

JVC

SCHEMATIC DIAGRAMS

COMPACT COMPONENT SYSTEM

MX-J500

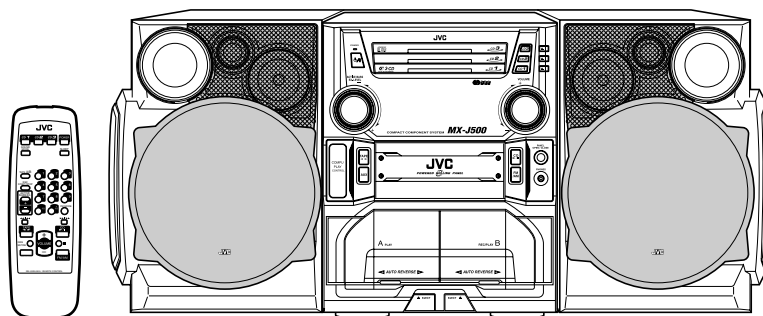
Supplement

Area Suffix

EV ----- Eastern Europe

This model is EV version that is added to the preceding model, the MX-J500. Therefore the service manual for this model is consisting of Standard schematic diagrams, and Parts list only. For others, please refer to the service manual for MX-J500/MX-J506 (issue No.20804).

*Please refer to "CD-ROM No.SML200007 (20804Cpar)" for the parts list section.



COMPACT
disc
DIGITAL AUDIO



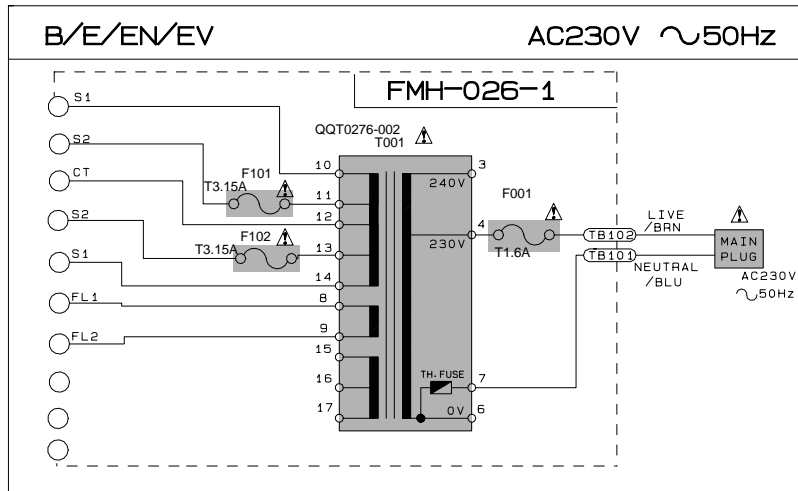
Contents

Standard schematic diagrams ----- 2-1~8

Standard schematic diagrams

Power transformer section

POWER SUPPLY BLOCK



EXPLANATION OF OVERALL OF SCHEMA.

