

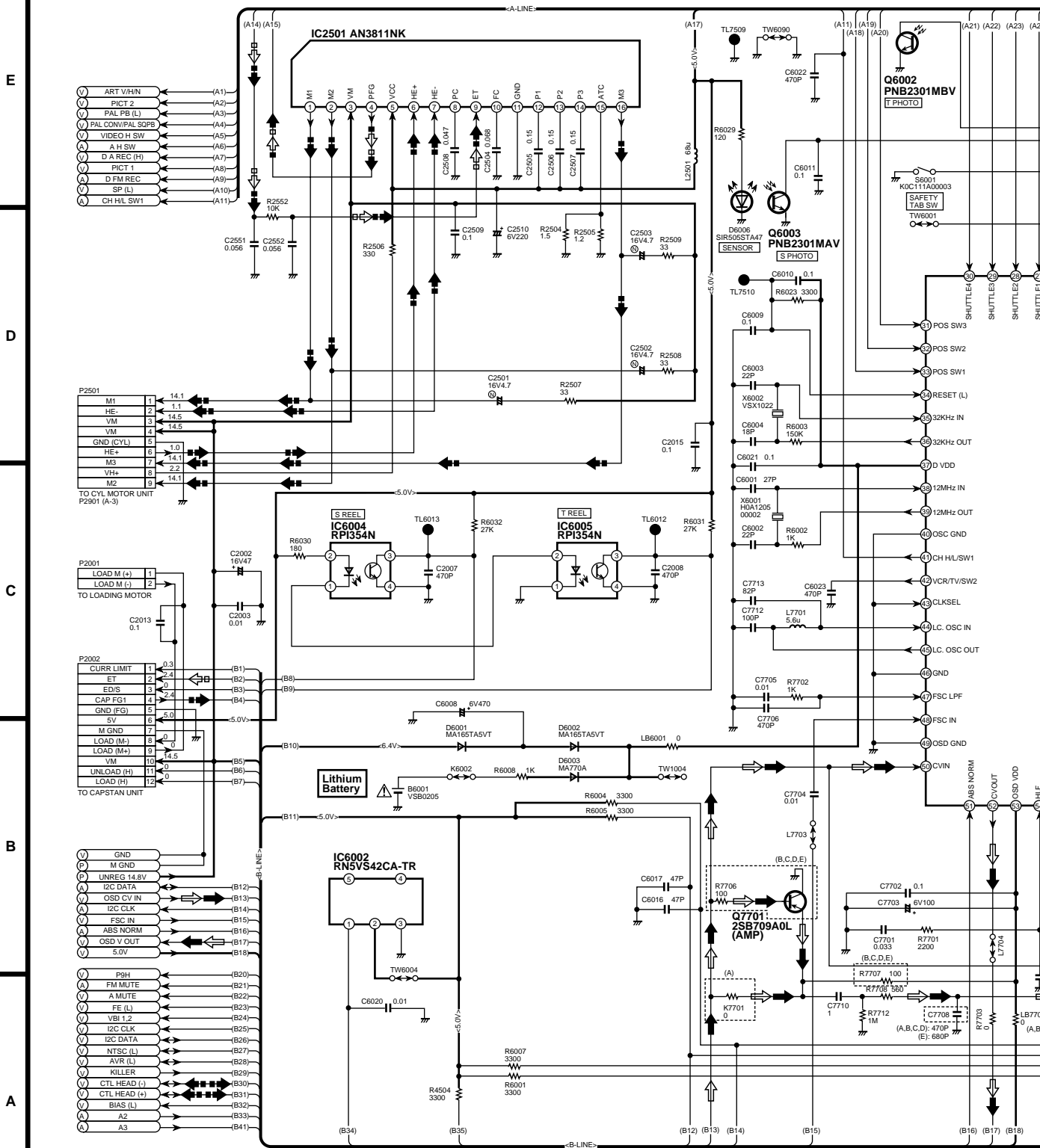




- (A) : TO AUDIO SECTION
- (V) : TO VIDEO SECTION
- (P) : TO POWER SECTION

**CAUTION**  
 DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED.  
 REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE  
 RECOMMENDED BY THE EQUIPMENT MANUFACTURER. DISCARD  
 USED BATTERIES ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

← : VIDEO MAIN SIGNAL  
 ← : VIDEO MAIN SIGNAL



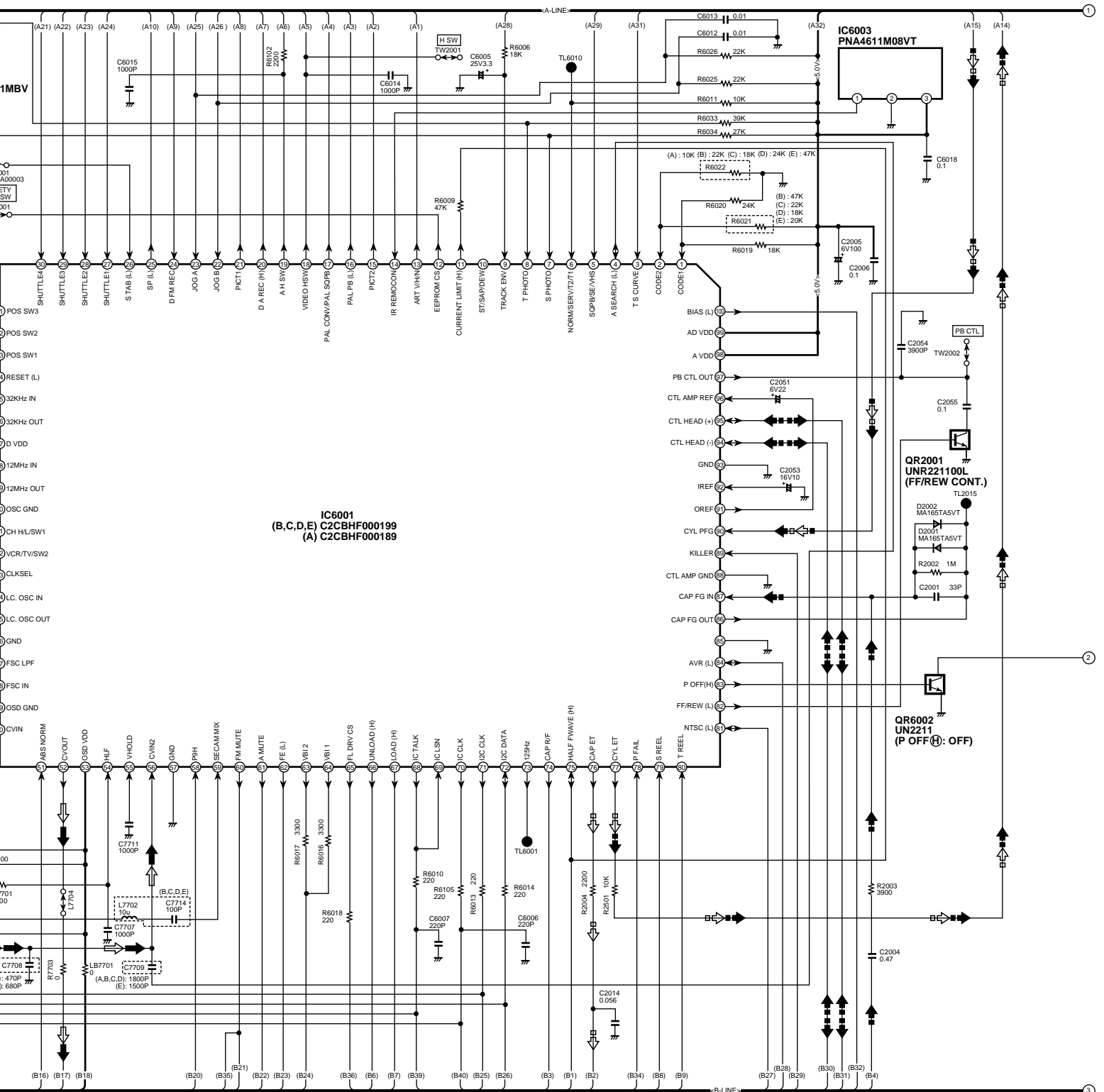
- (A): NV-FJ20A
- (B): NV-FJ20AM
- (C): NV-FJ20EU
- (D): NV-FJ20AU
- (E): NV-FJ20BD/BDX

