

MHC-RG190/RG290

MANUAL DE SERVIÇO

Brazilian Model

Ver. 1.0 2006.05

Instruções do
Acrobat Reader

*MHC-RG190/RG290 são compostos de seguintes modelos.

	MHC-RG190	MHC-RG290
Receiver, CD e Deck	HCD-RG190	HCD-RG290
Caixas Acústicas	SS-RG190	SS-RG490

MHC-RG190



SS-RG190 HCD-RG190

MHC-RG290



SS-RG290 HCD-RG290

ACESSÓRIOS

Part No.	Descrição
1-501-374-92	ANTENA LOOP (AM)
1-793-184-23	CONECTOR ADAPTADOR (TIPO F) (FM)
2-055-382-01	TAMPA PILHA (para RM-SC50)
2-668-367-41	MANUAL DE INSTRUÇÕES
3-004-800-01	CALÇO PÉ (PARA CAIXAS) (8 PEÇAS)
1-528-681-13	PILHA PEQUENA
A-1108-433-B	CONTROLE REMOTO (RM-SC50)

SISTEMA COMPACTO DE SOM

Sony Corporation
Sony Brasil Ltda.
Publicado por Engenharia da Qualidade

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HCD-RG190/RG290

MANUAL DE SERVIÇO

Brazilian Model

Ver. 1.0 05. 2006.



Foto: HCD-RG290

- HCD-RG190 é o amplificador, toca CD, tape deck e tuner do MHC-RG190.
- HCD-RG290 é o amplificador, toca CD, tape deck e tuner do MHC-RG290.

Seção CD	Modelo que utiliza mecanismo similar	HCD-RG490/RG590
	Tipo do mecanismo de CD	CDM74KF-K6BD83S
	Tipo do mecanismo base	BU-K6BD83S-WOD
	Tipo do conjunto de unidade ótica	KSM-213DCP
Seção FITA	Modelo que utiliza mecanismo similar	HCD-RG490/RG590
	Tipo do mecanismo da fita	CWN42FF609

ESPECIFICAÇÕES

Amplificador

HCD-RG290

Caixa acústica frontal

Potência de saída RMS: 125 W + 125 W
(6 ohms a 1 kHz, 10% de THD)

HCD-RG190

Caixa acústica frontal

Potência de saída RMS: 65 W + 65 W
(6 ohms a 1 kHz, 10% de THD)

Entradas:

AUDIO IN(minitomada estereo):
sensibilidade 250 mV,
impedância 47 kilohms
MIC(tomada para microfone):
sensibilidade 1 mV,
impedância 10 kilohms

Saídas:

PHONES(minitomada estéreo): aceita
fones de ouvido de 8 ohms ou mais
SPEAKER aceita impedancia de 6 a
16 ohms

Reprodutor de CD

Sistema: Sistema de áudio digital e disco compacto

Propriedades do laser semiconductor

Duração da emissão: Contínua

Saída laser*: Menos de 44,6uW

*Esta saída e o valor medido a uma distância
de 200mm da superfície da lente objetiva da
unidade óptica com 7 mm de abertura.

Resposta de frequência: 20 Hz . 20 kHz

Relação sinal-ruído: Mais de 90 dB

Faixa dinâmica: Mais de 90 dB

Reprodutor/Gravador de fita

Sistema de gravação: 4 pistas, 2 canais estéreo
Resposta de frequência: 50 - 13.000 Hz ± 3 dB),
utilizando fita cassette Sony tipo I
Wow e flutter: Menor que 0,3 W. RMS (DIN)

Rádio

FM estéreo, sintonizador super-heterodino de
FM/AM

Sintonizador de FM:

Faixa de sintonização

87,5 - 108,0 MHz (intervalos de 50 kHz)

Antena: Antena monofilar de FM

Terminais de antena: 75 ohms não balanceados

Frequência intermediária: 10,7 MHz

Sintonizador de AM:

Faixa de sintonização

530 - 1.710 kHz (com intervalo de frequência de
10 kHz)

Antena: Antena loop de AM, terminal para antena
externa

Frequência intermediária: 450 kHz

– Continua na próxima página –

SISTEMA COMPACTO DE SOM

Sony Corporation

Sony Brasil Ltda.

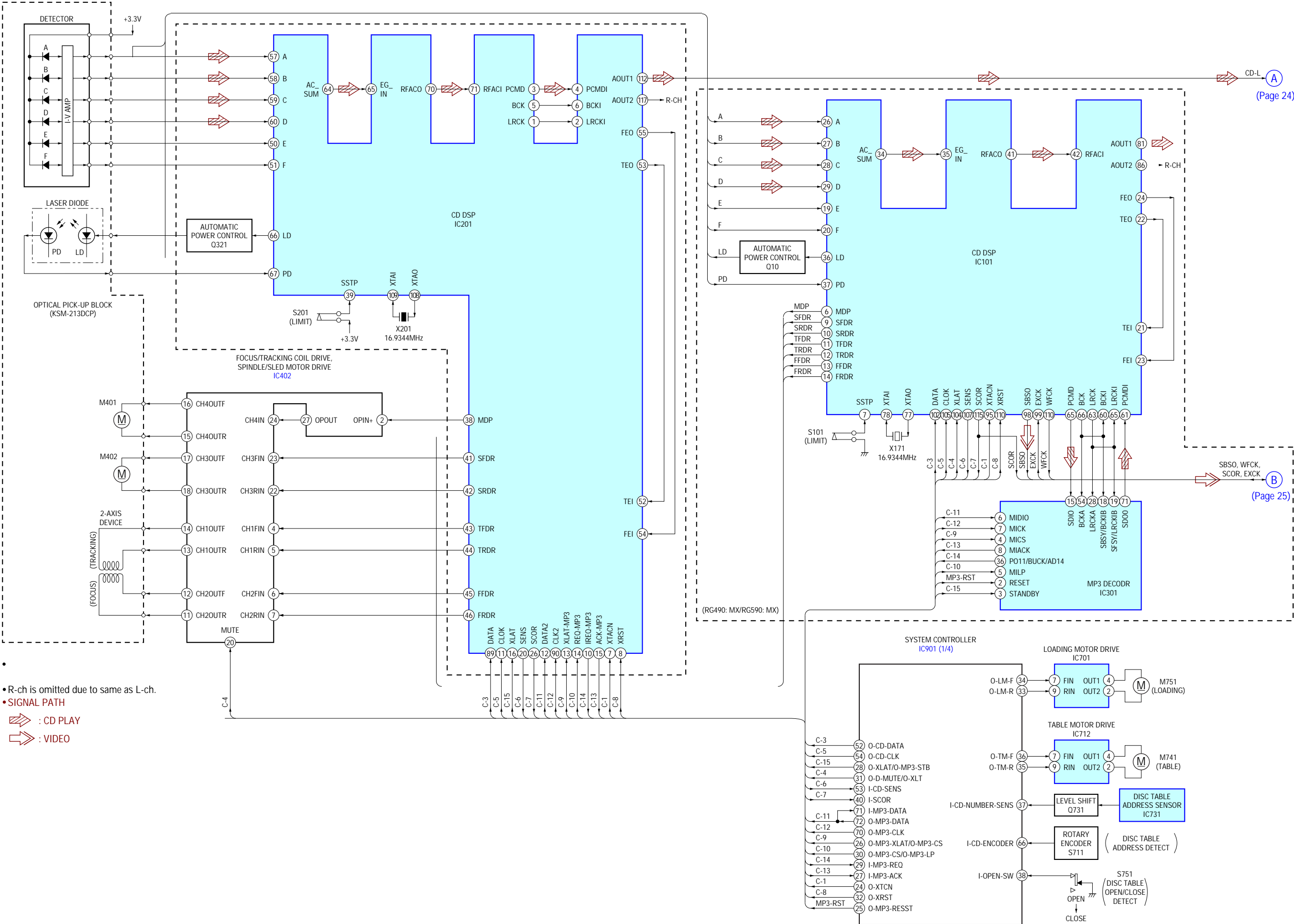
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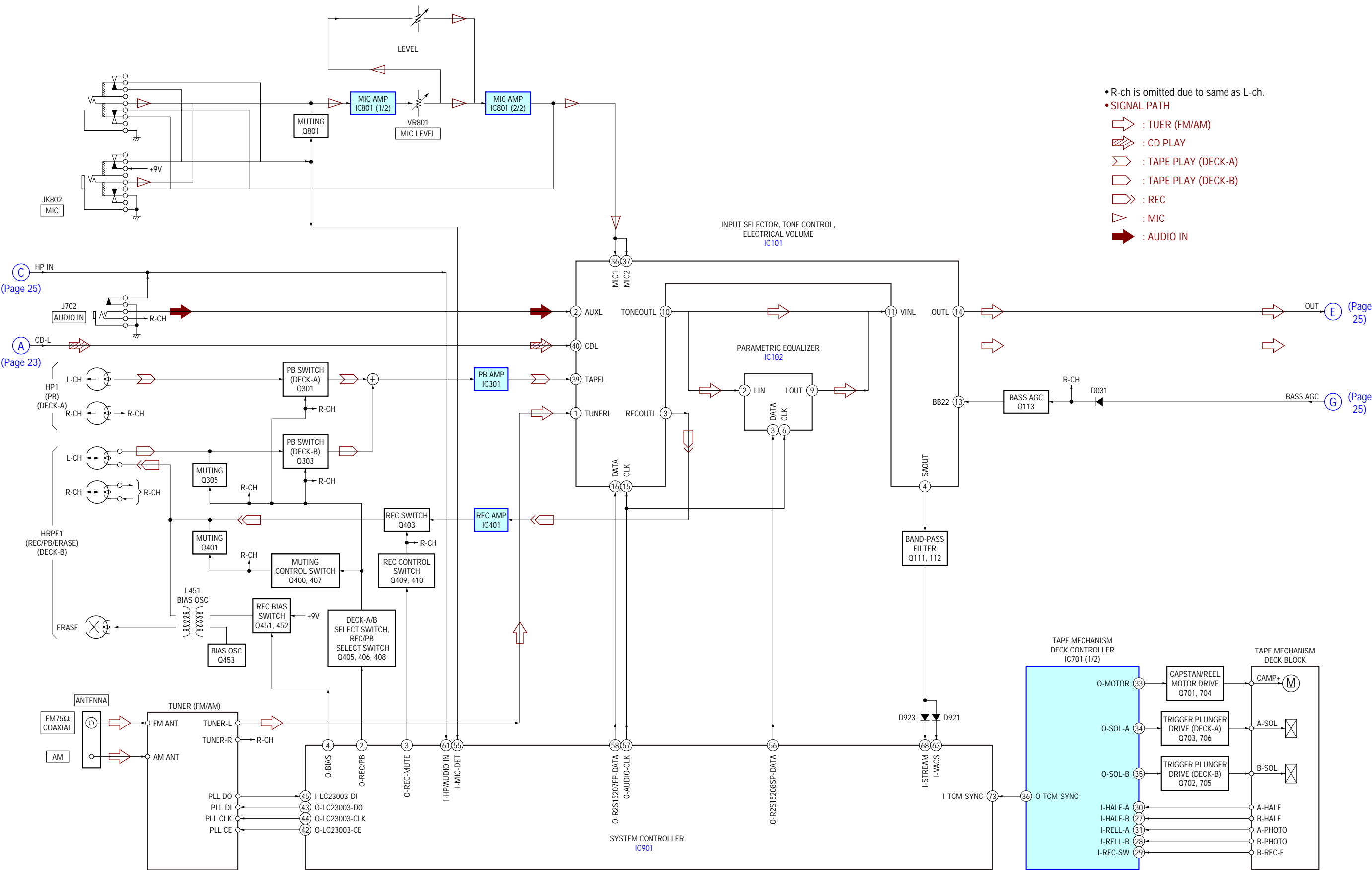
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SEÇÃO 7
DIAGRAMAS

