

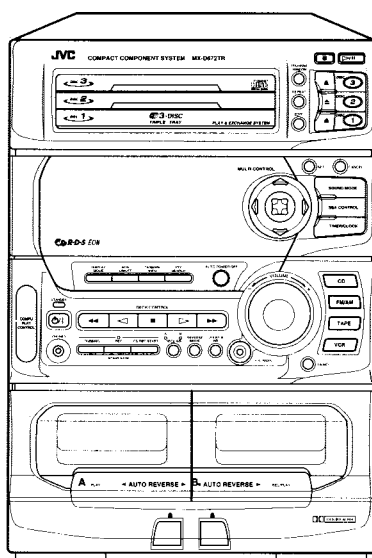
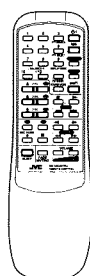
JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

CA-D672TR

Cassette Mechanism NEXT-W2M
CD Traverse Mechanism V3-2
Optical Pickup OPTIMA-150S
CD Signal Processor MN35510



COMPACT
disc
DIGITAL AUDIO

R·D·S EON

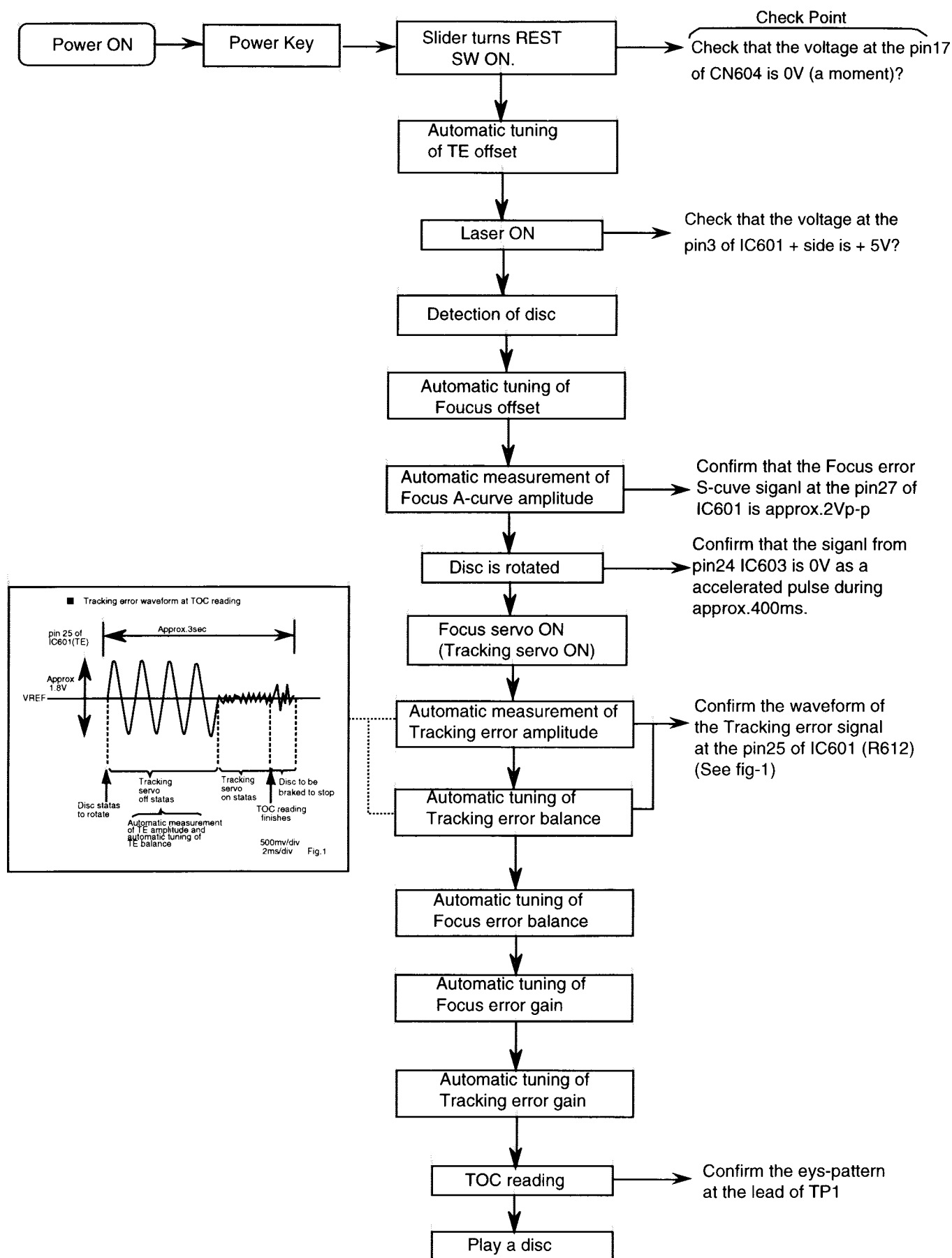
Area Suffix

B ----- U.K.
E ----- Continental Europe
EE ----- Eastern Europe
EN ----- Northern Europe

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Flow of Functional Operation Until TOC Read



Maintenance of Laser Pickup

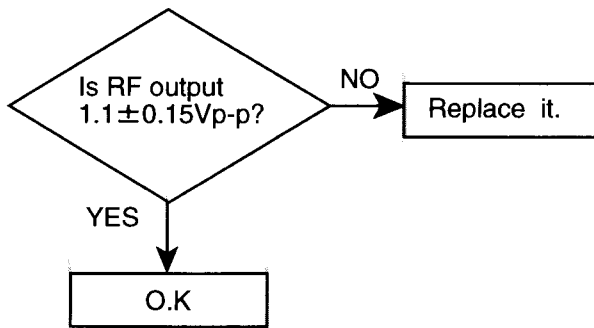
(1) Cleaning the pick up lens

Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.

(2) Life of the laser diode (Fig.1)

When the life of the laser diode has expired, the following symptoms will appear.

- (1) The level of RF output (EFM output: amplitude of eye pattern) will be low.

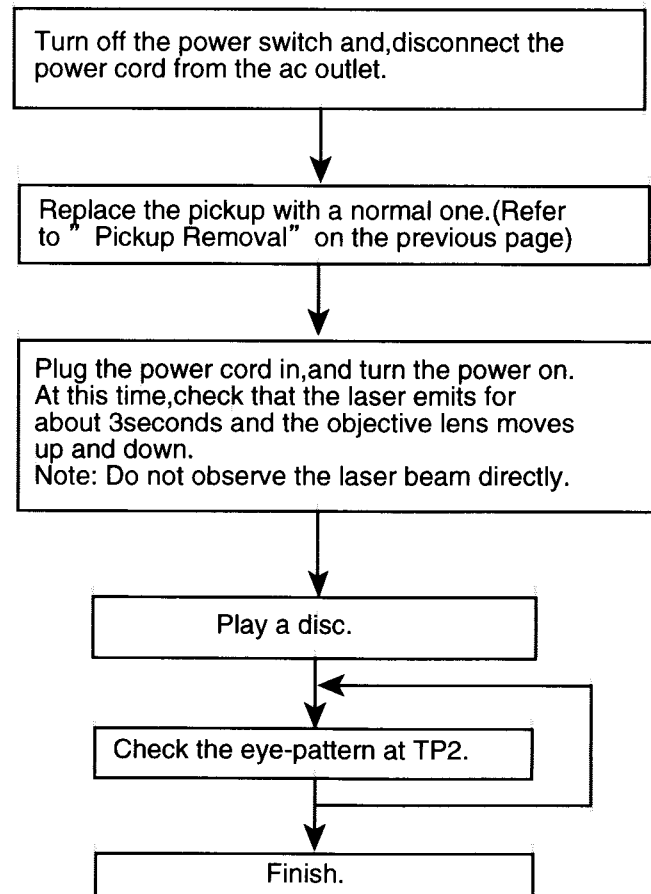


(Fig.1)

(3) Semi-fixed resistor on the APC PC board

The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor. If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced. If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

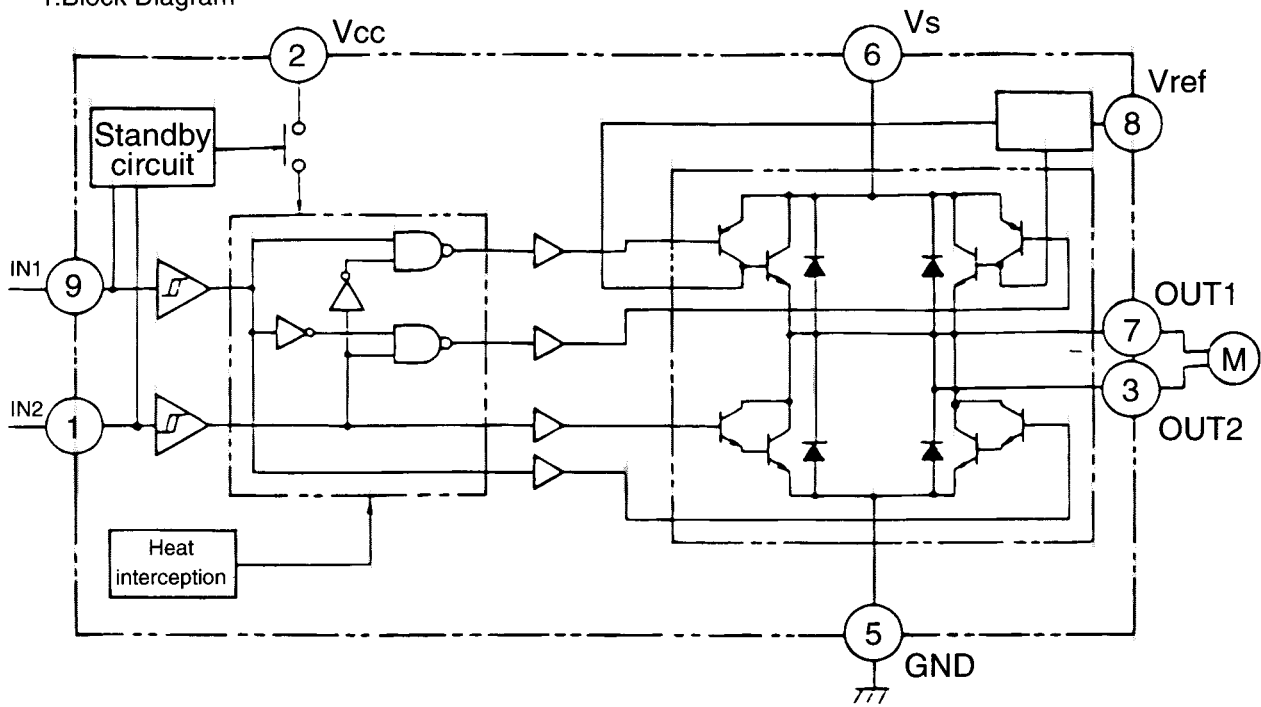
Replacement of Laser Pickup



Description of Main ICs

■TA8409S(IC802.803):CD Changer Motor Driver

1.Block Diagram

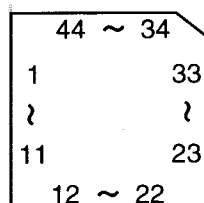


2.Function

INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	MOTOR
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

■UPD65612GB-177(IC801):CD Changer Control Micon

1.Trminal Layout



2.Pin Function

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	NC	-	Non connect	24	1SSW	I	Switch input signal to TRAY 1
2	NC	-	Non connect	25	NC	-	Non connect
3	MSPOSI	-	Non connect	26	CAM0	I	Switch input signal for LCAM
4	OS1I	I	Oscillation input terminal	27	CAM1	I	Switch input signal for LCAM
5	OS1O	O	Oscillation output terminal	28	CAM2	I	Switch input signal for LCAM
6	OS2I	I	Oscillation input terminal	29	CAM3	I	Switch input signal for LCAM
7	OS2O	O	Oscillation output terminal	30	CAM4	I	Switch input signal for RCAM
8	NC	-	Non connect	31	CAM5	I	Switch input signal for RCAM
9	C12IN	I	Connect to C12 OUT terminal	32	CAM6	I	Switch input signal for RCAM
10	C12OUT	O	Connect to C12 IN terminal	33	CAM7	I	Switch input signal for RCAM
11	RESET	I	Reset signal input	34	FIT	O	Connect to C50
12	REQB	O	Mecha.data.request output	35	C50	I	Connect to FIT
13	DATA	I/O	Control.status.data. I/O	36	LMUP	O	Motor control signal for L
14	STCH	I	Strobe signal input	37	LMUP	O	Motor control signal for L
15	CKS	I	Clock signal input	38	C25	-	Non connect
16	SELECT	-	Connect to ground	39	VDD	-	Power supply
17	GND	-	Connect to ground	40	C100	-	Non connect
18	CK	-	Connect to ground	41	RMUP	O	Motor control signal for R
19	1MSW	I	Switch input signal to TRAY 1	42	RMDWN	O	Motor control signal for R
20	2MSW	I	Switch input signal to TRAY 2	43	NC	-	Non connect
21	3MSW	I	Switch input signal to TRAY 3	44	NC	-	Non connect
22	3SSW	I	Switch input signal to TRAY 3				
23	2SSW	I	Switch input signal to TRAY 2				

