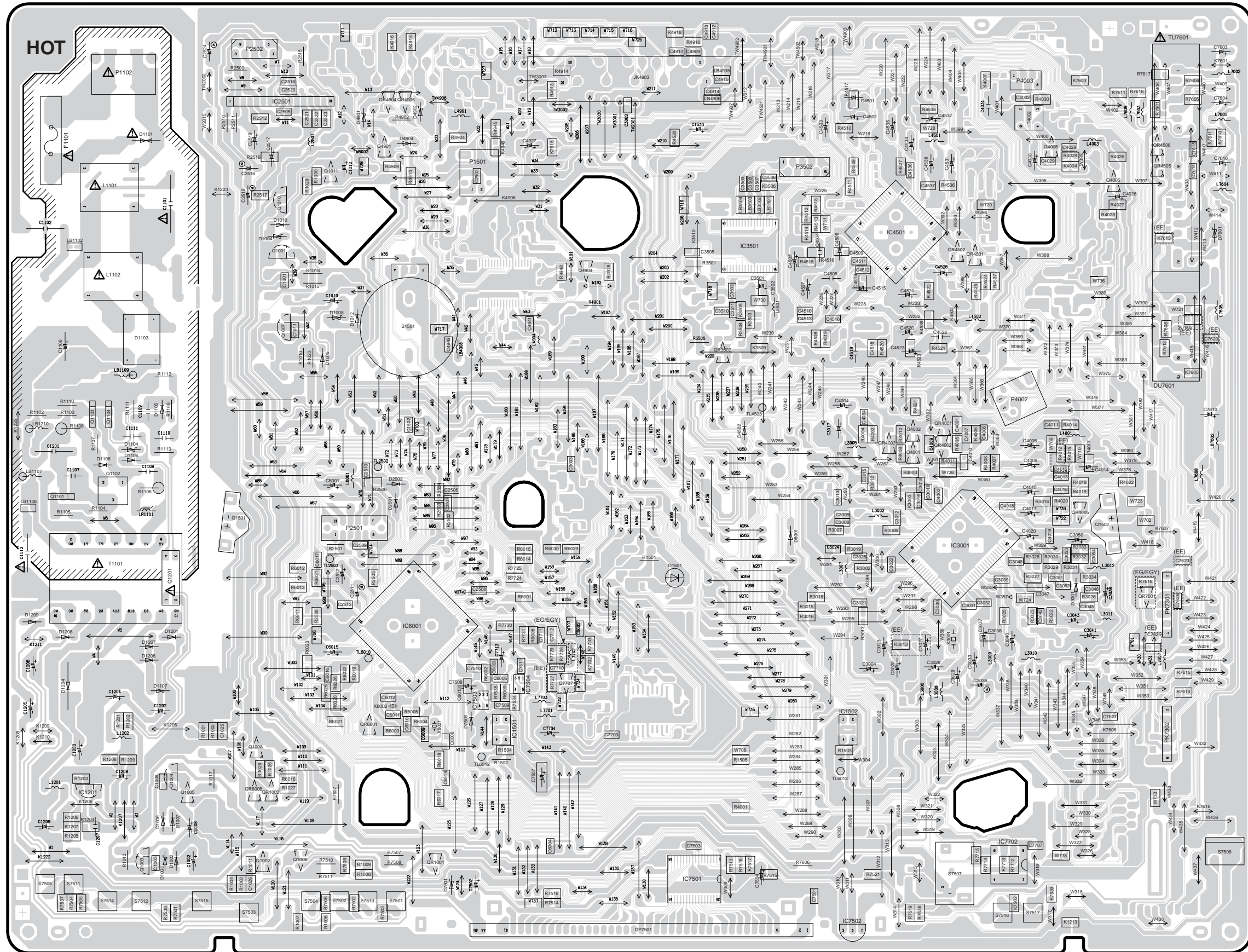
(VEP07A18T:NV-FJ628EE)



NV-FJ628EE
NICAM DECODER PACK C.B.A.

(VEP06E55M:NV-FJ623EG/EGY)(VEP06E55Q:NV-FJ628EE)

F
E
D
C
B
A



1 2 3 4 5 6 7 8

IMPORTANT SAFETY NOTICE:
 COMPONENTS IDENTIFIED WITH THE MARK Δ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
 WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

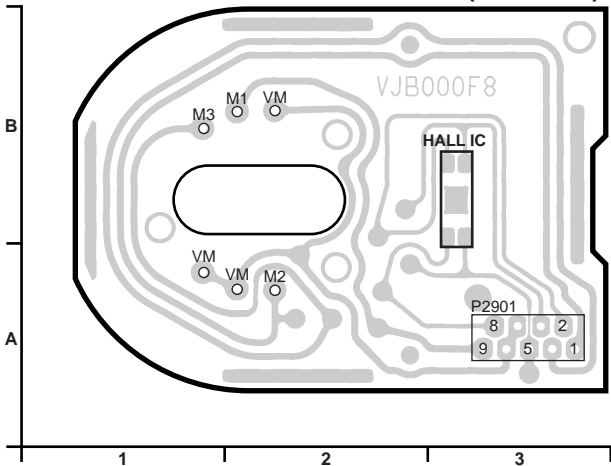
CAUTION

THE STRIPED FRAME INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
 PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

MAIN C.B.A.			
Transistor		Integrated Circuit	
Q1001	E-2	IC1201	B-1
Q1002	A-2	IC1501	B-4
Q1003	A-1	IC1502	B-6
Q1004	B-2	IC2501	F-2
Q1005	B-2	IC3001	C-6
Q1006	A-2	IC3501	E-5
Q1007	E-2	IC4501	E-6
Q1008	B-2	IC6001	C-3
Q1010	E-2	IC7501	A-5
Q1011	E-3	IC7502	A-6
Q1101	C-1	IC7503	B-4
Q1102	D-1	IC7504	B-4
Q1103	D-1	IC7702	A-7
Q1104	D-1		
Q1201	C-2	Test Point	
Q1501	C-2	TL2502	D-3
Q1502	C-7	TL2503	C-3
Q4001	D-6	TL4503	D-5
Q4002	D-6	TL6010	B-3
Q4005	E-7	TL6012	B-4
Q4006	F-7	TL6013	B-6
Q4901	F-3	TW2001	F-4
Q4904	E-4	TW2002	F-2
Q7707	B-4	TW2015	F-2
		TW3001	F-4
		TW3002	F-4
		TW3003	F-4
		TW3030	F-4
		TW4501	F-5
		TW4502	F-5
		TW4901	F-5
		TW4902	F-5
		TW4903	F-6
		TW4906	F-3
		TW4907	F-5
		TW6002	F-3
Transistor & Resistor		Connector	
QR1001	A-3	P1102	F-1
QR1002	B-2	P1501	E-4
QR3502	D-5	P2501	C-3
QR4001	D-6	P2502	F-2
QR4002	D-6	P3502	E-5
QR4003	D-6	P4002	D-7
QR4005	C-7	P4003	F-7
QR4501	E-7	DU7601	D-8
QR4502	E-6	PK7301	C-8
QR4505	E-8	PK7302	B-8
QR4506	F-8	TU7601	F-8
QR4904	F-3		
QR4905	F-3		
QR6001	B-3		
QR6006	B-2		
QR7601	C-8		

ADDRESS INFORMATION

(VEM0715)



CYLINDER STATOR UNIT	
Integrated Circuit	
HALL IC	B-3
Connector	
P2901	A-3

ADDRESS INFORMATION

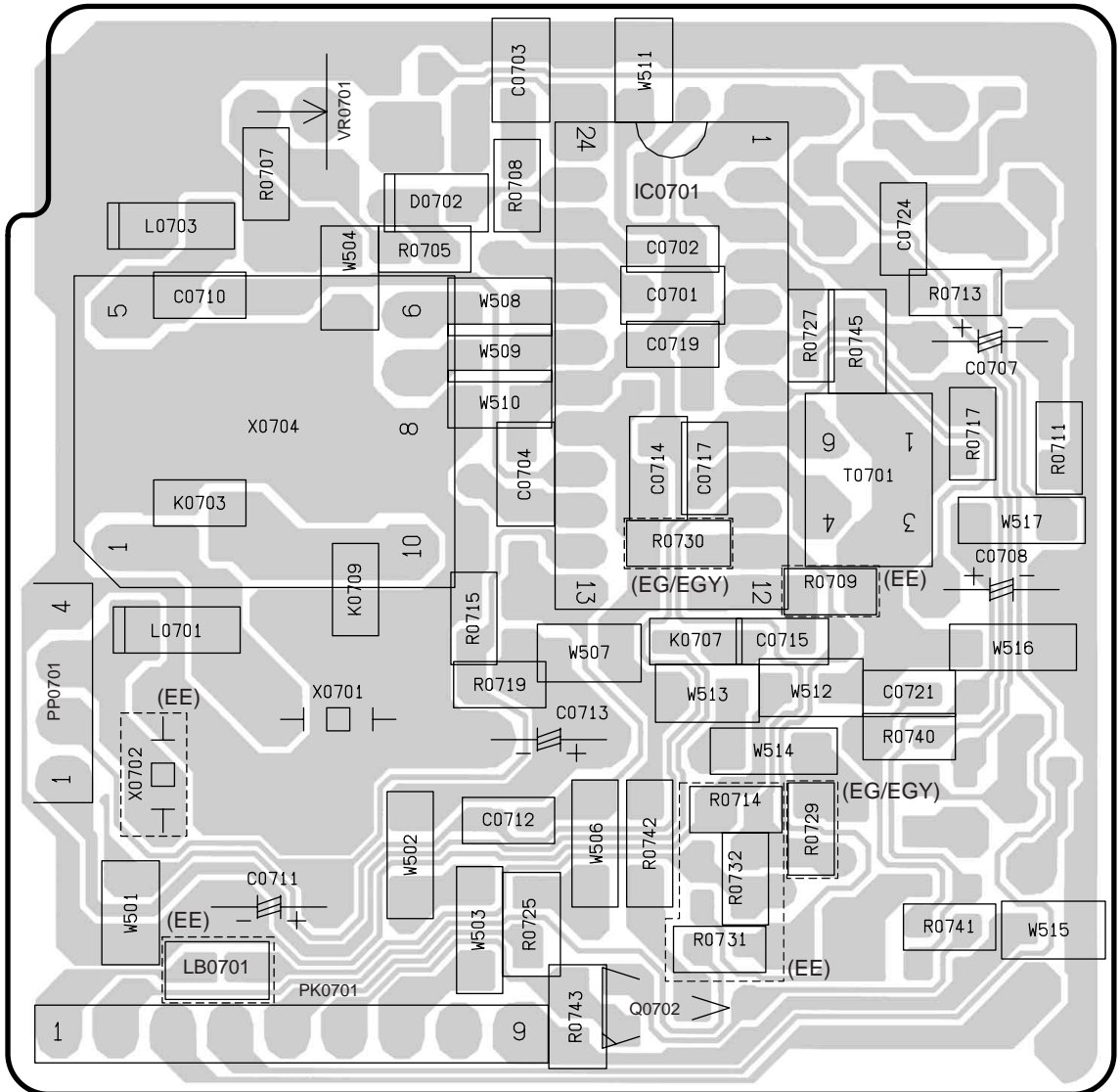
NV-FJ623EG/EGY,FJ628EE
CYLINDER STATOR UNIT

TV DEMODULATOR PACK C.B.A.

