

MAIN I (SYSTEM CONTROL/ SERVO) SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts, be sure to use the part number listed in the parts list. Do not use the part number on this diagram.

NOTE: FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

COMPARISON CHART OF MODELS & MARKS	
MODEL	MARK
-----	A
NV-SJ4130PN	B
NV-FJ6130PN	C
-----	D
Not used	PT

KEY VOLTAGE CHART (SW6301, 6303, 6304, 6305, 6307, 6312, 6313, 6314, 6316)				
TERMINAL VOLTAGE	0V ~ 0.6V	0.7V ~ 1.9V	2.0V ~ 3.1V	3.2V ~ 4.4V
KEY DATA1 (PIN 89)	-----	REC	REW	-----
KEY DATA2 (PIN 88)	-----	PLAY	FF	-----
KEY DATA3 (PIN 87)	CH DOWN	-----	-----	-----
KEY DATA4 (PIN 86)	STOPEJECT	CH UP	TV/VCR	POWER

KEY VOLTAGE CHART (SW6303, 6304, 6305, 6310, 6311, 6314, 6315, 6317)				
TERMINAL VOLTAGE	0V ~ 0.6V	0.7V ~ 1.9V	2.0V ~ 3.1V	3.2V ~ 4.4V
KEY DATA1 (PIN 89)	-----	REW	FF	-----
KEY DATA2 (PIN 88)	-----	STOPEJECT	PLAY	-----
KEY DATA3 (PIN 87)	CH DOWN	-----	-----	-----
KEY DATA4 (PIN 86)	REC	CH UP	-----	POWER

KEY VOLTAGE CHART (SW6303, 6304, 6305, 6306, 6311, 6314, 6315, 6317)				
TERMINAL VOLTAGE	0V ~ 0.6V	0.7V ~ 1.9V	2.0V ~ 3.1V	3.2V ~ 4.4V
KEY DATA1 (PIN 89)	-----	-----	STOPEJECT	-----
KEY DATA2 (PIN 88)	-----	REW	PLAY	FF
KEY DATA3 (PIN 87)	CH DOWN	-----	-----	-----
KEY DATA4 (PIN 86)	REC	CH UP	-----	POWER

❖ 1 Microcontroller IC (IC6001) and EEP ROM IC (IC6005) replacement note:
In early units, MN101D06FPK is used for Microcontroller IC (IC6001).
In later units, MN101D09EPA is used for Microcontroller IC (IC6001).
Please note that only MN101D09EPA is supplied as a replacement part and this can be used with both types of EEP ROM IC (IC6005).
When replacing EEP ROM IC (IC6005), be sure to confirm which type of Microcontroller IC (IC6001) is used on the unit you are servicing and install the proper part for EEP ROM IC (IC6005).

	Microcontroller IC (IC6001)	EEPROM IC (IC6005)
Early Unit	MN101D06FPK	LSEQ0642
Later Unit	MN101D09EPA	KS24C011CS or AT24C01A10SI or C02BZ0000015 or C3EBCC000038 or KS24C011IS or M24C01-MN6

MODE SELECT SWITCH		A	B	C
PIN NO. OF IC6001	MODE	(97)	(96)	(95)
	FF/REW	H	H	L
	BRAKE	L	H	H
	PLAY/CUE/SLOW/STILL	L	H	L
	REVIEW	H	L	L
	STANDBY/STOP	H	L	H
	CASSETTE DOWN	L	L	H
	EJECT	L	L	L

H. SW	23	TO M II
IC CLK	24	TO M II, M IV
IC DATA	25	TO M II, M IV
MASTER DATA 1	26	TO M III

SKC 1	28	TO M III
TV LVCR H	29	TO M II
LED FAG	30	TO M III
LED DME	31	TO M III
EV/MASK	33	TO M VI

IR DATA	32	TO M III
ENV DET	34	TO M II
H.A. SW	35	TO M II, M VI
ROTA SW	36	TO M II

TP6017 WA20	TP6018 WA17.5	TP6019 WA15
SW6002 LSS0012 MODE SELECT SWITCH		
POSITION A		
POSITION B		
POSITION C		

SCAN2/CATV_CS	37	TO M III
SCAN1/CATV_DATA	38	TO M III
LED_H8I&J	39	TO M III
KEY10	40	TO M III
KEY11	41	TO M III
KEY1	42	TO M III
KEY2	43	TO M III
KEY3	44	TO M III
KEY4	45	TO M III
AT ENV	46	TO M II
27V_ON_H	47	TO M V
POWER_ON_L	48	TO M V
MTS_MODE	49	TO M IV
AFC	50	TO M II
POWER_ON_L_LED	51	TO M III

CTL-	52	TO M II
CTL+	53	TO M II
CAP_VM	54	TO M V
(TO CAPSTAN MOTOR)		
P6201 ASS'Y CN1		
1	CAPSTAN MOTOR REVERSE/FORWARD	
2	MOTOR GND	
3	CAPSTAN FG OUTPUT	
4	VCC(2V) FOR CAPSTAN MOTOR	
5	CURRENT LIMIT FOR CAPSTAN MOTOR	
6	VCC(5V)	
7	CYLINDER PG/FG OUTPUT	
8	CYLINDER SPEED CONTROL	
9	CAPSTAN MOTOR SPEED CONTROL	
10	VCC(14V) FOR CYLINDER & LOADING MOTOR	
11	SIGNAL GND	
13	LOADING MOTOR CONTROL REVERSE/STOP/FORWARD	
UNSW 14V	55	TO M V