3. Description

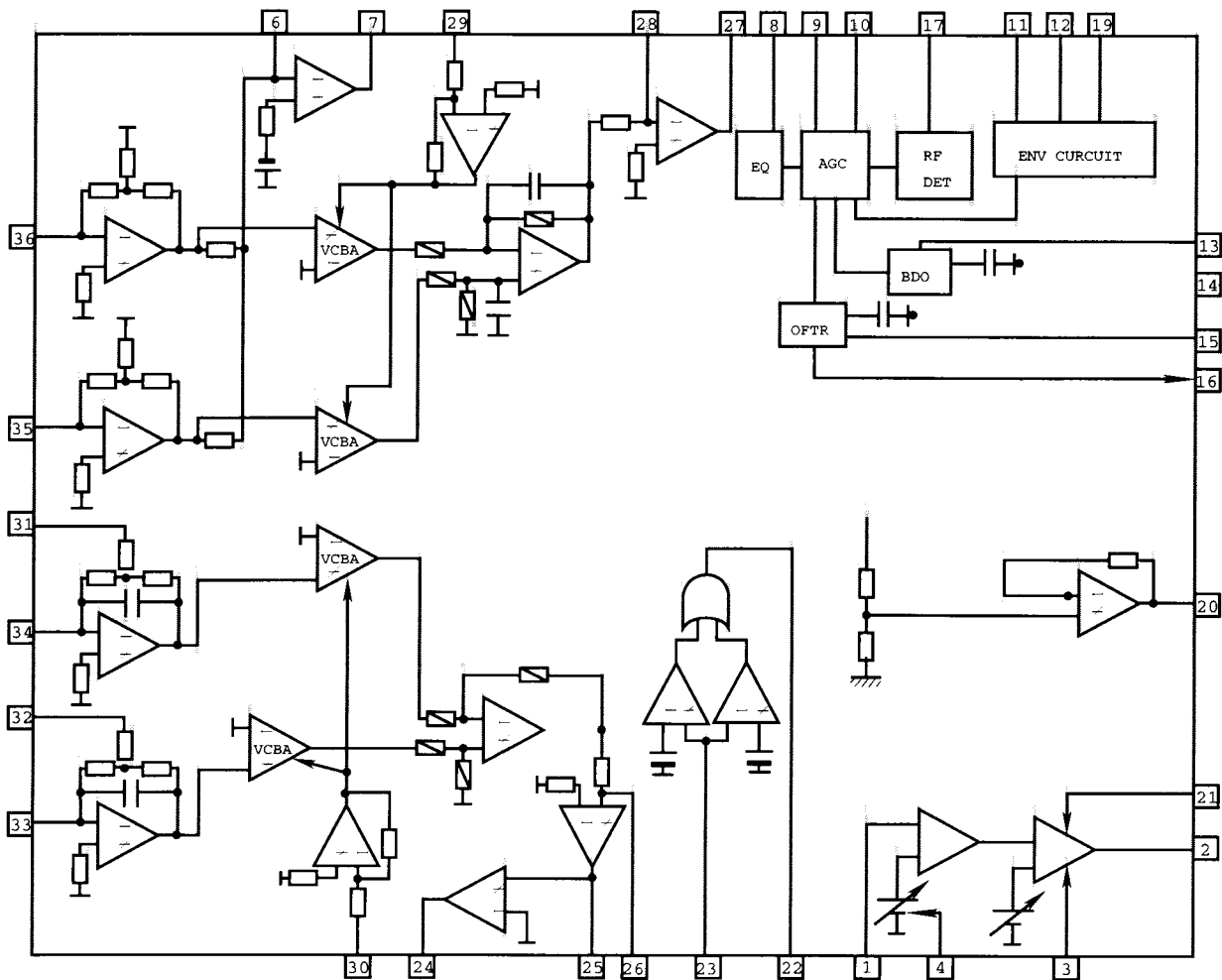
Pin No.	symbol	I/O	Description	Pin No.	symbol	I/O	Description
1	BCLK	O	Not used	41	TES	O	Tracking error shunt signal output(H:shunt)
2	LRCK	O	Not used	42	PLAY	—	Not used
3	SRDATA	O	Not used	43	WVEL	—	Not used
4	DVDD1	—	Power supply (Digital)	44	ARF	I	RF signal input
5	DVSS1	—	Connected to GND	45	IREF	I	Reference current input pin
6	TX	O	Digital audio interface output	46	DRF	I	Bias pin for DSL
7	MCLK	I	μ com command clock signal input (Data is latched at signal's rising point)	47	DSLIF	I/O	Loop filter pin for DSL
8	MDATA	I	μ com command data input	48	PLLIF	I/O	Loop filter pin for PLL
9	MLD	I	μ com command load signal input	49	VCOF	—	Not used
10	SENSE	O	Sence signal output	50	AVDD2	—	Power supply(Analog)
11	FLOCK	O	Focus lock signal output Active :Low	51	AVSS2	—	Connected to GND(Analog)
12	TLOCK	O	Tracking lock signal output Active :Low	52	EFM	—	Not used
13	BLKCK	O	sub-code·block·clock signal output	53	PCK	—	Not used
14	SQCK	I	Outside clock for sub-code Q resister input	54	PDO	—	Not used
15	SUBQ	O	Sub-code Q -code output	55	SUBC	—	Not used
16	DMUTE	—	Connected to GND	56	SBCK	—	Not used
17	STATUS	O	Status signal (CRC,CUE,CLVS,TTSTOP,ECLV,SQOK)	57	VSS	—	Connected to GND(for X'tal cscillation circuit)
18	RST	I	Reset signal input (L:Reset)	58	XI	I	Input of 16.9344MHz X'tal oscillation circuit
19	SMCK	—	Not used	59	X2	O	Output of X'tal oscillation circuit
20	PMCK	—	Not used	60	VDD	—	Power supply(for X'tal cscillationcircuit)
21	TRV	O	Traverse enforced output	61	BYTCK	—	Not used
22	TVD	O	Traverse drive output	62	CLDCK	—	Not used
23	PC	—	Not used	63	FLAG	—	Not used
24	ECM	O	Spindle motor drive signal (Enforced mode output) 3-State	64	IPPLAG	—	Not used
25	ECS	O	Spindle motor drive signal (Servo error signal output)	65	FLAG	—	Not used
26	KICK	O	Kick pulse output	66	CLVS	—	Not used
27	TRD	O	Tracking drive output	67	CRC	—	Not used
28	FOD	O	Focus drive output	68	DEMPH	—	Not used
29	VREF	I	Reference voltage input pin for D/A output block (TVD,FOD,FBA,TBAL)	69	RESY	—	Not used
30	FBAL	O	Focus Balance adjust signal output	70	IOSEL	—	pull up
31	TBAL	O	Tracking Balance adjust signal output	71	TEST	—	pull up
32	FE	I	Focus error signal input(Analog input)	72	AVDD1	—	Power supply(Digital)
33	TE	I	Tracking error signal input(Analog input)	73	OUT L	O	Lch audio output
34	RF ENV	I	RF envelope signal input(Analog input)	74	AVSS1	—	Connected to GND
35	VDET	I	Vibration detect signal input(H:detect)	75	OUT R	O	Rch audio output
36	OFT	I	Off track signal input(H:off track)	76	RSEL	—	pull up
37	TRCRS	I	Track cross signal input	77	CSEL	—	Connected to GND
38	RFDET	I	RF detect signal input(L:detect)	78	PSEL	—	Connected to GND
39	BDO	I	BDO input pin(L:detect)	79	MSEL	—	Connected to GND
40	LDON	O	Laser ON signal output(H:on)	80	SSEL	—	Pull up

■ AN8806SB(IC601):RF&Servo AMP

1. Terminal Layout

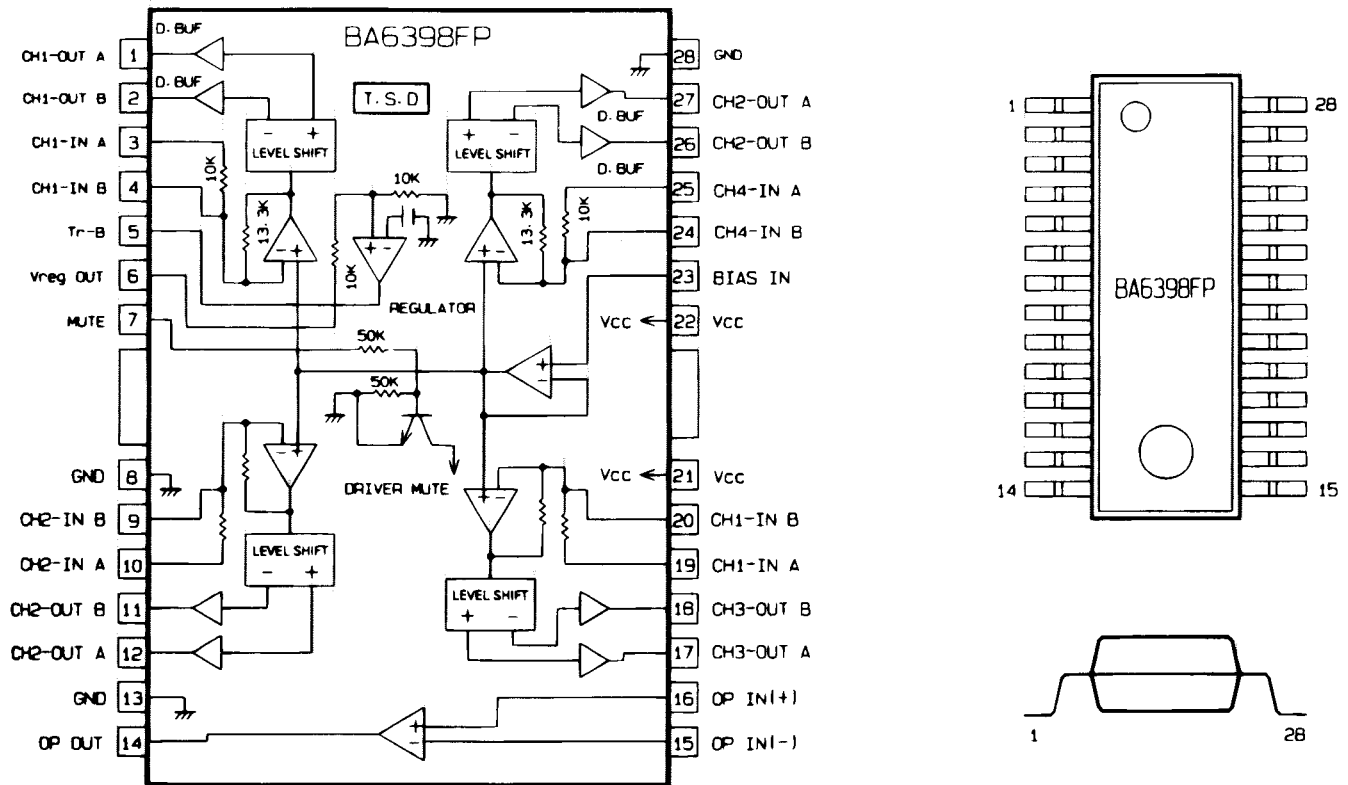
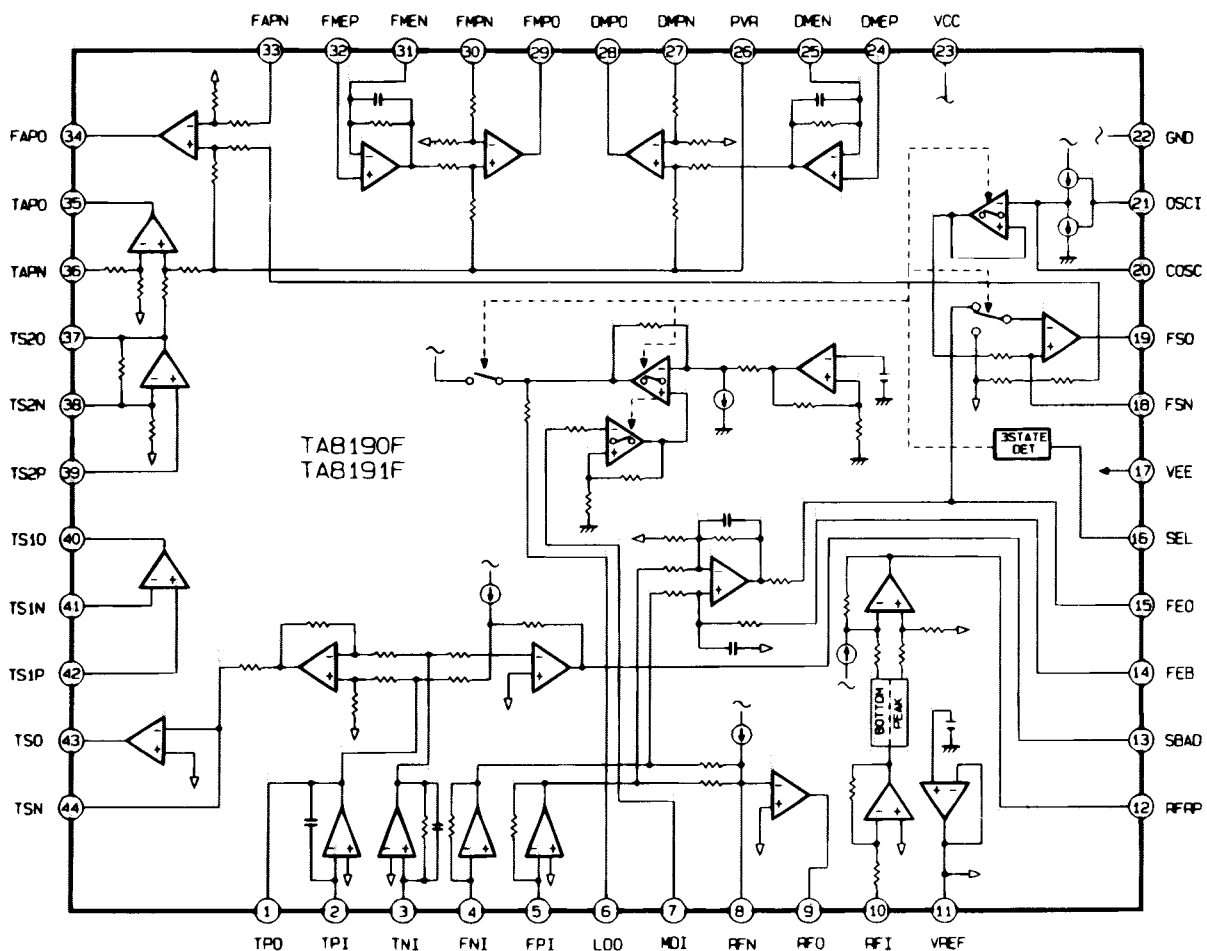
PD	1	36	PDAC
LD	2	35	PDBD
LDON	3	34	PDF
LDP	4	33	PDE
VCC	5	32	PDER
RF-	6	31	PDFR
RF OUT	7	30	TBAL
RF IN	8	29	FBAL
C.AGC	9	28	EF-
ARF	10	27	EF OUT
C.ENV	11	26	TE-
C.EA	12	25	TE OUT
CS BDO	13	24	CROSS
BDO	14	23	TE BPF
CS BRT	15	22	VDET
OFTR	16	21	LD OFF
/NRFDET	17	20	VREF
GND	18	19	ENV

2. Block Diagram



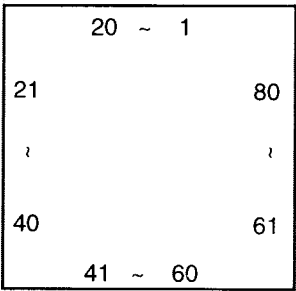
3. Functions

Pin No.	Symbol	I/O	Functions and operations
1	PD	I	APC amp input terminal
2	LD	O	APC amp output terminal
3	LD ON	I	APC ON/OFF control terminal
4	LDP	--	Connect to ground
5	VCC	--	Power supply
6	RF-	I	Inverse input pin for RF amp
7	RF OUT	O	RFamp output
8	RF IN	I	RF input
9	C.AGC	I/O	Connecting pin of AGC loop filter
10	ARF	O	RF output
11	C.ENV	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
12	C.EA	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
13	CS BDO	I/O	A capacitor is connected to detect the lower envelope of RF signal
14	BDO	O	BDO output pin
15	CS BRT	I/O	A capacitor is connected to detect the lower envelope of RF signal
16	OFTR	O	Of-track status signal output
17	/NRFDDET	O	RF detection signal output
18	GND	--	Ground
19	ENV	O	Envelope output
20	VREF	O	Reference voltage output
21	LD OFF	--	Connect to ground
22	VDET	O	Vibration detection signal output
23	TE BPF	I	Input pin of tracking error through BPF
24	CROSS	O	Tracking error cross output
25	TE OUT	O	Tracking error signal output
26	TE-	I	Inverse input pin for tracking error amp
27	FE OUT	O	Output pin of focus error
28	FE-	I	Inverse input pin for focus error amp
29	FBAL	I	Focus balance control
30	TBAL	I	Tracking balance control
31	PDFR	I/O	F I-V amp gain control
32	PDER	I/O	E I-V amp gain control
33	PDF	I	I-V amp input
34	PDE	I	I-V amp input
35	PD BD	I	I-V amp input
36	PD AC	I	I-V amp input