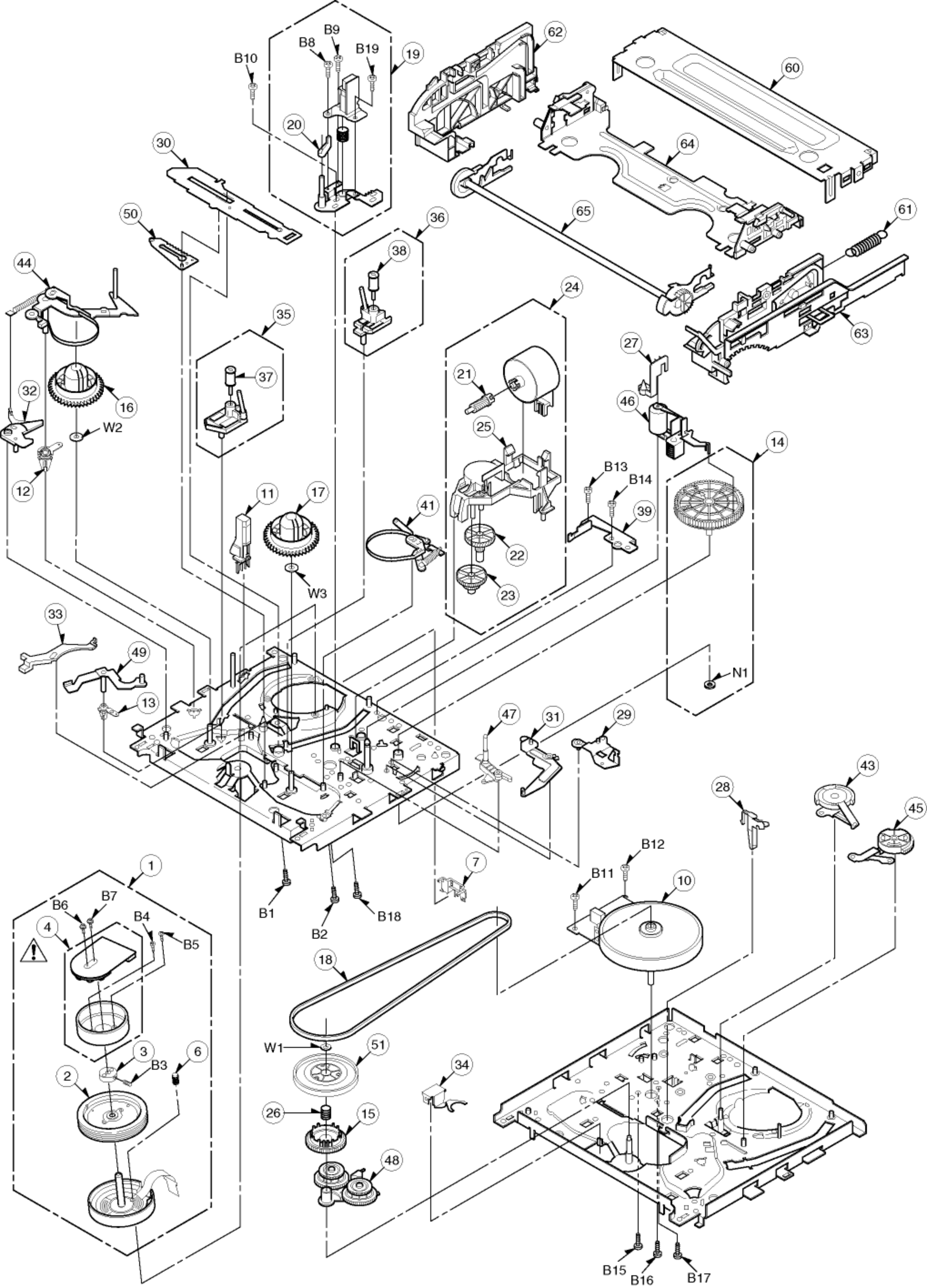
Transistor	
Q0702	A-3
Integrated Circuit	
IC0701	C-2
Adjustment	
T0701	B-3
VR0701	D-2
Connector	
PK0701	A-2
PP0701	B-1