**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 : DO NOT  
 DIAGRAM  
 WHEN

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

◁ □ : CAPSTAN SERVO PHASE LOOP    ◁ ▣ : CYLINDER SERVO SPEED LOOP  
 ◁ ▣ : CAPSTAN SERVO SPEED LOOP    ◁ □ : CYLINDER SERVO PHASE LOOP



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

NV-FJ720A/AM/AU/EU/BD/BDX  
 SYSTEM CONTROL & SERVO / TIMER IN MAIN SCHEMATIC DIAGRAM

5

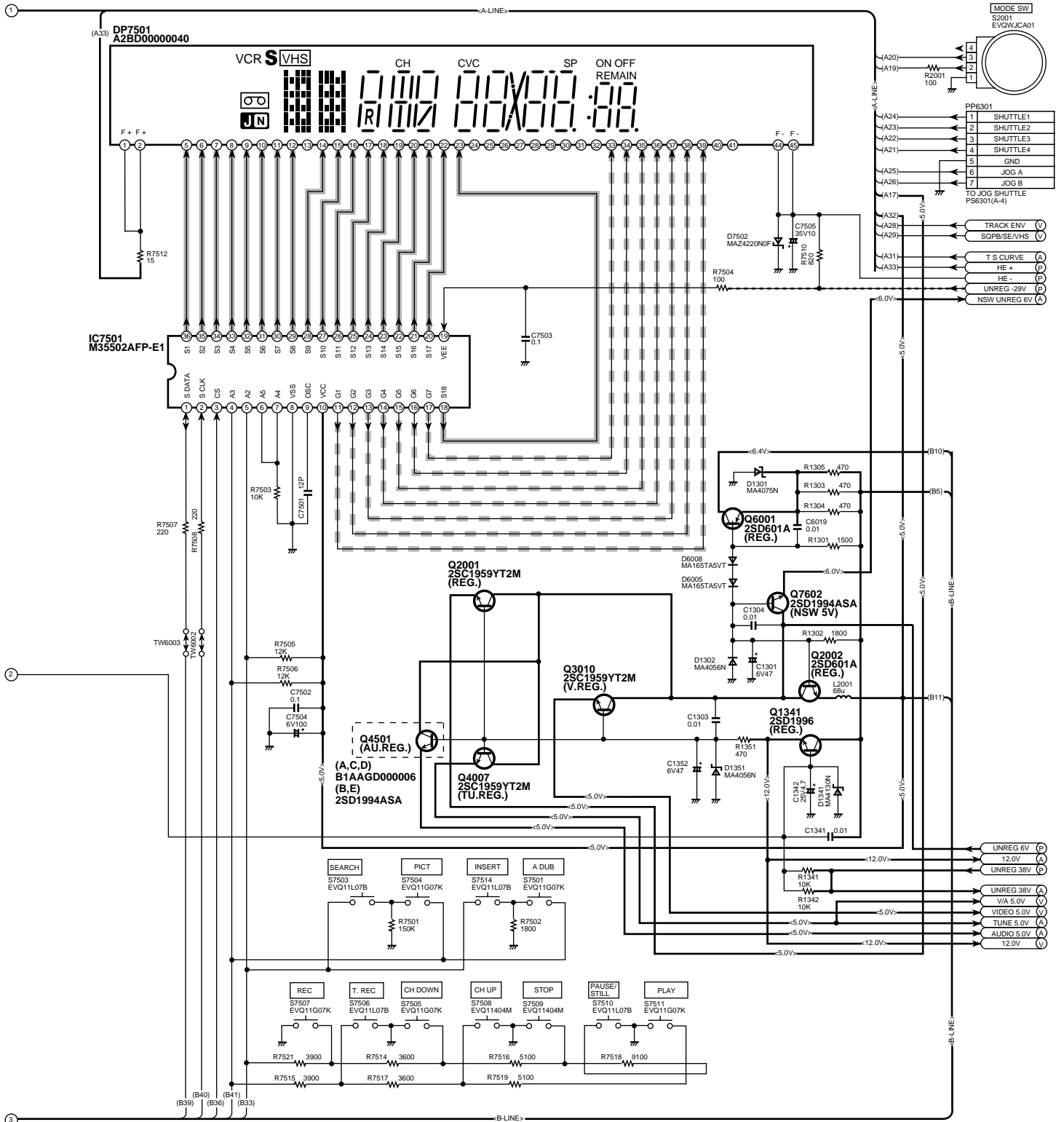
6

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9

--- GRID CONTROL SIGNAL PATH  
 — SEGMENT CONTROL SIGNAL PATH



- (A):NV-FJ720A
- (B):NV-FJ720AM
- (C):NV-FJ720EU
- (D):NV-FJ720AU
- (E):NV-FJ720BD/BDX

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

Ref.No.	IC2501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	14.4	14.4	14.7	1.1	5.0	1.0	1.0	0.5	2.3	1.3	0	3.8	3.8	3.9	0	14.4				
PLAY	14.3	14.3	14.6	1.1	5.0	1.0	1.0	0.4	2.3	1.3	0	3.8	3.8	3.8	0	14.3				
REC	14.3	14.3	14.6	0.8	5.0	1.0	1.0	0.4	2.3	1.3	0	3.8	3.8	3.8	0	14.3				
F.F	14.1	14.1	14.5	0.8	5.0	1.0	1.1	0.4	2.4	1.3	0	3.8	3.8	36.8	0	14.2				
REW	14.1	14.1	14.5	1.1	5.0	1.0	1.1	0.5	2.3	1.3	0	3.8	3.8	3.8	0	14.0				
Ref.No.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0.8	0	2.4	0	0	4.9	4.8	4.7	1.0	0	0	4.9	0	4.9	4.8	0	4.8	-	0	0
PLAY	0.8	0	2.3	0.3	0	4.9	4.7	4.7	1.6	0	4.6	4.9	0	4.9	4.8	0	4.8	-	-	0
REC	0.8	0	2.3	0.3	0	4.9	4.8	4.6	0	0	4.6	4.8	0	4.9	4.8	0	4.8	-	0	4.7
F.F	0.8	0	2.3	0.3	0	4.9	4.7	4.5	0.8	0	4.8	4.9	0	4.9	4.7	0	4.8	-	0	0
REW	0.8	0	2.3	0.4	0	4.9	4.6	4.5	3.5	0	4.8	4.9	0	4.9	4.8	0	4.8	-	0	0
Ref.No.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	0	0	4.8	0	0	0	0	4.8	0	0	0	1.5	1.5	4.8	-	-	0	0
PLAY	0	0	0	0	0	0	0	0	0	4.8	0	0	4.8	1.5	1.5	4.8	-	-	0	0
REC	0	0	0	4.7	4.8	0	0	0	0	4.8	0	0	4.8	1.5	1.5	4.8	-	-	0	0
F.F	0	0	0	0	0	0	0	0	0	4.8	4.8	0	4.9	4.7	0	4.8	1.5	1.5	4.8	0
REW	0	0	0	0	4.8	0	0	0	0	4.8	4.9	0	4.9	1.6	1.6	4.9	-	-	0	0
Ref.No.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	4.8	0	0	4.4	4.4	0	1.3	2.1	0	2.2	4.2	2.2	5.0	2.1	1.5	1.9	0	0	0	0