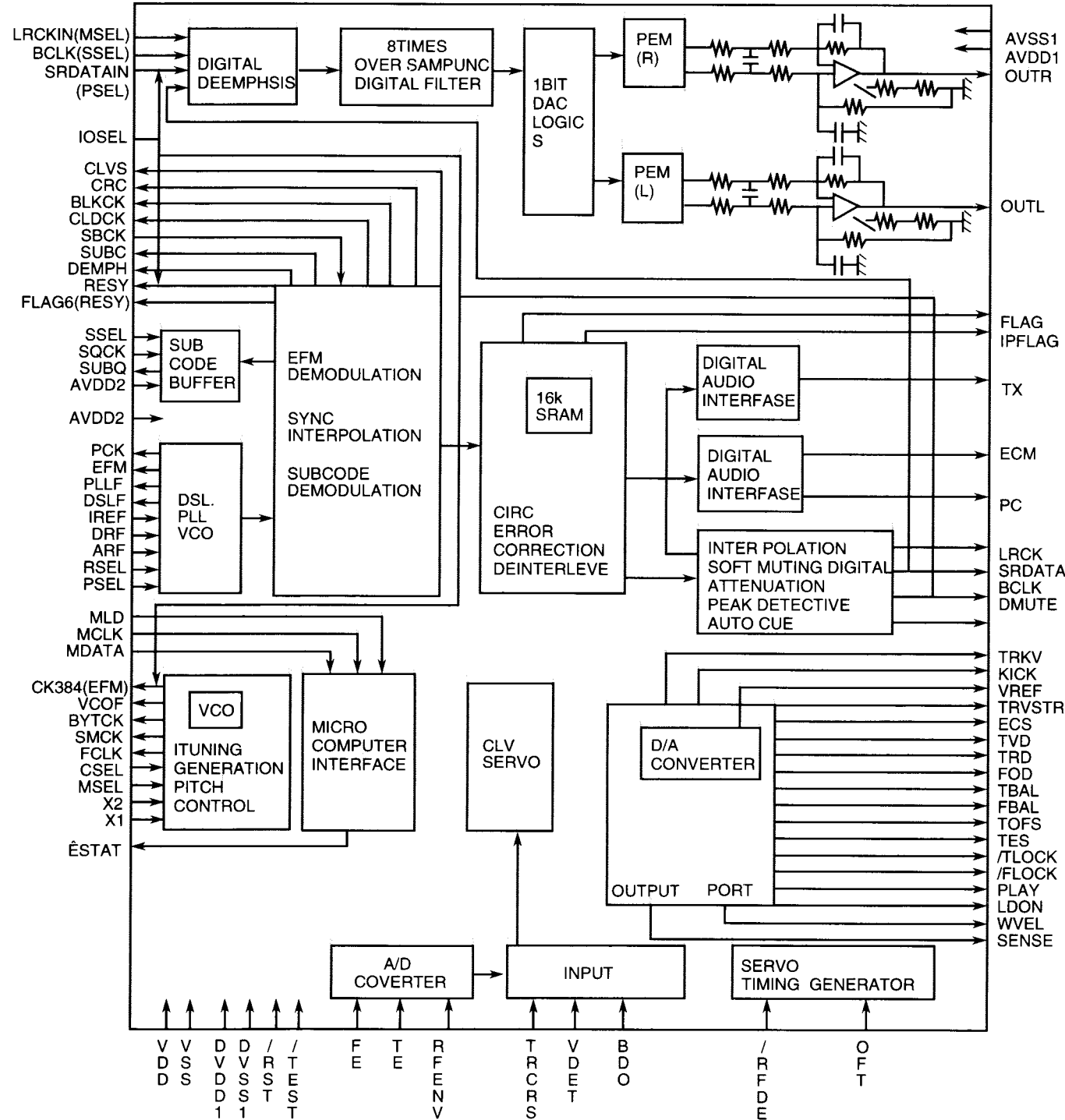
IC502 : BA6398FP (POWER DRIVER)**IC501 : TA8191F (FOCUS TRACKING SERVO)**

■ MN35510(IC651):DIGITAL SERVO&DIGITAL SIGNAL PROCESSOR

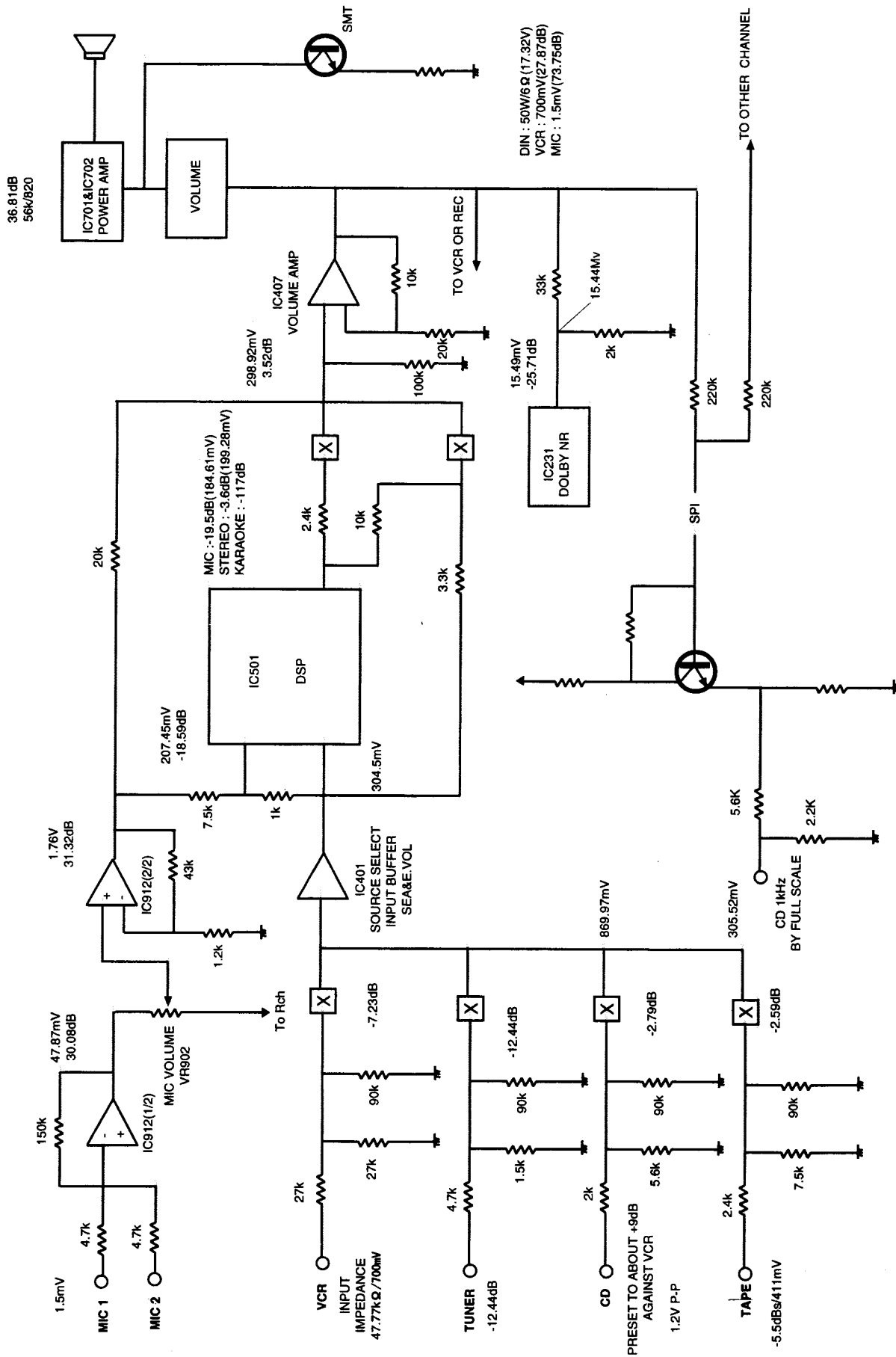
1. Terminal Layout



2.Block Diagram



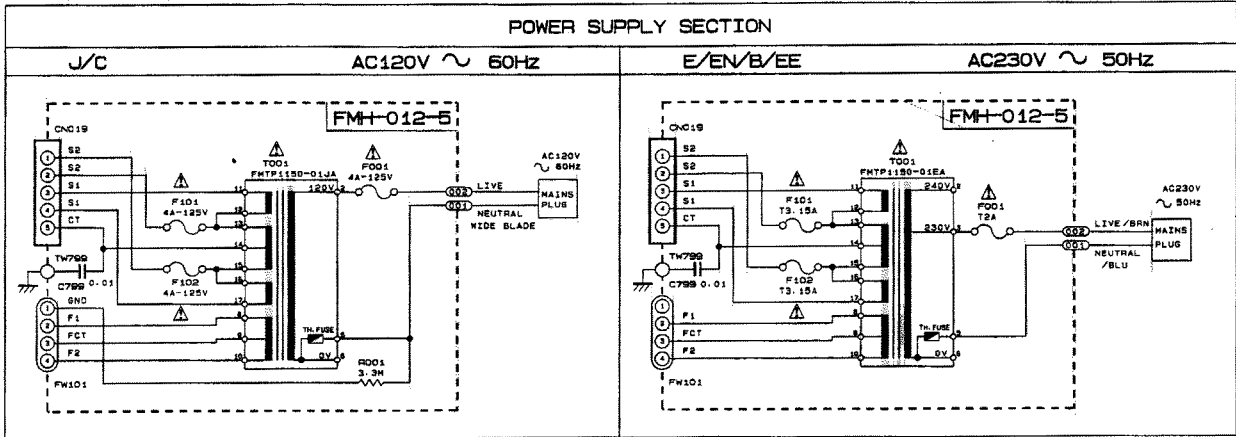
Block Diagrams



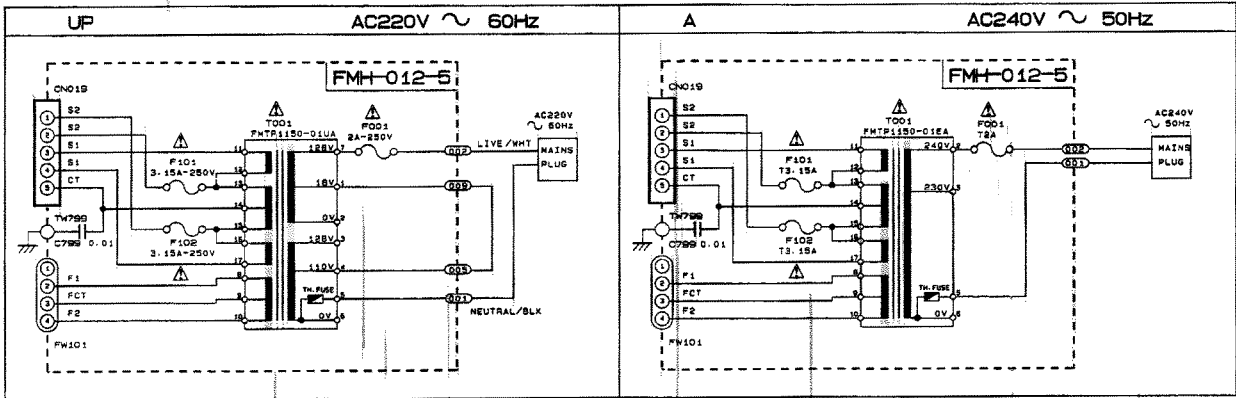
Standard Schematic Diagrams

Power Primary Section

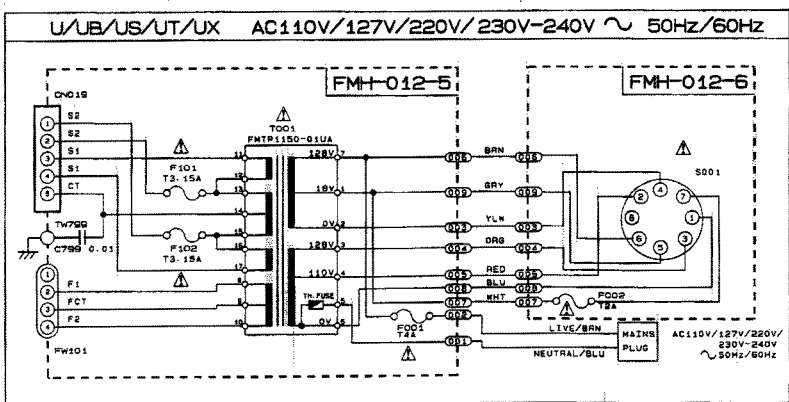
Block A



Block B



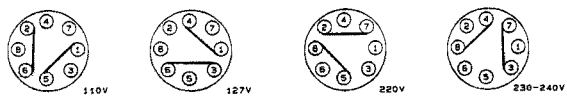
Block C



VERSION CODES

- J : U. S. A.
- C : CANADA
- EN : NORDIC COUNTRIES
- E : CONTINENTAL EUROPE
- EE : EASTERN EUROPE
- B : U. K.
- A : AUSTRALIA
- UP : KOREA
- UB : HONG KONG
- US : SINGAPORE
- UT : TAIWAN
- UX : SAUDI ARABIA
- U : UNIVERSAL EXCEPT ALL OF ABOVE

VOLTAGE SELECTOR LOCATION



NOTES:
MARK(*) IS TO SHOW DEVIATION IN VERSIONS.
DETAILS ARE EXPLAINED NEAR THE MARK.