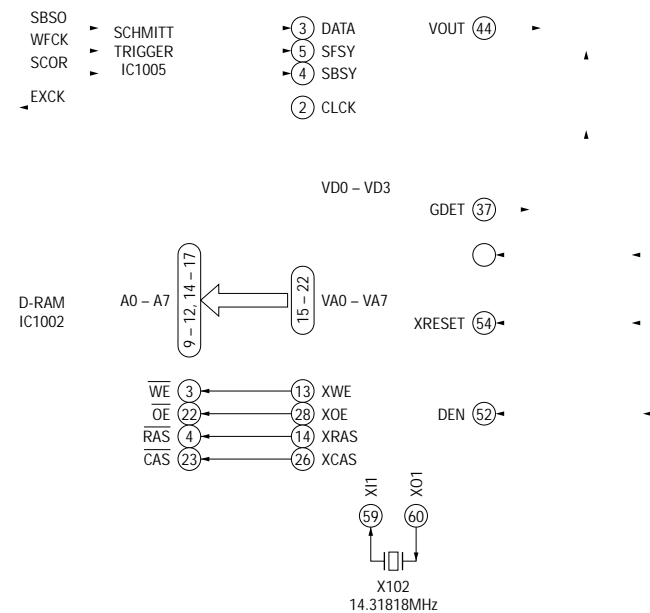
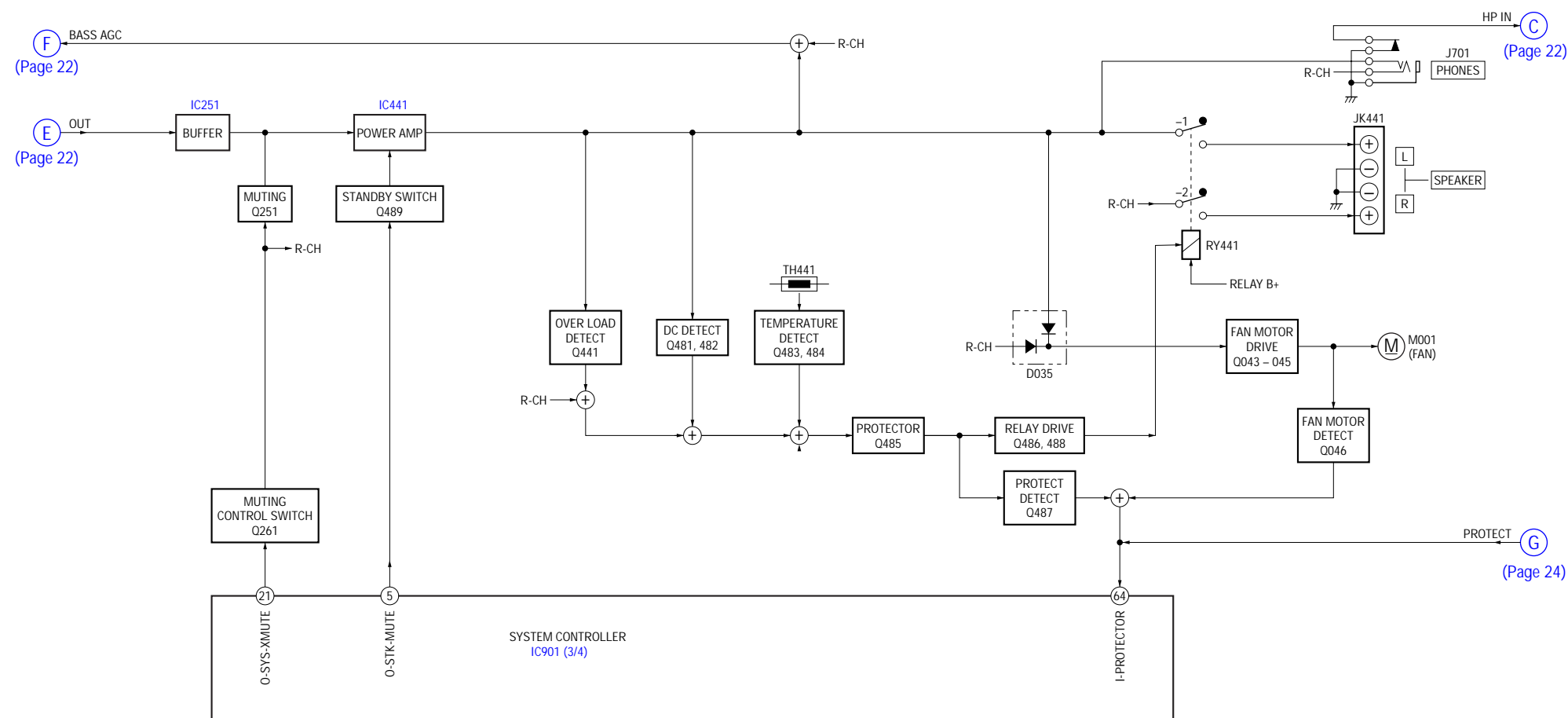
7-1. DIAGRAMA EM BLOCOS – Seção CD SERVO –



7-2. DIAGRAMA EM BLOCOS – Seção PRINCIPAL –



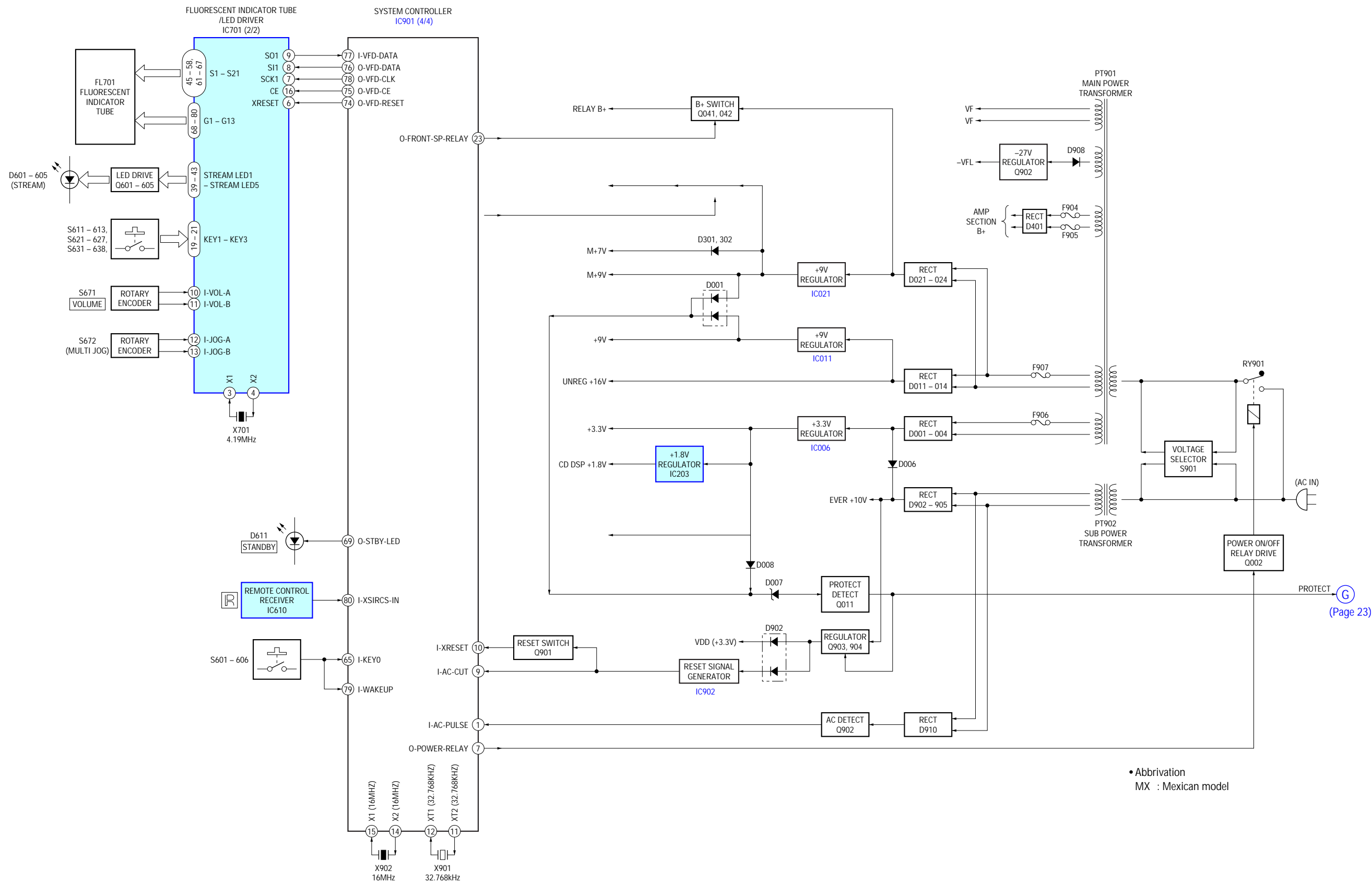
7-3. DIAGRAMA EM BLOCOS – SEÇÃO AMP/VIDEO –



- R-ch is omitted due to same as L-ch.
- **SIGNAL PATH**
 - ➡ : TUNER (FM/AM)
 - ➡➡ : VIDEO

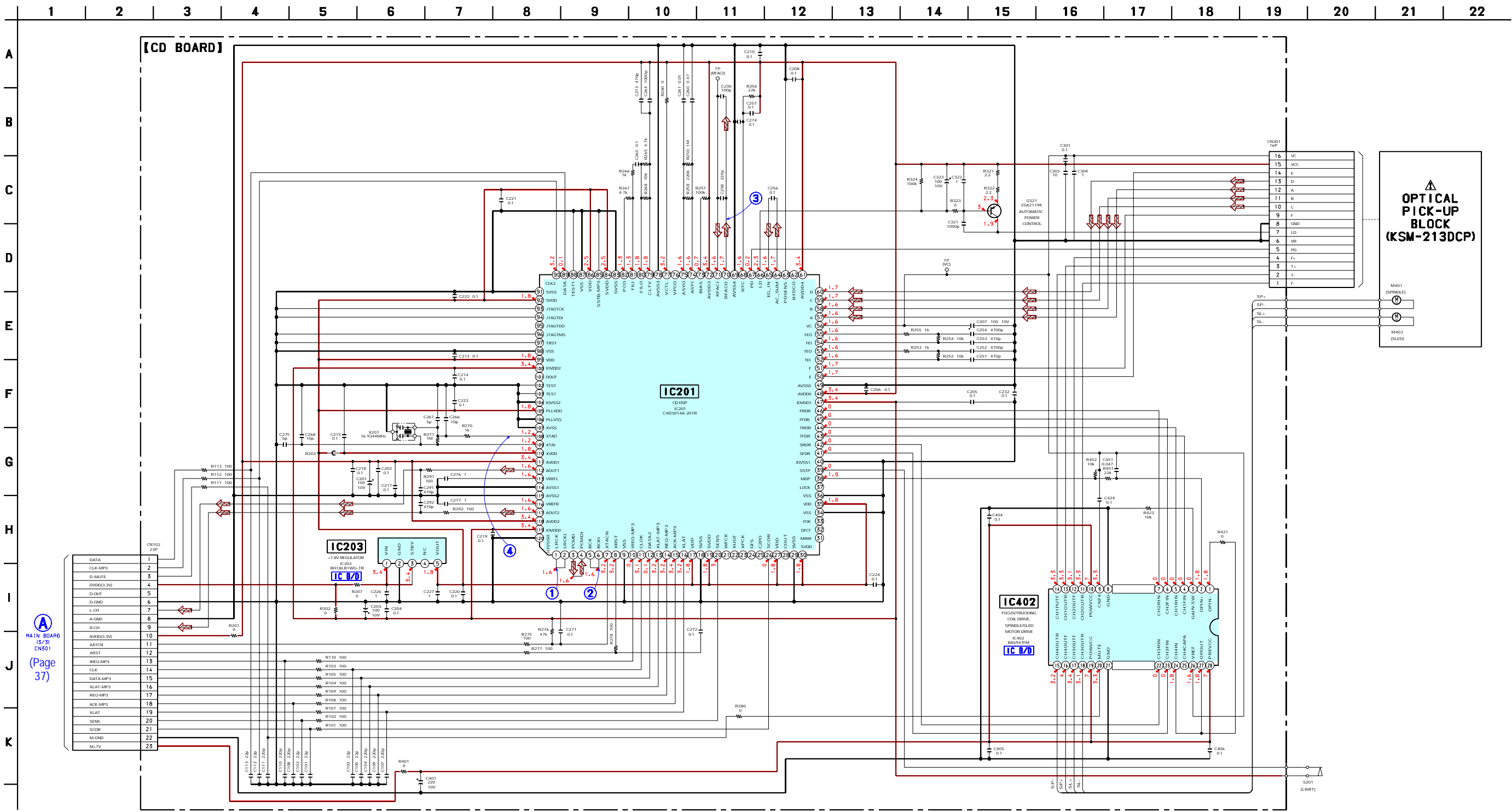


7-4. DIAGRAMA EM BLOCOS – Seção PANEL/POWER SUPPLY –

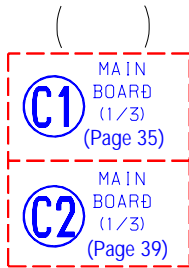


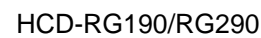
• Abbreviation
MX : Mexican model

7-6. DIAGRAMA ESQUEMÁTICO – Placa CD – .