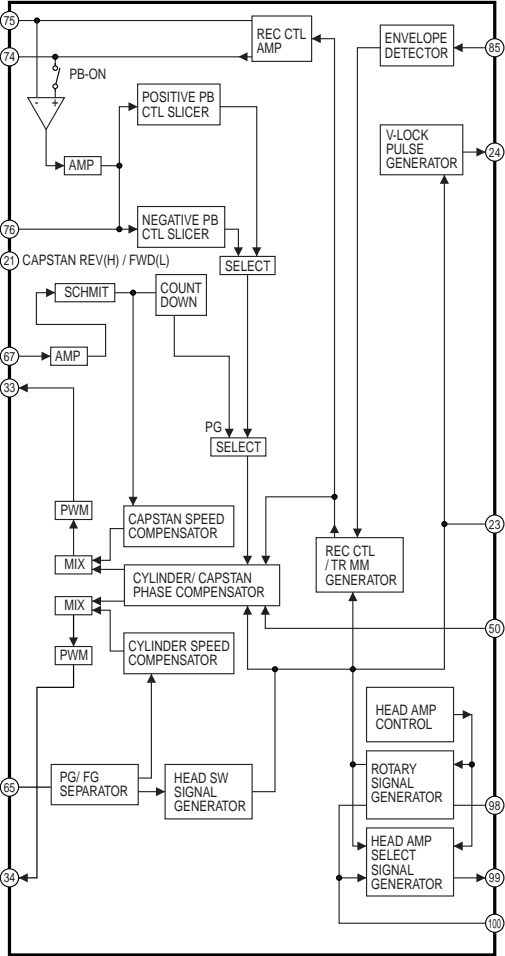
LSJB2006
NV-SJ4130PN, NV-FJ6130PN
MAIN I (SYSTEM CONTROL/ SERVO) SCHEMATIC DIAGRAM

I/O CHART OF IC6001

Pin No.	I/O	Signal Name	Description
1	I	POWER_DOWN_L	POWER DOWN(L)
2	O	E/V-MASK	REW LED ON(H)/E/V-MASK
3	I	T-REEL	TAKEUP REEL PULSE
4	I	S-REEL	SUPPLY REEL PULSE
5	I	IR-DATA	IR-DATA
6	-	NC	(Not used)
7	-	NC	(Not used)
8	-	NC	(Not used)
9	-	NC	(Not used)
10	-	NC	(Not used)
11	O	SCK_1	SERIAL CLOCK 1
12	O	SLAVE_DATA_1	SERIAL DATA 1
13	O	MASTER_DATA_1	SERIAL DATA 0
14	O	LD_CTL	LOADING MOTOR CONTROL REVERSE(L)/STOP(M)/FORWARD(H)
15	O	LED_F&G	FF LED ON(H)
16	O	TV_L/VCR_H	TV(L)/VCR(H)
17	I/O	IIC_DATA	I2C SERIAL DATA
18	O	IIC_CLK	I2C SERIAL CLOCK
19	O	INPUT2	INPUT SELECT 2
20	O	DEFEAT_H	AUDIO DEFEAT(H)
21	O	CAP_R/F	CAPSTAN MOTOR REVERSE(H)/FORWARD(L)
22	O	A-MUTE_H	AUDIO MUTE(H)
23	O	HSW	HEAD SW
24	O	V-LOCKPLS	V-LOCK PULSE
25	I	RST	RESET
26	O	1/4_OSC	3.58MHz
27	O	HIFI-HSW	HI-FI HEAD SW
28	O	V-D-REC_H	VIDEO DELAY REC(H)
29	I	HIFI-PB_H	HI-FI PB(H)
30	I	S-TAB	SAFETY TAB BROKEN(H)
31	I/O	BLACK-DET-V/LED_B	VIDEO BLACK DETECT(L)/VCR LED ON(H)
32	I/O	BLACK-DET-A/LED_C	AUDIO BLACK DETECT(L)/TIMER LED ON(H)
33	O	PWM1(CAP)	CAP ERROR
34	O	PWM0(CYL)	CYL ERROR
35	O	PANE_CLK/LED_K	PANEL CLOCK/REC LED ON(H)
36	I	DVDD	VDD
37	O	OSC_OUT	OSC 2
38	I	OSC_IN	OSC 1
39	-	DVSS	GND
40	I	KEY12	KEY DATA 12
41	I	KEY13	KEY DATA 13
42	-	SXI	SXI
43	-	NC	(Not used)
44	-	NC	(Not used)
45	-	NC	(Not used)
46	-	NC	(Not used)
47	O	CV_OUT	VIDEO
48	-	OSD_VSS	GND
49	I	CV_IN	VIDEO
50	I	CV_IN2	V-SYNC