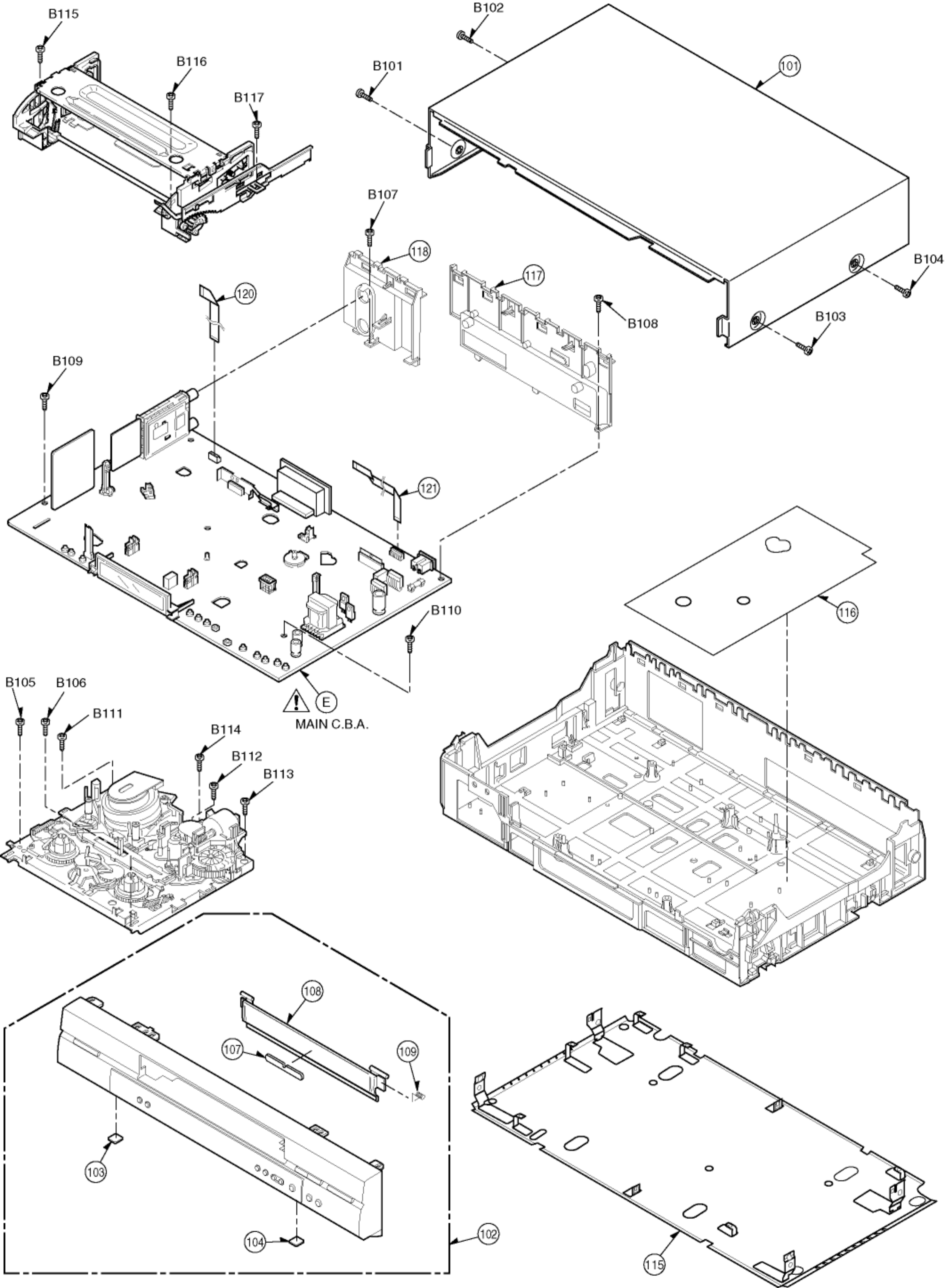
ADDRESS INFORMATION

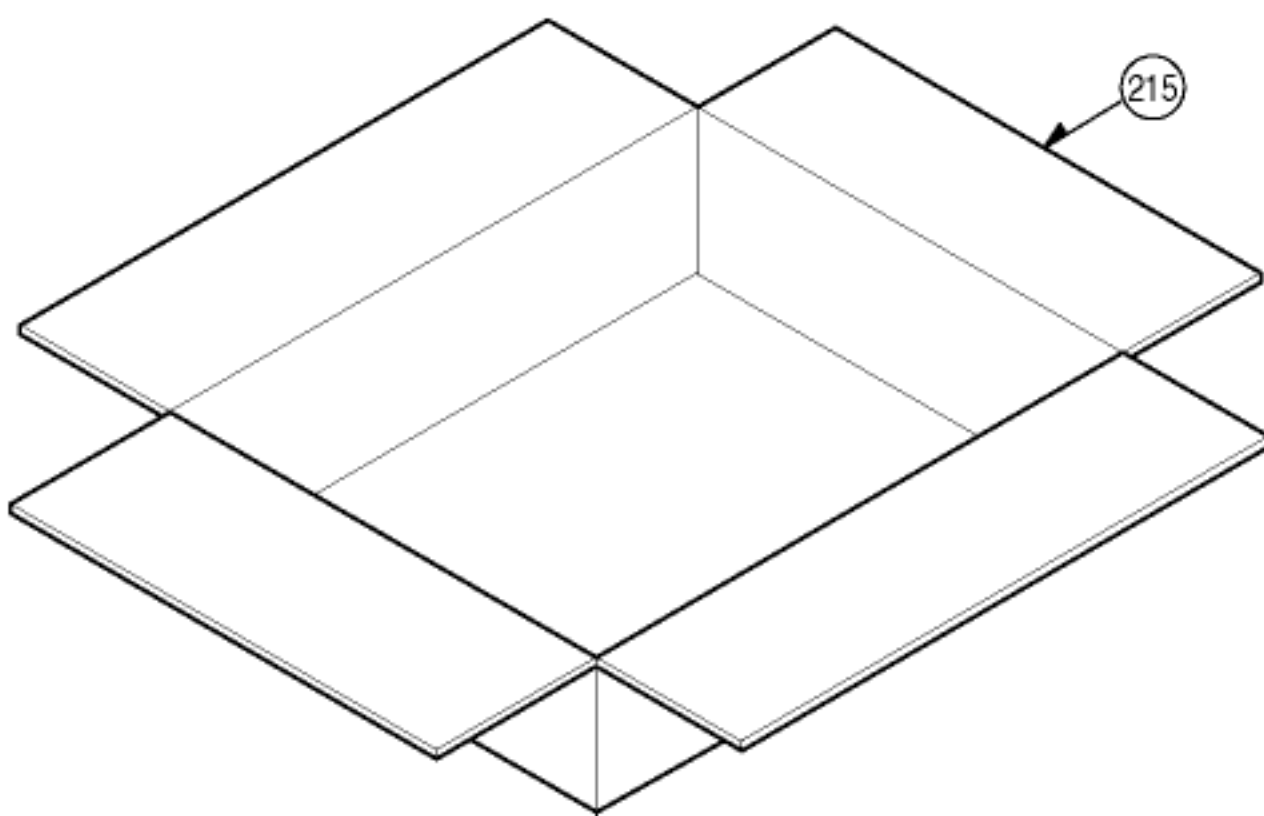
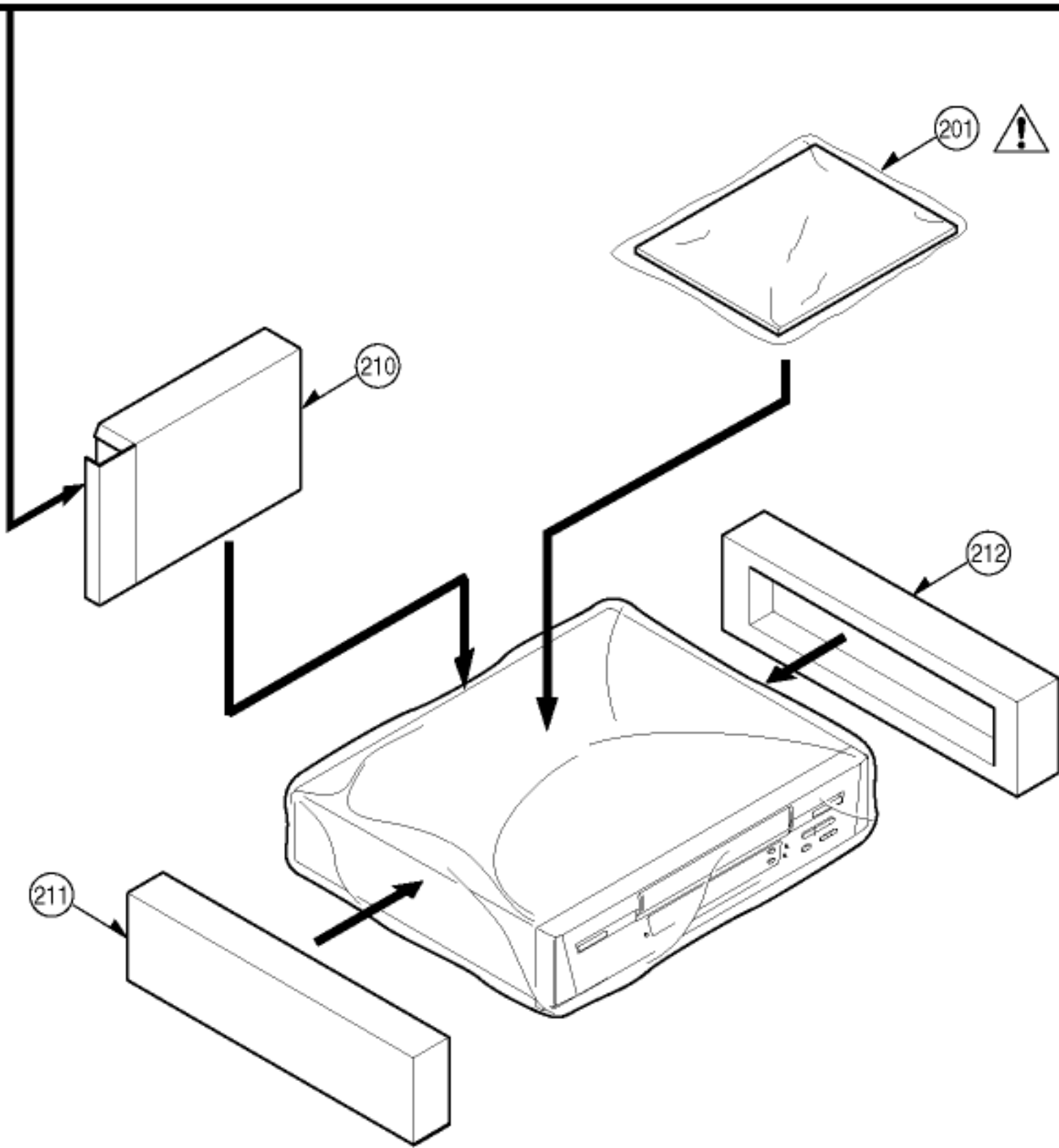
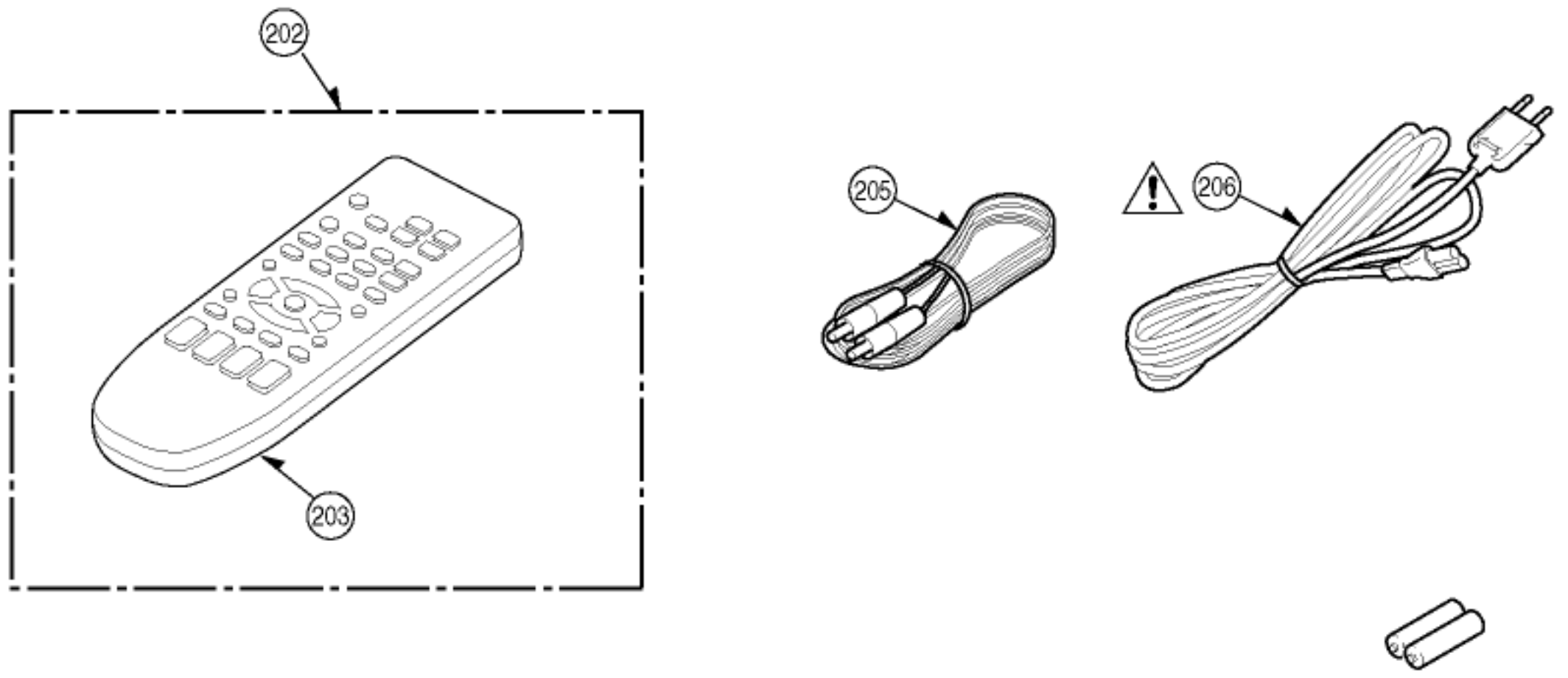
(VEP07A23S:NV-FJ623EG/EGY)
(VEP07A23U:NV-FJ628EE)




NV-FJ623EG/EGY, FJ628EE
 TV DEMODURATOR PACK C.B.A.








11.1 CHASSIS PARTS SECTION PARTS LIST





Note: 1. Be sure to make your orders of replacement parts according to this list.
 2. IMPORTANT SAFETY NOTICE
 Components identified with the mark  have the special characteristics for safety. When replacing any of these components, use only the same type.
 3. "MAVD" in the Remarks column shows that the parts listed are supplied from MAVD.

Ref. No.	Part No.	Part Name & Description	Remarks
<u>1</u>	VEG1598	CYLINDER UNIT	[MAVD]
<u>2</u>	VXP2170	UPPER CYLINDER UNIT	[MAVD]
<u>3</u>	VDB1256	CYLINDER RETAINER	
<u>4</u>	VEM0715	CYLINDER MOTOR UNIT	
<u>6</u>	VXS0135	EARTH BRUSH UNIT	
<u>7</u>	VMD3795	FLAT CABLE HOLDER	
<u>10</u>	VEK9069	CAPSTAN UNIT	
<u>11</u>	L1AZ00000004	FE HEAD	
<u>12</u>	VDB1431	TENSION ARM BOSS	
<u>13</u>	VDB1460	SUPPLY BRAKE ARM BOSS	
<u>14</u>	VDG1220KIT	MAIN CAM GEAR	
<u>15</u>	VDG1221	CONVERSION GEAR	
<u>16</u>	VDR0350	REEL TABLE	
<u>17</u>	VDR0350	REEL TABLE	
<u>18</u>	VDV0382	CAPSTAN BELT	
<u>19</u>	VED0412	A/C HEAD UNIT	
<u>20</u>	VMX2656	P4 CAP	
<u>21</u>	VDG1217	WORM GEAR	
<u>22</u>	VDG1218	WORM WHEEL GEAR	
<u>23</u>	VDG1219	CENTRE GEAR	
<u>24</u>	VEM0604	LOADING MOTOR UNIT	
<u>25</u>	VMD2619	MOTOR BRACKET	
<u>26</u>	VMB3045	CONVERSION GEAR SPRING	
<u>27</u>	VMD2620	OPENER PIECE	
<u>28</u>	VMD2738	LED PRISM	
<u>29</u>	VML3165	DRIVE RACK ARM	
<u>30</u>	VML3166	MAIN LEVER	
<u>31</u>	VML3167	DRIVE MAIN LEVER ARM	
<u>32</u>	VML3172	SUPPLY SPRING ARM	
<u>33</u>	VML3176	CONVERSION LEVER A	
<u>34</u>	VML3177	CONVERSION LEVER B	
<u>35</u>	VXA6040	INCLINED BASE (S) UNIT	
<u>36</u>	VXA5854	INCLINED BASE (T) UNIT	
<u>37</u>	VXP1891	ROLLER POST	
<u>38</u>	VXP1891	ROLLER POST	
<u>39</u>	VMA9672	SUPPORT ANGLE	
<u>41</u>	VXL2667	TAKE UP BRAKE ARM UNIT	
<u>43</u>	VXL2670	TAKE UP LOADING ARM UNIT	
<u>44</u>	VXL2793	TENSION ARM UNIT	
<u>45</u>	VXL2672	SUPPLY LOADING ARM UNIT	
<u>46</u>	VXL2785	PINCH ARM UNIT	
<u>47</u>	VXL2996	P5 ARM UNIT	
<u>48</u>	VXL2792	IDLER ARM UNIT	
<u>49</u>	VXL2733	SUPPLY BRAKE ARM UNIT	
<u>50</u>	VXL2747	LOADING RACK UNIT	
<u>51</u>	VXP2035	CENTRE CLUTCH UNIT	
<u>60</u>	VMA9516	TOP PLATE	
<u>61</u>	VMB3047	CONNECTION SPRING	
<u>62</u>	VMD3379	SIDE PLATE (L)	
<u>63</u>	VXA6540	SIDE PLATE (R) UNIT	
<u>64</u>	VXA5746	CASSETTE HOLDER UNIT	
<u>65</u>	VXP1730	MAIN SHAFT UNIT	
<u>B1</u>	VHD1118	SCREW	
<u>B2</u>	VHD1118	SCREW	
<u>B3</u>	VHD0842	SCREW	
<u>B4</u>	VHD0843	SCREW	
<u>B5</u>	VHD0843	SCREW	
<u>B6</u>	VHD0844	SCREW	
<u>B7</u>	VHD0844	SCREW	
<u>B8</u>	VHD1066	SCREW	
<u>B9</u>	VHD1066	SCREW	
<u>B10</u>	VHD1044	SCREW	
<u>B11</u>	VHD1060	SCREW	
<u>B12</u>	VHD1071	SCREW	
<u>B13</u>	XTS26+6F	SCREW	
<u>B14</u>	XTN26+6F	SCREW	
<u>B15</u>	XTN26+7J	SCREW	
<u>B16</u>	XTN26+7J	SCREW	
<u>B17</u>	XTN26+7J	SCREW	
<u>B18</u>	VHD1095	SCREW	
<u>B19</u>	VHD1185	SCREW	
<u>N1</u>	VHN0311	PUSH NUT	
<u>W1</u>	VMX2208	WASHER	
<u>W2</u>	VMX3022	WASHER	
<u>W3</u>	VMX3022	WASHER	