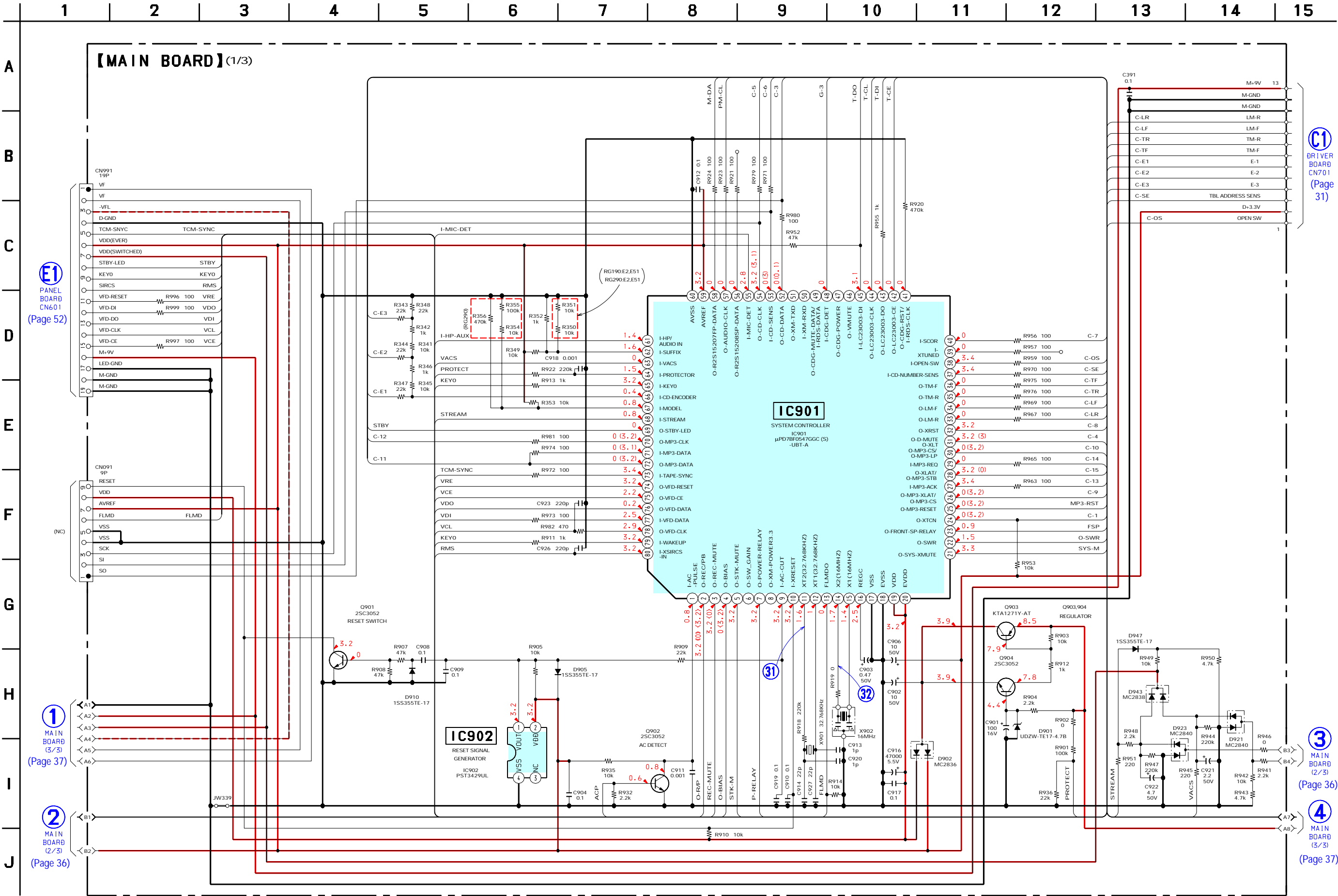


31 31





7-12. DIAGRAMA ESQUEMÁTICO – Placa PRINCIPAL (1/3) –

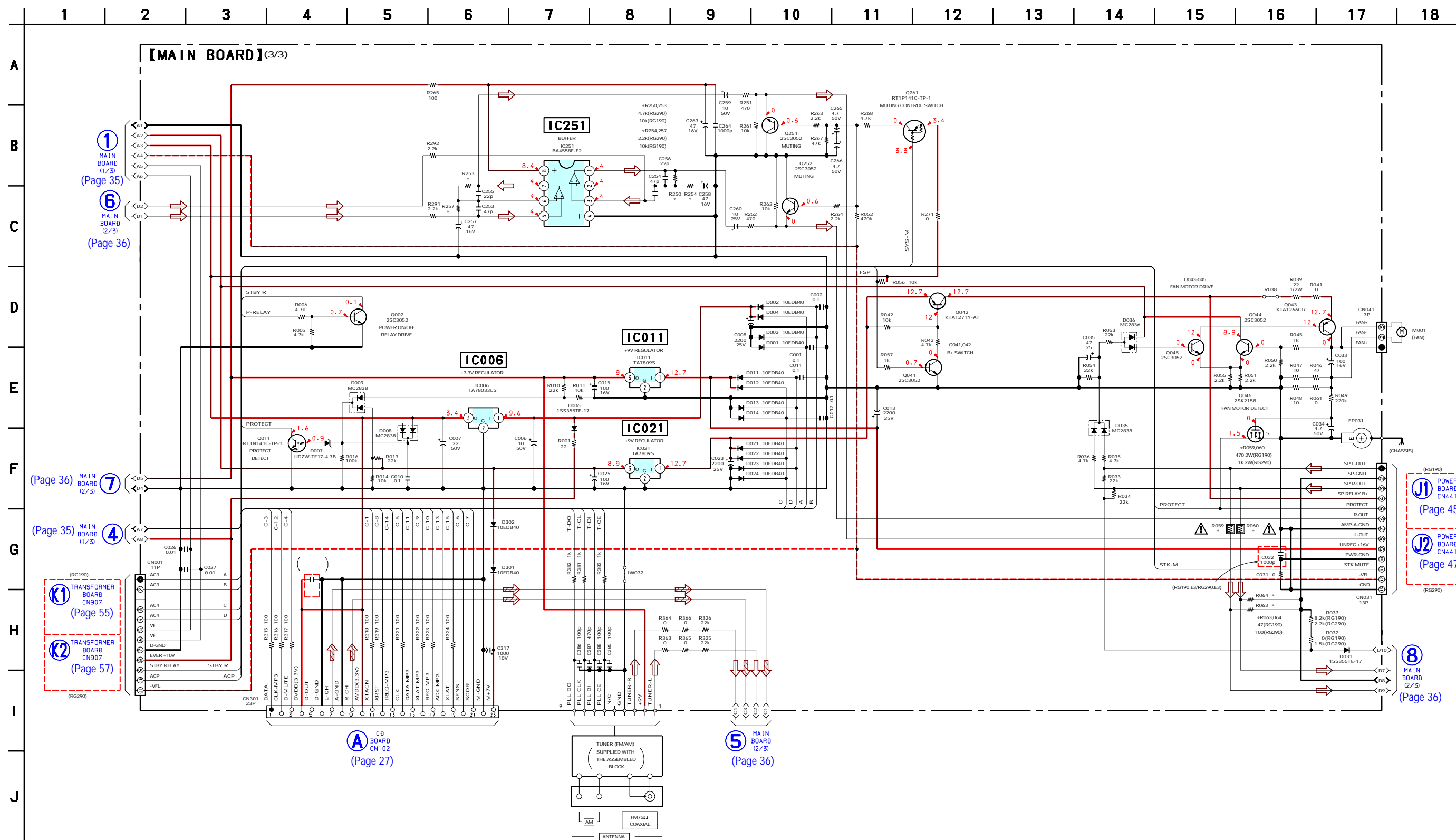


Note: IC901 on the MAIN board cannot exchange with single. When IC901 is damaged, exchange the entire mounted board.