A

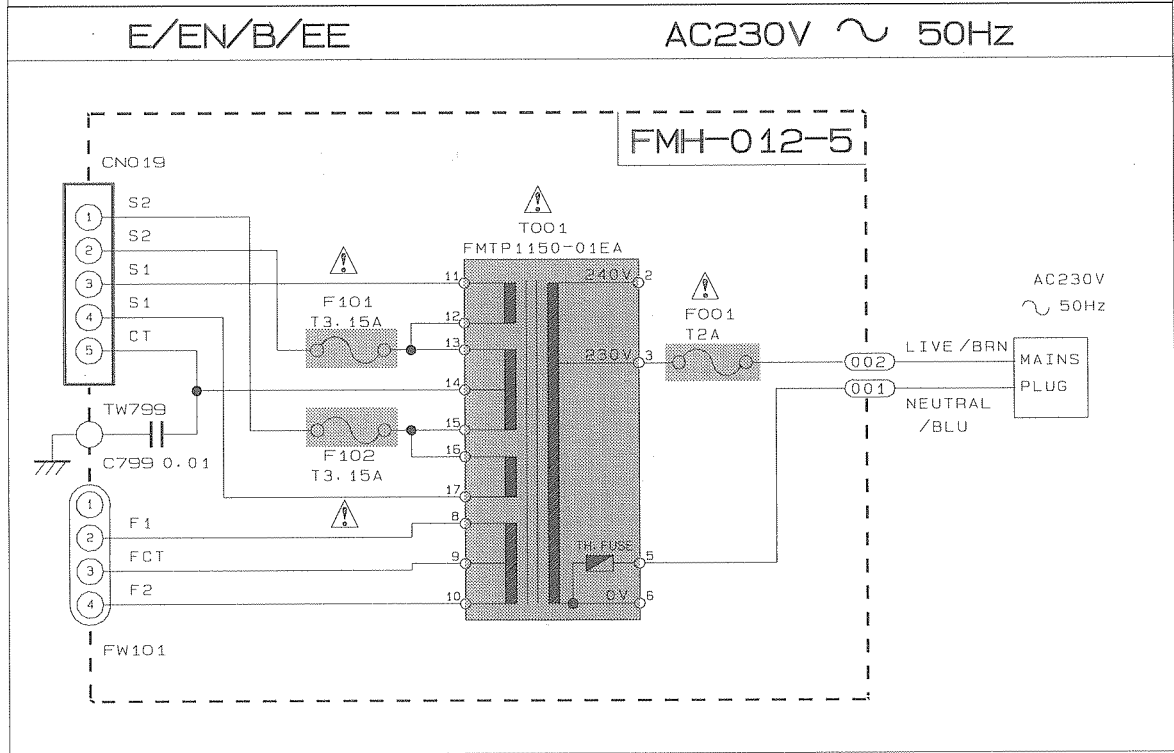
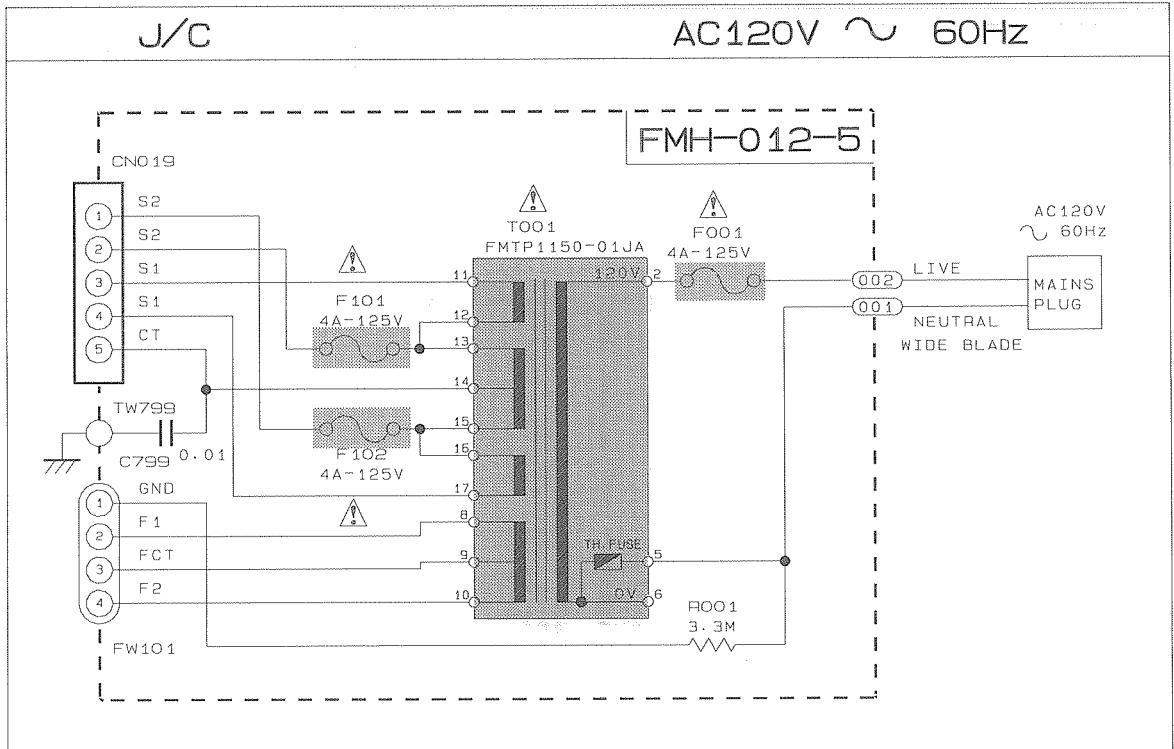
B

C

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E

Block A



Parts are safety assurance parts.
When replacing those parts make
sure to use the specified one.

A

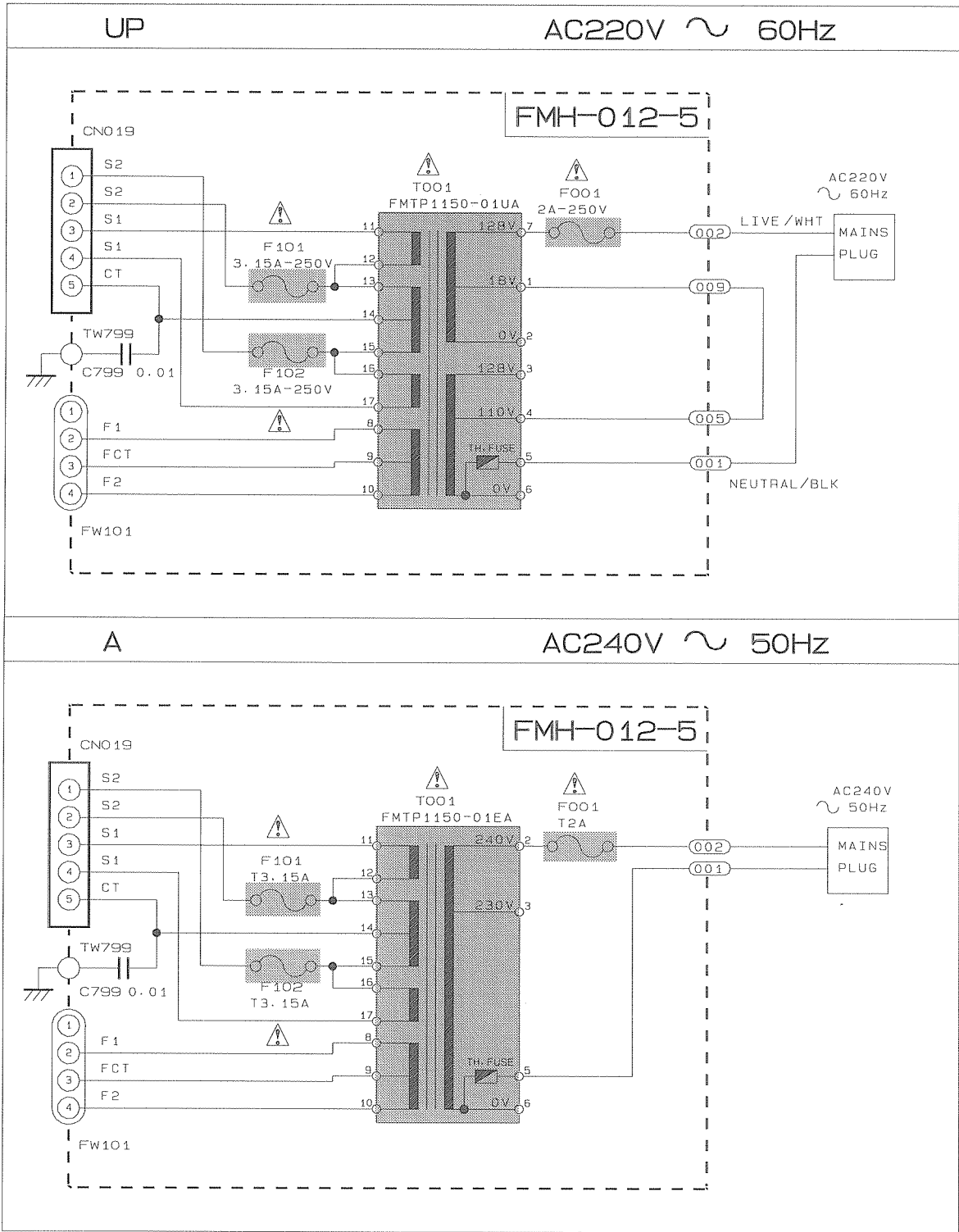
B

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D

E

Block B



⚠ Parts are safety assurance parts.
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sure to use the specified one.

A

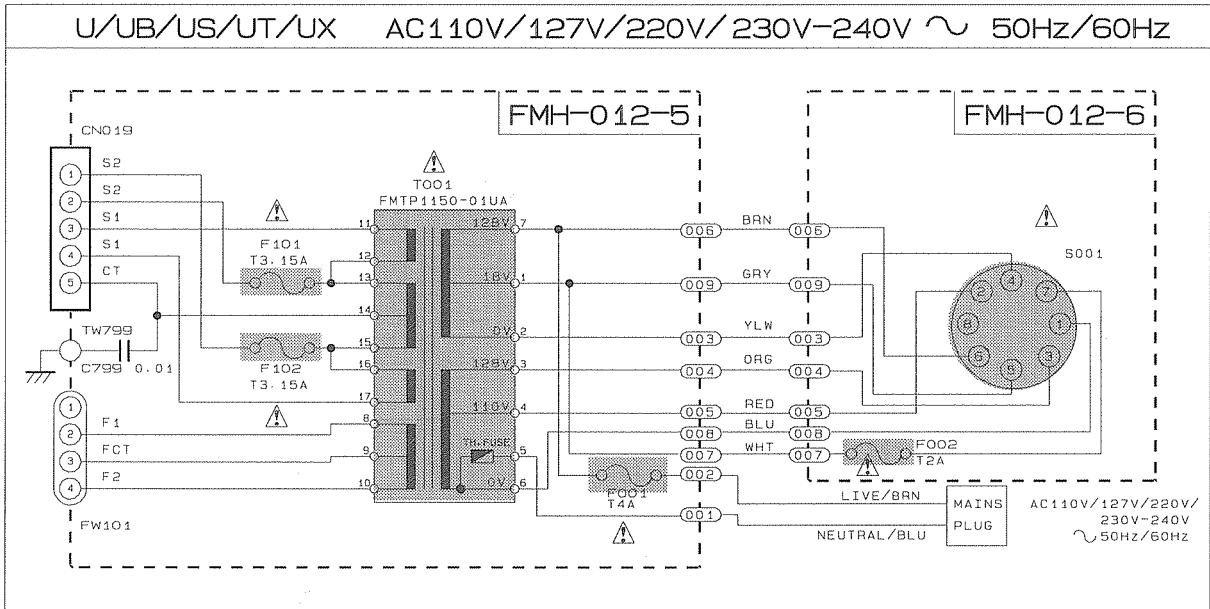
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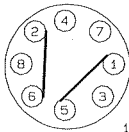
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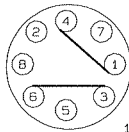
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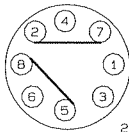
VOLTAGE SELECTOR LOCATION



110V



127V



220V



230-240V

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NOTES:

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DETAILS ARE EXPLAINED NEAR THE MARK.

A

B

C

D

E

DC Regulators / Audio Output Section

6

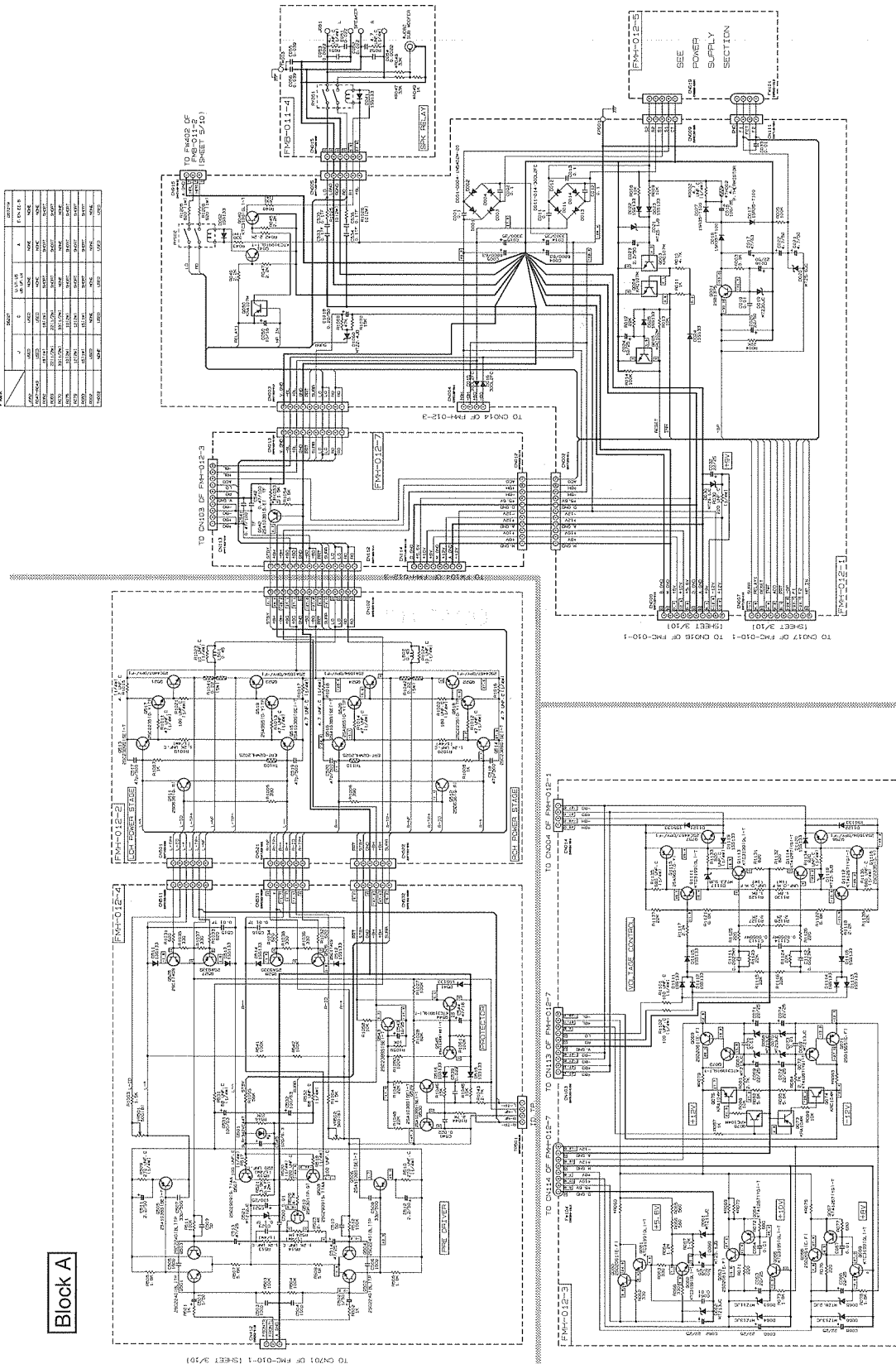
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4

3

2

1



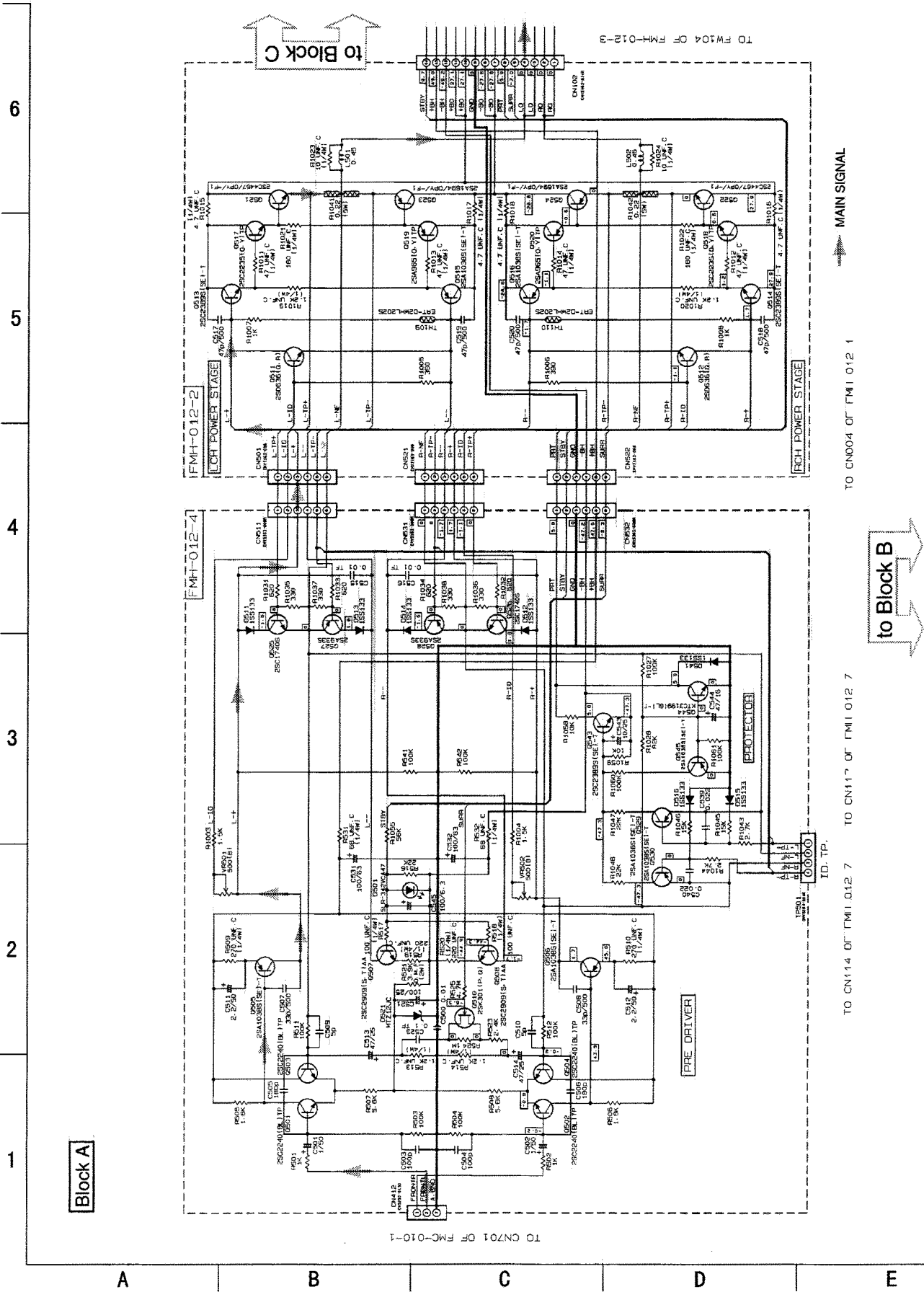
A

B

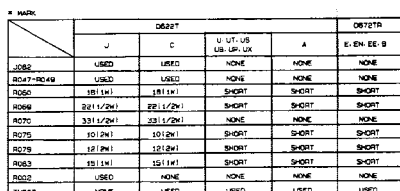
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D