MODEL MX-J500/CA-MXJ500/MX-J506/MX-J550R/CA-MXJ550R/CA-MXJ552R

SHEET NUMBER	MODEL NUMBERS TO BE APPLIED	CIRCUITS DESCRIPTION
1/11	CA-MXJ500/CA-MXJ550R CA-MXJ552R/MX-J500 MX-J506/MX-J550R	.PRIMARY WITH MAINS TRANSFORMER
2/11	CA-MXJ500/CA-MXJ550R CA-MXJ552R/MX-J500 MX-J506/MX-J550R	.DC REGULATORS/AUDIO OUTPUT
3/11	CA-MXJ500/CA-MXJ550R CA-MXJ552R/MX-J500 MX-J506/MX-J550R	.EXTERNAL INPUT. SOURCE SELECTOR SWITCH
4/11	CA-MXJ500/CA-MXJ550R CA-MXJ552R/MX-J500 MX-J506/MX-J550R	.FL DISPLAY. SYSTEM CONTROL LSI. USER CONTROL KEYS
5/11	MX-J500	.MIC AMP. ECHO CIRCUIT (ONLY FOR U. UP. US. UT. UX. UY)
6/11	CA-MXJ500/CA-MXJ550R CA-MXJ552R/MX-J500 MX-J506/MX-J550R	.CD SERVO AND CD SYSTEM CONTROL .CD CHANGER MECHANISM CONTROL