PLAY	4.8	4.8	0	4.6	4.6	0	1.3	2.0	0	2.2	4.2	2.2	5.0	2.1	1.5	1.9	0	0	0	0
REC	4.8	4.8	0	0	0	0	1.3	2.0	0	2.2	4.2	2.2	5.0	2.1	1.5	1.9	0	0	0	0
F.F	4.9	0	0	2.9	2.9	0	1.3	2.1	0	2.2	4.2	2.2	5.0	2.0	1.5	1.9	0	0	0	0
REW	4.8	0	0	2.9	2.9	0	1.3	2.1	0	2.2	4.2	2.2	5.0	2.0	1.4	1.9	0	0	0	0
Ref.No.	IC6001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	0	0	0	2.5	0	0	3.5	3.5	3.7	3.7	3.5	2.4	0	0	0	2.3	4.9	0.1	5.0
PLAY	0	0	0	0	2.7	0	0	3.4	3.4	3.7	3.7	3.5	2.4	0	0.3	2.4	2.3	4.9	5.0	5.0
REC	0	0	0	0	2.5	0	0	4.1	3.6	3.7	3.6	3.5	2.4	0	0.3	2.4	2.3	4.9	5.0	5.0
F.F	0	0	0	0	3.7	0	0	4.1	3.9	4.0	3.7	3.6	2.5	0	4.5	4.8	2.3	5.0	2.3	2.3
REW	0	0	0	0	3.7	0	0	3.7	3.7	3.8	3.6	2.5	4.8	4.5	4.8	2.3	5.0	2.2	2.7	5.0
Ref.No.	IC6001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	0	0	0	4.1	0	2.4	2.4	0	0	1.1	2.4	2.4	0	2.4	2.4	2.4	2.4	4.9	4.9	4.8
PLAY	0	0	0	4.1	0	2.4	2.4	0	0	1.1	2.4	2.4	0	2.4	2.4	2.4	2.4	4.9	4.9	4.8
REC	0	0	0	4.1	0	2.4	2.4	0	0	0.8	2.4	2.4	0	2.9	2.1	2.4	2.4	4.9	4.9	0
F.F	0	0	0	4.2	0	2.5	2.5	0	0	1.1	2.5	2.5	0	2.4	2.4	2.4	2.4	5.0	5.0	4.9
REW	0	0	0	4.2	0	2.5	2.5	0	0	0.8	2.5	2.5	0	2.4	2.4	2.4	2.5	5.0	5.0	4.9
Ref.No.	IC6002				IC6003				IC6004				IC6005							
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	4.9	4.9	0	0	0	4.9	0	4.9				1.1	2.2	5.0	0		0	1.1	5.0	0
PLAY	4.9	4.9	0	0	0	4.9	0	4.9				1.1	2.2	5.0	0		0	1.1	5.0	0
REC	4.9	4.9	0	0	0	4.9	0	4.9				1.1	2.2	5.0	0		0	1.1	5.0	0
F.F	5.0	5.0	0	0	0	4.9	0	4.9				1.1	2.2	2.2	0		0	1.1	2.2	0
REW	5.0	5.0	0	0	0	4.9	0	4.9				1.1	2.2	2.3	0		0	1.1	2.3	0
Ref.No.	IC7501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.6	3.8	2.5	4.9	4.9	0	0	0	2.3	4.9	-24.7	-25.0	-25.1	-25.0	-24.9	-24.9	-24.9	-18.5	-29.8	-29.6
PLAY																				
REC																				
F.F																				
REW																				
Ref.No.	IC7501																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
STOP	-18.5	-20.0	-14.0	-14.0	-19.0	-14.5	-14.6	-14.0	-18.6	-15.0	-15.0	-15.5	-24.4	-20.0	-10.5	-15.0				
PLAY																				
REC																				
F.F																				
REW																				