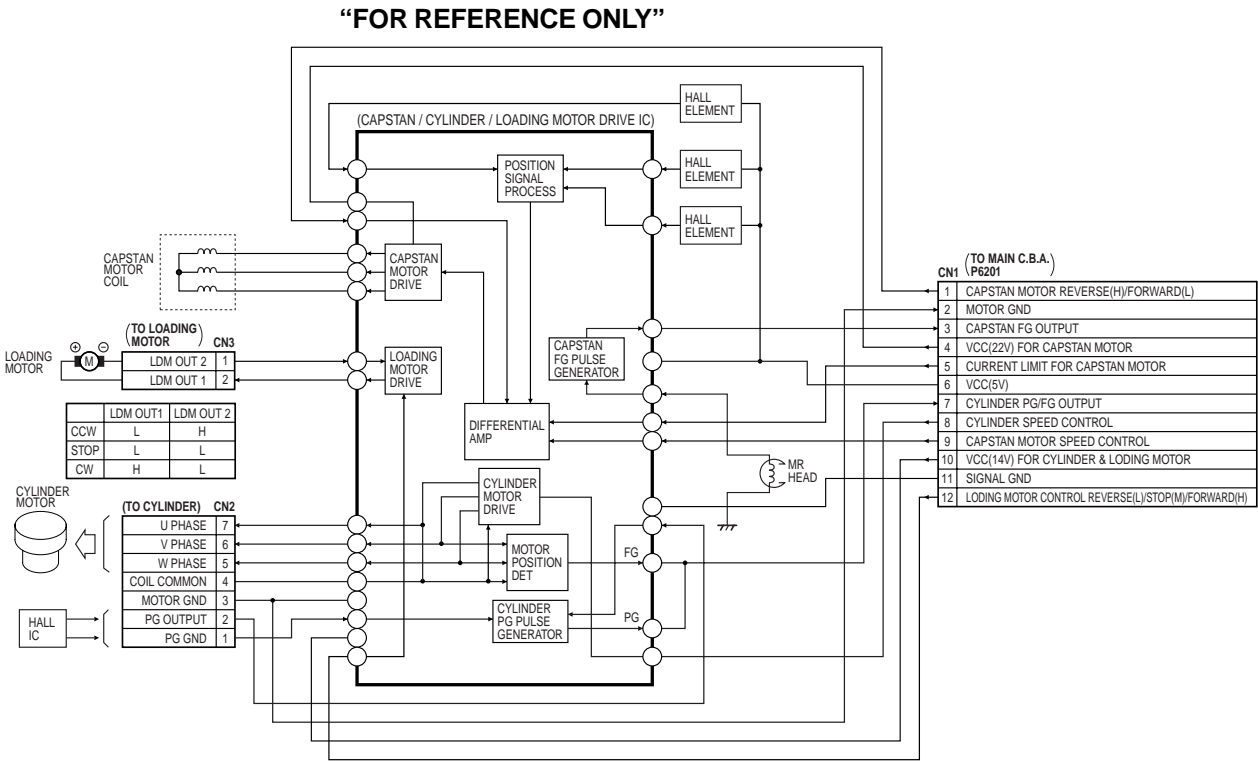
Pin No.	I/O	Signal Name	Description
51	I	OSD_VDD	VDD
52	O	AFCC	AFC
53	I	AFCLPF	AFC
54	O	PANE_CS	PANEL CS(L)
55	O	3CH_HIZ/4CH_L	CH3(H)/CH4(L)
56	-	NC	(Not used)
57	-	NC	(Not used)
58	-	NC	(Not used)
59	-	NC	(Not used)
60	-	NC	(Not used)
61	-	NC	(Not used)
62	-	NC	(Not used)
63	-	NC	(Not used)
64	-	NC	(Not used)
65	I	PFG	CYL PG/FG
66	O	C/R/SS_L	CUE/REV/SS(L)
67	I	FGF	CAP FG
68	-	AFG	CAP FG
69	O	VRO	V-REF 1
70	-	VRI	V-REF 2
71	-	AVSS	VSS
72	-	CTLA	CTL AMP
73	I	AVDD	VDD
74	I/O	RCTLP	CTL PULSE(+)
75	-	RCTLN	CTL PULSE(-)
76	-	CO	PB CONTROL PULSE
77	-	NC	(Not used)
78	-	NC	(Not used)
79	I	T-PHOTO_L	TAKEUP PHOTO TR(L)
80	I	S-PHOTO_L	SUPPLY PHOTO TR(L)
81	I	DTS-AFC	AFC
82	I	MTS_MODE	MTS MODE
83	O	POWER-ON_L	POWER ON(L)
84	O	27V_ON_H	SW+27V ON(H)
85	I	AT_ENV	ENV-VOLTAGE
86	I	KEY4	KEY DATA 4
87	I	KEY3	KEY DATA 3
88	I	KEY2	KEY DATA 2
89	I	KEY1	KEY DATA 1
90	I	KEY11	KEY DATA 11
91	I	KEY10	KEY DATA 10
92	O	LED_H&I&J	PLAY LED ON(H)
93	O	SCAN1/CATV_DATA	SCAN 1
94	O	SCAN2/CATV_CS	SCAN 2
95	I	POS.3	MODE SW POSITION C
96	I	POS.2	MODE SW POSITION B
97	I	POS.1	MODE SW POSITION A
98	O	ROT	ROTARY SW
99	O	HAMP	HEAD AMP SW
100	I	DENV	ENVELOPE DET

IC6001 SERVO BLOCK DIAGRAM



CAPSTAN MOTOR ASS'Y

NOTE:
CAPSTAN MOTOR ASS'Y (REF. NO. 46) IS SUPPLIED AS A UNIT ONLY.
HOWEVER, THE FLAT FLEXIBLE CABLE (REF. NO. 48) IS AVAILABLE SEPARATELY AS A REPLACEMENT PART.