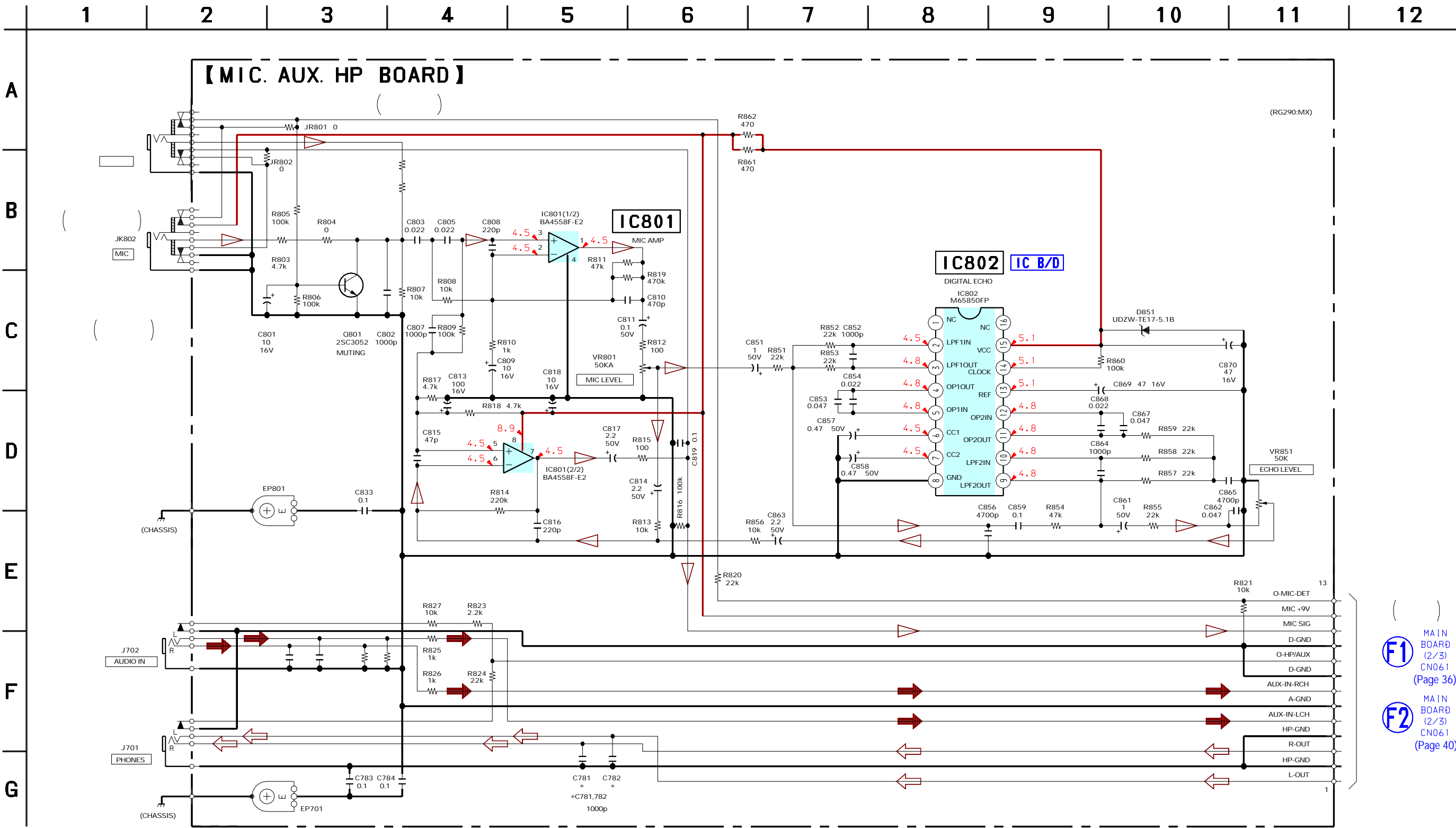
36 36



7-14. DIAGRAMA ESQUEMÁTICO – Placa PRINCIPAL (3/3) –



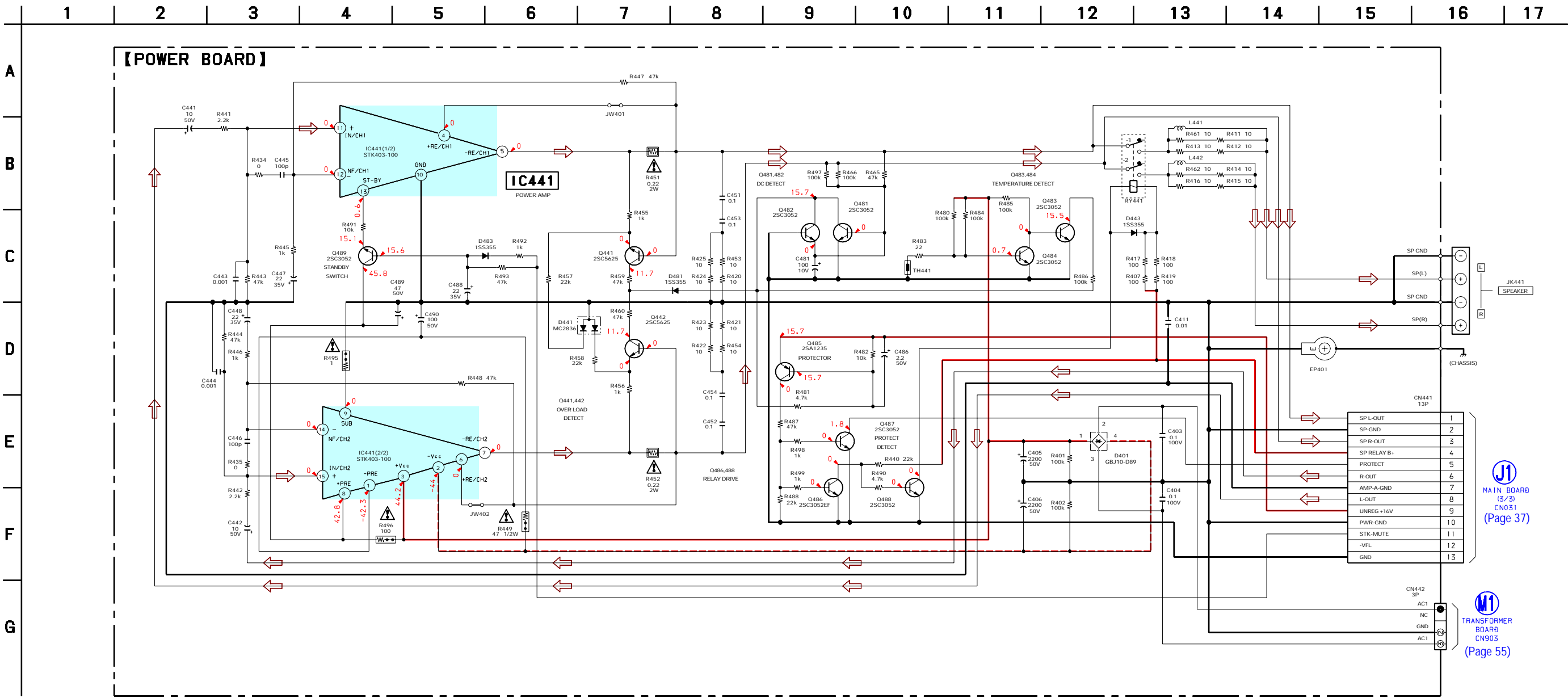
7-16. DIAGRAMA ESQUEMÁTICO – Placa MIC. AUX. HP –



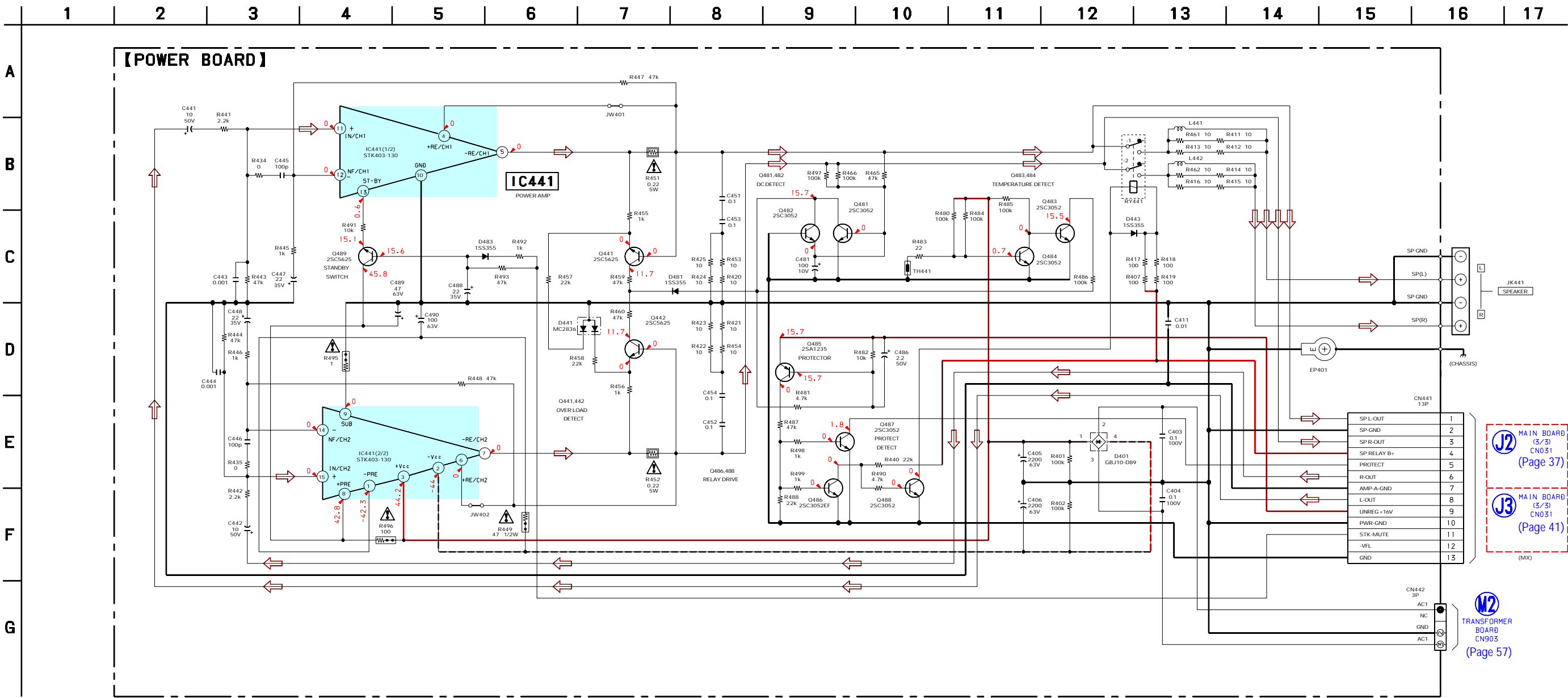
F1 MAIN BOARD (2/3) CN061 (Page 36)

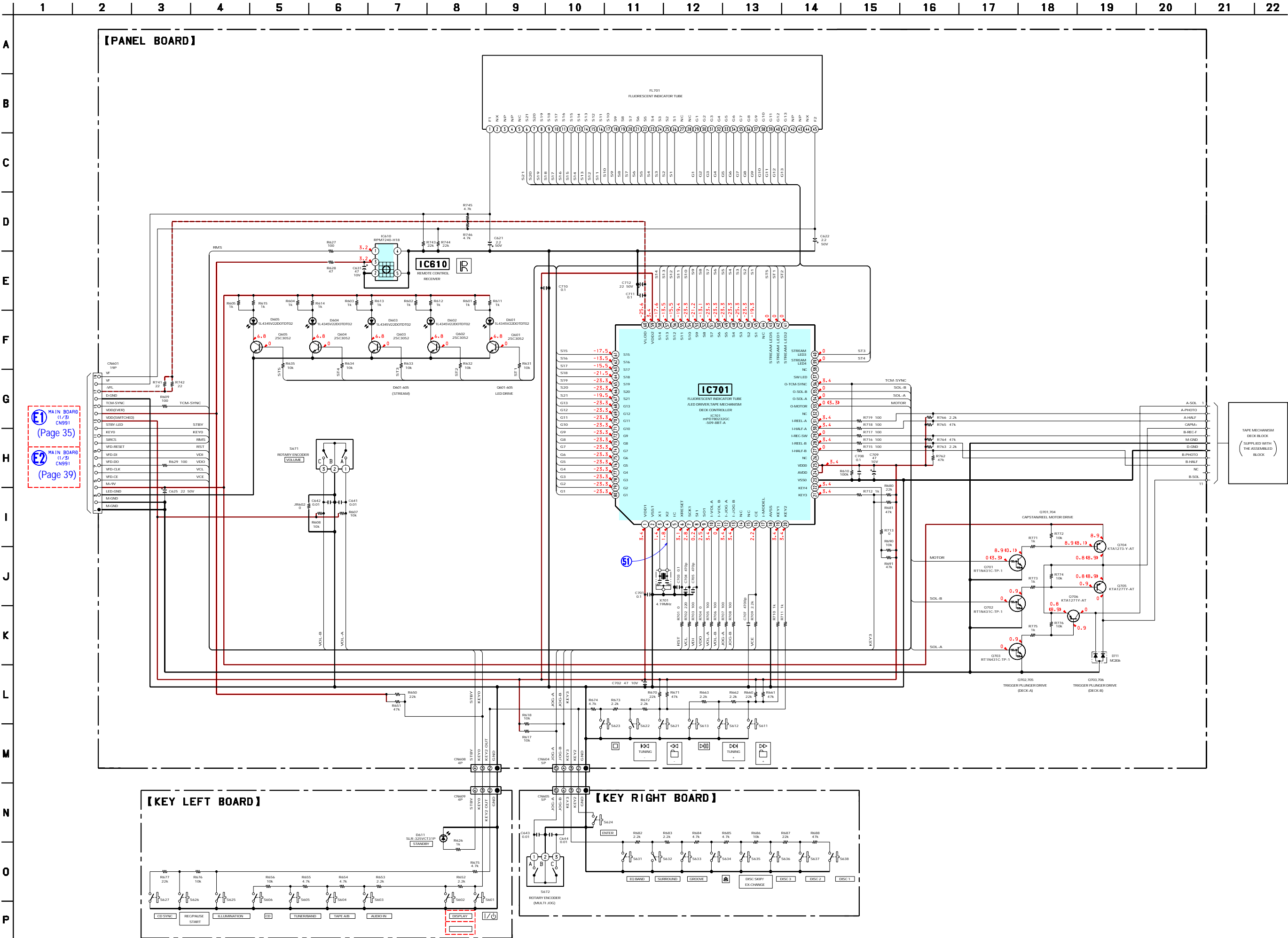
F2 MAIN BOARD (2/3) CN061 (Page 40)

7-18. DIAGRAMA ESQUEMÁTICO – Placa D WER (RG190) –



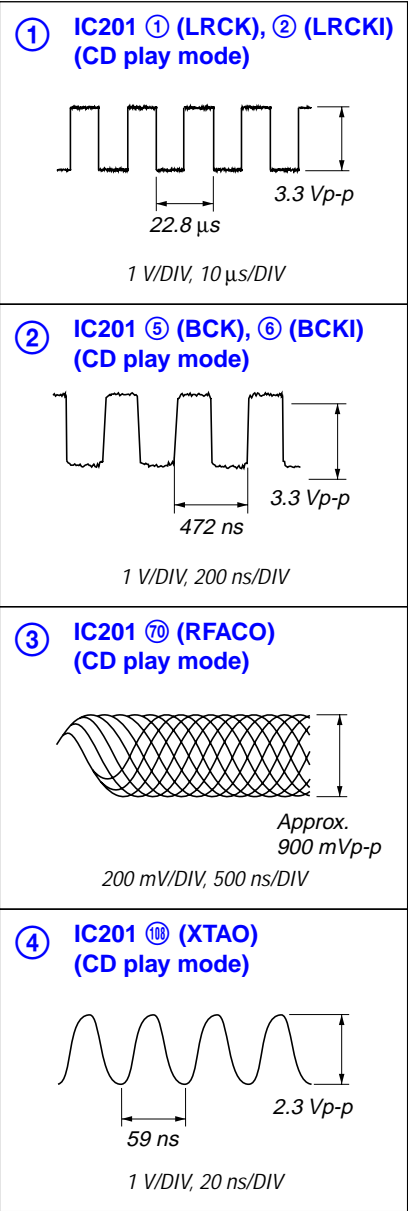
7-20. DIAGRAMA ESQUEMÁTICO – Placa POWER (RG290) –