### SYSTEM CONTROL & SERVO TRANSISTORS VOLTAGE CHART (SP MODE)

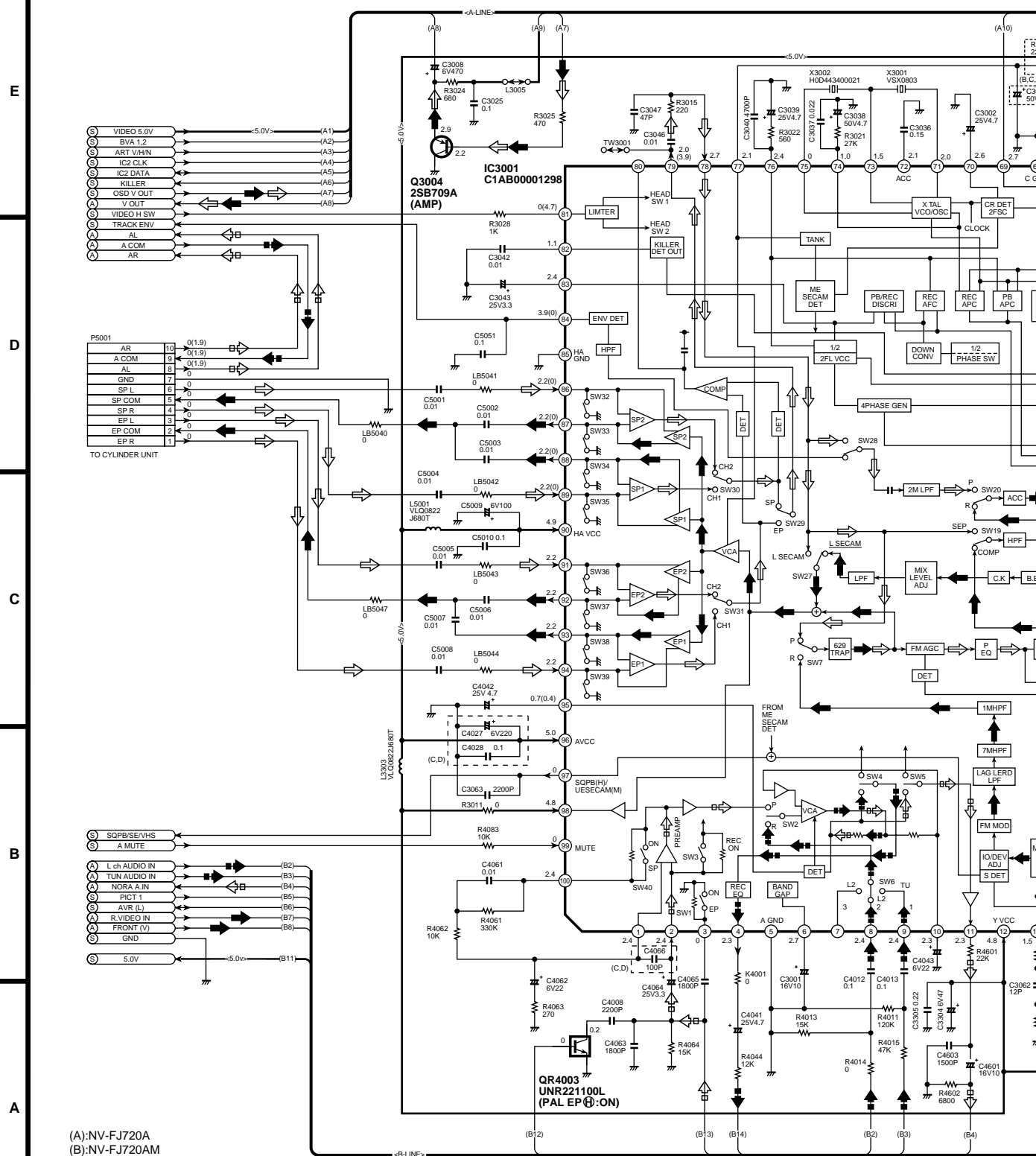
Ref.No.	Q1341			Q2001			Q2002			Q3010			Q4007			Q4501		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	12.2	14.7	12.9	5.0	5.7	5.7	5.0	5.7	5.7	5.0	5.6	5.7	5.0	5.6	5.7	5.0	5.6	5.7
PLAY	12.3	14.7	12.9	5.0	5.9	5.8	5.0	5.9	5.7	5.0	5.8	5.8	5.0	5.8	5.7	5.0	5.8	5.8
REC	12.3	14.7	12.9	5.0	5.8	5.8	5.0	5.8	5.7	5.0	5.7	5.7	5.0	5.7	5.7	5.0	5.7	5.8
F.F	12.5	14.5	13.2	5.0	6.1	5.7	5.1	6.1	5.8	5.0	6.0	5.7	5.0	6.0	5.7	5.0	6.0	5.7
REW	12.5	14.5	13.2	5.0	6.0	5.7	5.1	6.1	5.8	5.0	6.0	5.7	5.0	6.0	5.7	5.0	5.9	5.7
Ref.No.	Q6001			Q6002			Q6003			Q7602			Q7701					
MODE	E	C	B	-	+		-	+		E	C	B	E	C	B			
STOP	6.4	7.7	7.0	0	4.7		0	4.8		5.0	5.9	5.7	2.0	0	1.4			
PLAY	6.4	7.7	7.0	0	4.7		0	4.8		5.0	6.1	5.7	2.7	0	2.1			
REC	6.4	7.7	7.0	0	4.7		0	4.8		5.0	6.0	5.7	2.0	0	1.5			
F.F	6.4	7.6	7.1	0	4.7		0	4.8		5.0	6.3	5.7	2.0	0	1.5			
REW	6.4	7.6	7.1	0	4.7		0	4.8		5.0	5.9	5.7	2.0	0	1.4			
Ref.No.	QR2001			QR6002														
MODE	E	C	B	E	C	B												
STOP	0	0	4.8	0	12.9	0												
PLAY	0	0	4.8	0	12.9	0												
REC	0	0	4.8	0	12.9	0												
F.F	0	1.6	0	0	13.2	0												
REW	0	1.6	0	0	13.2	0												

NV-FJ720A/AM/AU/EU/BD/BDX  
SYSTEM CONTROL & SERVO/TIMER IN MAIN SCHEMATIC DIAGRAM

ⓐ : TO AUDIO SECTION  
 ⓑ : TO SYSTEM CONTROL & SERVO / TIMER SECTION

← : VIDEO MAIN SIGNAL PATH IN REC MODE  
 ⇐ : VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