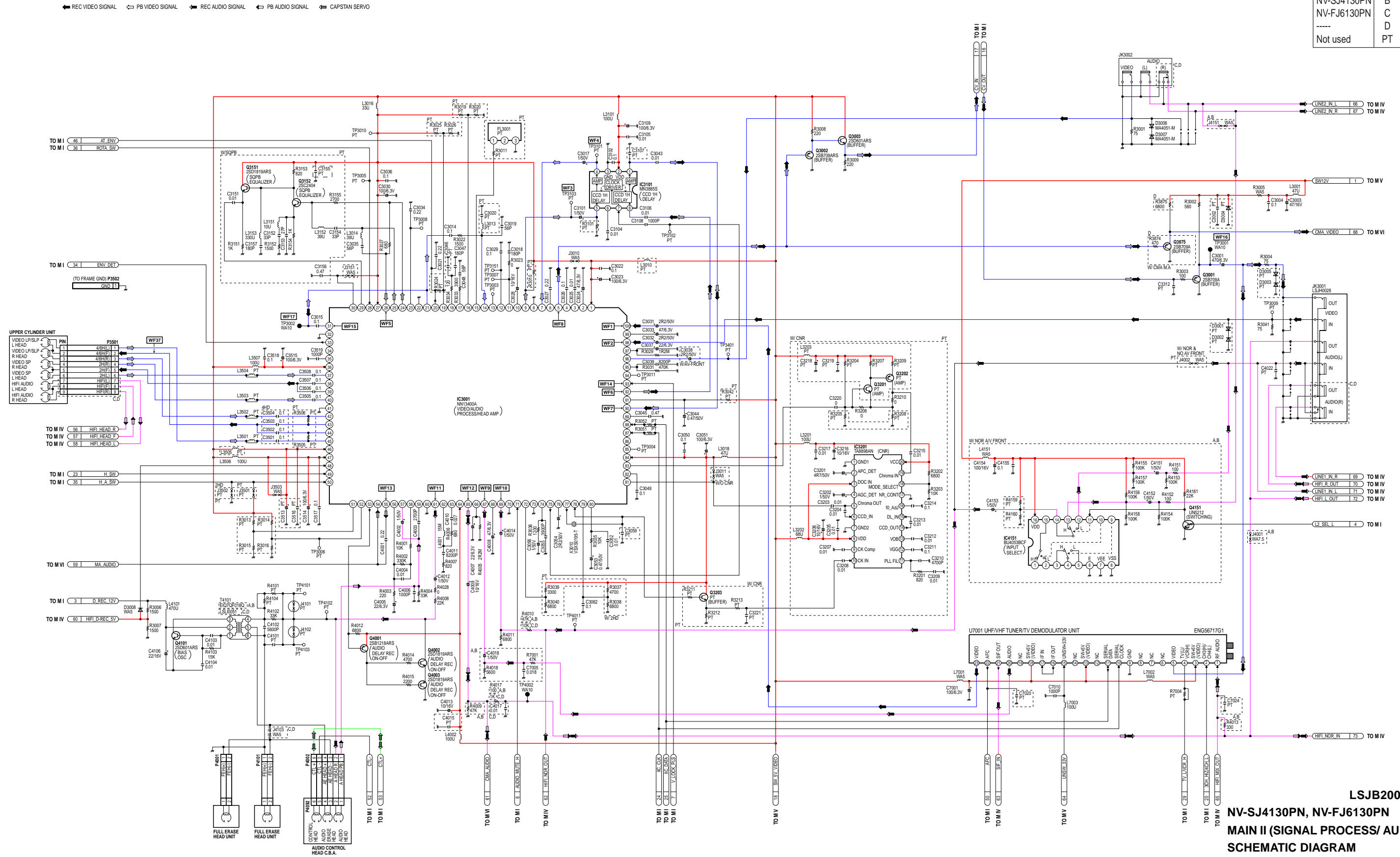


MAIN II (SIGNAL PROCESS/AUDIO) SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