7/11	CA-MXJ500/CA-MXJ550R CA-MXJ552R/MX-J500 MX-J506/MX-J550R	.TAPE DECK MECHANISM CONTROL .TAPE CIRCUITS SUCH AS PRE-AMP AND BIAS
8/11	CA-MXJ500/CA-MXJ550R CA-MXJ552R	.TUNER RF/IF/FM MULTIPLEX (ONLY FOR A. B. E. EN. EV)
9/11	MX-J550R	.TUNER RF/IF/FM MULTIPLEX (ONLY FOR EE)
10/11	MX-J500/MX-J506	.TUNER RF/IF/FM MULTIPLEX (ONLY FOR C. J. U. UP. US. UT. UX. UY)
11/11	MX-J550R	.POLAR STEREO MULTIPLEX (ONLY FOR EE)

VERSION CODES

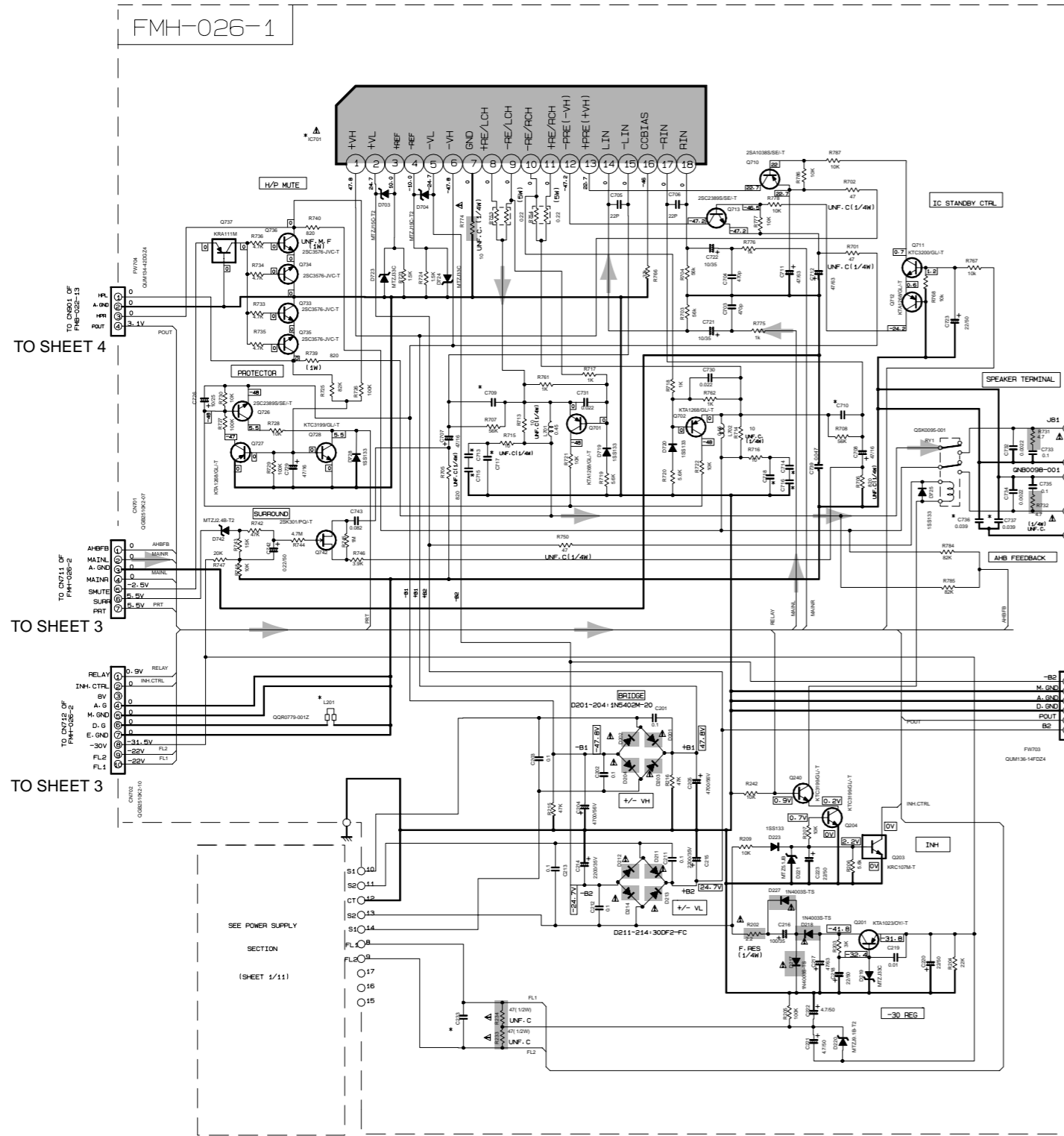
J	:U. S. A.
C	:CANADA
B	:U. K.
E	:CONTINENTAL EUROPE
EE	:RUSSIA
EN	:NORDIC COUNTRIES
EV	:EASTERN EUROPE
A	:AUSTRALIA
UP	:KOREA
US	:SINGAPORE
UT	:TAIWAN
UX	:SAUDI ARABIA
UY	:ARGENTINA
U	:UNIVERSIAL EXCEPT ALL OF ABOVE