11.2 CASING PARTS SECTION PARTS LIST

Ref. No.	Part No.	Part Name & Description	Remarks
101	VGM1834	TOP PANEL	[MAVD]
102	VYP8350	FRONT PANEL UNIT	[MAVD] NV-FJ623EG-S
102	VYP8406	FRONT PANEL UNIT	[MAVD] NV-FJ623EGYS
102	VYP8360	FRONT PANEL UNIT	[MAVD] NV-FJ628EE-S
103	RKA0072-K	FOOT	
104	RKA0072-K	FOOT	
107	VGB0554	SUPER DRIVE BADGE	
108	VKF3485	BLINDER PANEL	[MAVD]
109	VMB2521	BLINDER SPRING	
115	VKU0575	BOTTOM PLATE	[MAVD]
116	VMZ3099	VO SHEET	[MAVD]
117	VJH1176	AV JACK PLATE	[MAVD]
118	VJH1174	ANT JACK PLATE	[MAVD]
120	VWJ1461	FLAT CARD CABLE (6P)	[MAVD] P4003-A/C HEAD
121	VWJ1282	FLAT CARD CABLE (9P)	[MAVD] P2502-P2901
B101	XTW3+10TFC	SCREW	
B102	XTW3+10TFC	SCREW	
B103	XTW3+10TFC	SCREW	
B104	XTW3+10TFC	SCREW	
B105	VHD0168	SCREW	
B106	VHD0168	SCREW	
B107	VHD1092	SCREW	
B108	VHD1092	SCREW	
B109	VHD1092	SCREW	
B110	VHD1092	SCREW	
B111	VHD1092	SCREW	
B112	VHD1092	SCREW	
B113	VHD1092	SCREW	
B114	XTV26+6JFR	SCREW	[MAVD]
B115	XTV26+8FR	SCREW	
B116	XTV26+8FR	SCREW	
B117	XTV26+8FR	SCREW	

11.3 PACKING PARTS SECTION PARTS LIST

Ref. No.	Part No.	Part Name & Description	Remarks
<u>201</u>	VQT9525	OPERATING INSTRUCTIONS (GERMAN)	 [MAVD] NV-FJ623EG-S
201	VQT9840	OPERATING INSTRUCTIONS (ENGLISH/GERMAN/FRENCH/ITALIAN/DUTCH/GREEK)	 [MAVD] NV-FJ623EGYS
201	VQT9549	OPERATING INSTRUCTIONS (ENGLISH/POLISH/CZECHOSLOVAK/HANGARIAN/RUSSIAN)	 [MAVD] NV-FJ628EE-S
<u>202</u>	N2QAHB000022	REMOTE CONTROLLER	[MAVD]
<u>203</u>	R0185-720010	BATTERY COVER	[MAVD]
<u>205</u>	VJA0728-A	DIN RF CABLE	[MAVD]
<u>206</u>	RJA0043	AC CORD	 [MAVD]
<u>210</u>	VPK2246	ACCESSORIES PACKING	[MAVD]
<u>211</u>	VPN5491	CUSHION (L)	[MAVD]
<u>212</u>	VPN5492	CUSHION (R)	[MAVD]
<u>215</u>	VPG0M10	PACKING	[MAVD]
		SERVICE FIXTURES & TOOLS	
	VFJ8125H3F	VHS ALIGNMENT TAPE (PAL)	
	VFK0335	RETAINING RING REMOVER (3mm/4mm)	
	VFK0329	POST ADJUSTMENT SCREWDRIVER	
	VFK0326	HEX WRENCH SET	
	VFK0132	BACK TENSION METER	
	VFK27	HEAD CLEANING STICK	
	VFK1024	MOLYTONE GREASE	
	VFK0330	FINE ADJUSTMENT GEAR DRIVER	
	VFK1301	SILICONE GREASE	
	VFK1298	FLOIL GREASE	

11.4 ELECTRICAL PARTS LIST


Ref. No.	Part No.	Part Name & Description	Remarks
	VEP06E55M	MAIN C.B.A.	(RTL)[MAVD] *1
			THE FOLLOWING C.B.A.S ARE INCLUDED IN MAIN C.B.A.
			VEP07A16A,VEP07A23S
	VEP06E55Q	MAIN C.B.A.	(RTL)[MAVD] *2
			THE FOLLOWING C.B.A.S ARE INCLUDED IN MAIN C.B.A.
			VEP07A18T,VEP07A23U
	VEP07A16A	DECODER PACK C.B.A.	(RTL)[MAVD] *1
			INCLUDED IN MAIN C.B.A.(VEP06E55M).
	VEP07A18T	NICAM DECODER PACK C.B.A.	(RTL)[MAVD] *2
			INCLUDED IN MAIN C.B.A.(VEP06E55Q).
	VEP07A23S	TV DEMODULATOR PACK C.B.A	(RTL)[MAVD] *1
			INCLUDED IN MAIN C.B.A.(VEP06E55M).
	VEP07A23U	TV DEMODULATOR PACK C.B.A	(RTL)[MAVD] *2
			INCLUDED IN MAIN C.B.A.(VEP06E55Q).
	-----	CYLINDER STATOR C.B.A.	INCLUDED IN CYLINDER STATOR UNIT (VEM0715).
	-----	CAPSTAN DRIVE C.B.A.	INCLUDED IN CAPSTAN UNIT (VEK9069).
	VEP06E55M	MAIN C.B.A.	(RTL)[MAVD] *1
	VEP06E55Q	MAIN C.B.A.	(RTL)[MAVD] *2
C0701	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	F1J1C105A063
C0702	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	
C0703	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C0704	ECUV1E333KBN	C.CAPACITOR CH 25V 0.033U	
C0707	ECEA1HKS2R2	E.CAPACITOR 50V 2.2U	
C0708	ECEA1HKAR47B	E.CAPACITOR 50V 0.47U	
C0710	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C0711	ECEA1CKS220	E.CAPACITOR 16V 22U	
C0712	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	
C0713	ECEA0JKS331	E.CAPACITOR 6.3V 330U	
C0714	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	F1J1C105A063
C0715	ECUX1H030CCV	C.CAPACITOR CH 50V 3P	ECJ1XC1H030C
C0717	ECUM1H330GUV	C.CAPACITOR CH 50V 33P	
C0719	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	F1H1E104A026
C0721	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	*1 ECJ1XC1H121J
C0721	ECUX1H560JCV	C.CAPACITOR CH 50V 56P	*2
C0724	ECUX1H221KBV	C.CAPACITOR CH 50V 220P	ECJ1XB1H221K
C1001	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C1002	ECEA1AKS470	E.CAPACITOR 10V 47U	
C1003	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C1006	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C1008	ECA1EHJ470	E.CAPACITOR 25V 47U	[MAVD]