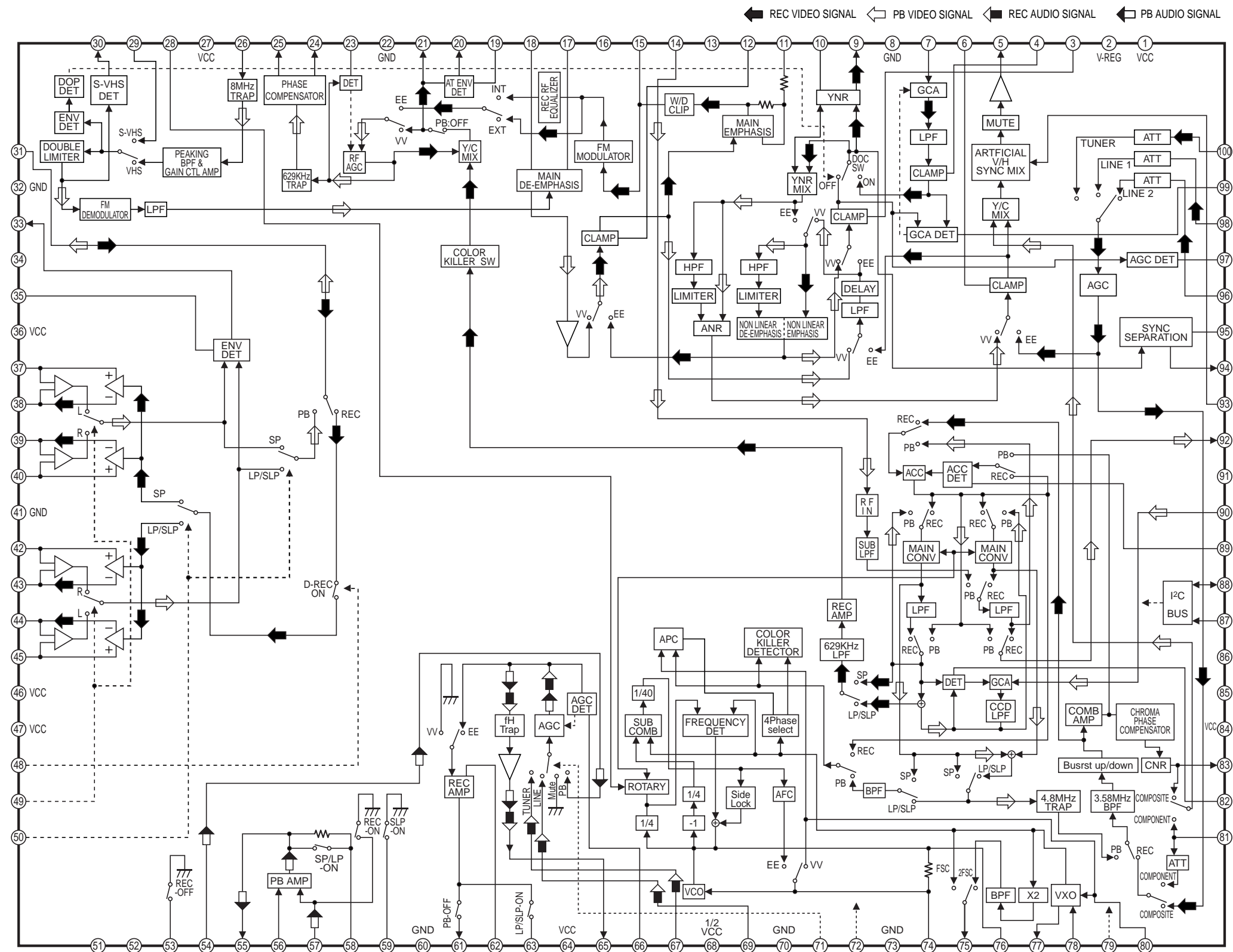
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