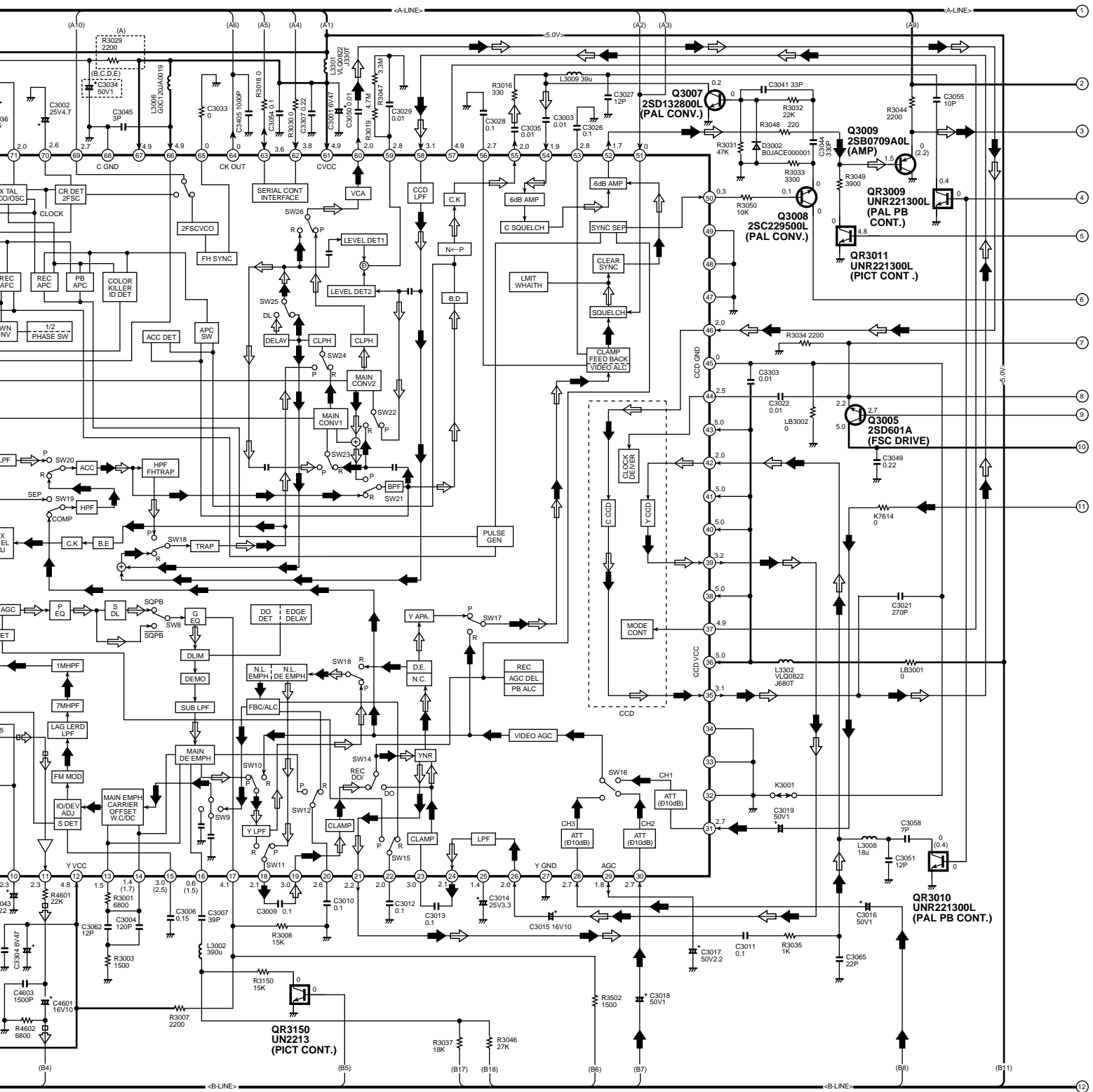
ⓐ : AUDIO MAIN  
 ⇐ : AUDIO MAIN



- (A): NV-FJ720A
- (B): NV-FJ720AM
- (C): NV-FJ720E
- (D): NV-FJ720AU
- (E): NV-FJ720BD/BDX

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

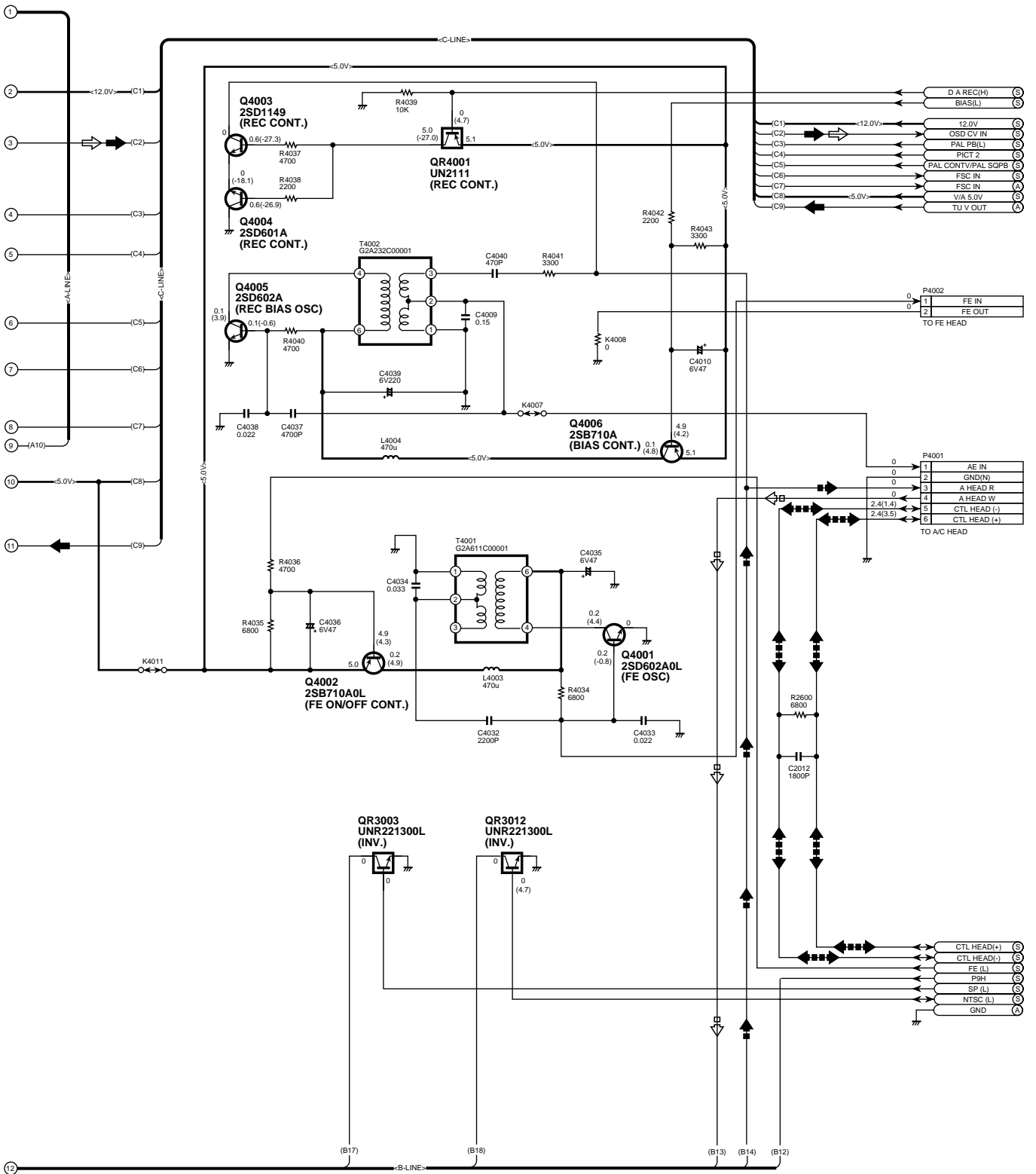
**AUDIO MAIN SIGNAL PATH IN REC MODE**  
**AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE**