C1010	ECA1EHJ470	E.CAPACITOR 25V 47U	[MAVD]
C1011	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C1012	ECEA1AKS220	E.CAPACITOR 10V 22U	
C1025	ECUV1H104KBN	C.CAPACITOR CH 50V 0.1U	[MAVD] ECJ2YB1H104K
C1026	ECUV1H104KBN	C.CAPACITOR CH 50V 0.1U	[MAVD] ECJ2YB1H104K
C1101	VCF2AAF683M	X2 CAPACITORS	 [MAVD]
C1102	F1BAF1020020	CERAMIC CAPACITOR	 [MAVD]
C1106	EEUEB2G330E	E.CAPACITOR 400V 33U	[MAVD]
C1107	F1A3A271A028	E.CAPACITOR 1KV 270U	F1A3A271A034
C1108	ECQB1H223JF3	P.CAPACITOR 50V 0.022U	
C1109	ECQB1H473JF3	P.CAPACITOR 50V 0.047U	
C1110	ECQV1H104JL3	P.CAPACITOR 50V 0.1U	
C1111	ECQB1H103JZ	P.CAPACITOR 50V 0.01U	
C1112	F1BAF1020020	CERAMIC CAPACITOR	 [MAVD]
C1201	F1B3A332A004	E.CAPACITOR 1KV 3300U	[MAVD]
C1202	VCEA1HJB560B	E.CAPACITOR 50V 56U	[MAVD] F2A1H560A101
C1203	EEUFG1E821	E.CAPACITOR 25V 820P	[MAVD]
C1204	EEUFG1A182	E.CAPACITOR 10V 1800P	[MAVD]
C1205	VCEA1HJB560B	E.CAPACITOR 50V 56U	[MAVD] F2A1H560A101
C1206	VCEA1AJB101B	E.CAPACITOR 10V 100U	[MAVD] F2A1A101A089
C1207	ECQV1H104JL3	P.CAPACITOR 50V 0.1U	
C1208	ECA1AHJ331	E.CAPACITOR 10V 330U	[MAVD]
C1209	ECA1EM101	E.CAPACITOR 25V 100U	
C1502	ECUX1H331JCV	C.CAPACITOR CH 50V 330P	F1H1H3310005
C2502	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C2505	ECUX1C563KBV	C.CAPACITOR CH 16V 0.056U	[MAVD]
C2506	ECUX1C563KBV	C.CAPACITOR CH 16V 0.056U	[MAVD]
C2507	ECUX1C563KBV	C.CAPACITOR CH 16V 0.056U	[MAVD]
C2508	ECUX1C104ZV	C.CAPACITOR CH 16V 0.1U	
C2509	ECUX1C474ZV	C.CAPACITOR CH 16V 0.47U	
C2510	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	ECJ1XC1H330J
C2511	ECEA0JKN220B	E.CAPACITOR 6.3V 22U	
C2512	ECEA1EKS4R7	E.CAPACITOR 25V 4.7U	
C2513	ECUX1H392KBV	C.CAPACITOR CH 50V 3900P	
C2515	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	
C2516	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	
C2517	ECEA0JKS470	E.CAPACITOR 6.3V 47U	
C2518	ECUV1H473ZV	C.CAPACITOR CH 50V 0.047U	ECJ1VF1H473Z
C2519	ECEA1EKA470B	E.CAPACITOR 25V 47U	
C2520	ECUV1E683KBN	C.CAPACITOR CH 25V 0.068U	ECJ2VB1E683K
C2521	ECUV1C154KBN	C.CAPACITOR CH 16V 0.15U	
C2522	ECUV1C154KBN	C.CAPACITOR CH 16V 0.15U	
C2523	ECUV1C154KBN	C.CAPACITOR CH 16V 0.15U	
C2524	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	
C3002	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	
C3003	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	
C3004	ECEA1HKS010	E.CAPACITOR 50V 1U	
C3008	ECUX1H680JCV	C.CAPACITOR CH 50V 68P	
C3009	ECUX1H070DCV	C.CAPACITOR CH 50V 7P	
C3012	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C3013	ECUX1H103ZV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C3015	ECUX1H103ZV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C3016	ECUX1H103ZV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C3017	ECEA1AKS221	E.CAPACITOR 10V 220U	
C3018	ECUX1C104ZV	C.CAPACITOR CH 16V 0.1U	

C3019	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	
C3020	ECEA1HKS010	E.CAPACITOR 50V 1U	
C3021	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	
C3022	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	
C3023	ECEA0JKS470	E.CAPACITOR 6.3V 47U	
C3024	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C3025	ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	ECJ1XB1H222K
C3027	ECEA1HKSR33	E.CAPACITOR 50V 0.33U	*2
C3028	ECEA0JKS470	E.CAPACITOR 6.3V 47U	
C3029	ECEA0JKS470	E.CAPACITOR 6.3V 47U	
C3030	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	
C3031	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C3032	ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	ECJ1XB1H222K
C3033	ECEA1HKAR47B	E.CAPACITOR 50V 0.47U	
C3035	ECEA1EKN4R7B	E.CAPACITOR 25V 4.7U	
C3036	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	
C3037	ECEA1AKS221	E.CAPACITOR 10V 220U	
C3038	ECEA1EKS4R7	E.CAPACITOR 25V 4.7U	
C3039	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	
C3040	ECEA0JKS470	E.CAPACITOR 6.3V 47U	
C3041	ECEA1AKS220	E.CAPACITOR 10V 22U	
C3042	ECUX1E223KBV	C.CAPACITOR CH 25V 0.022U	F1H1E223A024
C3043	ECEA1CKS100	E.CAPACITOR 16V 10U	
C3045	ECUX1H560JCV	C.CAPACITOR CH 50V 56P	
C3046	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	
C3047	ECYX1H821JCV	C.CAPACITOR CH 50V 820P	
C3048	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	ECJ1XC1H221J
C3050	ECEA1AKS220	E.CAPACITOR 10V 22U	
C3051	ECUX1H681JCV	C.CAPACITOR CH 50V 680P	
C3052	ECUX1H820JCV	C.CAPACITOR CH 50V 82P	
C3053	ECUX1H680JCV	C.CAPACITOR CH 50V 68P	
C3054	ECUX1H680JCV	C.CAPACITOR CH 50V 68P	
C3501	ECEA0JKS470	E.CAPACITOR 6.3V 47U	
C3502	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	
C3503	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	
C3505	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	
C3506	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C3507	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C3508	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C3509	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C3510	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C3511	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C4001	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	
C4002	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C4004	ECEA1AKS220	E.CAPACITOR 10V 22U	
C4005	ECEA1HKS010	E.CAPACITOR 50V 1U	
C4006	ECUX1H272KBV	C.CAPACITOR CH 50V 2700P	
C4007	ECUV1H122JCN	C.CAPACITOR CH 50V 1200P	ECJ2VC1H122J
C4008	ECEA1EKS4R7	E.CAPACITOR 25V 4.7U	
C4009	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	F1J1C105A063
C4010	ECUX1E273KBV	C.CAPACITOR CH 25V 0.027U	
C4011	ECUX1H153KBV	C.CAPACITOR CH 50V 0.015U	*1
C4011	ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	*2
C4012	ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	*2
C4013	ECUX1H153KBV	C.CAPACITOR CH 50V 0.015U	*1



C4013	ECUX1E223KBV	C.CAPACITOR CH 25V 0.022U	*2 F1H1E223A024
C4014	ECEA1HKS010	E.CAPACITOR 50V 1U	
C4015	ECEA0JKS470	E.CAPACITOR 6.3V 47U	
C4016	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C4017	ECEA1AKS220	E.CAPACITOR 10V 22U	
C4018	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C4019	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	
C4020	ECEA0JKS470	E.CAPACITOR 6.3V 47U	
C4026	ECEA1AKS220	E.CAPACITOR 10V 22U	
C4028	ECUX1E223KBV	C.CAPACITOR CH 25V 0.022U	F1H1E223A024
C4029	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	ECJ1XB1H152K
C4030	ECEA1AKS221	E.CAPACITOR 10V 220U	
C4031	ECQB1H223JF3	P.CAPACITOR 50V 0.022U	
C4032	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	ECJ1XC1H221J
C4034	ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	
C4501	ECEA1CKS100	E.CAPACITOR 16V 10U	
C4502	ECEA1CKS100	E.CAPACITOR 16V 10U	
C4503	ECEA1CKS100	E.CAPACITOR 16V 10U	
C4504	ECQB1H473JF4	P.CAPACITOR 50V 0.047U	
C4505	ECEA1AKS330B	E.CAPACITOR 10V 33U	
C4506	ECEA1CKS100	E.CAPACITOR 16V 10U	
C4507	ECEA1CKS220	E.CAPACITOR 16V 22U	
C4508	ECQB1H153JF	P.CAPACITOR 50V 0.015U	
C4509	ECUX1C333KBV	C.CAPACITOR CH 16V 0.033U	
C4510	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C4511	ECUX1H151JCV	C.CAPACITOR CH 50V 150P	ECJ1XC1H151J
C4512	ECUX1H151JCV	C.CAPACITOR CH 50V 150P	ECJ1XC1H151J
C4513	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C4514	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C4515	ECEA0JKS101	E.CAPACITOR 6.3V 100U	
C4516	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	
C4518	ECUV1C224KBN	C.CAPACITOR CH 16V 0.22U	ECJ2VB1C224K
C4519	ECQB1H153JF3	P.CAPACITOR 50V 0.015U	
C4520	ECEA1CKS220	E.CAPACITOR 16V 22U	
C4521	ECEA1CKS100	E.CAPACITOR 16V 10U	
C4522	ECQB1H473JF3	P.CAPACITOR 50V 0.047U	
C4523	ECEA1AKS330	E.CAPACITOR 10V 33U	
C4528	ECEA1CKS100	E.CAPACITOR 16V 10U	
C4531	ECEA1CKS100	E.CAPACITOR 16V 10U	
C4532	ECEA1CKS100	E.CAPACITOR 16V 10U	
C4533	ECEA1CKS100	E.CAPACITOR 16V 10U	
C4534	ECEA1AKS220	E.CAPACITOR 10V 22U	
C4536	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C4537	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	
C4538	ECEA1CKA470	E.CAPACITOR 16V 47U	
C4909	ECUX1H470JCV	C.CAPACITOR CH 50V 47P	ECJ1XC1H470J
C4910	ECUX1H470JCV	C.CAPACITOR CH 50V 47P	ECJ1XC1H470J
C4912	ECJ1XB1H471K	C.CAPACITOR CH 50V 470P	
C4913	ECJ1XB1H471K	C.CAPACITOR CH 50V 470P	
C4914	ECJ1XB1H471K	C.CAPACITOR CH 50V 470P	
C4915	ECJ1XB1H471K	C.CAPACITOR CH 50V 470P	
C4927	ECA0JM471G	E.CAPACITOR 6.3V 470U	ECA0JM471B
C4941	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	
C4946	ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	ECJ1XB1H222K
C6001	ECEA0JKS470	E.CAPACITOR 6.3V 47U	

C6002	ECUX1H151JCV	C.CAPACITOR CH 50V 150P	ECJ1XC1H151J
C6003	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	ECJ1XC1H471J
C6004	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C6005	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C6008	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	
C6009	ECUX1H180JCV	C.CAPACITOR CH 50V 18P	
C6010	ECUM1H240JCV	C.CAPACITOR CH 50V 24P	*1 [MAVD]
C6010	ECUX1H180JCV	C.CAPACITOR CH 50V 18P	*2
C6011	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	*1 ECJ1XC1H220J
C6011	ECUX1H180JCV	C.CAPACITOR CH 50V 18P	*2
C6012	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	ECJ1XC1H220J
C6013	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	
C6014	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	
C6015	ECEA1CKS100	E.CAPACITOR 16V 10U	
C6016	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C6017	ECUX1H681JCV	C.CAPACITOR CH 50V 680P	
C7301	ECUV1H103KBN	C.CAPACITOR CH 50V 0.01U	*1 ECJ2VB1H103K
C7301	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	*2 ECJ1XF1H103Z
C7302	ECEA1HKNR47B	E.CAPACITOR 50V 0.47U	*1
C7303	ECEA1HKNR47B	E.CAPACITOR 50V 0.47U	*1
C7304	ECUV1H681JCN	C.CAPACITOR CH 50V 680P	*1
C7304	VCEA0JAW101	E.CAPACITOR 6.3V 100U	*2
C7305	ECUX1H123KBN	C.CAPACITOR CH 50V 0.012U	*1
C7305	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	*2 ECJ1XC1H330J
C7306	ECUX1H123KBN	C.CAPACITOR CH 50V 0.012U	*1
C7306	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	*2 ECJ1XC1H330J
C7307	ECUV1H681JCN	C.CAPACITOR CH 50V 680P	*1
C7307	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	*2 ECJ1XF1H103Z
C7308	ECEA1HKNR47B	E.CAPACITOR 50V 0.47U	*1
C7308	ECEA1HKS2R2	E.CAPACITOR 50V 2.2U	*2
C7309	ECUV1H103KBN	C.CAPACITOR CH 50V 0.01U	*1 ECJ2VB1H103K
C7310	ECUV1H103KBN	C.CAPACITOR CH 50V 0.01U	*1 ECJ2VB1H103K
C7311	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	*2
C7312	ECEA1CKS100	E.CAPACITOR 16V 10U	*1
C7312	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	*2 ECJ1XC1H220J
C7313	ECEA1CKS100	E.CAPACITOR 16V 10U	*1
C7313	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	*2
C7315	ECUV1E104KBN	C.CAPACITOR CH 25V 0.1U	*2 FIJ1E1040007
C7316	ECUV1H104ZFN	C.CAPACITOR CH 50V 0.1U	*1 ECJ2VF1H104Z
C7316	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	*2
C7317	ECEA0JKS101	E.CAPACITOR 6.3V 100U	*1
C7317	VCEA1CAW100	E.CAPACITOR 16V 10U	*2 F2A1C1000015
C7318	ECEA1CKS100	E.CAPACITOR 16V 10U	*1
C7318	VCEA0JAW470	E.CAPACITOR 6.3V 47U	*2 F2A0J4700008
C7319	ECEA1CKA470	E.CAPACITOR 16V 47U	*1
C7319	VCEA1CAW100	E.CAPACITOR 16V 10U	*2 F2A1C1000015
C7320	ECUV1H472KBN	C.CAPACITOR CH 50V 4700P	*1 FIJ1H472A592
C7320	VCEA1CAW100	E.CAPACITOR 16V 10U	*2 F2A1C1000015
C7321	ECEA1HKAR47B	E.CAPACITOR 50V 0.47U	*1
C7322	ECEA1HKNR47B	E.CAPACITOR 50V 0.47U	*1
C7323	ECUV1H104KBN	C.CAPACITOR CH 50V 0.1U	*1 [MAVD] ECJ2YB1H104K
C7324	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	*2
C7325	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	*2
C7326	ECUM1H152KBM	C.CAPACITOR CH 50V 1500P	*1
C7327	ECUM1H152KBM	C.CAPACITOR CH 50V 1500P	*1