MODEL	MARK
-----	A
NV-SJ4130PN	B
NV-FJ6130PN	C
-----	D
Not used	PT



LSJB2006
NV-SJ4130PN, NV-FJ6130PN
MAIN II (SIGNAL PROCESS/ AUDIO)
SCHEMATIC DIAGRAM

IC3001 VIDEO/AUDIO SIGNAL PROCESS / HEAD AMP IC- DETAIL BLOCK DIAGRAM



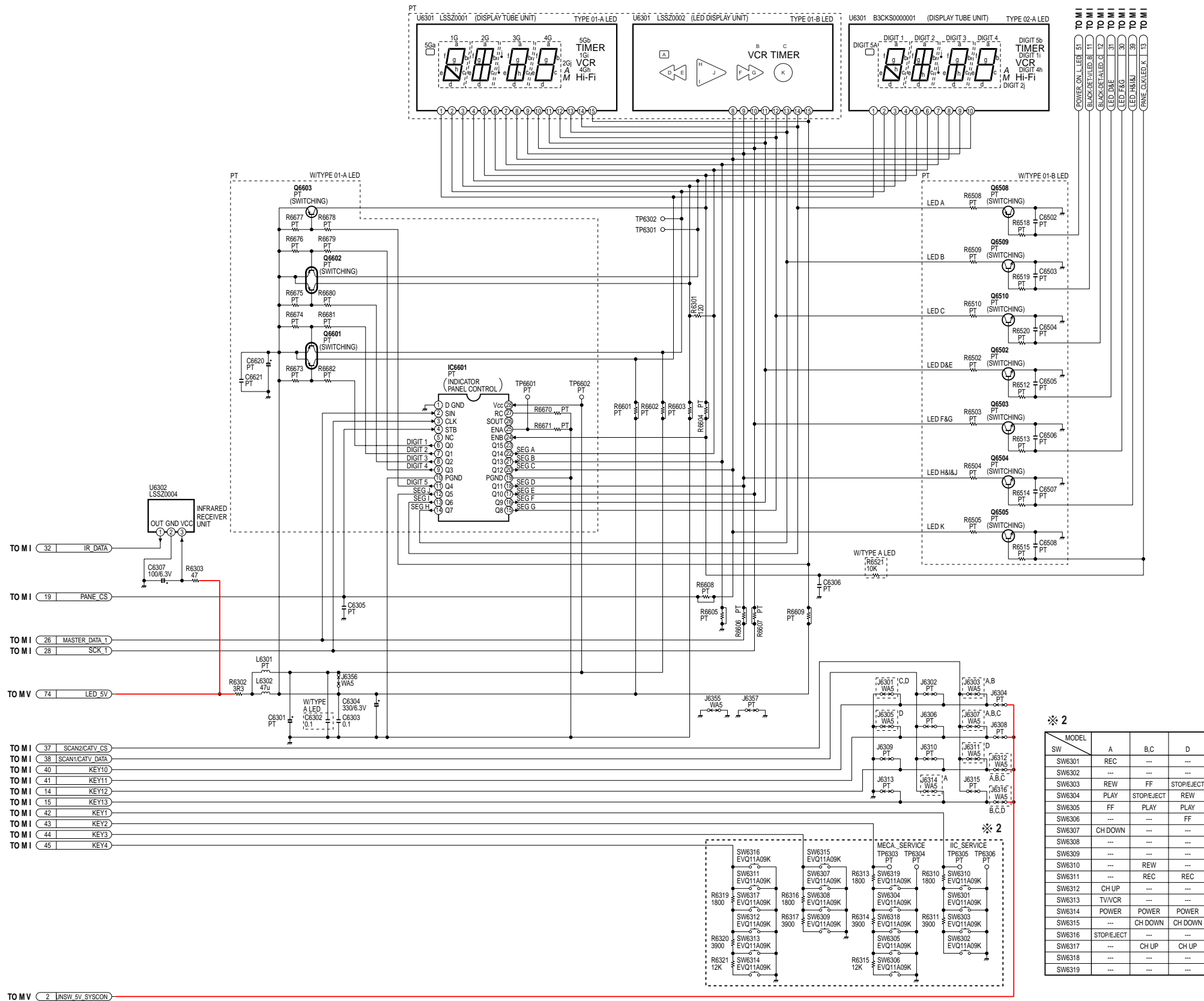
NOTE: For placing a purchase order of the parts, be sure to use the part number listed in the parts list. Do not use the part number on this diagram.

NOTE: FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
-------	------

MODEL	MARK
----	A
NV-SJ4130PN	B
NV-FJ6130PN	C
----	D
Not used	PT



NV-SJ4130PN, NV-FJ6130PN
MAIN III (OPERATION) SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

◀ REC AUDIO SIGNAL ▶ PB AUDIO SIGNAL




MAIN V (POWER SUPPLY) SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

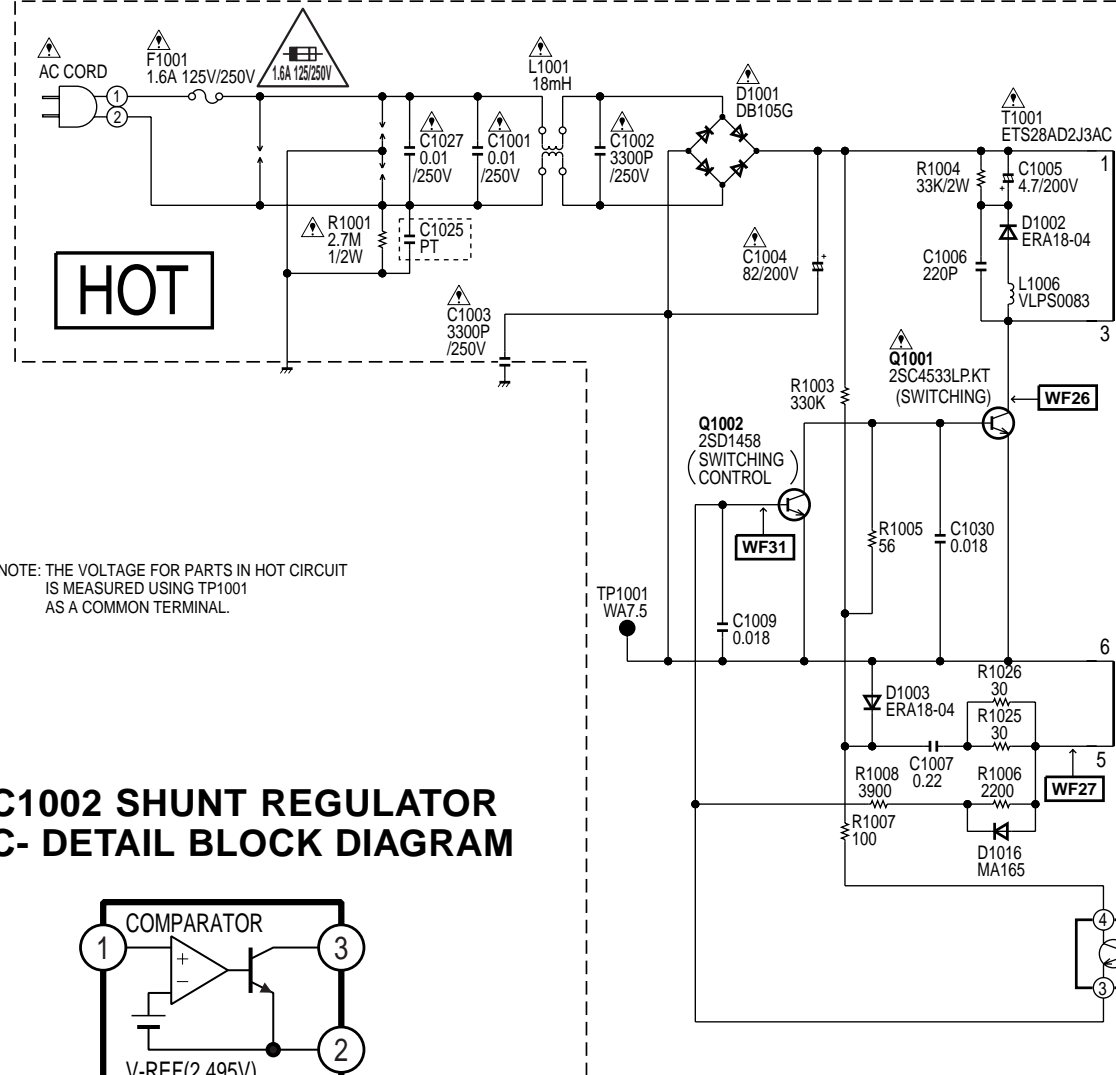
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