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

**NV-FJ720A/AM/AU/EU/BD/BDX**  
**VIDEO SECTION IN MAIN SCHEMATIC DIAGRAM**

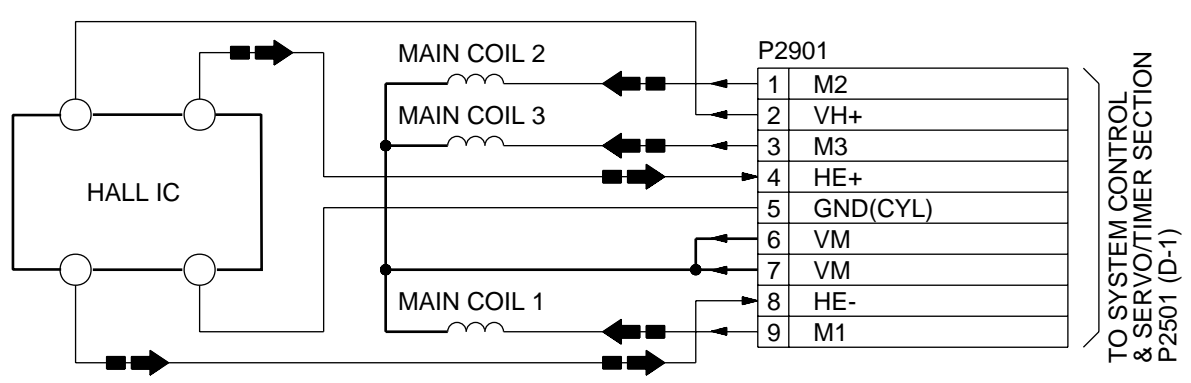




NV-FJ720A/AM/AU/EU/BD/BDX  
VIDEO SECTION IN MAIN SCHEMATIC DIAGRAM

← ■ ■ :CYLINDER SERVO SPEED LOOP

**A**



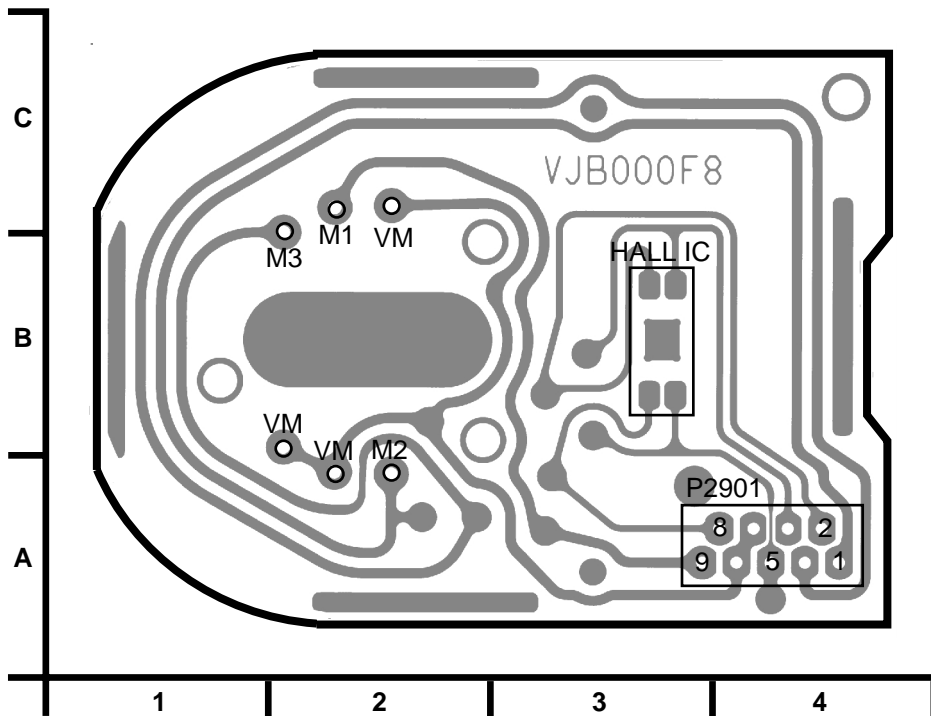
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

**NV-FJ720A/AM/AU/EU/BD/BDX  
CYLINDER MOTOR UNIT SCHEMATIC DIAGRAM**

**1**

**2**

**3**



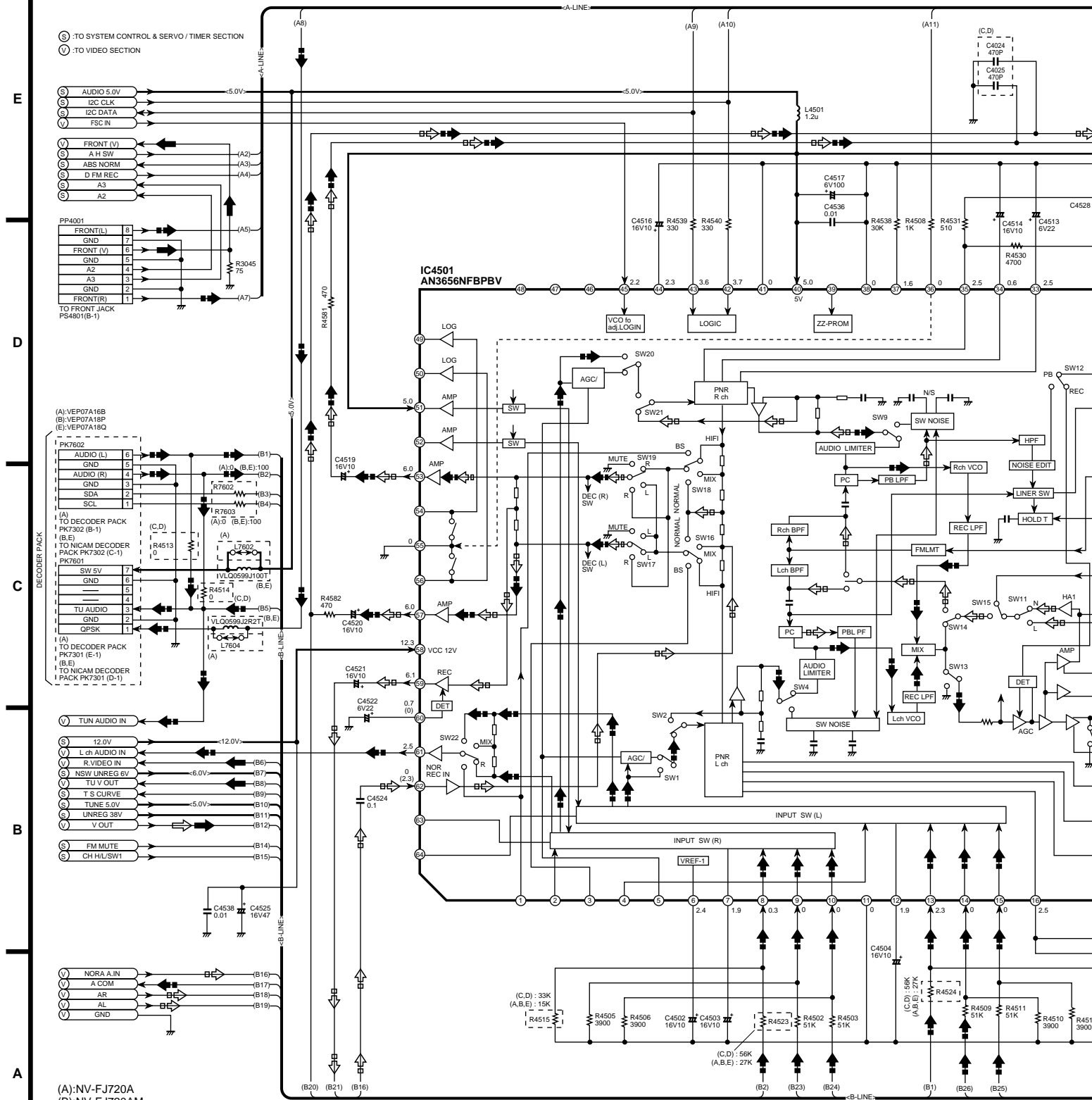
CYLINDER MOTOR UNIT	
Integrated Circuit	
HALL IC	B-3
Connector	
P2901	A-4

ADDRESS INFORMATION

NV-FJ720A/AM/AU/EU/BD/BDX  
CYLINDER MOTOR C.B.A.