MODEL MX-J500 **SHEET 1**

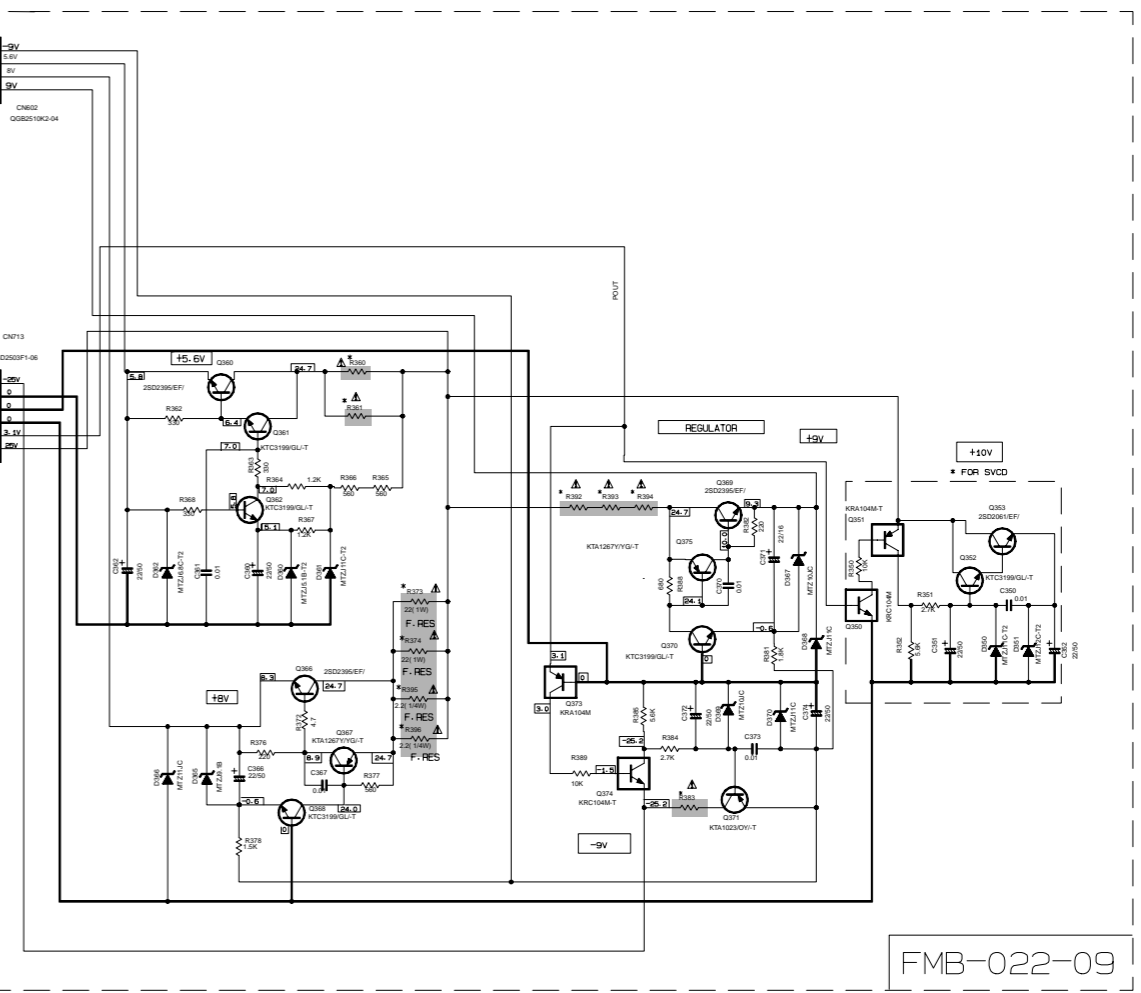
Parts are safety assurance parts. When replacing those parts make sure to use the specified.