MODEL	MARK
-----	A
NV-SJ4130PN	B
NV-FJ6130PN	C
-----	D
Not used	PT

**CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE 1.6A 125/250V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D'INCENDIE N'UTILISER QUE DES FUSIBLE DE MÊME
TYPE 1.6A 125/250V**

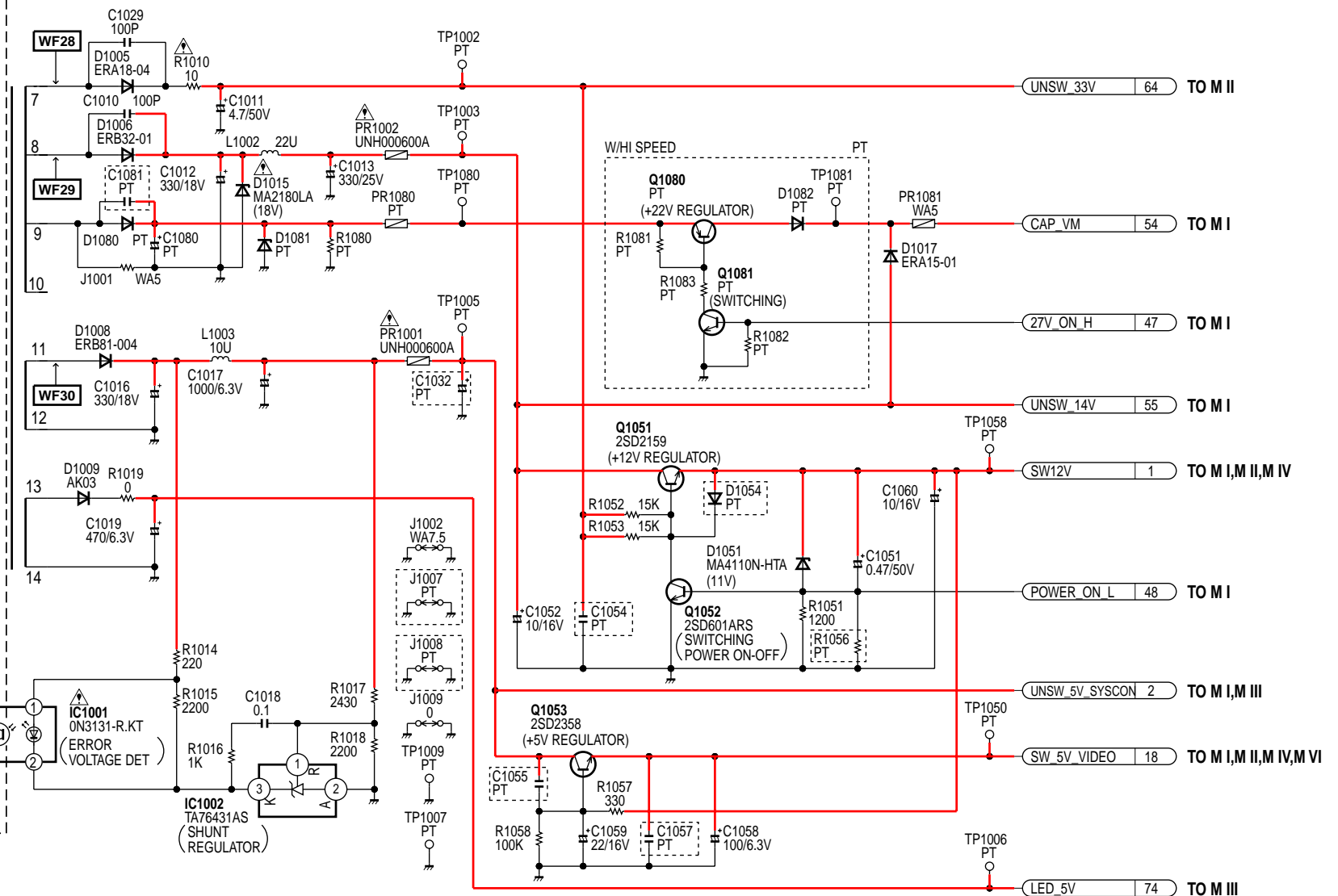
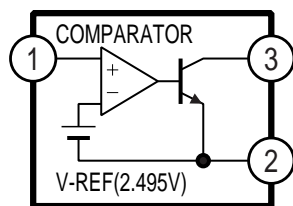
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN  HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

HOT CIRCUIT. BE CAREFUL AND USE AN ISOLATION TRANSFORMER WHEN SERVICING.