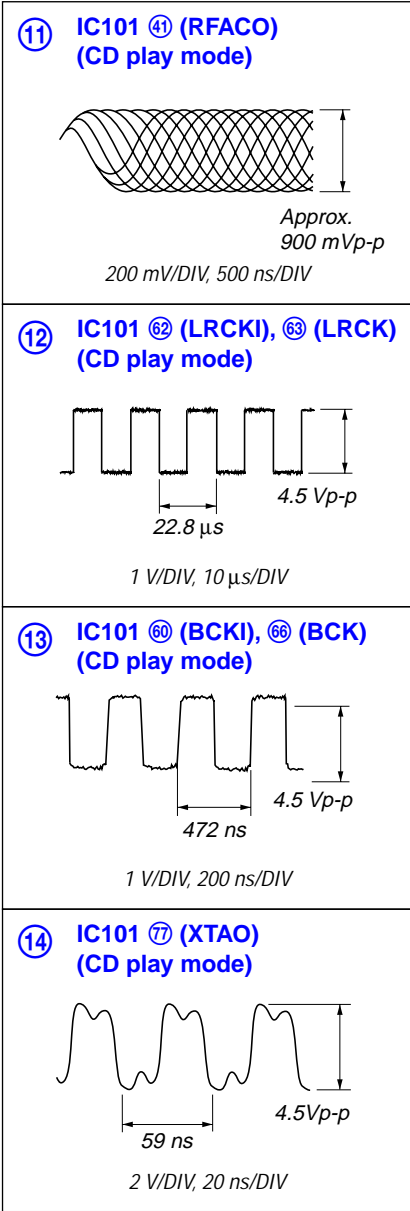


• FORMAS DE ONDAS

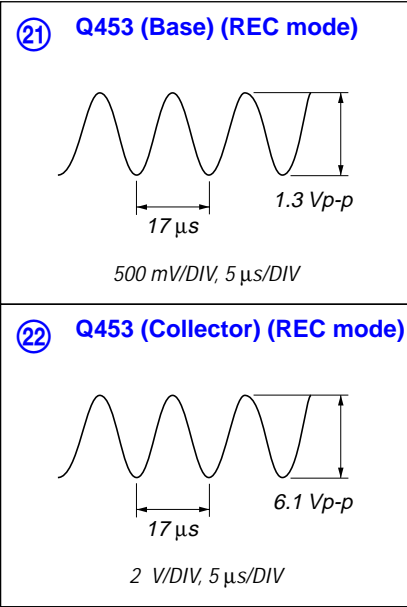
– PLACA CD –



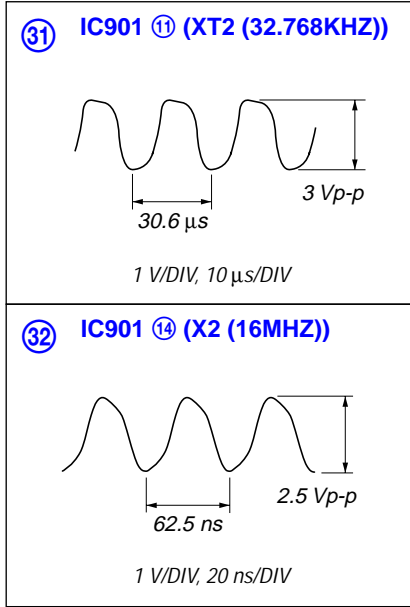
– BD Board –



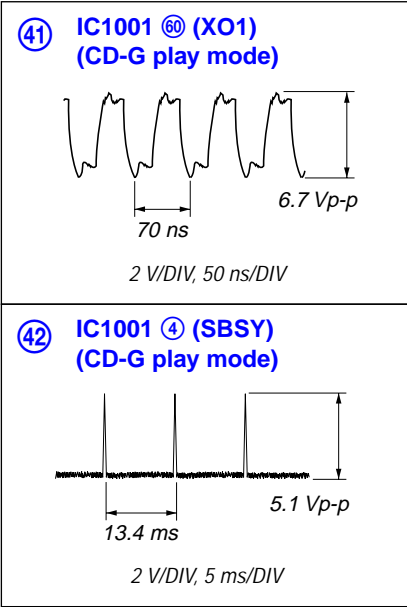
– PLACA DECK –



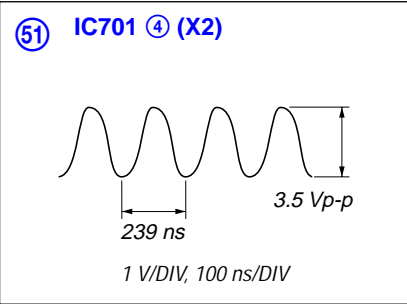
– PLACA PRINCIPAL –



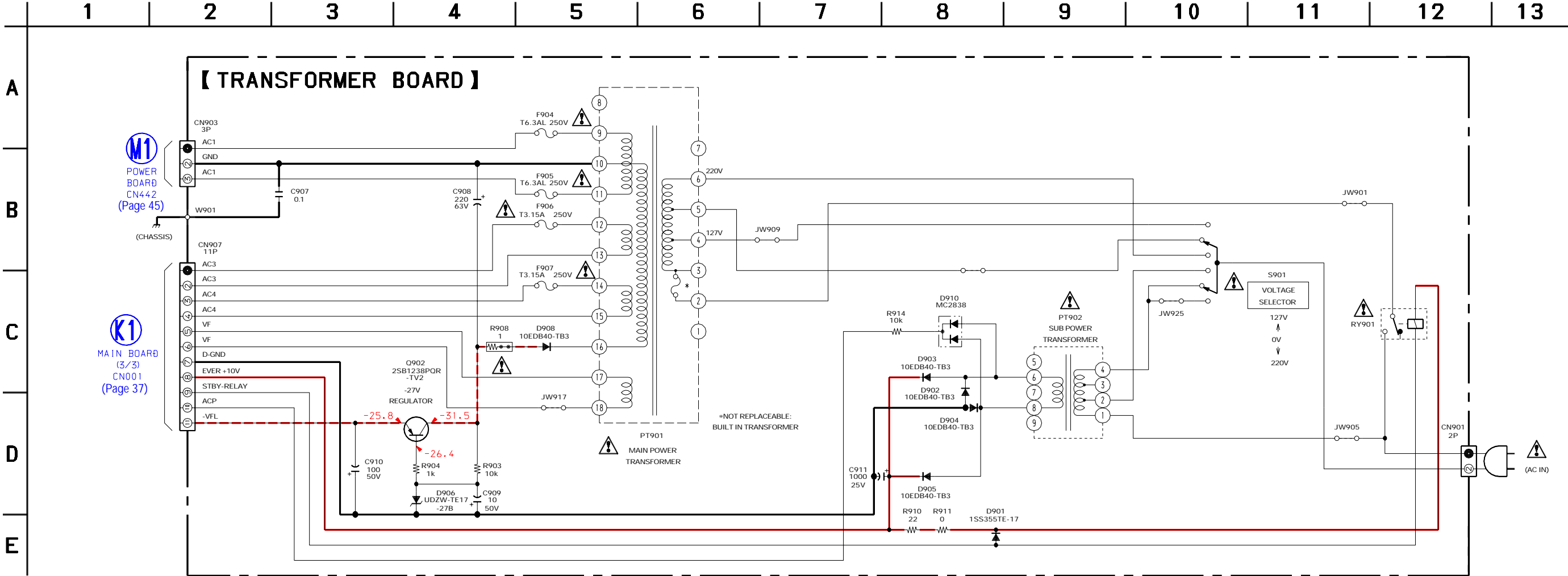
– CD-G Board –



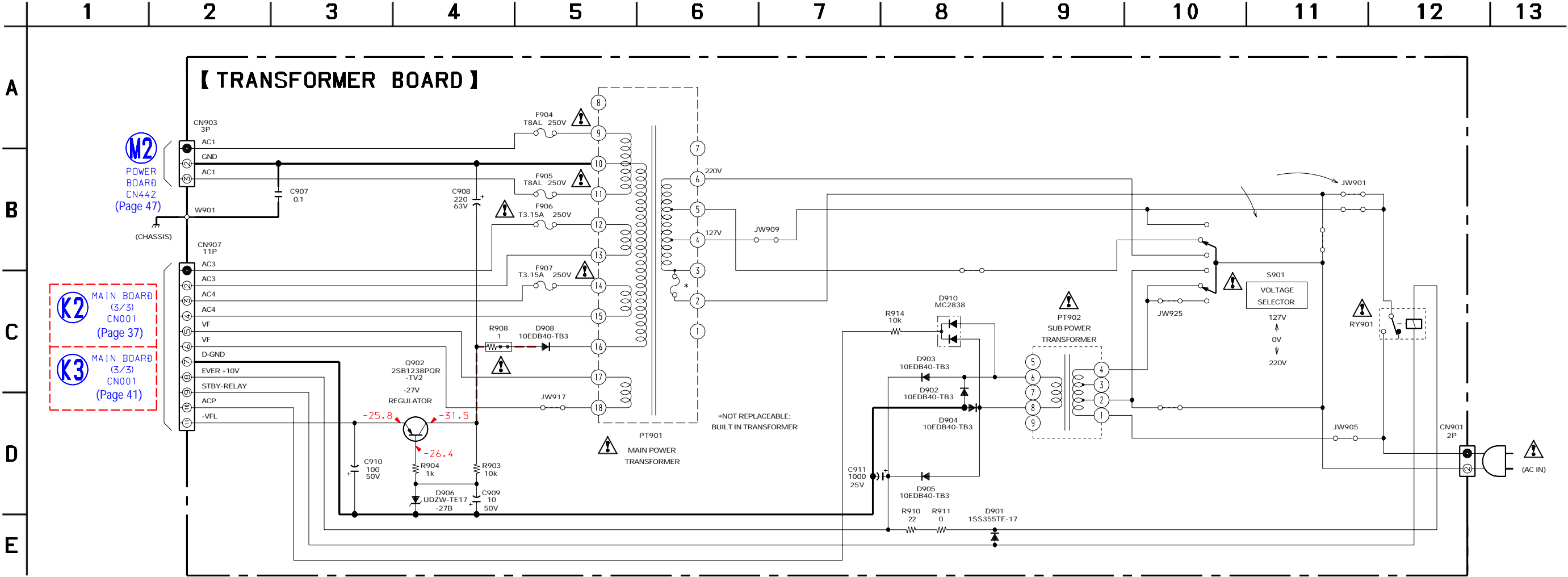
– PLACA PAINEL –



7-25. DIAGRAMA ESQUEMÁTICO – Placa TRANSFORMADOR (RG190) –

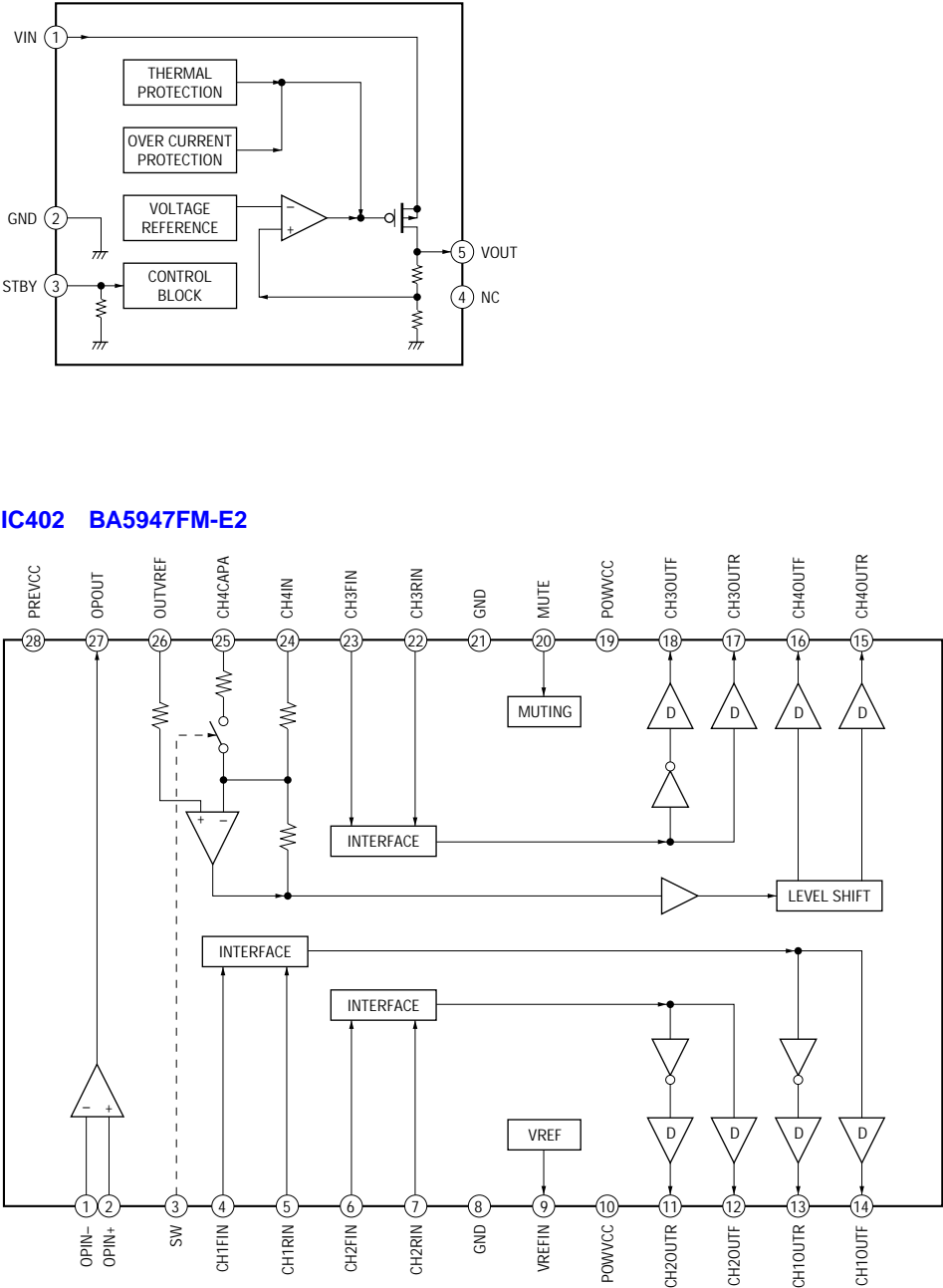


7-27. DIAGRAMA ESQUEMÁTICO –Placa TRANSFORMADOR (RG290) –

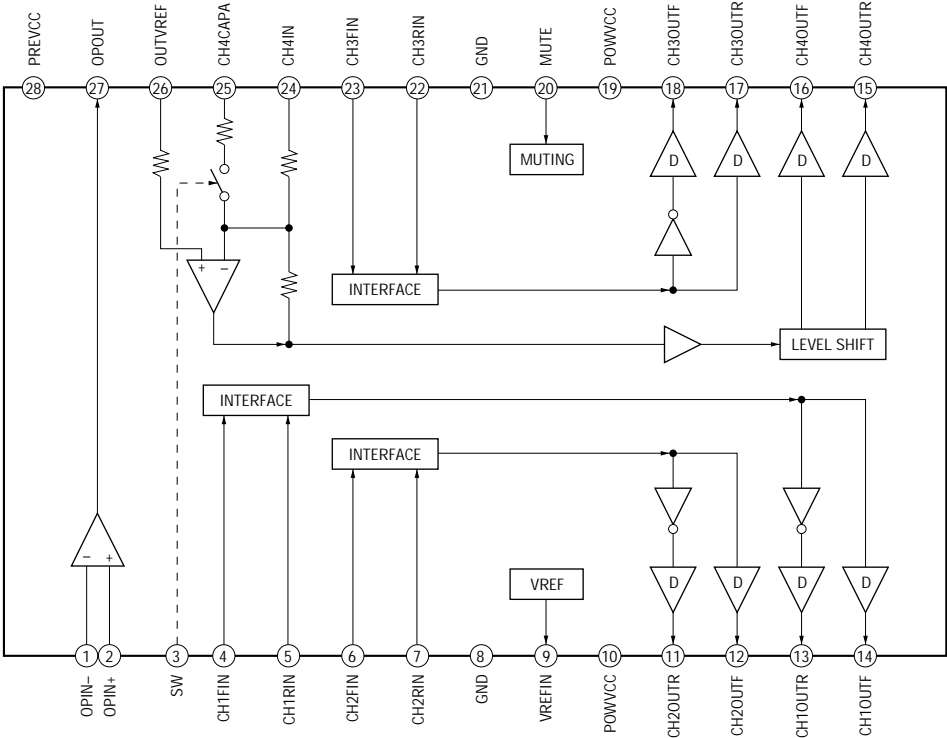


• DIAGRAMAS EM BLOCOS DO IC
– Placa CD –

IC203 BH18LB1WG-TR

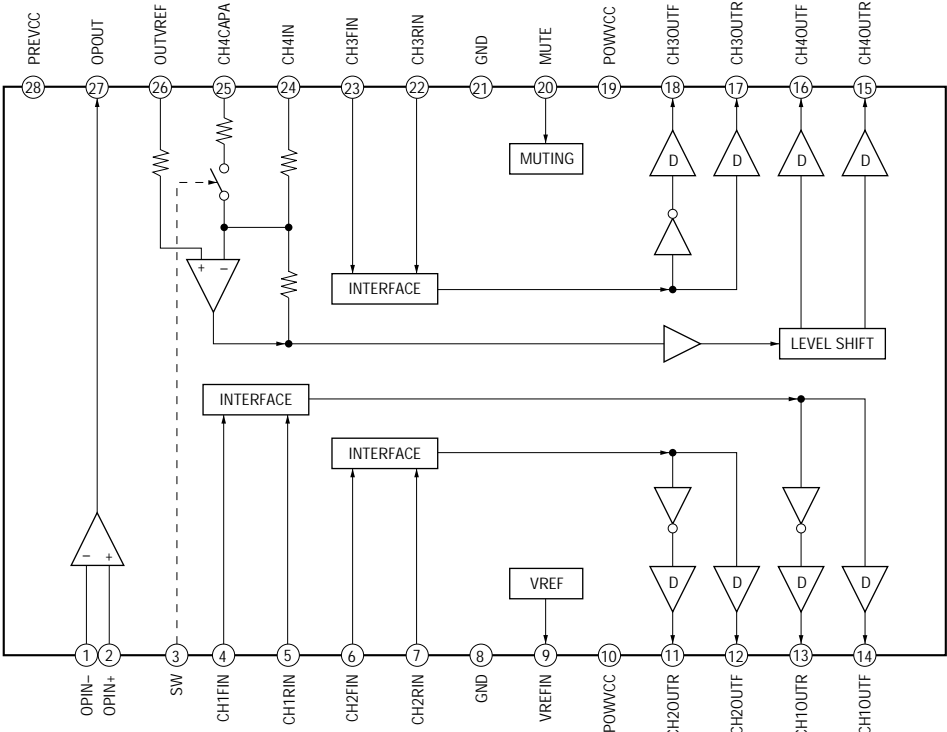


IC402 BA5947FM-E2

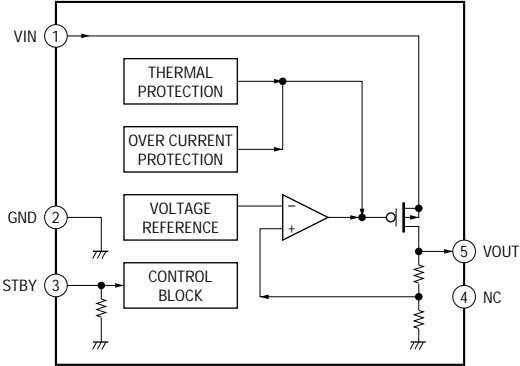


– BD Board –

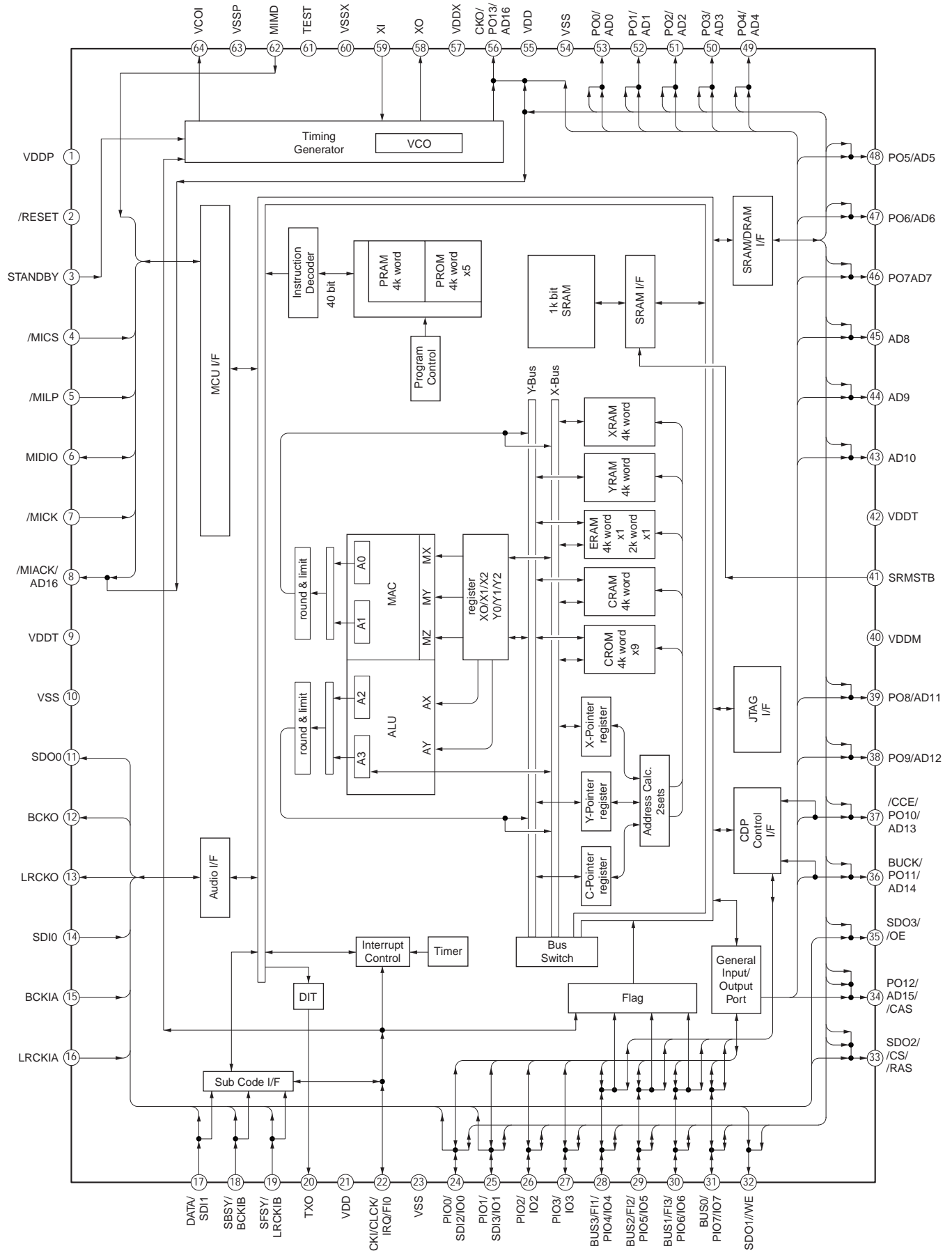
IC251 BA5947FM-E2



IC303 BH15FB1WG



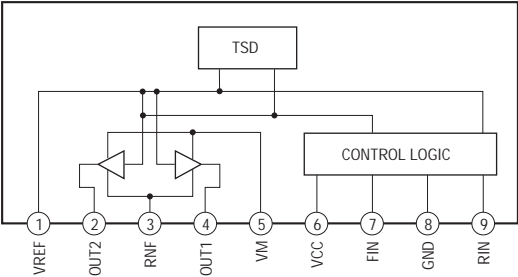
IC301 TC94A34FG-002



HCD-RG190/RG290

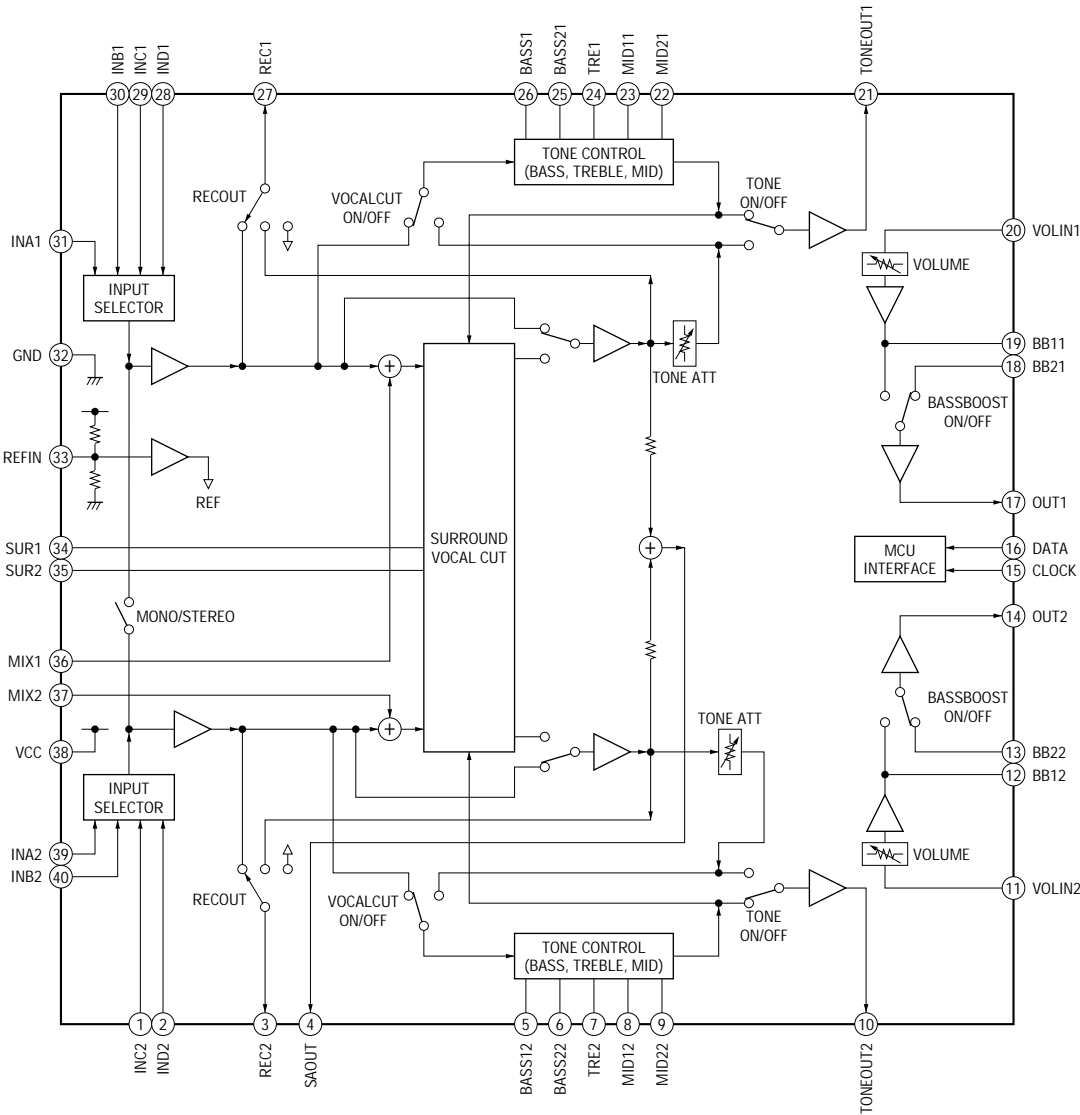
– Placa DRIVER –

IC701,712 BA6956AN



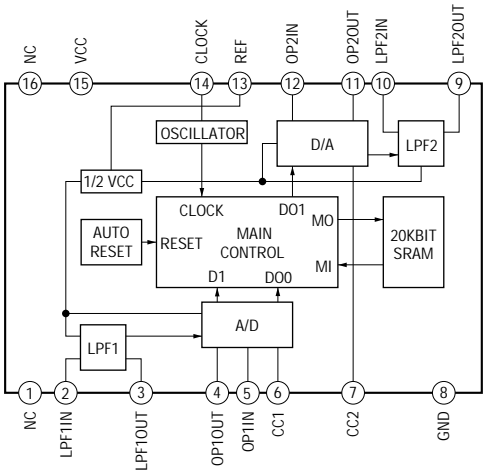
– Placa PRINCIPAL –

IC101 R2S15207FP



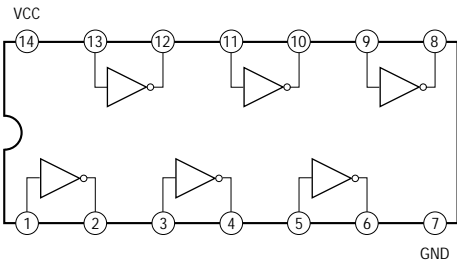
– Placa MIC. AUX. HP –

IC802 M65850FP-E1

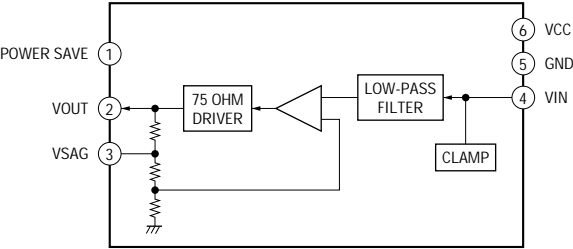


– CD-G Board –

IC1005 SN74AHCT04NSR



IC1006 NJM2561F1-TE2



• DESCRIÇÕES DOS PINOS DE IC
CD BOARD IC201 CXD3014A-201R (CD DSP)

		I/O	Description
1	LRCK	O	L/R sampling clock signal output terminal
2	LRCKI	I	L/R sampling clock signal input terminal
3	PCMD	O	Serial data output terminal
4	PCMDI	I	Serial data input terminal
5	BCK	O	Bit clock signal output terminal
6	BCKI	I	Bit clock signal input terminal
7	XTACN	I	Oscillation circuit on/off control signal input from the system controller "L": oscillation stop, "H": self-oscillation
8	XRST	I	System reset signal input from the system controller "L": reset
9	VSS	-	Ground terminal
10	IREQ-MP3	O	MP3 data request signal output to the system controller
11	CLOCK	I	CD serial data transfer clock signal input from the system controller