-MEMO-

Power amplifier & regulator section



REF. NAME	VERSION	MX-J500									
		U-UP, US Ux-UY	UT-A	J	C	CA-MXJ500	CA-MXJ50R	CA-MXJ50R	CA-MXJ50R	MX-J506	MX-J50R
C713-C714, C715-C716		0.047	0.047	NONE	0.047	0.047	0.047	0.047	0.047	0.047	0.047
C717-C718		NONE	NONE	0.047	NONE	NONE	NONE	NONE	NONE	NONE	NONE
R392-R393, R394		SHORT BB1-BB2-BB3	SHORT BB1-BB2-BB3	4.7 (1/4W) F. RES	SHORT BB1-BB2-BB3	SHORT BB1-BB2-BB3	SHORT BB1-BB2-BB3	SHORT BB1-BB2-BB3	SHORT BB1-BB2-BB3	SHORT BB1-BB2-BB3	SHORT BB1-BB2-BB3
R383		SHORT BB4	SHORT BB4	10 (1/4W) F. RES	SHORT BB4	SHORT BB4	SHORT BB4	SHORT BB4	SHORT BB4	SHORT BB4	
R360		2.2 (1/4W) F. RES	2.2 (1/4W) F. RES	15 (1/4W) UNF. C	2.2 (1/4W) F. RES	2.2 (1/4W) F. RES	2.2 (1/4W) F. RES	2.2 (1/4W) F. RES	2.2 (1/4W) F. RES	2.2 (1/4W) F. RES	
R361		4.7 (1/4W) F. RES	4.7 (1/4W) F. RES	15 (1/4W) UNF. C	4.7 (1/4W) F. RES	4.7 (1/4W) F. RES	4.7 (1/4W) F. RES	4.7 (1/4W) F. RES	4.7 (1/4W) F. RES	4.7 (1/4W) F. RES	
C233		0.22	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
C736/C737		NONE	USED	NONE	NONE	USED	USED	USED	NONE	NONE	
R395/R396		USED	USED	NONE	USED	USED	USED	USED	USED	USED	
R373/R374		NONE	NONE	USED	NONE	NONE	NONE	NONE	NONE	NONE	
IC701		STK412-000	STK412-000	STK412-010	STK412-010	STK412-000	STK412-000	STK412-000	STK412-010	STK412-000	
L201		SHORT (B112)	USED	SHORT (B112)	SHORT (B112)	USED	USED	USED	SHORT (B112)	SHORT (B112)	
C709/C710		10P	4.7P	10P	10P	4.7P	4.7P	4.7P	10P	10P	