E

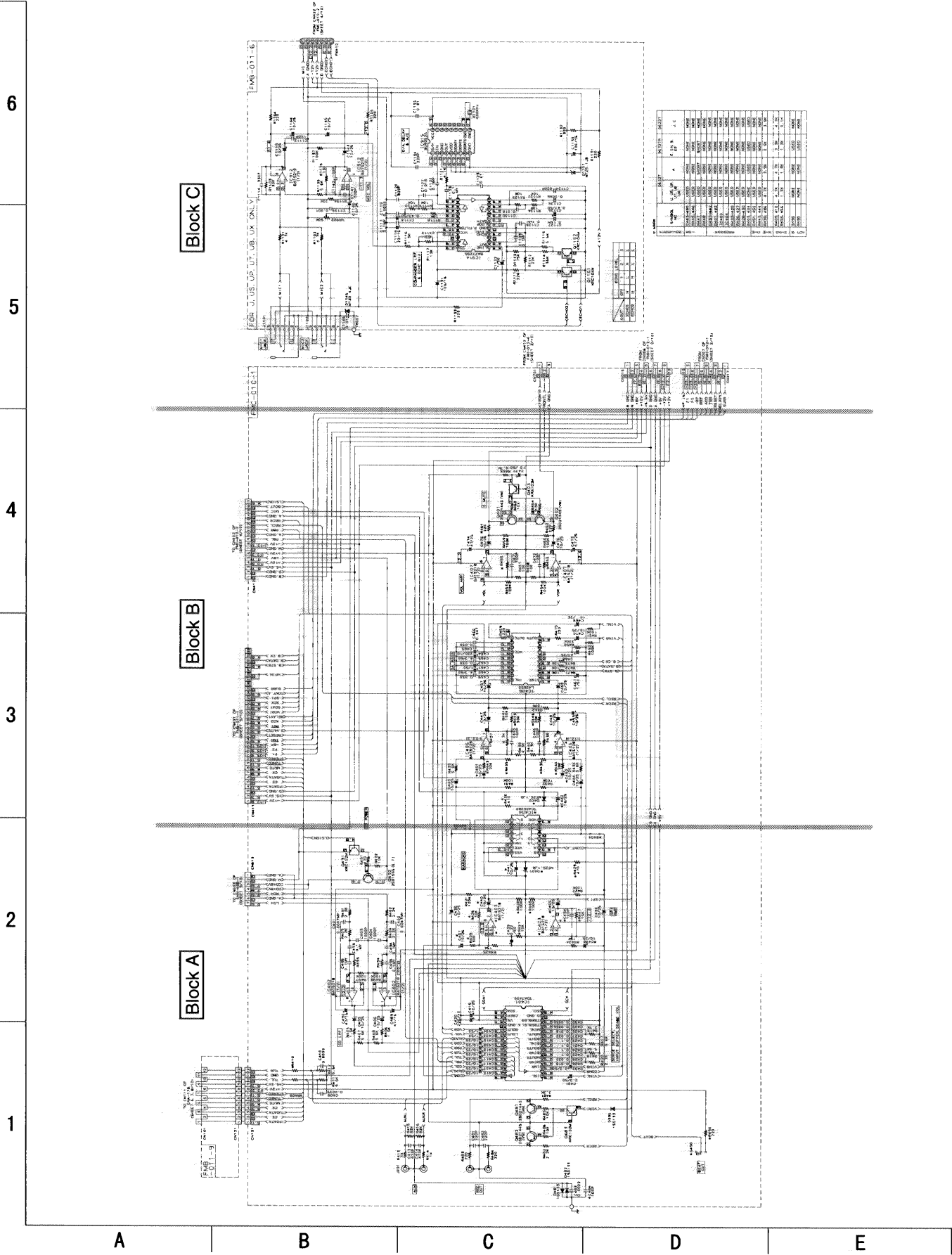






MAIN SIGNAL

■ Source Select / Mic Amp. Section



Block A

6

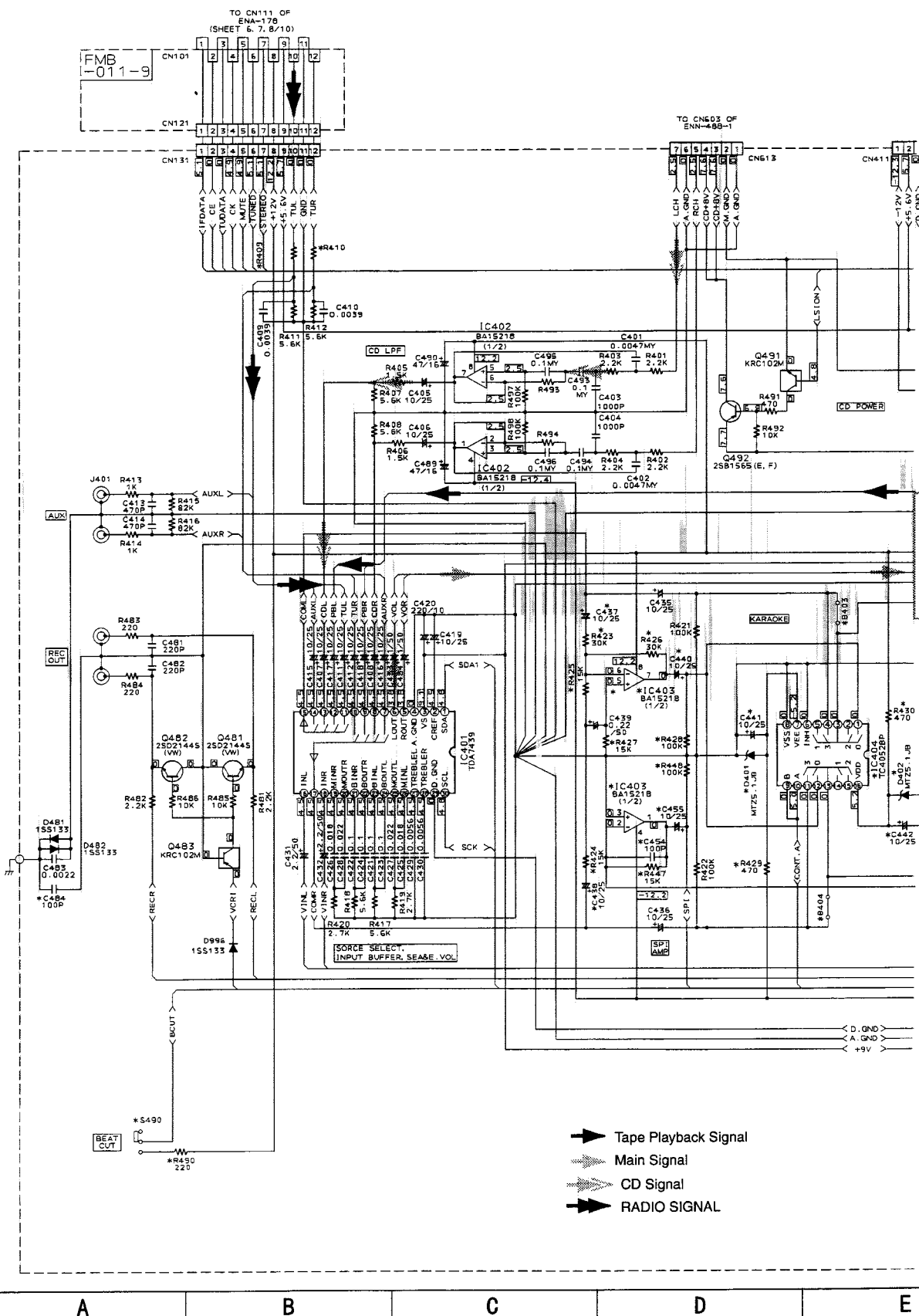
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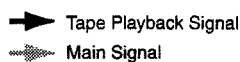
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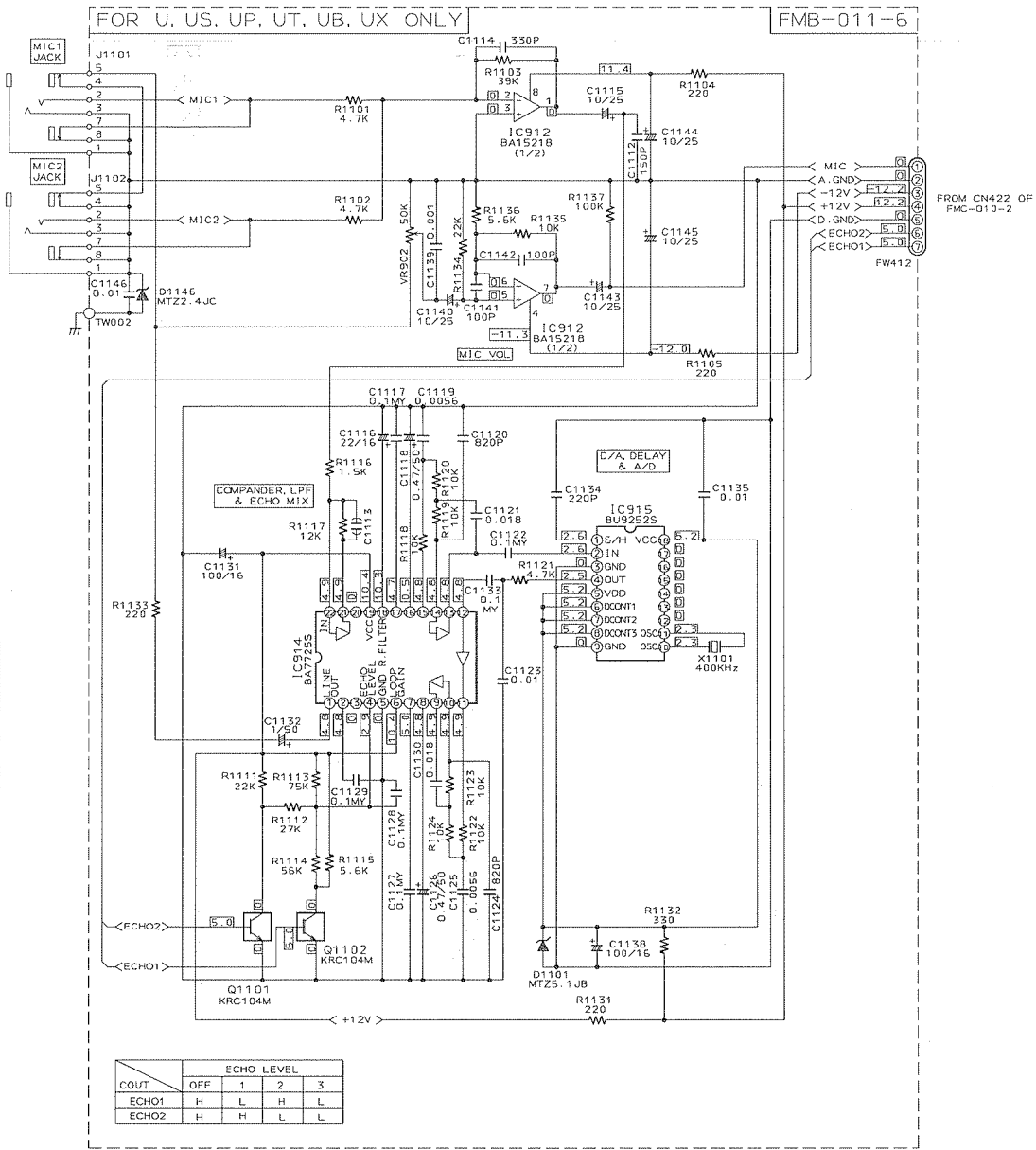
2