← :VIDEO MAIN SIGNAL PATH IN REC MODE   ← :AUDIO MAIN SIGNAL PATH IN REC MODE   ← :VIDE

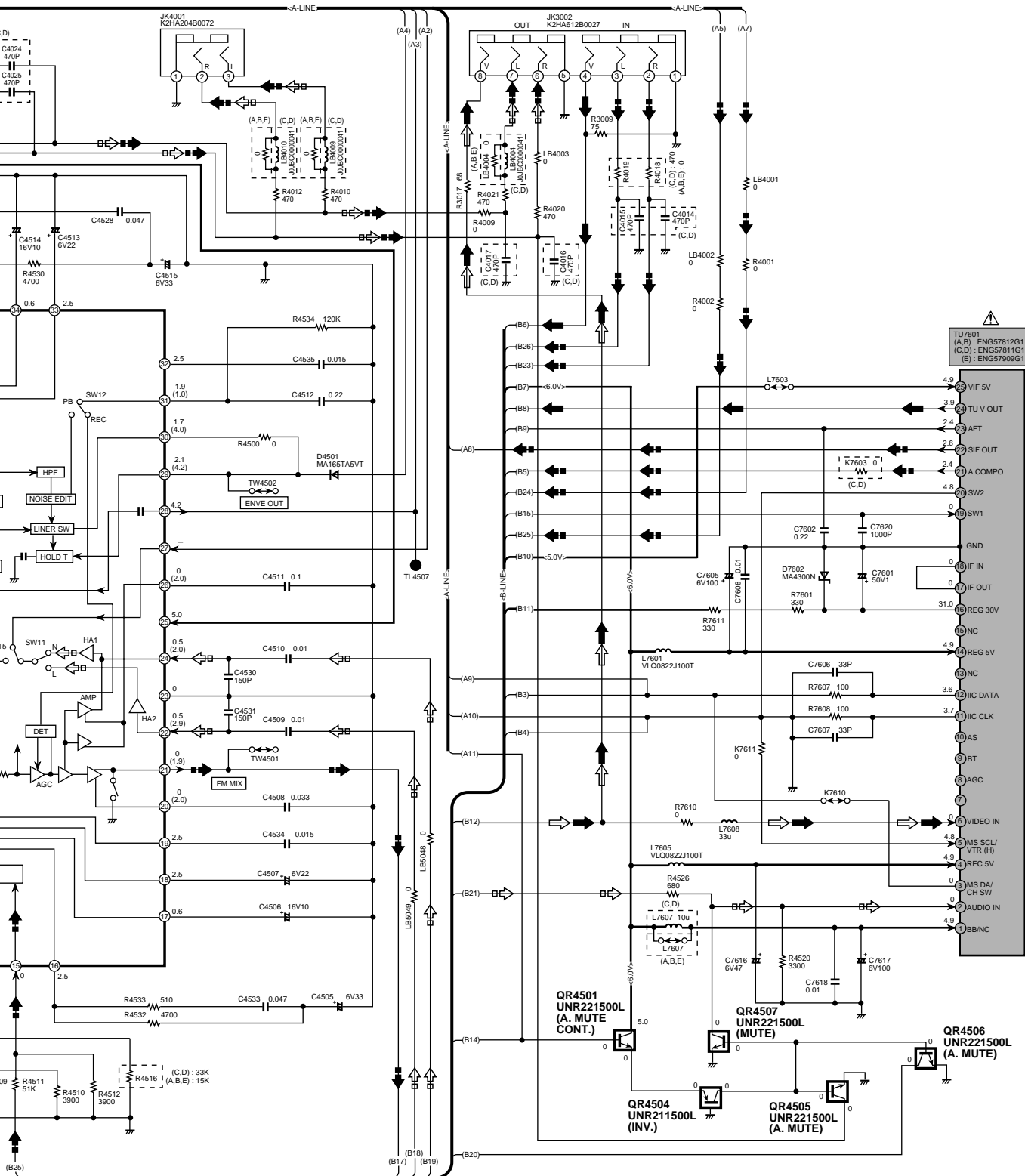


- (A): NV-FJ720A
- (B): NV-FJ720AM
- (C): NV-FJ720EU
- (D): NV-FJ720AU
- (E): NV-FJ720BD/BDX

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

NOTE : DO NOT USE ANY PARTS NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.  
**IMPORTANT SAFETY NOTICE:** COMPONENTS IDENTIFIED WITH THE MARK  $\Delta$  HAVE THE SPECIFIC SAFETY REQUIREMENTS. WHEN REPLACING ANY OF THESE COMPONENTS USE ONLY THE SPECIFIED PARTS.

↔ :VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE ↔ :AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE