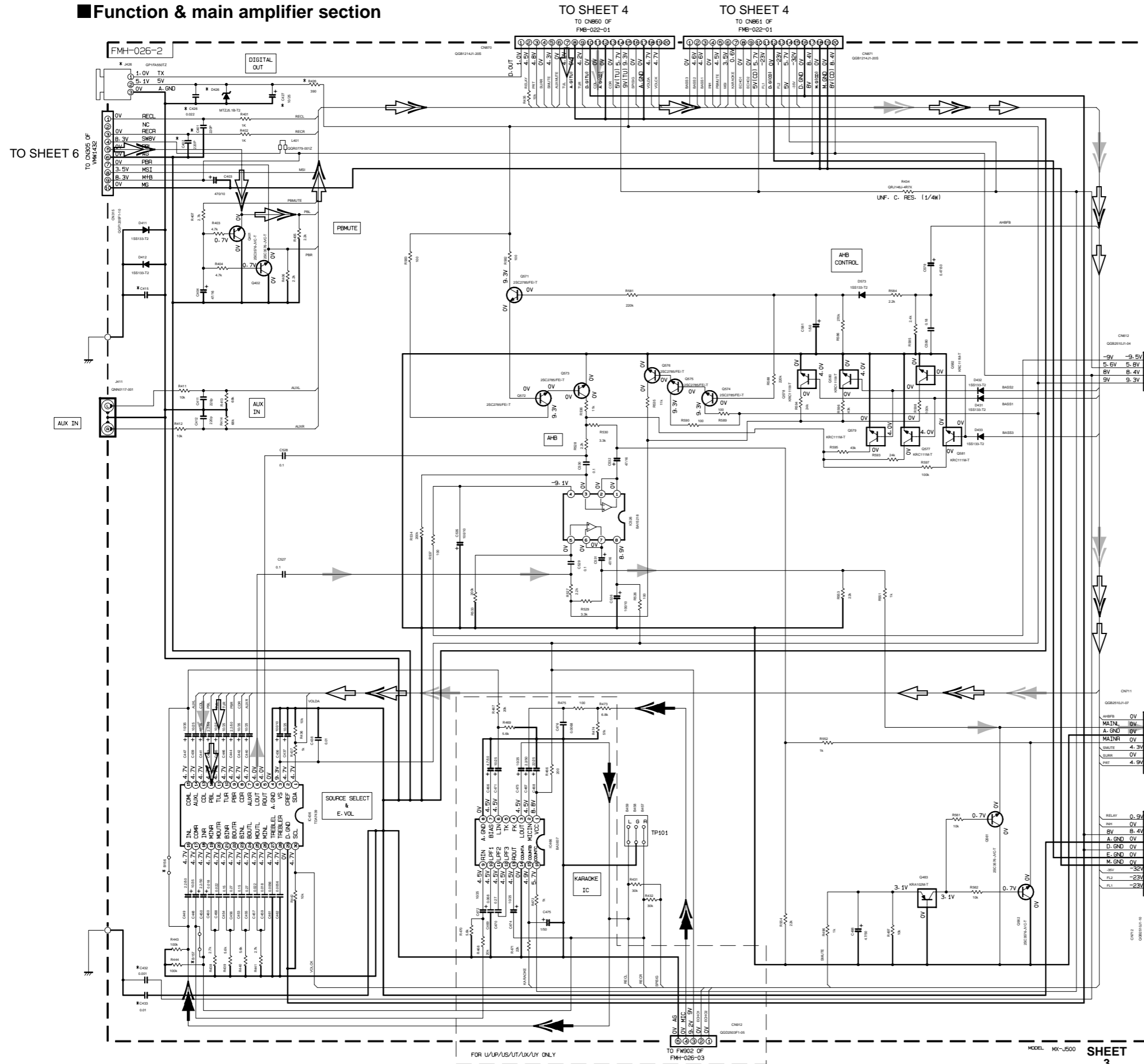
➔ MAIN signal

MX-J500 SHEET 2

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

- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
CONDITION — AUX NODES - VOL. MIN. BASS OFF
 2. UNLESS OTHERWISE SPECIFIED:
RESISTORS ARE 1/4W ±5% CARBON RESISTOR.
ALL RESISTANCE VALUES ARE IN OHM (Ω).
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
ALL CAPACITANCE VALUES ARE IN #F(#pF).
ALL INDUCTANCE VALUES ARE IN #H(#mH).
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (#F)/RATED VOLTAGE (V).
ALL DIODES ARE 1SS153