12	DATA2	I	MP3 serial data input from the system controller
13	XLAT-MP3	I	MP3 serial data latch pulse signal input from the system controller
14	REQ-MP3	I	MP3 data request signal input from the system controller
15	ACK-MP3	O	MP3 acknowledge signal output to the system controller
16	XLAT	I	CD serial data latch pulse signal input from the system controller
17	VDD	-	Power supply terminal (+1.8V)
18	SVSS	-	Ground terminal
19	SVDD	-	Power supply terminal (+1.8V)
20	SENS	O	Internal status (SENSE) signal output to the system controller
21	WFCK	O	Write frame clock signal output terminal Not used
22	XUGF	O	XUGF signal output terminal Not used
23	XPCK	O	XPCK signal output terminal Not used
24	GFS	O	Guard frame sync signal output terminal Not used
25	C2PO	O	C2 pointer signal output terminal Not used
26	SCOR	O	Subcode sync (S0+S1) detection signal output to the system controller
27	VDD	-	Power supply terminal (+1.8V)
28	COUT	O	Numbers of track counted signal output terminal Not used
29	SVSS	-	Ground terminal
30	SVDD	-	Power supply terminal (+1.8V)
31	MIRR	O	Mirror signal output terminal Not used
32	DFCT	O	Defect signal output terminal Not used
33	FOK	O	Focus OK signal output terminal Not used
34	VSS	-	Ground terminal
35	VDD	-	Power supply terminal (+1.8V)
36	VSS	-	Ground terminal
37	LOCK	O	GFS is sampled by 460 Hz "H" output when GFS is "H" Not used
38	MDP	O	Spindle motor servo control signal output terminal
39	SSTP	I	Disc inner position detection signal input terminal
40	IOVSS1	-	Ground terminal
41	SFDR	O	Sled servo drive signal (+) output terminal
42	SRDR	O	Sled servo drive signal (-) output terminal
43	TFDR	O	Tracking servo drive signal (+) output terminal
44	TRDR	O	Tracking servo drive signal (-) output terminal
45	FFDR	O	Focus servo drive signal (+) output terminal

Pin No.	Pin Name	I/O	Description
46	FRDR	O	Focus servo drive signal (-) output terminal
47	IOVDD1	-	Power supply terminal (+3.3V)
48	AVDD0	-	Power supply terminal (+3.3V)
49	AVSS0	-	Ground terminal
50	E	I	E signal input from the optical pick-up block
51	F	I	F signal input from the optical pick-up block