C7328	ECUM1H152KBM	C.CAPACITOR CH 50V 1500P	*1
C7341	ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	*2
C7342	ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	*2
C7343	ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	*2 ECJ1XB1H222K
C7501	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C7502	ECEA1HKS100	E.CAPACITOR 50V 10U	ECEA1HKA100B
C7503	ECUX1H120JCV	C.CAPACITOR CH 50V 12P	
C7504	ECEA0JKS101	E.CAPACITOR 6.3V 100U	
C7507	VCE0073	SUPER CAPACITOR	
C7508	ECEA1AKS221	E.CAPACITOR 10V 220U	
C7509	ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	
C7510	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C7511	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	
C7603	ECEA0JKS101	E.CAPACITOR 6.3V 100U	
C7604	ECEA0JKS101	E.CAPACITOR 6.3V 100U	
C7610	ECEA1HKS010	E.CAPACITOR 50V 1U	
C7613	ECUX1H103ZFN	C.CAPACITOR CH 50V 0.01U	*1 ECJ2XF1H103Z
C7613	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	*2 ECJ1XF1H103Z
C7614	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	ECJ1XC1H330J
C7615	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	ECJ1XC1H330J
C7616	ECEA0JKS101	E.CAPACITOR 6.3V 100U	
C7617	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C7620	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	*2
C7623	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	*2 ECJ1XF1H103Z
C7625	ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	*2 ECJ1XB1H222K
C7626	ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	*2 ECJ1XB1H222K
C7627	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	ECJ1XF1H103Z
C7703	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	
C7704	ECEA0JKS470	E.CAPACITOR 6.3V 47U	
C7707	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	
C7710	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	*2 ECJ1XC1H330J
C7711	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	ECJ1XC1H221J
C7712	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	F1J1C105A063
C7713	ECEA0JKS470	E.CAPACITOR 6.3V 47U	
D0702	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
D1003	MA4056N-H	DIODE	MAZ4056NH
D1004	MA4056N-H	DIODE	MAZ4056NH
D1006	MA4056N-H	DIODE	MAZ4056NH
D1008	MA4130N-L	DIODE	MAZ4130NL
D1101	ERZVA5Z471	TRANSIENT/SURGE ABSORBER	
D1103	DF08S-6622	DIODE	B0KB00000013
D1104	MA4027-L	DIODE	MAZ40270L
D1105	MA165	DIODE	MA2C165
D1106	MA185	DIODE	MA2C185
D1107	MAZ751000C	DIODE	
D1108	AU01Z	DIODE	B0HAGM000006
D1201	MA185	DIODE	MA2C185
D1204	21DQ10FC4	DIODE	B0JAML000007
D1206	11EQS04	DIODE	B0JAME000020
D1207	11EQS04	DIODE	B0JAME000020
D1208	MA185	DIODE	MA2C185
D1209	11EQS04	DIODE	B0JAME000020
D1501	SIR505S	DIODE	B3EA00000040
D2501	MA165	DIODE	MA2C165

D2502	MA165	DIODE	MA2C165
D3001	MA165	DIODE	MA2C165
D4502	MA165	DIODE	MA2C165
D4901	MA4051N-M	DIODE	MAZ4051NM
D4902	MA4051N-M	DIODE	MAZ4051NM
D4904	MA165	DIODE	MA2C165
D7501	MA4220N-M	DIODE	[MAVD]
D7503	RB441P	DIODE	
D7601	MA4300M	DIODE	MAZ43000M
DP7501	A2BD00000040	DISPLAY TUBE	
F1101	VSF0243C16	FUSE	 K5D162BL0004
FL7301	VLF0633	FILTER	*2 J0HACK000008
IC0701	LA75503	IC	C1AA00000606
IC1201	UPC1093J	IC	C0DAEMC00002
IC1501	RPI354N	IC	B3EZ00000001
IC1502	RPI354N	IC	B3EZ00000001
IC2501	AN3811NK	IC	
IC3001	AN3531NFBS	IC	
IC3501	AN3368SB	IC	
IC4501	AN3656NFBPBV	IC	
IC6001	C2CBJG000215	IC	[MAVD]
IC7301	C0ZBZ0000580	IC	*1 [MAVD]
IC7301	TDA9874AH	IC	*2 C1AB00001404
IC7302	PST7043	IC	*2 C0EAH0000051
IC7501	M35502AFP	IC	
IC7502	PNA4618M08VT	IC	[MAVD]
IC7503	C0EBE0000211	IC	[MAVD]
IC7504	C0EBH0000218	IC	[MAVD]
IC7702	M24C16-WBN6	IC	C3EAGC000015
JK4903	K1FB121B0003	SOCKET	[MAVD]
K0701	ECUX1H560JCV	C.CAPACITOR CH 50V 56P	*1
K0703	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
K0707	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
K0709	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
K1213	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
K3003	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
K3506	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
K3508	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
K3509	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
K4004	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
K4007	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
K4915	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
K4916	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
K7301	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
K7302	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	*2 D0GBR00JA017
K7303	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	*2 D0GBR00JA017
K7502	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
K7602	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	*2 D0GBR00JA017
K7603	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017

K7605	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
K7611	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
K7613	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	*2 D0GBR00JA017
K7615	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
K7702	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
L0701	ELJNAR27JF	INDUCTOR 0.27UH	
L0703	ELJNA2R2JF	INDUCTOR 2.2UH	
L1101	ELF15N005A	LINE FILTER	
L1102	ELF15N003A	LINE FILTER	
L1201	VLQ0775K220	CHOKO COIL	[MAVD]
L1202	G0A220G00018	COIL	G0A220G00019
L2501	VLQ0599J680	COIL 68UH	G0C680JA0026
L3002	VLQ0599J220	COIL 22UH	G0C220JA0026
L3005	VLQ0599J470	COIL 47UH	G0C470JA0026
L3006	VLQ0599J101	COIL 100UH	G0C101JA0026
L3007	VLQ0599J680	COIL 68UH	G0C680JA0026
L3008	VLQ0599J101	COIL 100UH	G0C101JA0026
L3009	VLQ0599J330	COIL 33UH	G0C330JA0026
L3010	VLQ0599J470	COIL 47UH	G0C470JA0026
L3011	VLQ0599J390	COIL 39UH	G0C390JA0026
L3012	VLQ0599J560	COIL 56UH	G0C560JA0026
L3501	VLQ0599J330	COIL 33UH	G0C330JA0026
L4001	ELELN153JA	INDUCTOR 15000UH	
L4003	VLQ0599J680	COIL 68UH	G0C680JA0026
L4502	VLQ0599J1R2	COIL 1.2UH	G0C1R2JA0026
L4901	VLQ0599JR22	COIL 0.22UH	
L6001	VLQ0599J101	COIL 100UH	G0C101JA0026
L7302	VLQ0599J1R0	COIL 1UH	*2 G0C1R0JA0026
L7601	VLQ0599J330	COIL 33UH	G0C330JA0026
L7602	VLQ0599J270	COIL 27UH	G0C270JA0026
L7603	VLQ0599J270	COIL 27UH	G0C270JA0026
L7604	VLQ0599J2R2	COIL 2.2UH	G0C2R2JA0026
L7607	VLQ0599J100	COIL 10UH	*2 G0C100JA0026
L7608	VLQ0599J2R2	COIL 2.2UH	*2 G0C2R2JA0026
L7609	VLQ0599J100	COIL 10UH	G0C100JA0026
L7701	VLQ0599J680	COIL 68UH	G0C680JA0026
L7702	VLQ0599J330	COIL 33UH	*2 G0C330JA0026
L7703	VLQ0599J680	COIL 68UH	G0C680JA0026
LB0701	VLP0147	COIL	*2 J0JBC0000041
LB1102	J0JHC0000070	FILTER	[MAVD]
LB1106	J0JHC0000070	FILTER	[MAVD]
LB1107	J0JKB0000028	FILTER	J0JKB0000027
LB1109	J0JKB0000028	FILTER	J0JKB0000027
LB3501	VLP0147	COIL	J0JBC0000041
LB3502	VLP0147	COIL	J0JBC0000041
LB3503	VLP0147	COIL	J0JBC0000041
LB3504	VLP0147	COIL	J0JBC0000041
LB4905	ERJ6GEYG221	M.RESISTOR CH 1/10W 220	
LB4906	ERJ6GEYG221	M.RESISTOR CH 1/10W 220	
LB7301	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	*2 D0GBR00JA017
LB7303	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	*2 D0GBR00JA017
LR1101	VLP0392	COIL	