Function & main amplifier section



* MARK

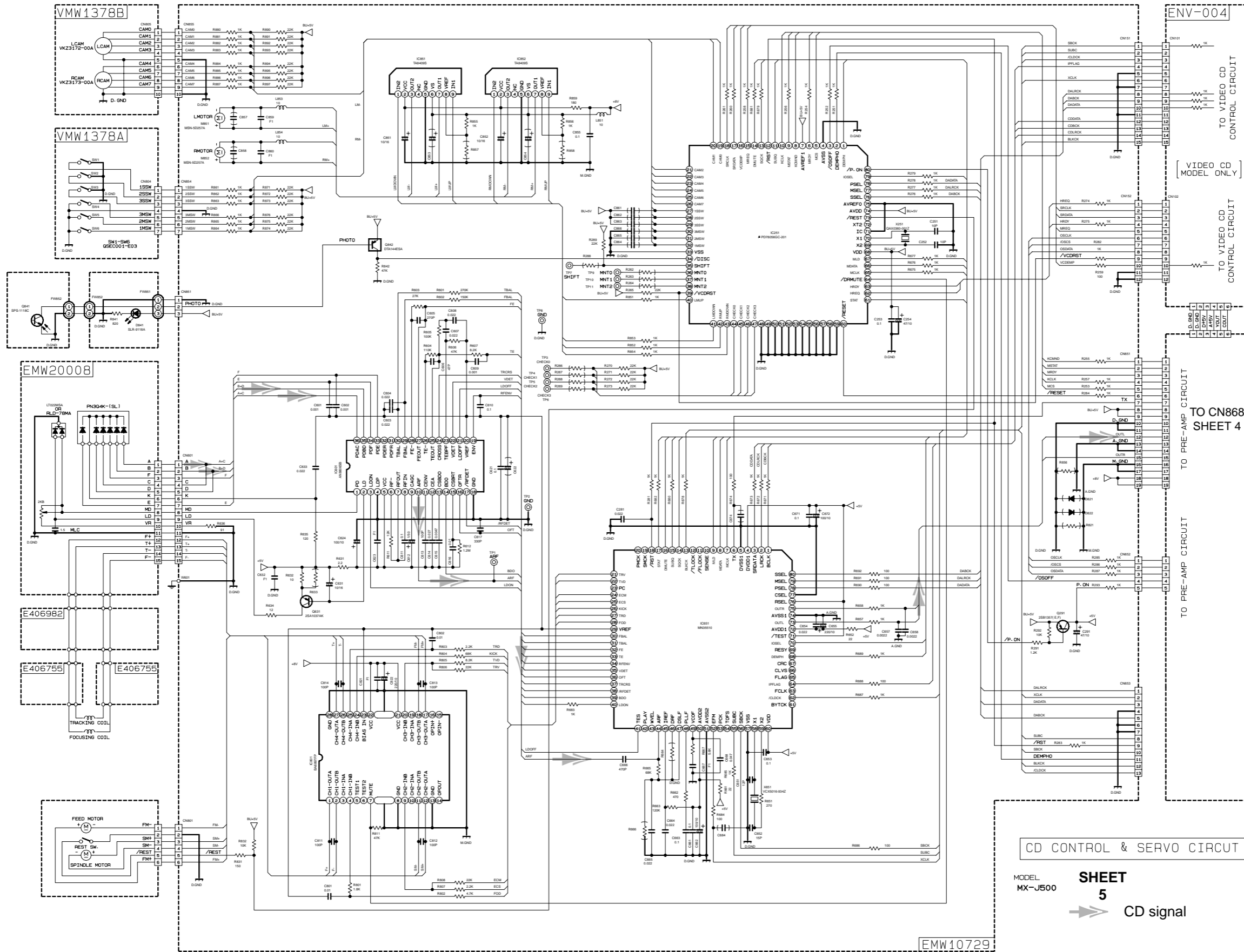
MODEL	CA-MX-J500	CA-MX-J550R	CA-MX-J552R	MX-J500			MX-J506	MX-J509R		
VERSION	B-E-EN-EV	B-E-EN-EV	E-EN	A	C	J	U-UP US-UX UY	UT	C	EE
C426	USED	USED	USED	USED	NONE	USED	NONE	USED	NONE	NONE
C427	USED	USED	USED	USED	NONE	USED	NONE	USED	NONE	NONE
D426	USED	USED	USED	USED	NONE	USED	NONE	USED	NONE	NONE
J426	USED	USED	USED	USED	NONE	USED	NONE	USED	NONE	NONE
R426	USED	USED	USED	USED	NONE	USED	NONE	USED	NONE	NONE
C401	USED	USED	USED	USED	NONE	NONE	NONE	USED	NONE	NONE
C402	USED	USED	USED	USED	NONE	NONE	NONE	USED	NONE	NONE
C415	0.0022	0.0022	0.0022	0.0022	100P	100P	1000P	100P	100P	100P
C431	USED	USED	USED	USED	NONE	NONE	NONE	USED	NONE	NONE
C432	USED	USED	USED	USED	NONE	NONE	NONE	USED	NONE	NONE
C433	USED	USED	USED	USED	NONE	NONE	NONE	USED	NONE	NONE
L401	USED	USED	USED	USED	SHORT	SHORT	SHORT	USED	SHORT	SHORT
B156	USED	USED	USED	USED	USED	USED	NONE	NONE	USED	USED
B157	USED	USED	USED	USED	USED	USED	NONE	NONE	USED	USED