1



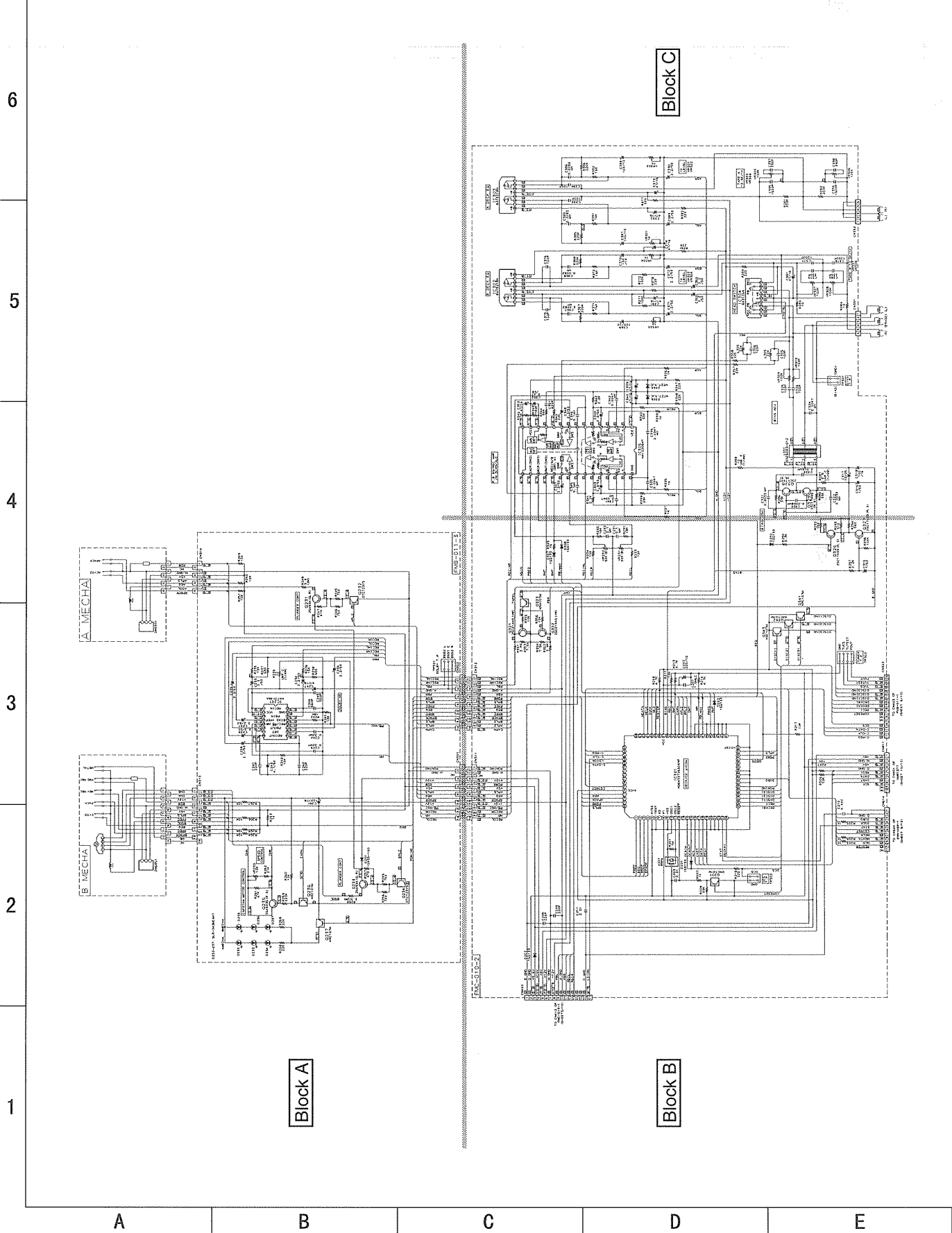


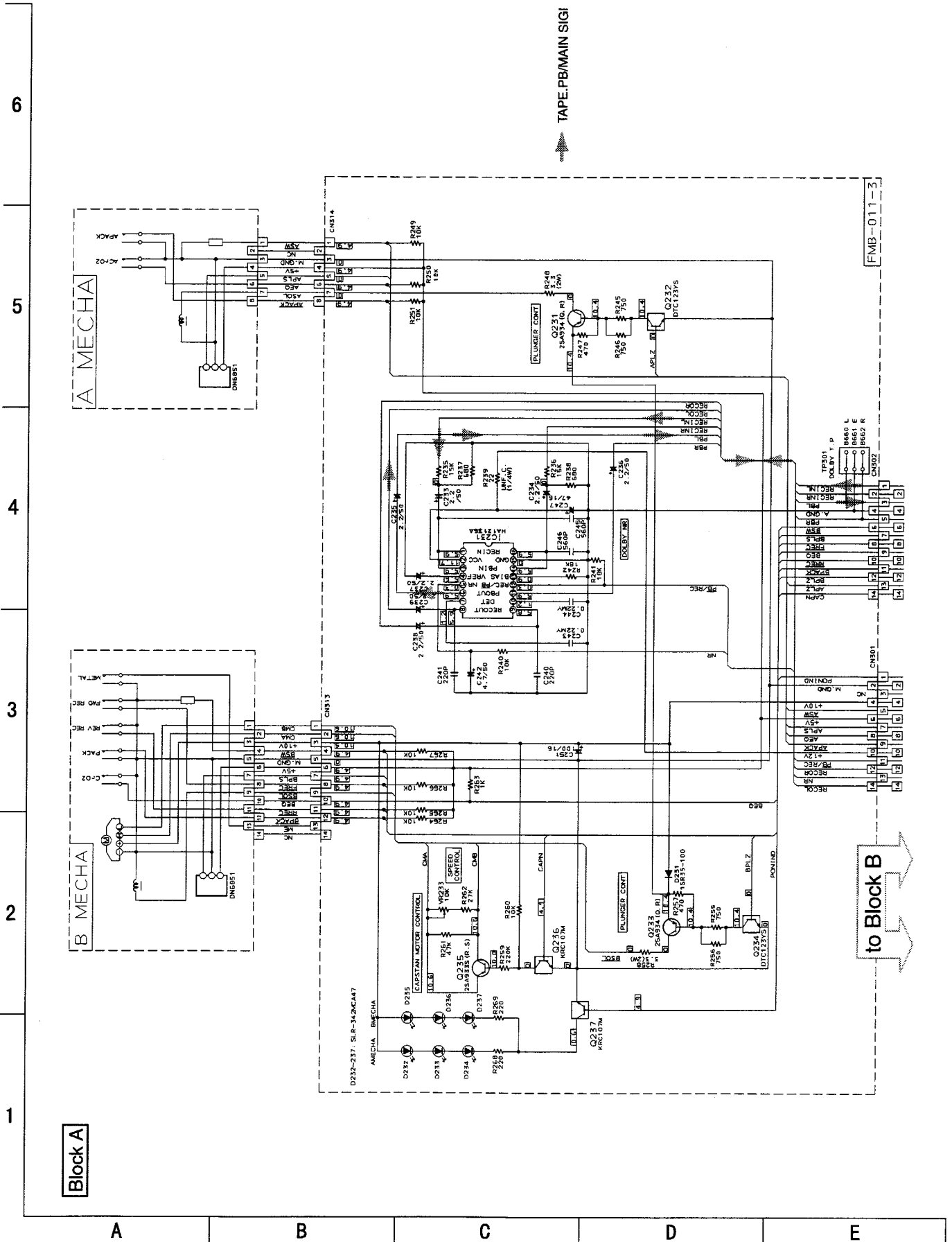
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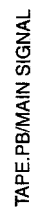


		* MARK			
P NO	SYMBOL NO.	D672T			
		U, US, UP, UT, UB UX	A	E, EN, B, EE	J, C
C453-455	USED	NONE	NONE	NONE	NONE
	USED	NONE	NONE	NONE	NONE
	USED	SHORT	SHORT	NONE	NONE
	USED	NONE	NONE	NONE	NONE
C437-442	USED	NONE	NONE	NONE	NONE
	USED	NONE	NONE	NONE	NONE
	USED	NONE	NONE	NONE	NONE
	USED	NONE	NONE	NONE	NONE
R423-425	USED	NONE	NONE	NONE	NONE
	USED	NONE	NONE	NONE	NONE
	USED	NONE	NONE	NONE	NONE
	USED	NONE	NONE	NONE	NONE
B403, 404	NONE	USED	USED	USED	USED
	USED	NONE	NONE	NONE	NONE
	USED	NONE	NONE	NONE	NONE
	4.7K	3.9K	3.9K	3.9K	3.9K
R409, 410	4.7K	4.7K	3.3K	4.7K	4.7K
	1.3K	1.3K	1.3K	5.1K	5.1K
	S490	NONE	NONE	USED	NONE
	R490	NONE	NONE	USED	NONE