P1102	K2AA2K000012	AC INLET	 [MAVD]
P1501	VJS3837A002	CONNECTOR (FEMALE) 2P	K1KB02A00035
P2501	VJP3835E012	CONNECTOR (MALE) 12P	[MAVD] K1KA12A00127
P2502	VJS3537A009G	CONNECTOR (FEMALE) 9P	K1MN09A00012
P3502	VJS3537A010G	CONNECTOR (FEMALE) 10P	K1MN10A00036
P4002	VJS3837A002	CONNECTOR (FEMALE) 2P	K1KB02A00035
P4003	VJS3537A006G	CONNECTOR (FEMALE) 6P	K1MN06A00034
PK0701	VJR0826E009W	CONNECTOR (MALE) 9P	K1MR09A00028
PK7301	VJR0777B007W	CONNECTOR (MALE) 7P	K1MM07B00002
PK7302	VJR0777B006W	CONNECTOR (MALE) 6P	K1MM06B00002
PP0701	VJP3589E004B	CONNECTOR (MALE) 4P	K1KA04B00135
Q0702	2SD601A-S	TRANSISTOR	
Q1001	2SC1959-Y	TRANSISTOR	
Q1002	2SD602A-R	TRANSISTOR	2SD0602AR
Q1003	2SC1959-Y	TRANSISTOR	
Q1004	2SC1959-Y	TRANSISTOR	
Q1005	2SD602A-R	TRANSISTOR	2SD0602AR
Q1006	2SD601A-R	TRANSISTOR	2SD0601AR
Q1007	2SC1959-Y	TRANSISTOR	
Q1008	2SB710A	TRANSISTOR	2SB0710A
Q1010	2SC1959-Y	TRANSISTOR	
Q1011	2SD601A-R	TRANSISTOR	2SD0601AR
Q1101	2SK2876	TRANSISTOR	[MAVD]
Q1102	B1DEDR000003	TRANSISTOR	
Q1103	2SC3311A-S	TRANSISTOR	2SC3311AS
Q1104	2SD1992A-R	TRANSISTOR	
Q1201	PS2561L2V13W	PHOTO COUPLER	
Q1501	PNB2301MBV	TRANSISTOR	
Q1502	PNB2301MAV	TRANSISTOR	
Q4001	2SD601A-R	TRANSISTOR	2SD0601AR
Q4002	2SD601A-R	TRANSISTOR	2SD0601AR
Q4005	2SB710-R	TRANSISTOR	2SB07100R
Q4006	2SD602A-R	TRANSISTOR	2SD0602AR
Q4901	2SD601A-R	TRANSISTOR	2SD0601AR
Q4904	2SB709A	TRANSISTOR	2SB0709A
Q7707	2SB709A	TRANSISTOR	*2 2SB0709A
QR1001	UN2112	TRANSISTOR	UNR2112
QR1002	UN2211	TRANSISTOR	UNR2211
QR3502	UN2212	TRANSISTOR-RESISTOR	UNR2212
QR4001	UN2212	TRANSISTOR-RESISTOR	UNR2212
QR4002	UN2211	TRANSISTOR	UNR2211
QR4003	UN2111	TRANSISTOR	UNR211100L
QR4005	UN2113	TRANSISTOR-RESISTOR	UNR2113
QR4501	UN2216	TRANSISTOR	UNR2216
QR4502	UN2216	TRANSISTOR	UNR2216
QR4505	UN2113	TRANSISTOR-RESISTOR	UNR2113
QR4506	UN2216	TRANSISTOR	UNR2216
QR4904	UN2215	TRANSISTOR-RESISTOR	UNR2215
QR4905	UN2215	TRANSISTOR-RESISTOR	UNR2215
QR6001	UN2215	TRANSISTOR-RESISTOR	UNR2215




QR6006	UN2211	TRANSISTOR	UNR2211
QR7601	UN2215	TRANSISTOR-RESISTOR	*1 UNR2215
R0705	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	
R0707	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	
R0708	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	
R0709	ERJ6GEYG104	M.RESISTOR CH 1/10W 100K	*2
R0711	ERJ3GEYJ181V	M.RESISTOR CH 1/16W 180	
R0713	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
R0714	ERJ3GEYJ562V	M.RESISTOR CH 1/16W 5.6K	*2 DOGB562JA002
R0715	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	
R0717	ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	
R0719	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	
R0725	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	
R0727	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
R0729	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	*1
R0730	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	*1
R0731	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	*2 DOGB101JA002
R0732	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	*2
R0740	ERJ3GEYG471V	M.RESISTOR CH 1/16W 470	*1
R0740	ERJ3GEYG271	M.RESISTOR CH 1/16W 270	*2
R0741	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	
R0742	ERJ8GEYJ151	M.RESISTOR CH 1/8W 150	
R0745	ERJ6GEYJ335	M.RESISTOR CH 1/10W 3.3M	
R1001	ERJ6GEYG683	M.RESISTOR CH 1/10W 68K	
R1002	ERJ6GEYG683	M.RESISTOR CH 1/10W 68K	
R1003	ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	
R1004	ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	
R1006	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R1007	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R1008	ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	
R1009	ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	
R1010	ERDS2FJ103	C.RESISTOR 1/4W 10K	
R1011	ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	
R1012	ERDS2FJ471	C.RESISTOR 1/4W 470	
R1015	ERDS2FJ102	C.RESISTOR 1/4W 1K	
R1016	ERDS2FJ102	C.RESISTOR 1/4W 1K	
R1017	ERDS2FJ471	C.RESISTOR 1/4W 470	
R1023	ERDS2FJ103	C.RESISTOR 1/4W 10K	
R1025	ERJ6GEYJ472V	M.RESISTOR CH 1/10W 4.7K	
R1026	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R1027	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R1029	ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	
R1030	ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	
R1102	ERDS2TJ105T	C.RESISTOR 1/4W 1M	
R1103	ERDS2TJ105T	C.RESISTOR 1/4W 1M	
R1104	ERDS2FJ102	C.RESISTOR 1/4W 1K	
R1105	ERDS2FJ101	C.RESISTOR 1/4W 100	
R1106	ERG2SJ331	M.RESISTOR 2W 330	ERG2SJ331E
R1107	ERDS2FJ101	C.RESISTOR 1/4W 100	
R1108	ERX1SJR51	M.RESISTOR 1W 0.51	ERX1SJR51E
R1109	ER0S2CKF1801	M.RESISTOR 1/4W 180	
R1110	ERDS2FJ104	C.RESISTOR 1/4W 100K	ERDS2TJ104T
R1111	ERDS2FJ331	C.RESISTOR 1/4W 330	
R1112	ERDS2FJ3R3	C.RESISTOR 1/4W 3.3	ERDS2TJ3R3T

R1113	ERDS2FJ330	C.RESISTOR 1/4W 33	ERDS2TJ330T
R1201	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	
R1202	ERJ6GEYG271	M.RESISTOR CH 1/10W 270	
R1203	ERJ6GEYG223V	M.RESISTOR CH 1/10W 22K	
R1204	ERJ6GEYF123	M.RESISTOR CH 1/10W 12K	
R1205	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	ERJ6GEYG222V
R1206	ERJ6GEYF333	M.RESISTOR CH 1/10W 33K	
R1207	ERJ6GEYF333	M.RESISTOR CH 1/10W 33K	
R1208	ERJ6GEYF822	M.RESISTOR CH 1/10W 8.2K	
R1209	ERJ6GEYG563V	M.RESISTOR CH 1/10W 56K	
R1501	ERDS2FJ121	C.RESISTOR 1/4W 120	ERDS2TJ121T
R1502	ERDS2TJ181	C.RESISTOR 1/4W 180	
R1503	ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	
R1504	ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	
R1505	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	
R2501	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R2502	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	
R2503	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R2504	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R2505	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	
R2506	ERJ6GEYG105	M.RESISTOR CH 1/10W 1M	ERJ6GEYJ105V
R2508	ERJ6GEYG433	M.RESISTOR CH 1/10W 43K	
R2509	ERDS2FJ331	C.RESISTOR 1/4W 330	
R2510	ERDS2FJ330	C.RESISTOR 1/4W 33	ERDS2TJ330T
R2511	ERDS2FJ330	C.RESISTOR 1/4W 33	ERDS2TJ330T
R2512	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
R2515	ERDS2FJ330	C.RESISTOR 1/4W 33	ERDS2TJ330T
R2516	ERJ6GEYJ1R5	M.RESISTOR CH 1/10W 1.5	[MAVD]
R2517	ERJ6GEYJ1R2	M.RESISTOR CH 1/10W 1.2	
R3002	ERJ6GEYG183	M.RESISTOR CH 1/10W 18K	
R3006	ERJ6GEYG271	M.RESISTOR CH 1/10W 270	
R3007	ERJ6GEYG331	M.RESISTOR CH 1/10W 330	
R3012	ERJ6GEYJ472V	M.RESISTOR CH 1/10W 4.7K	
R3013	ERJ6GEYG104	M.RESISTOR CH 1/10W 100K	*2
R3015	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	
R3016	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	
R3017	ERJ6GEYG122	M.RESISTOR CH 1/10W 1.2K	
R3018	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	
R3019	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	
R3022	ERJ6GEYJ684	M.RESISTOR CH 1/10W 680K	
R3023	ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	
R3025	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R3026	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	
R3027	ERJ6GEYG271	M.RESISTOR CH 1/10W 270	
R3028	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
R3029	ERJ6GEYG152V	M.RESISTOR CH 1/10W 1.5K	
R3030	ERJ6GEYG331	M.RESISTOR CH 1/10W 330	
R3031	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	
R3032	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	
R3033	ERJ6GEYG152V	M.RESISTOR CH 1/10W 1.5K	
R3034	ERJ6GEYJ225	M.RESISTOR CH 1/10W 2.2M	
R3501	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	
R3503	ERJ6GEYG391	M.RESISTOR CH 1/10W 390	
R3504	ERJ6GEYG301	M.RESISTOR CH 1/10W 300	[MAVD]
R3506	ER0S2CHF3600	M.RESISTOR 1/4W 360	