52	TEI	I	Tracking error signal input terminal
53	TEO	O	Tracking error signal output terminal
54	FEI	I	Focus error signal input terminal
55	FEO	O	Focus error signal output terminal
56	VC	O	Middle point voltage output terminal
57	A	I	A signal input from the optical pick-up block
58	B	I	B signal input from the optical pick-up block
59	C	I	C signal input from the optical pick-up block
60	D	I	D signal input from the optical pick-up block
61	AVDD4	-	Power supply terminal (+3.3V)
62	RFDCO	O	RFDC signal output terminal Not used
63	PDSSENS	I	Reference voltage input terminal for PD
64	AC_SUM	O	RFAC summing amplifier signal output terminal
65	EQ_IN	I	RF equalizer circuit input terminal
66	LD	O	Laser diode on/off control signal output to the automatic power control circuit "H": laser diode on
67	PD	I	Light amount monitor input from the laser diode of optical pick-up block
68	RFC	I	Equalizer cut off frequency adjustment terminal
69	AVSS4	-	Ground terminal
70	RFACO	O	EFM signal output terminal
71	RFACI	I	EFM signal input terminal
72	AVDD3	-	Power supply terminal (+3.3V)
73	BIAS	I	Asymmetry circuit constant current input terminal
74	ASYI	I	Playback EFM asymmetry comparator voltage input terminal
75	ASYO	O	Playback EFM full-swing output terminal
76	VPCO	O	Charge pump output terminal for broad-band EFM PLL
77	VCTL	I	VCO2 control voltage input terminal for broad-band EFM PLL
78	AVSS3	-	Ground terminal
79	CLTV	I	VCO1 control voltage input terminal for multiplier
80	FILO	O	Filter output terminal for master PLL
81	FILI	I	Filter input terminal for master PLL
82	PCO	O	Charge pump output terminal for master PLL
83	SVSS	-	Ground terminal
84	SVDD	-	Power supply terminal (+1.8V)
85	SSTB-MP3	I	MP3 standby on/off control signal input terminal "L": standby Not used
86	VDD	-	Power supply terminal (+1.8V)
87	VSS	-	Ground terminal
88	TEST1	I	Input terminal for the test Normally: fixed at "L"
89	DATA	I	CD serial data input from the system controller
90	CLK2	I	MP3 serial data transfer clock signal input from the system controller
91	SVSS	-	Ground terminal