■ Tape Mechanism Control Section







6

5

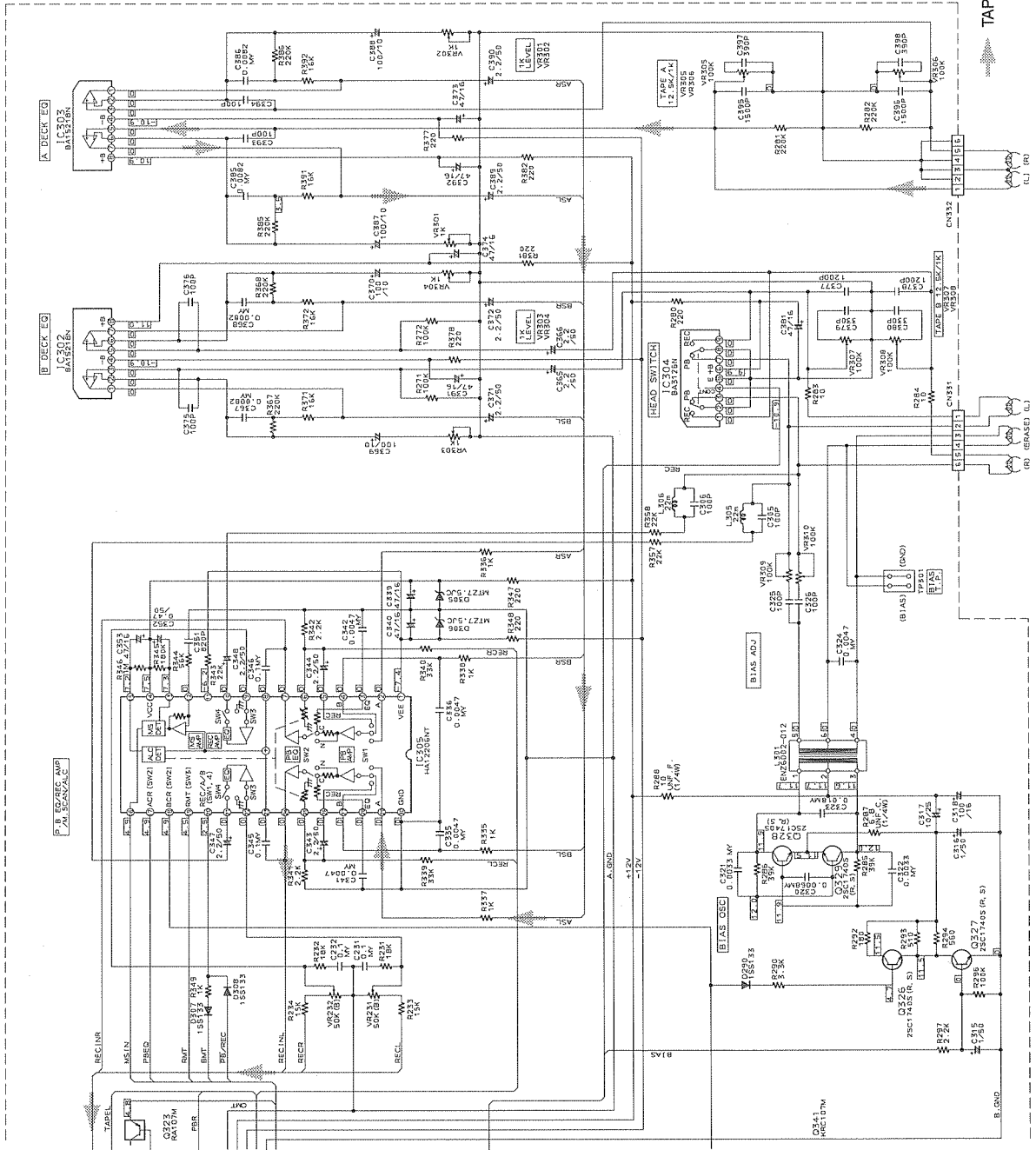
4

3

2

1

Block C



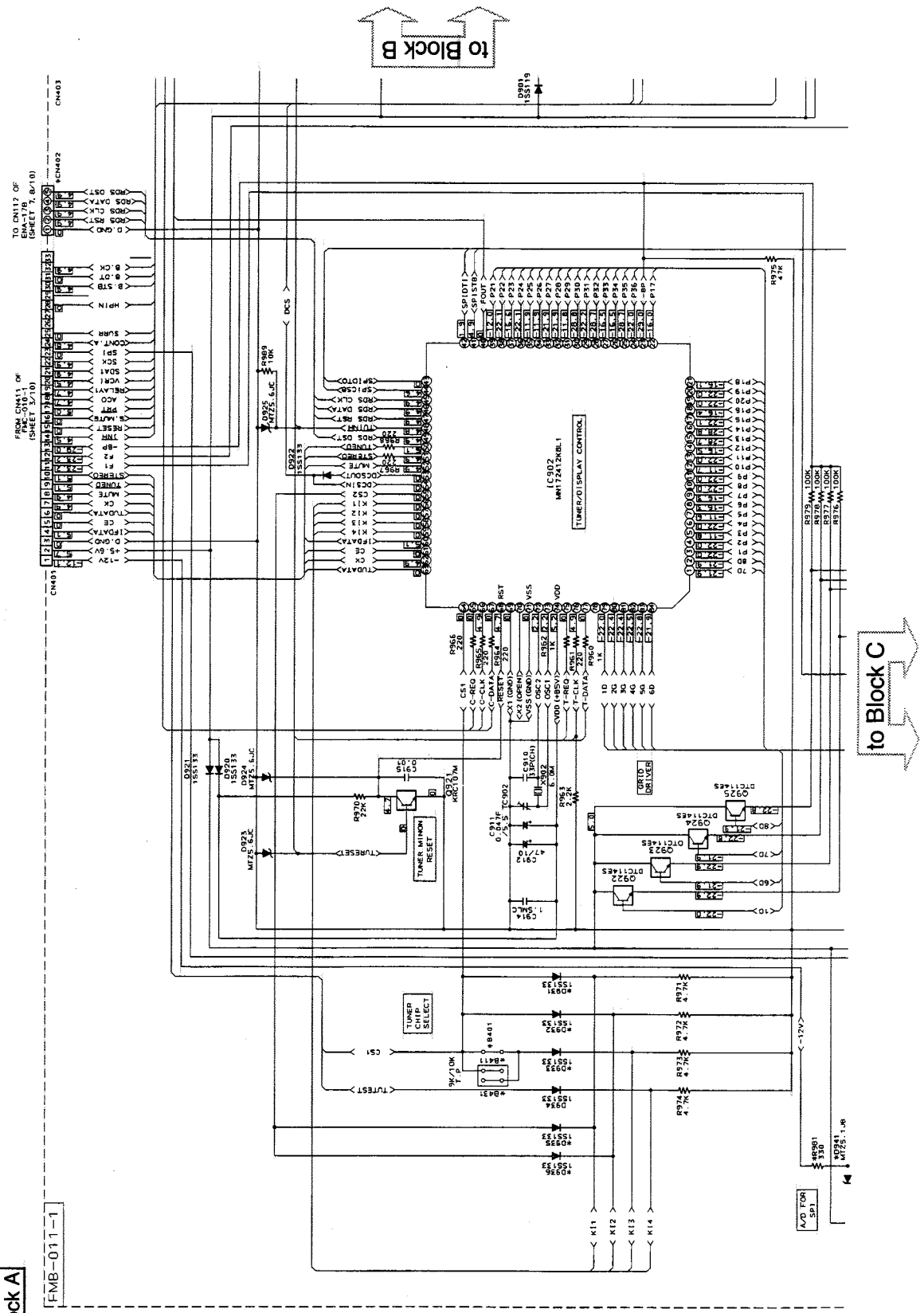
to Block B



1 2 3 4 5 6

Block A

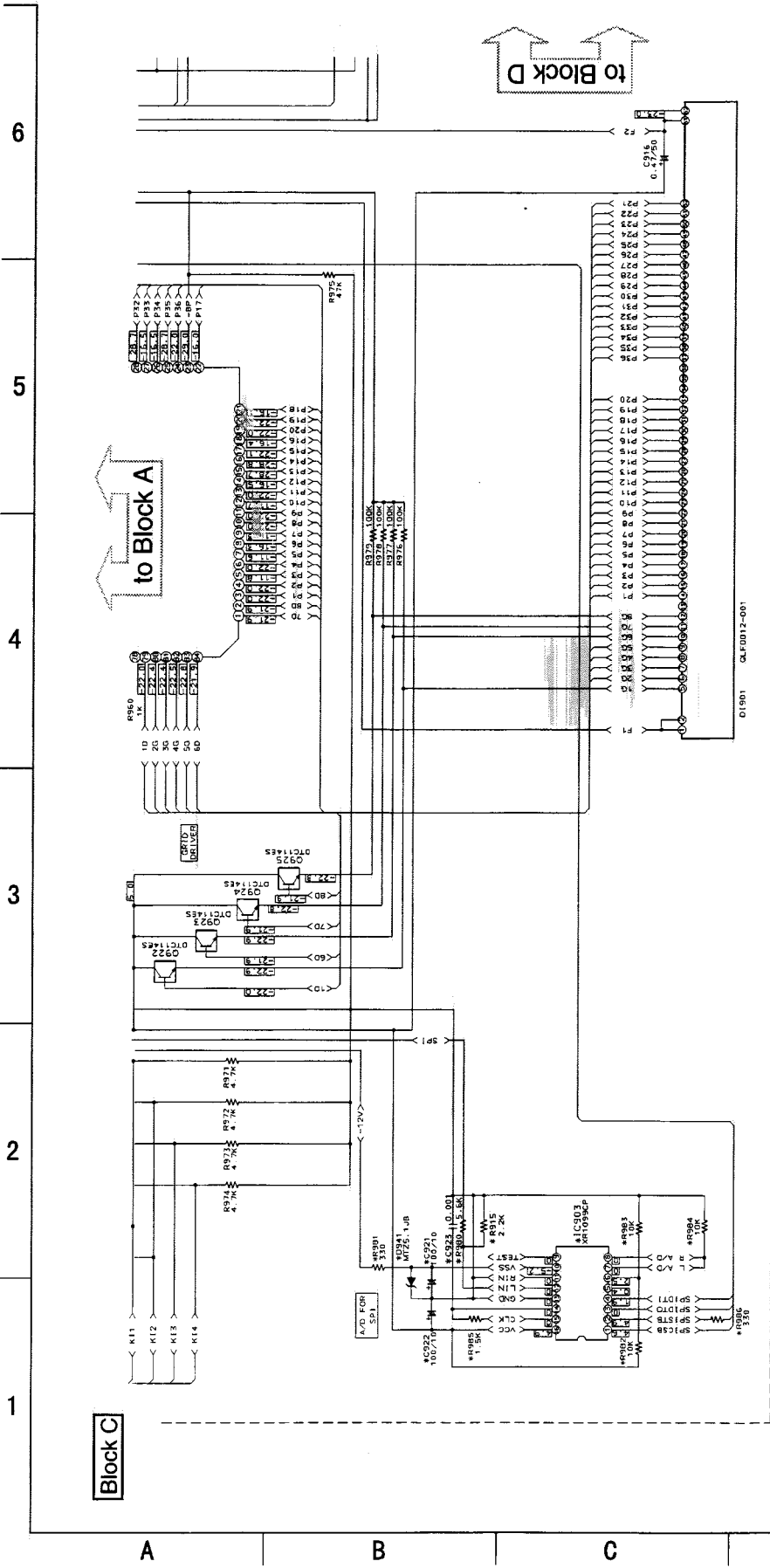
FMB-011-1



to Block B

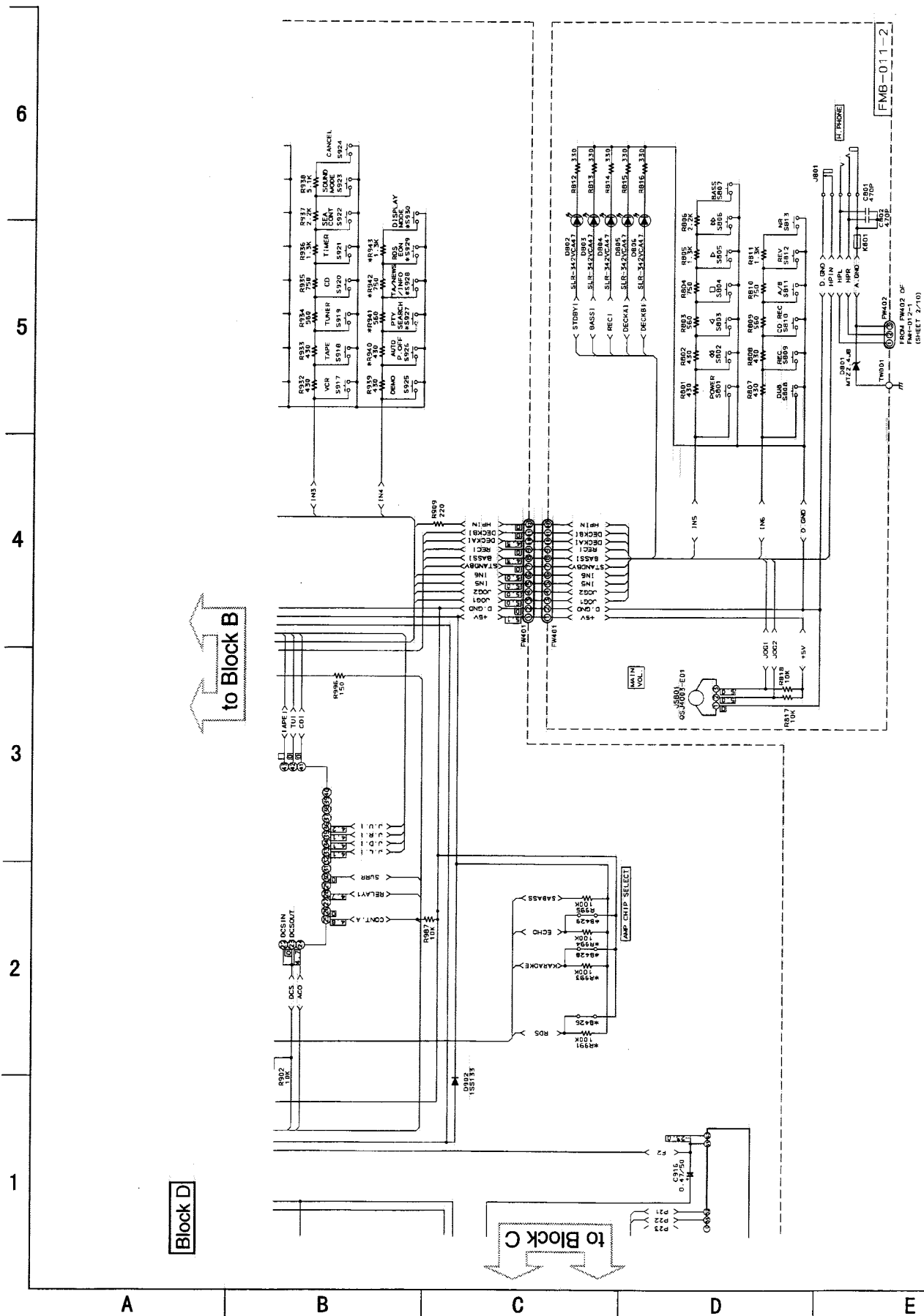
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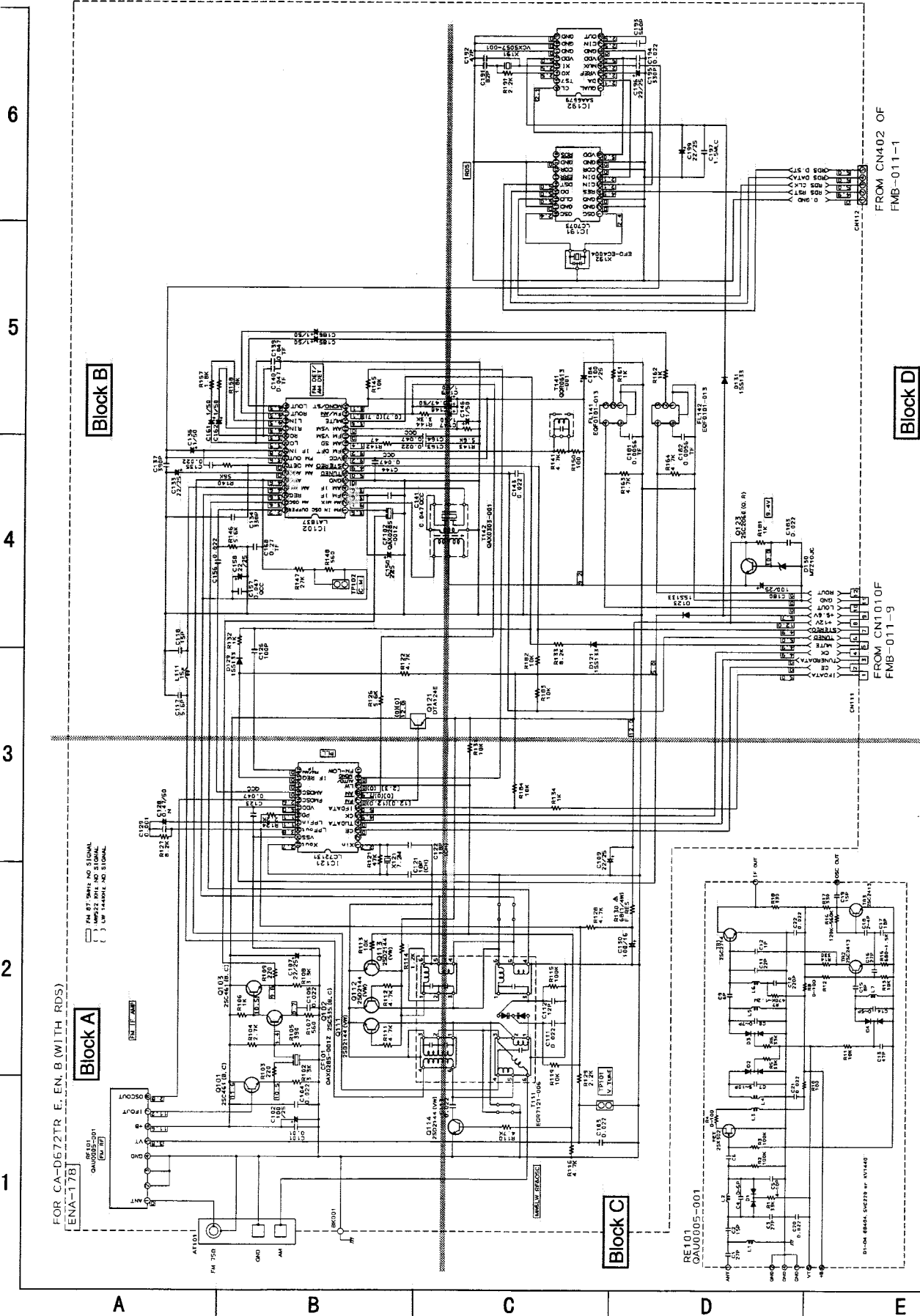


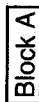
* MARK LIST

U.T. UP. U.S.	D622T	A	EE	D672B	E, EN, B	D622T	J, C
B401	USED	USED	NONE	NONE	NONE	USED	NONE
B425	USED	USED	USED	USED	NONE	USED	NONE
B426	NONE	USED	USED	USED	NONE	USED	USED
B429	NONE	USED	USED	USED	NONE	USED	USED
C921-923	USED	NONE	NONE	NONE	NONE	USED	NONE
C9402	NONE	NONE	USED	USED	NONE	USED	NONE
D931	NONE	NONE	USED	USED	NONE	USED	NONE
D932	NONE	NONE	USED	USED	NONE	USED	NONE
D933	NONE	NONE	USED	USED	NONE	USED	NONE
D934	NONE	NONE	USED	USED	NONE	USED	NONE
D935	NONE	NONE	USED	USED	NONE	USED	NONE
D941	USED	NONE	NONE	USED	NONE	USED	NONE
IC903	USED	NONE	NONE	NONE	NONE	USED	NONE
R980-985	USED	NONE	NONE	NONE	NONE	USED	NONE
R991	NONE	NONE	NONE	USED	NONE	USED	NONE
R993	USED	NONE	NONE	NONE	NONE	USED	NONE
R994	USED	NONE	NONE	NONE	NONE	USED	NONE
R940-943	NONE	NONE	USED	USED	USED	USED	NONE
R942-950	NONE	NONE	USED	USED	USED	USED	NONE
R941, K11	NONE	NONE	NONE	NONE	NONE	USED	NONE
D913-916	NONE	NONE	NONE	NONE	NONE	USED	NONE
R953-954	NONE	NONE	NONE	NONE	NONE	USED	NONE