R4001	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
R4002	ERJ6GEYJ334	M.RESISTOR CH 1/10W 330K	
R4003	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R4004	ERJ6GEYG241	M.RESISTOR CH 1/10W 240	
R4005	ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	
R4006	ERJ6GEYG753	M.RESISTOR CH 1/10W 75K	
R4007	ERJ6GEYJ153V	M.RESISTOR CH 1/10W 15K	
R4008	ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	
R4009	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	
R4010	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	
R4011	ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	
R4012	ERJ6GEYG331	M.RESISTOR CH 1/10W 330	*2
R4014	ERJ6GEYG181	M.RESISTOR CH 1/10W 180	*1
R4014	ERJ6GEYG391	M.RESISTOR CH 1/10W 390	*2
R4015	ERJ6GEYG391	M.RESISTOR CH 1/10W 390	*1
R4015	ERJ6GEYG181	M.RESISTOR CH 1/10W 180	*2
R4016	ERJ6GEYJ225	M.RESISTOR CH 1/10W 2.2M	
R4017	ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	
R4018	ERJ6GEYG183	M.RESISTOR CH 1/10W 18K	
R4019	ERJ6GEYF333	M.RESISTOR CH 1/10W 33K	
R4020	ERJ6GEYJ472V	M.RESISTOR CH 1/10W 4.7K	
R4021	ERJ6GEYG332	M.RESISTOR CH 1/10W 3.3K	
R4022	ERJ6GEYF561	M.RESISTOR CH 1/10W 560	
R4026	ERJ6GEYJ472V	M.RESISTOR CH 1/10W 4.7K	
R4027	ERJ6GEYG332	M.RESISTOR CH 1/10W 3.3K	
R4028	ERJ6GEYG272	M.RESISTOR CH 1/10W 2.7K	
R4029	ERJ6GEYG332	M.RESISTOR CH 1/10W 3.3K	
R4030	ERJ6GEYF822	M.RESISTOR CH 1/10W 8.2K	
R4508	ERJ6GEYG681	M.RESISTOR CH 1/10W 680	
R4509	ERJ6GEYG683	M.RESISTOR CH 1/10W 68K	
R4510	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R4511	ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	
R4512	ERJ6GEYG683	M.RESISTOR CH 1/10W 68K	
R4513	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R4514	ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	
R4515	ERJ6GEYJ472V	M.RESISTOR CH 1/10W 4.7K	
R4516	ERJ6GEYJ511	M.RESISTOR CH 1/10W 510	
R4517	ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	
R4518	ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	
R4519	ERJ6GEYG821	M.RESISTOR CH 1/10W 820	
R4520	ERJ6GEYJ124V	M.RESISTOR CH 1/10W 120K	
R4521	ERJ6GEYJ511	M.RESISTOR CH 1/10W 510	
R4522	ERJ6GEYJ303	M.RESISTOR CH 1/10W 30K	
R4523	ERJ6GEYJ472V	M.RESISTOR CH 1/10W 4.7K	
R4524	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
R4525	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
R4527	ERJ6GEYJ472V	M.RESISTOR CH 1/10W 4.7K	
R4528	ERJ6GEYG391	M.RESISTOR CH 1/10W 390	
R4535	ERJ6GEYG221	M.RESISTOR CH 1/10W 220	
R4536	ERJ6GEYG221	M.RESISTOR CH 1/10W 220	
R4537	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R4538	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
R4901	ERDS2FJ471	C.RESISTOR 1/4W 470	
R4902	ERDS2FJ471	C.RESISTOR 1/4W 470	
R4904	ERJ6GEYJ153V	M.RESISTOR CH 1/10W 15K	

R4909	ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	
R4910	ERJ6GEYJ474V	M.RESISTOR CH 1/10W 470K	
R4913	ERJ6GEYJ750	M.RESISTOR CH 1/10W 75	
R4914	ERJ6GEYJ750	M.RESISTOR CH 1/10W 75	
R4916	ERJ6GEYG331	M.RESISTOR CH 1/10W 330	
R4918	ERJ6GEYG331	M.RESISTOR CH 1/10W 330	
R4928	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R4945	ERJ6GEYJ153V	M.RESISTOR CH 1/10W 15K	
R4946	ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	
R4948	ERJ6GEYJ106V	M.RESISTOR CH 1/10W 10M	
R6001	ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	
R6002	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
R6003	ERJ6GEYG183	M.RESISTOR CH 1/10W 18K	
R6004	ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	
R6005	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R6008	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	
R6009	ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	
R6011	ERJ6GEYG221	M.RESISTOR CH 1/10W 220	
R6012	ERJ6GEYG221	M.RESISTOR CH 1/10W 220	
R6013	ERJ6GEYG221	M.RESISTOR CH 1/10W 220	
R6014	ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	
R6015	ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	
R6016	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
R6017	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
R6018	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
R6019	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R6020	ERJ6GEYF393	M.RESISTOR CH 1/10W 39K	
R6021	ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	
R6022	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	
R6023	ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	
R6025	ERJ6GEYJ433V	M.RESISTOR CH 1/10W 43K	
R6026	ERJ6GEYF393	M.RESISTOR CH 1/10W 39K	
R6029	ERJ6GEYJ472V	M.RESISTOR CH 1/10W 4.7K	
R6030	ERJ6GEYJ472V	M.RESISTOR CH 1/10W 4.7K	
R6031	ERJ6GEYG682	M.RESISTOR CH 1/10W 6.8K	
R7301	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	*1 D0GBR00JA017
R7302	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	*2
R7304	ERJ6GEYJ472V	M.RESISTOR CH 1/10W 4.7K	*1
R7305	ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	*1
R7305	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	*2
R7306	ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	*1
R7306	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	*2
R7307	ERJ6GEYG682	M.RESISTOR CH 1/10W 6.8K	*1
R7308	ERJ6GEYG682	M.RESISTOR CH 1/10W 6.8K	*1
R7309	ERJ6GEYG221	M.RESISTOR CH 1/10W 220	*1
R7311	ERJ6GEYJ752	M.RESISTOR CH 1/10W 7.5K	*1
R7312	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	*1
R7313	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	*1
R7314	ERJ6GEYG332	M.RESISTOR CH 1/10W 3.3K	*1
R7315	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	*1 D0GBR00JA017
R7316	ERJ6GEYG682	M.RESISTOR CH 1/10W 6.8K	*1
R7316	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	*2
R7317	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	*1 D0GBR00JA017
R7318	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	*1 D0GBR00JA017
R7319	ERJ6GEYG332	M.RESISTOR CH 1/10W 3.3K	*1

R7320	ERJ6GEYG332	M.RESISTOR CH 1/10W 3.3K	*1
R7324	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	*2
R7325	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	*2
R7327	ERJ3GEYJ822V	M.RESISTOR CH 1/16W 8.2K	*2 D0GB822JA002
R7328	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	*2
R7329	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	*2
R7501	ERJ6GEYF822	M.RESISTOR CH 1/10W 8.2K	
R7502	ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	
R7503	ERJ6GEYJ432V	M.RESISTOR CH 1/10W 4.3K	
R7504	ERJ6GEYF822	M.RESISTOR CH 1/10W 8.2K	
R7505	ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	
R7506	ERJ6GEYJ432V	M.RESISTOR CH 1/10W 4.3K	
R7507	ERDS2TJ560	C.RESISTOR 1/4W 56	ERDS2TJ560T
R7508	ERDS2TJ560	C.RESISTOR 1/4W 56	ERDS2TJ560T
R7509	ERJ6GEYJ750	M.RESISTOR CH 1/10W 75	
R7510	ERDS2FJ821	C.RESISTOR 1/4W 820	ERDS2TJ821T
R7511	ERDS2FJ821	C.RESISTOR 1/4W 820	ERDS2TJ821T
R7513	ERJ6GEYJ303	M.RESISTOR CH 1/10W 30K	
R7514	ERJ6GEYJ303	M.RESISTOR CH 1/10W 30K	
R7515	ERJ6GEYJ303	M.RESISTOR CH 1/10W 30K	
R7516	ERJ6GEYJ303	M.RESISTOR CH 1/10W 30K	
R7517	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R7518	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R7519	ERJ6GEYJ432V	M.RESISTOR CH 1/10W 4.3K	
R7521	ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	
R7534	ERJ6GEYG181	M.RESISTOR CH 1/10W 180	
R7535	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R7536	ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	
R7537	ERJ6GEYF123	M.RESISTOR CH 1/10W 12K	
R7538	ERJ6GEYF123	M.RESISTOR CH 1/10W 12K	
R7539	ERJ6GEYF822	M.RESISTOR CH 1/10W 8.2K	
R7601	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R7604	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	
R7605	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	
R7606	ERDS2FJ331	C.RESISTOR 1/4W 330	
R7607	ERDS2FJ331	C.RESISTOR 1/4W 330	
R7608	ERJ6GEYJ151V	M.RESISTOR CH 1/10W 150	
R7610	ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	
R7611	ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	
R7613	ERJ6GEYJ151V	M.RESISTOR CH 1/10W 150	
R7614	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	
R7615	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	
R7616	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R7618	ERJ6GEYG563V	M.RESISTOR CH 1/10W 56K	*1
R7712	ERJ6GEYJ472V	M.RESISTOR CH 1/10W 4.7K	
R7713	ERJ6GEYJ472V	M.RESISTOR CH 1/10W 4.7K	
R7714	ERJ6GEYJ472V	M.RESISTOR CH 1/10W 4.7K	
R7715	ERJ6GEYG221	M.RESISTOR CH 1/10W 220	
R7724	ERJ6GEYG221	M.RESISTOR CH 1/10W 220	
R7725	ERJ6GEYG221	M.RESISTOR CH 1/10W 220	
R7727	ERJ6GEYG152	M.RESISTOR CH 1/10W 1.5K	*2
R7728	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	*1
R7729	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
R7730	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
R7731	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	

R7733	ERJ6GEYJ101V	M.RESISTOR CH 1/10W 100	
S1501	K0G934A00002	SWITCH	K0ZZ00000452
S7501	EVQ11G07K	SWITCH	
S7502	EVQ11G07K	SWITCH	
S7503	EVQ11404M	SWITCH	
S7504	EVQ11404M	SWITCH	
S7505	EVQ11L07B	SWITCH	
S7506	EVQPC005B	SWITCH	
S7507	K0C111A00003	SWITCH	
S7511	EVQ11L07B	SWITCH	
S7512	EVQ11G07K	SWITCH	
S7513	EVQ11L07B	SWITCH	
S7514	EVQ11G07K	SWITCH	
S7515	EVQ11L07B	SWITCH	
S7516	EVQ11G07K	SWITCH	
S7517	EVQ11L07B	SWITCH	
T0701	EQV5EC082P	TRANSFORMER	*1
T0701	EQV5EC081P	TRANSFORMER	*2
T1101	ETS29AZ286AC	SWITCHING TRANSFORMER	 [MAVD]
T4002	EQQ7QF024P	TRANSFORMER	
TU7601	ENG47327G1	TUNER	 *1 [MAVD]
TU7601	ENG47329G1	TUNER	 *2 [MAVD]
VR0701	EVNCYAA03B14	V.RESISTOR 10K	
VR7301	EVNCYAA03B14	V.RESISTOR 10K	*1
X0701	VLF1416	FILTER	*1 J0B4045A0002
X0701	VLF1430	TRANSFORMER	*2 J0B3955A0001
X0702	VLF1431	TRANSFORMER	*2 J0B4055A0001
X0704	VLF1493	FILTER	*1
X0704	VLF1497	TRANSFORMER	*2
X3001	VSX0162	CRYSTAL OSCILLATOR	
X6001	VSX1022	CRYSTAL OSCILLATOR	
X6002	H0H200500011	CRYSTAL OSCILLATOR	[MAVD]
X7301	VSX1086	CRYSTAL OSCILLATOR	*1 [MAVD]
X7302	H0D245500016	CRYSTAL OSCILLATOR	*2 [MAVD]
		MISCELLANEOUS	
	EYF52BC	FUSE HOLDER	K3GD9BB00001
	EYF52BC	FUSE HOLDER	K3GD9BB00001
	VSC4998	HA ANGLE	
	VMP4894	SUPPORT ANGLE	*1 FOR DECODER C.B.A.
	VSC4752	SHIELD CASE (MAIN)	*2 FOR NICAM DECODER C.B.A.
	VMP5897	CONNECTING ANGLE	FOR TV DEMODULATOR C.B.A.
	-----	CYLINDER STATOR C.B.A.	
		MISCELLANEOUS	
	VJS3537F009G	CONNECTOR (FEMALE) 9P	K1MN09B00039
	HW-300A-DF	HALL IC	B4AAB0000007