Pin No.	Pin Name	I/O	Description
92	SVDD	-	Power supply terminal (+2.5V)
93	JTAGTCK	I	Clock signal input terminal (for JTAG) Not used
94	JTAGTDI	I	Data input terminal (for JTAG) Not used
95	JTAGTDO	O	Data output terminal (for JTAG) Not used
96	JTAGTMS	I	Mode select signal input terminal (for JTAG) Not used
97	TRST	I	Reset signal input terminal (for JTAG) Not used
98	VSS	-	Ground terminal
99	VDD	-	Power supply terminal (+1.8V)
100	IOVDD2	-	Power supply terminal (+3.3V)
101	DOUT	O	Digital audio signal output terminal Not used
102	TEST	I	Input terminal for the test Normally: fixed at "L"
103	TES1	I	Input terminal for the test Normally: fixed at "L"
104	IOVSS2	-	Ground terminal
105	PLLVD	-	Power supply terminal (+1.8V)
106	PLLVSS	-	Ground terminal
107	XVSS	-	Ground terminal
108	XTAO	O	System clock output terminal (16.9344 MHz)
109	XTAI	I	System clock input terminal (16.9344 MHz)
110	XVDD	-	Power supply terminal (+1.8V)
111	AVDD1	-	Power supply terminal (+3.3V)
112	AOUT1	O	L-ch analog audio signal output terminal
113	VREFL	O	L-ch reference voltage output terminal
114	AVSS1	-	Ground terminal
115	AVSS2	-	Ground terminal
116	VREFR	O	R-ch reference voltage output terminal
117	AOUT2	O	R-ch analog audio signal output terminal
118	AVDD2	-	Power supply terminal (+3.3V)
119	IOVDD0	-	Power supply terminal (+3.3V)
120	IOVSS0	-	Ground terminal

PLACA PRINCIPAL IC901 uPD78F0547GC (S)-UBT-A (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	I-AC-PULSE	I	AC power detection signal input terminal
2	O-REC/PB	O	Recording/playback selection signal output terminal "L": playback, "H": recording
3	O-REC-MUTE	O	Recording muting on/off control signal output terminal "L": muting on
4	O-BIAS	O	Recording bias on/off control signal output terminal "H": bias on
5	O-STK_MUTE	O	Standby signal output to the power amplifier (for front speaker)
6	O-SW_GAIN	O	Sub woofer gain control signal output terminal Not used
7	O-POWER-RELAY	O	Power on/off relay drive signal output terminal "H": power on
8	O-XM-POWER3.3	O	Power on/off control signal output terminal for XM section Not used
9	I-AC-CUT	I	AC power off detection signal input terminal
10	I-XRESET	I	System reset signal input from the reset signal generator "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
11	XT2 (32.768KHZ)	O	Sub system clock output terminal (32.768 kHz)
12	XT1 (32.768KHZ)	I	Sub system clock input terminal (32.768 kHz)
13	FLMDO	I	Internal flash memory data writing mode control signal input terminal
14	X2 (16MHZ)	O	Main system clock output terminal (16 MHz)
15	X1 (16MHZ)	I	Main system clock input terminal (16 MHz)
16	REGC	-	External capacitor connection terminal for regulator
17	VSS	-	Ground terminal
18	EVSS	-	Ground terminal
19	VDD	-	Power supply terminal (+3.3V)
20	EVDD	-	Power supply terminal (+3.3V)
21	O-SYS-MUTE	O	Muting on/off control signal output terminal "L": muting on
22	O-SWR	O	Sub woofer speaker on/off relay drive signal output terminal Not used
23	O-FRONT-SP-RELAY	O	Front speaker on/off relay drive signal output terminal "H": front speaker on
24	O-XTCN	O	Oscillation circuit on/off control signal output to the CD DSP "L": oscillation stop, "H": self-oscillation
25	O-MP3-RST	O	System reset signal output to the MP3 decoder "L": reset (RG290: Mexican model)
26	O-MP3-XLAT/ O-MP3-CS	O	MP3 serial data latch pulse signal output to the CD DSP (Except RG290: Mexican model) MP3 chip select signal output to the MP3 decoder (RG290: Mexican model)
27	I-MP3-ACK	I	MP3 acknowledge signal input from the CD DSP (Except RG290: Mexican model) MP3 acknowledge signal input from the MP3 decoder (RG290: Mexican model)
28	O-XLAT/ O-MP3-STB	O	CD serial data latch pulse signal output to the CD DSP (Except RG290: Mexican model) Standby signal output to the MP3 decoder (RG290: Mexican model)
29	I-MP3-REQ	I	MP3 data request signal input from the CD DSP (Except RG290: Mexican model) MP3 data request signal input from the MP3 decoder (RG290: Mexican model)
30	O-MP3-CS/ O-MP3-LP	O	MP3 data request signal output to the CD DSP (Except RG290: Mexican model) MP3 serial data latch pulse signal output to the MP3 decoder (RG290: Mexican model)
31	O-D-MUTE/ O-XLT	O	System reset signal output to the motor/coil driver "L": reset (Except RG290: Mexican model) CD serial data latch pulse signal output to the CD DSP (RG290: Mexican model)
32	O-XRST	O	System reset signal output to the CD DSP "L": reset (Except RG290: Mexican model) System reset signal output to the CD DSP and motor/coil driver "L": reset (RG290: Mexican model)
33	O-LM-R	O	Loading motor control signal output terminal (reverse direction)
34	O-LM-F	O	Loading motor control signal output terminal (forward direction)
35	O-TM-R	O	Table motor control signal output terminal (reverse direction)
36	O-TM-F	O	Table motor control signal output terminal (forward direction)

Pin No.	Pin Name	I/O	Description
37	I-CD-NUMBER-SENS	I	Disc table address sensor input terminal
38	I-OPEN-SW	I	Disc table open/close detection switch input terminal "L": open, "H": close
39	I-XTUNED	I	Tuning detection signal input terminal Not used
40	I-SCOR	I	Subcode sync (S0+S1) detection signal input from the CD DSP
41	O-CDG-RST/ I-RDS-CLK	I/O	System reset signal output to the CD graphics decoder "L": reset (RG290: Mexican model)
42	O-LC23003-CE	O	Chip enable signal output to the tuner (FM/AM)
43	O-LC23003-DO	O	Serial data output to the tuner (FM/AM)
44	O-LC23003-CLK	O	Serial data transfer clock signal output to the tuner (FM/AM)
45	I-LC23003-DI	I	Serial data input from the tuner (FM/AM)
46	O-VMUTE	O	Video muting on/off control signal output terminal "H": muting on (RG290: Mexican model)
47	O-CDG-POWER	O	Power on/off control signal output terminal for CD-G section "H": power on (RG290: Mexican model)
48	I-CDG-DET	I	CD-G detection signal input from the CD graphics decoder
49	O-CDG-MUTE-DATA/ I-RDS-DATA	I/O	Muting control signal output to the CD graphics decoder (RG290: Mexican model)
50	I-XM-RXD	I	Receive data input terminal Not used
51	O-XM-TXD	O	Transmit data output terminal Not used
52	O-CD-DATA	O	CD serial data output to the CD DSP
53	I-CD-SENS	I	Internal status (SENSE) signal input from the CD DSP
54	O-CD-CLK	O	CD serial data transfer clock signal output to the CD DSP
55	I-MIC-DET	I	Microphone plug insert detection signal input terminal "L": microphone plug insert (Except RG190: 240V AC area in E/RG290: 240V AC area in E models)
56	O-R2S15208SP-DATA	O	Serial data output terminal Not used
57	O-AUDIO-CLK	O	Serial data transfer clock signal output to the electrical volume
58	O-R2S15207FP-DATA	O	Serial data output to the electrical volume
59	AVREF	I	Reference voltage (+3.3V) input terminal
60	AVSS	-	Ground terminal
61	I-HP/AUDIO IN	I	Headphone plug and audio in plug insert detection signal input terminal "L": headphone plug or audio in plug insert
62	I-SUFFIX	I	Setting terminal for the model and destination
63	I-VACS	I	VACS signal input terminal (A/D input)
64	I-PROTECTOR	I	Protector detection signal input terminal
65	I-KEY0	I	Front panel key input terminal (A/D input)
66	I-CD-ENCODER	I	Disc table address sensor (rotary encoder) input terminal
67	I-MODEL	I	Setting terminal for the model and destination
68	I-STREAM	I	Audio signal input for stream LED (A/D input)
69	O-STBY-LED	O	LED drive signal output terminal for STANDBY indicator "H": LED on
70	O-MP3-CLK	O	MP3 serial data transfer clock signal output to the CD DSP (Except RG290: Mexican model) MP3 serial data transfer clock signal output to the MP3 decoder (RG290: Mexican model)
71	I-MP3-DATA	I	MP3 serial data input terminal (Except RG290: Mexica model) MP3 serial data input from the MP3 decoder (RG290: Mexican model)
72	O-MP3-DATA	O	MP3 serial data output to the CD DSP (Except RG290: Mexican model) MP3 serial data input from the MP3 decoder (RG290: Mexican model)

Pin No.	Pin Name	I/O	Description
73	I-TCM-SYNC	I	Sync signal input from the tape mechanism deck controller
74	O-VFD-RESET	O	System reset signal output to the fluorescent indicator tube/LED driver "L": reset
75	O-VFD-CE	O	Chip enable signal output to the fluorescent indicator tube/LED driver
76	O-VFD-DATA	O	Serial data output to the fluorescent indicator tube/LED driver
77	I-VFD-DATA	I	Serial data input from the fluorescent indicator tube/LED driver
78	O-VFD-CLK	O	Serial data transfer clock signal output to the fluorescent indicator tube/LED driver
79	I-WAKEUP	I	Wake up signal input terminal
80	I-XSIRCS-IN	I	SIRCS signal input from the remote control receiver

PLACA PAINEL IC701 uPD780232GC-509-8BT-A**(FLUORESCENT INDICATOR TUBE/LED DRIVER, TAPE MECHANISM DECK CONTROLLER)**

Pin No.	Pin Name	I/O	Description
1	VDD1	-	Power supply terminal (+3.3V)
2	VSS1	-	Ground terminal
3	X1	I	System clock input terminal (4.19 MHz)
4	X2	O	System clock output terminal (4.19 MHz)
5	IC	I	Input terminal for the IC test Normally: fixed at "L"
6	XRESET	I	System reset signal input from the system controller "L": reset
7	SCK1	I	Serial data transfer clock signal input from the system controller
8	SI1	I	Serial data input from the system controller
9	SO1	O	Serial data output to the system controller
10	I-VOL A	I	Jog dial pulse input from the rotary encoder (VOLUME) (A phase input)
11	I-VOL B	I	Jog dial pulse input from the rotary encoder (VOLUME) (B phase input)
12	I-JOG A	I	Jog dial pulse input from the rotary encoder (multi jog) (A phase input)
13	I-JOG B	I	Jog dial pulse input from the rotary encoder (multi jog) (B phase input)
14, 15	NC	I	Not used
16	CE	I	Chip select signal input from the system controller
17	I-MODEL	I	Destination setting terminal
18	AVSS	-	Ground terminal
19 to 21	KEY1 to KEY3	I	Front panel key input terminal (A/D input)
22	KEY4	I	Key input terminal Not used
23	VSS0	-	Ground terminal
24	AVDD	-	Power supply terminal (+5V)
25	VDD0	-	Power supply terminal (+5V)
26	NC	I	Not used
27	I-HALF-B	I	Deck-B cassette detection signal input from the tape mechanism deck block "L": cassette in
28	I-REEL-B	I	Deck-B tape reel rotating detection signal input from the tape mechanism deck block
29	I-REC-SW	I	Recording-proof detection signal input from the tape mechanism deck block "L": recording possible
30	I-HALF-A	I	Deck-A cassette detection signal input from the tape mechanism deck block "L": cassette in
31	I-REEL-A	I	Deck-A tape reel rotating detection signal input from the tape mechanism deck block
32	NC	I	Not used
33	O-MOTOR	O	Capstan/reel motor drive signal output terminal "H": motor on
34	O-SOL-A	O	Deck-A side trigger plunger drive signal output terminal "H": plunger on
35	O-SOL-B	O	Deck-B side trigger plunger drive signal output terminal "H": plunger on
36	O-TCM-SYNC	O	Sync signal output to the system controller
37	SW LED	O	LED rive signal output of the SUBWOOFER indicator Not used
38	NC	I	Not used
39 to 43	STREAM LED1 to STREAM LED5	O	LED rive signal output of the stream indicator "H": LED on
44	NC	I	Not used
45 to 58	S1 to S14	O	Segment drive signal output to the fluorescent indicator tube
59	VDD2	-	Power supply terminal (+5V)
60	VLOD	-	Power supply terminal (-27V)
61 to 67	S15 to S21	O	Segment drive signal output to the fluorescent indicator tube
68 to 80	G13 to G11	O	Grid drive signal output to the fluorescent indicator tube