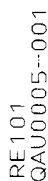


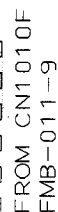
Tuner Section





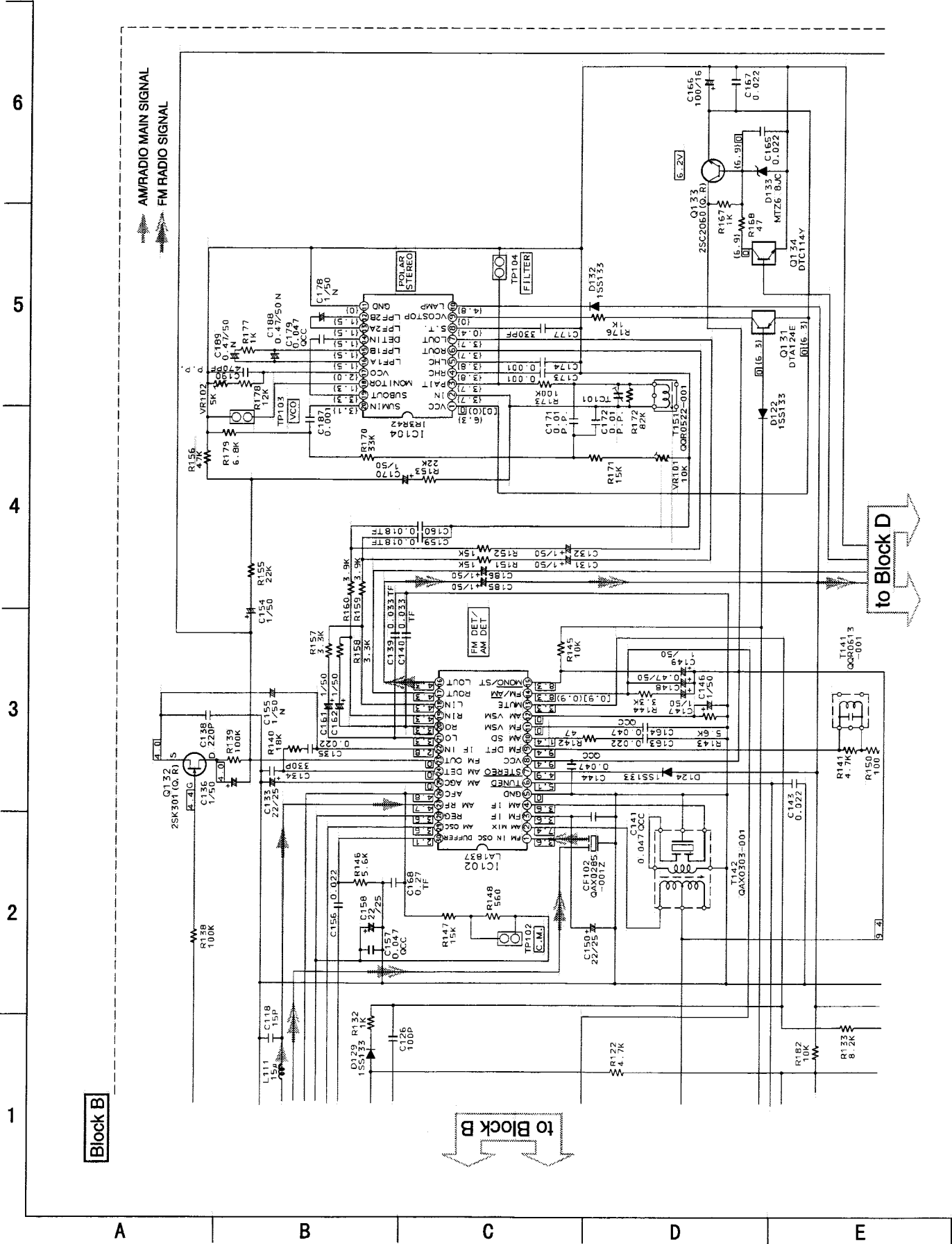


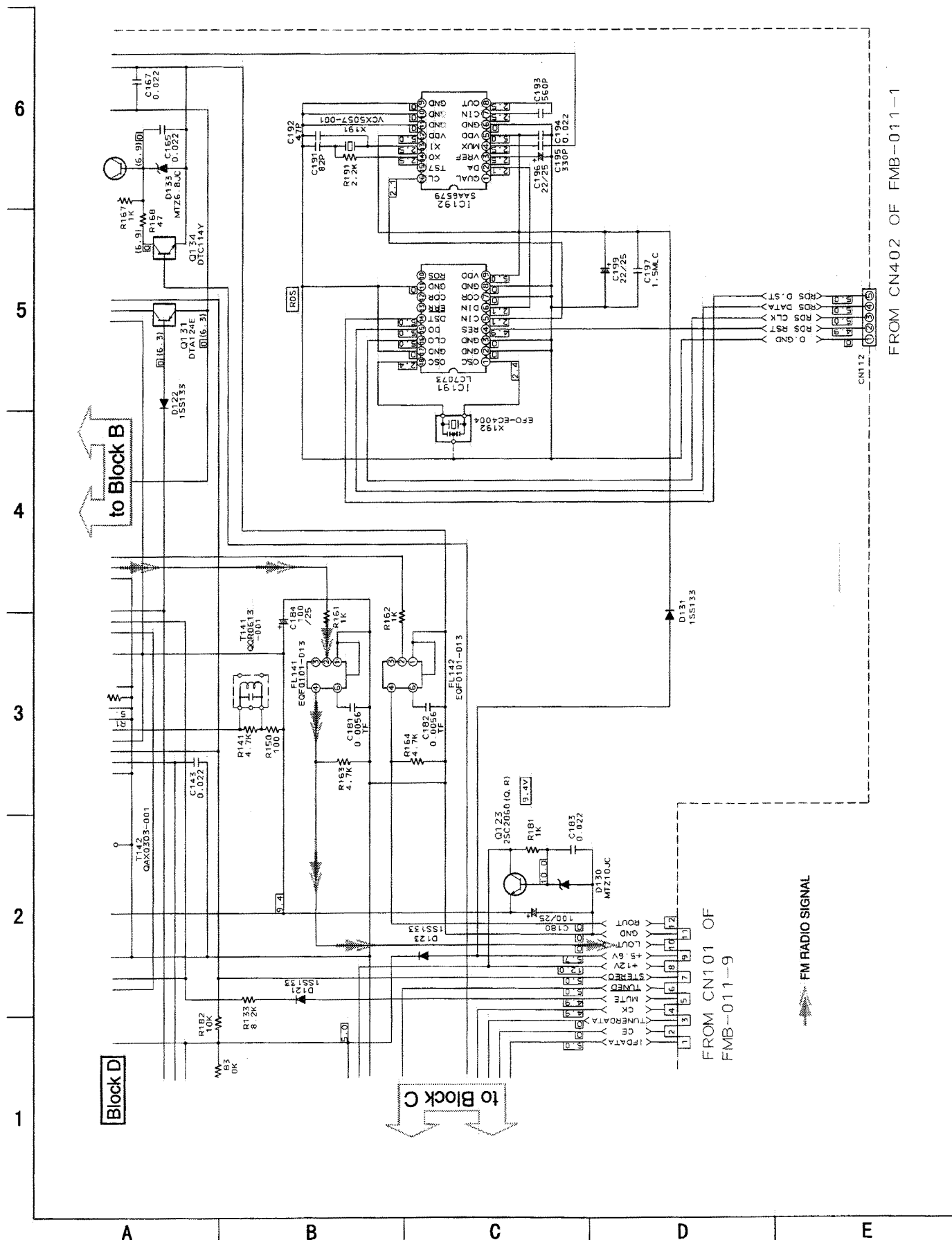




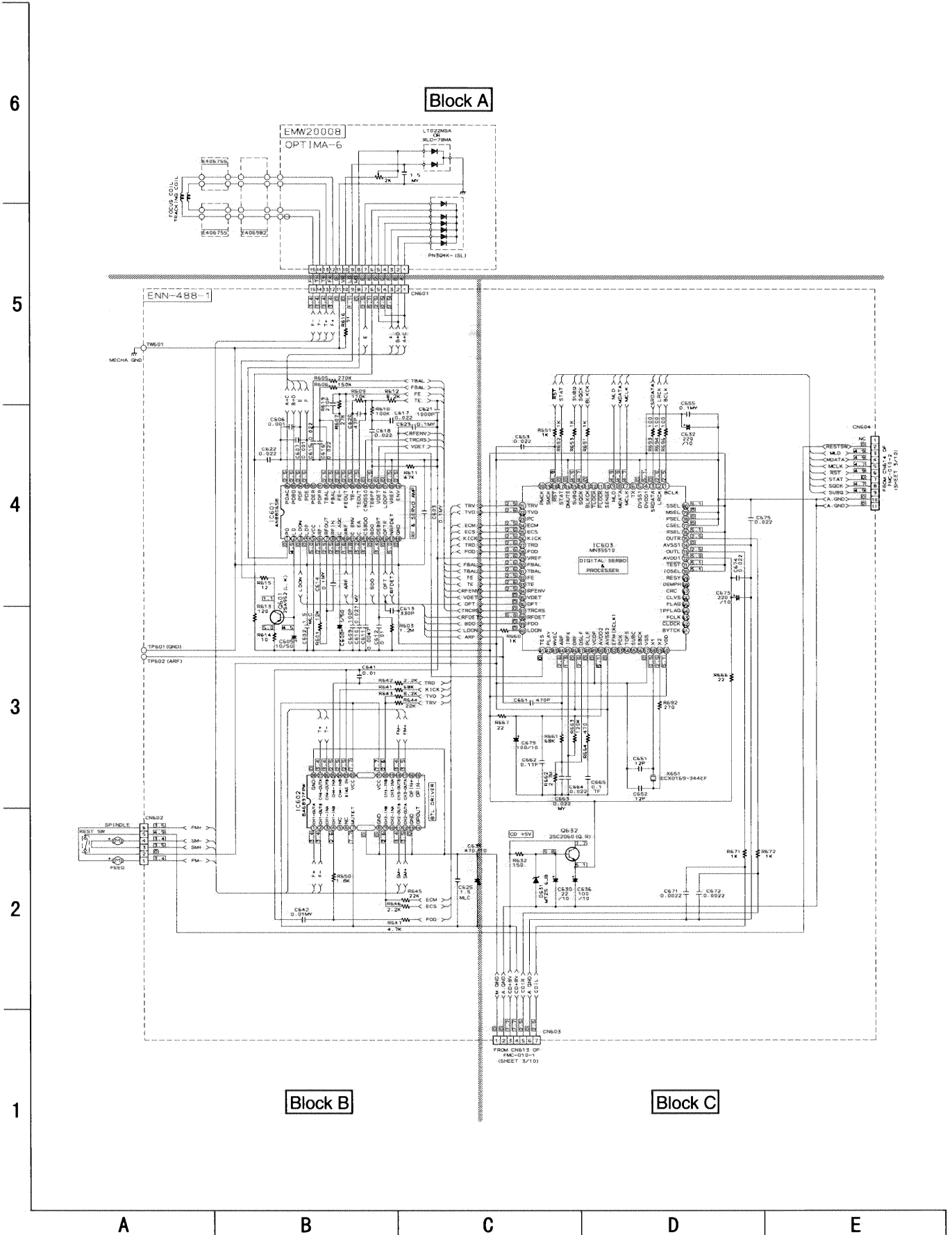


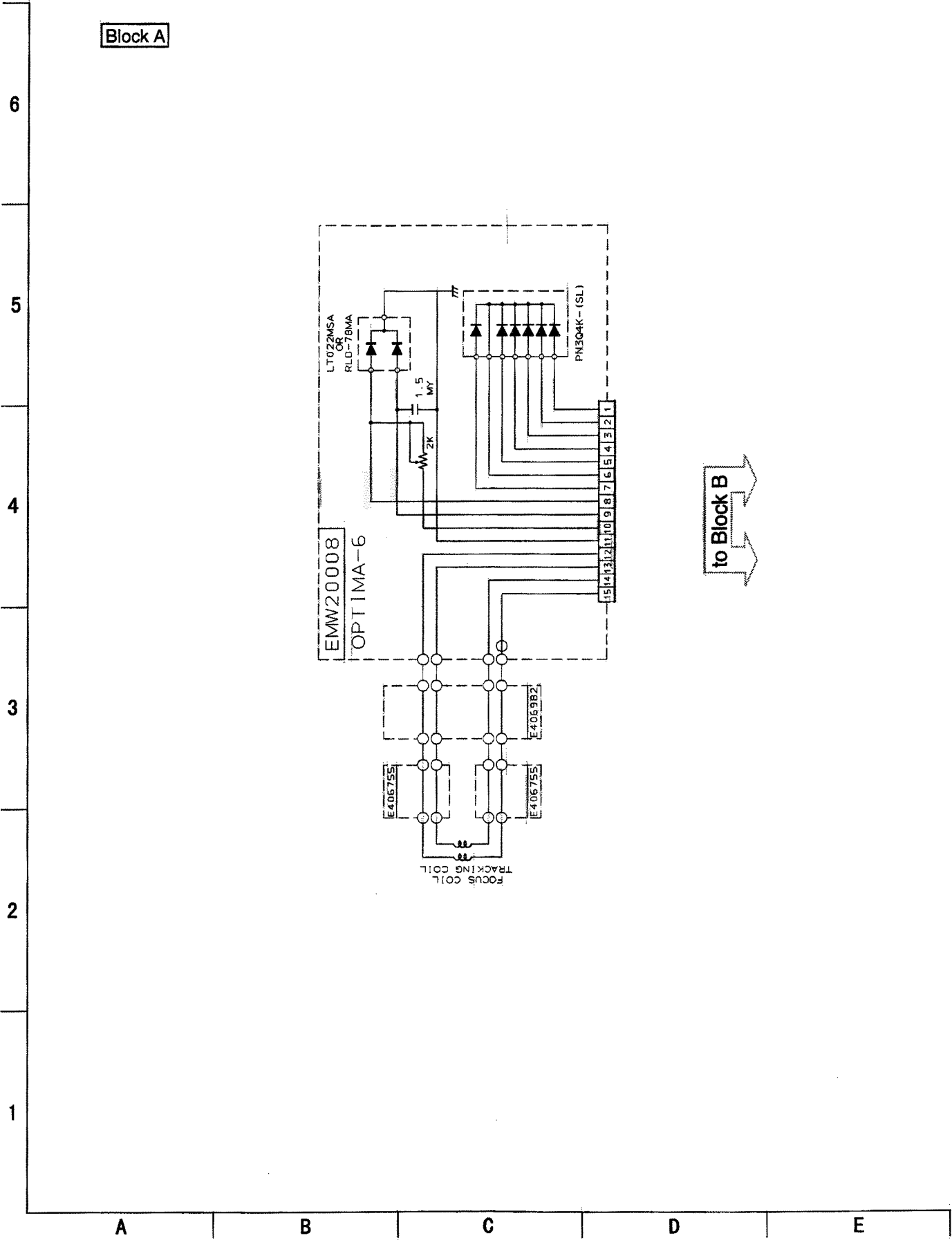






CD Amp. Section

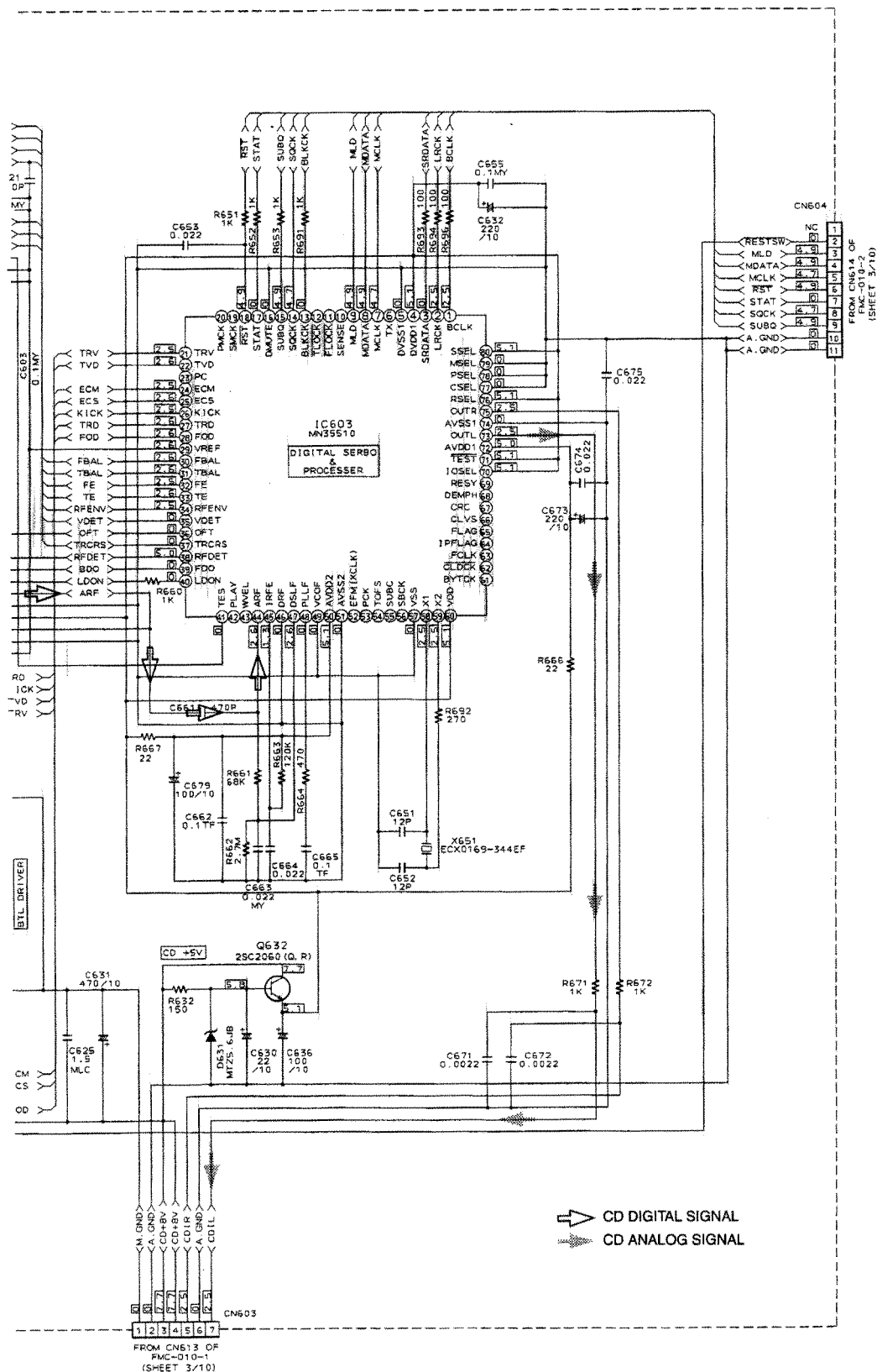






Block C

to Block B



A

B

C

D

E