SHOWN ON THIS SCHEMATIC

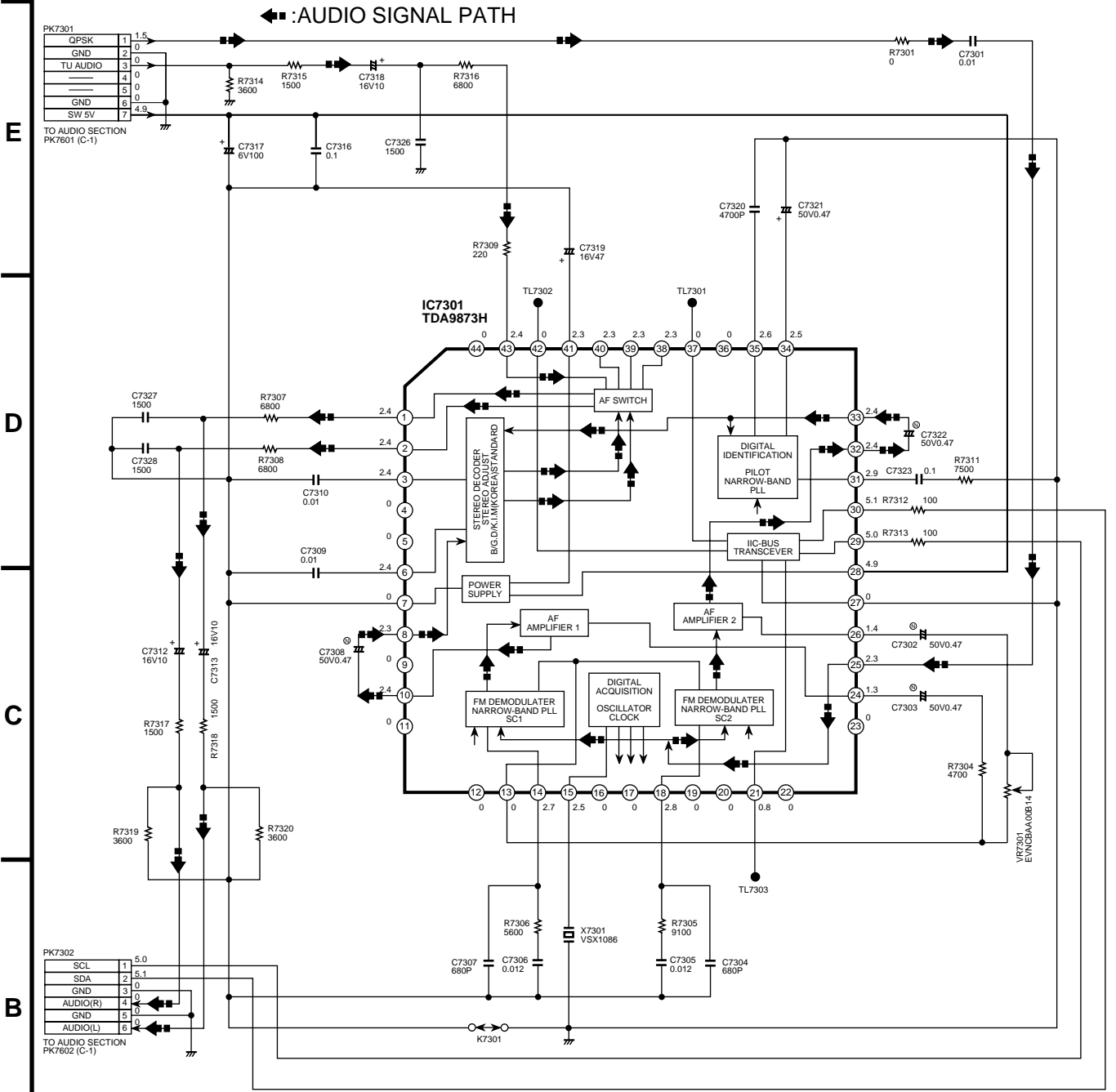
REFER TO PARTS LIST.

⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.  
PARTS USE ONLY THE SAME TYPE.

**NV-FJ720A/AM/AU/EU/BD/BDX**  
**AUDIO SECTION IN MAIN SCHEMATIC DIAGRAM**

5 6 7 8 9

← :AUDIO SIGNAL PATH



PK7301

GPSK	1	1.5
GND	2	0
TU AUDIO	3	0
	4	0
	5	0
GND	6	0
SW 5V	7	4.8

TO AUDIO SECTION  
PK7601 (C-1)

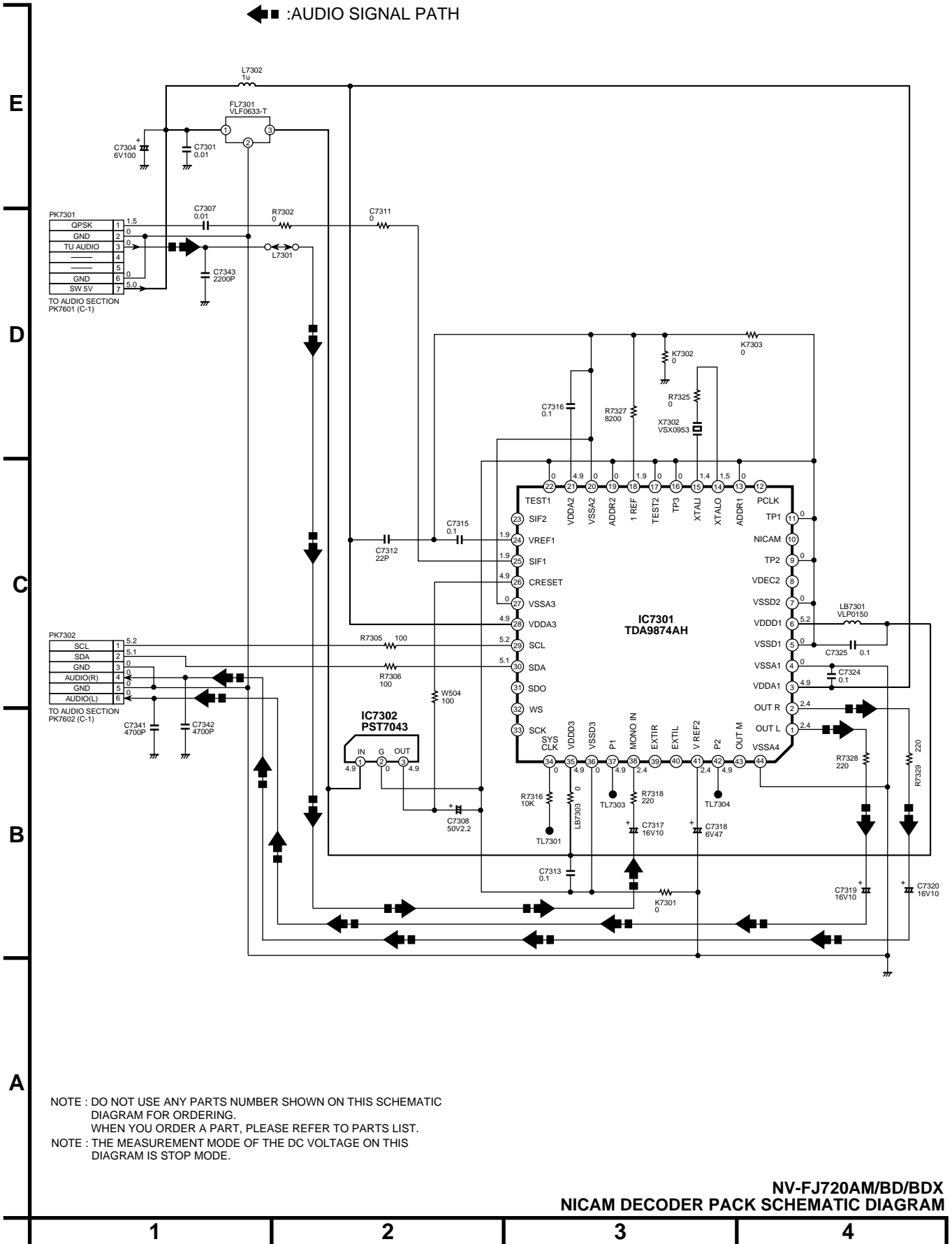
PK7302

SCL	1	5.0
SDA	2	5.1
GND	3	0
AUDIO(R)	4	0
GND	5	0
AUDIO(L)	6	0

TO AUDIO SECTION  
PK7602 (C-1)

NOTE : DO NOT USE ANY PARTS 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.

← ■ ■ : AUDIO SIGNAL PATH



NV-FJ720AM/BD/BDX  
NICAM DECODER PACK SCHEMATIC DIAGRAM