NOTE: THE VOLTAGE FOR PARTS IN HOT CIRCUIT IS MEASURED USING TP1001 AS A COMMON TERMINAL.

IC1002 SHUNT REGULATOR IC- DETAIL BLOCK DIAGRAM



LSJB2006

NV-SJ4130PN, NV-FJ6130PN

MAIN V (POWER SUPPLY) SCHEMATIC DIAGRAM

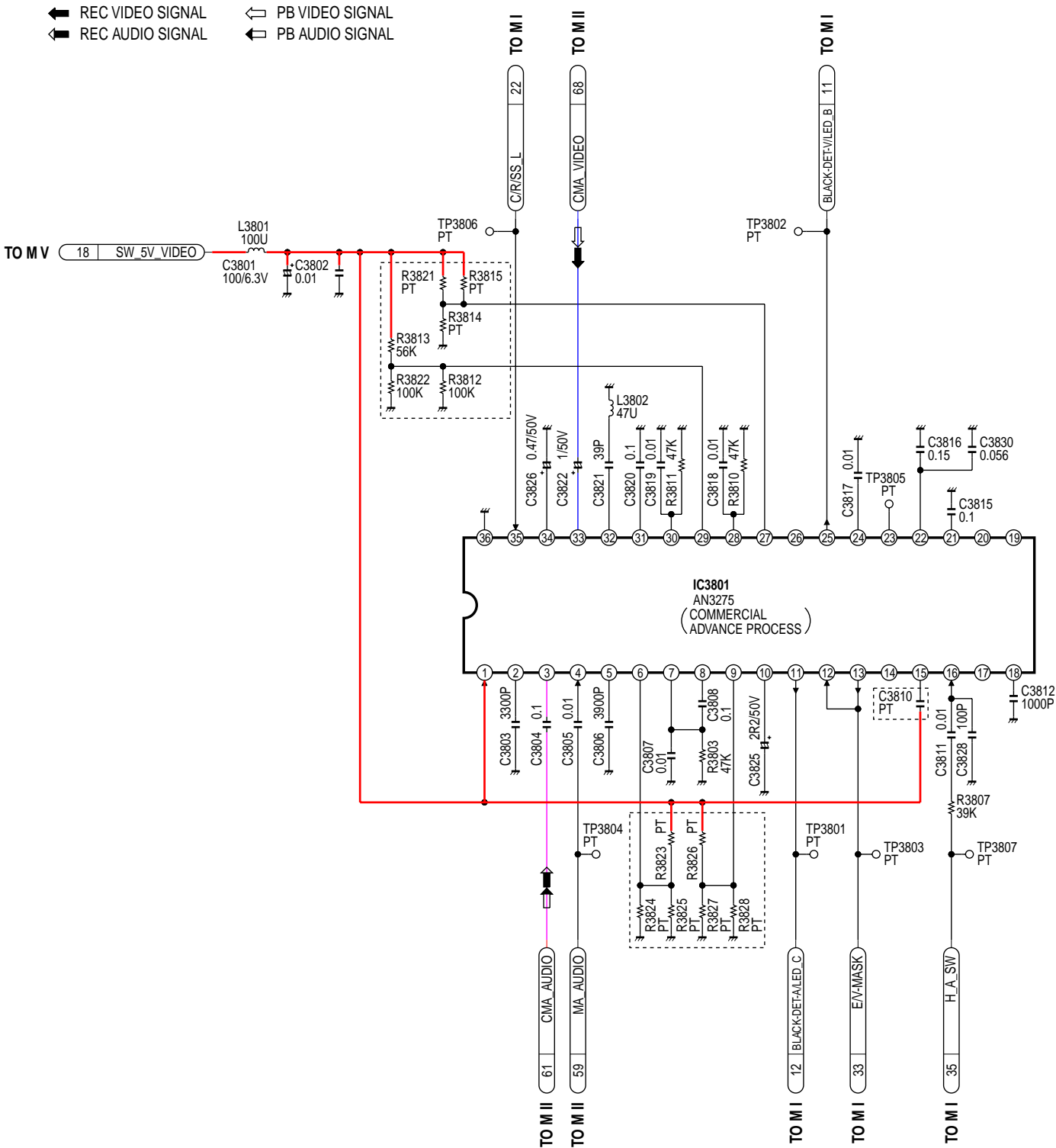
MAIN VI (ADVANCE) SCHEMATIC DIAGRAM (D)

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

COMPARISON CHART
OF MODELS & MARKS

MODEL	MARK
-----	A
NV-SJ4130PN	B
NV-FJ6130PN	C
-----	D
Not used	PT



IC3801 COMMERCIAL ADVANCE PROCESS
IC- DETAIL BLOCK DIAGRAM