NOTES

- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION — AUX MODE, VOL. MIN., BASS OFF.
- UNLESS OTHERWISE SPECIFIED:
 - RESISTORS ARE 1/4W 5% CARBON RESISTOR. ALL RESISTANCE VALUES ARE IN OHM(S).
 - ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
 - ALL CAPACITANCE VALUES ARE IN pF(MPF).
 - ALL INDUCTANCE VALUES ARE IN mH(MPH).
 - ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (PF)/RATED VOLTAGE (V).
 - ALL DIODES ARE 1SS133.

- ➔ MAIN signal
- ➔ CD signal
- ➔ TAPE P.B. signal
- ➔ TUNER signal
- ➔ MIC signal

CD Servo & CD Mechanism control section



CD CONTROL & SERVO CIRCUIT

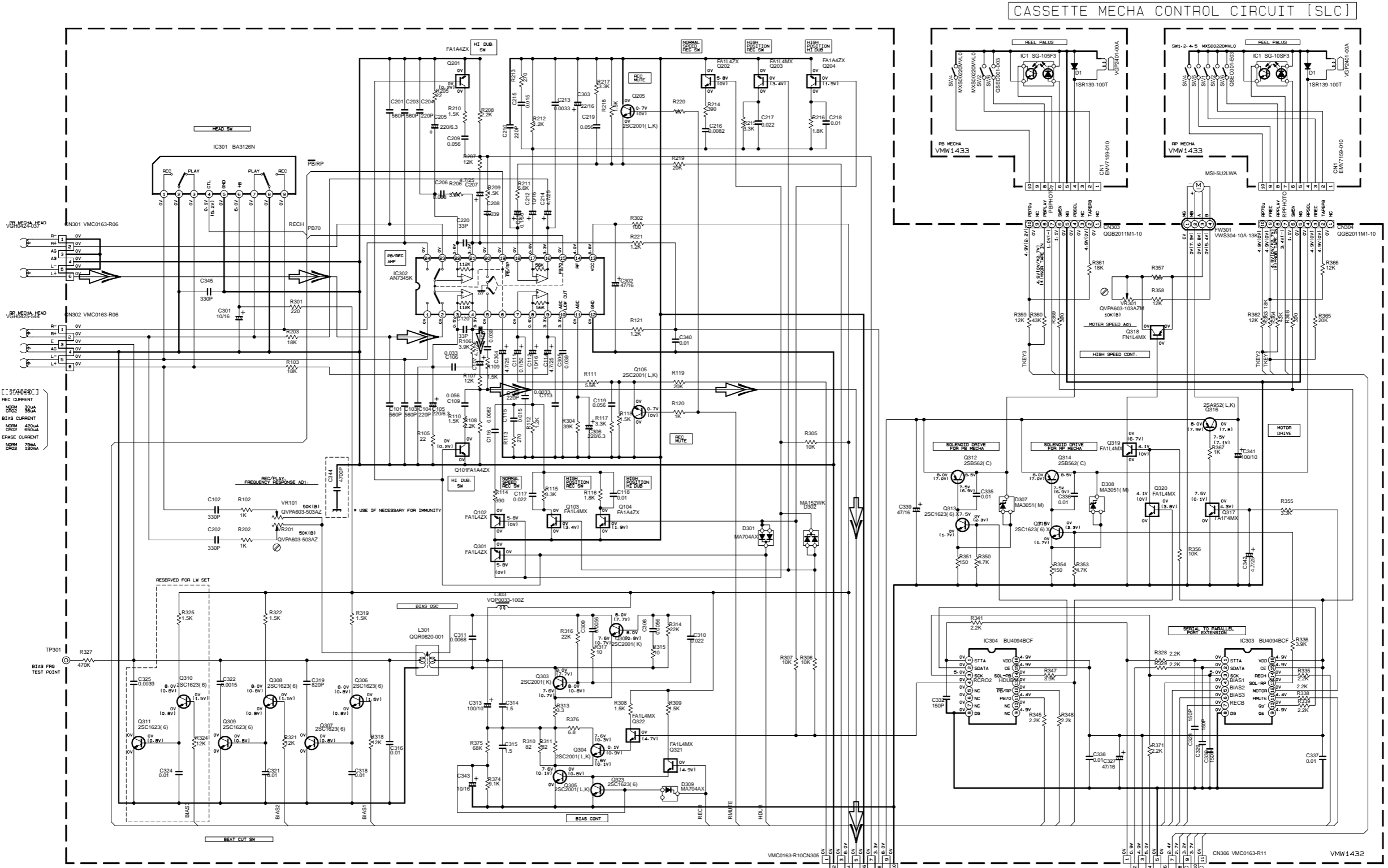
MODEL MX-J500

SHEET 5

CD signal

EMW10729

Head amplifier & mechanism control section



NOTES
 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. () IS INVERT MODE
 2. UNLESS OTHERWISE SPECIFIED
 ALL RESISTANCE VALUES ARE IN OHM(S).
 ALL CAPACITORS ARE CERAMIC CAPACITOR.
 ALL CAPACITANCE VALUES ARE IN #F(P#P#).
 ALL INDUCTANCE VALUES ARE IN #H(M#MH).
 ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (#F)/RATED VOLTAGE (V).
 ≡ PLYPROPYLENE CAPACITOR

TABLE 1. DIGITAL TR LIST

PART. NO	CONSTRUCTION	REF. NO
FA11-4M		Q318
FA11-4Z		Q101/Q201
FA11-4Z		Q104/Q204
FA11-4Z		Q301
FA11-4M		FA1L-4M
FA11-4Z		Q103/Q203
FA11-4Z		Q302/Q301/Q302

TO CN315 SHEET 3

TO CN869 SHEET 4

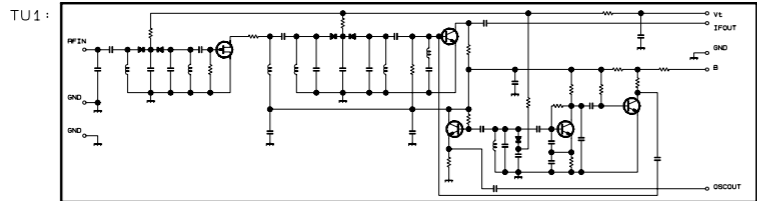
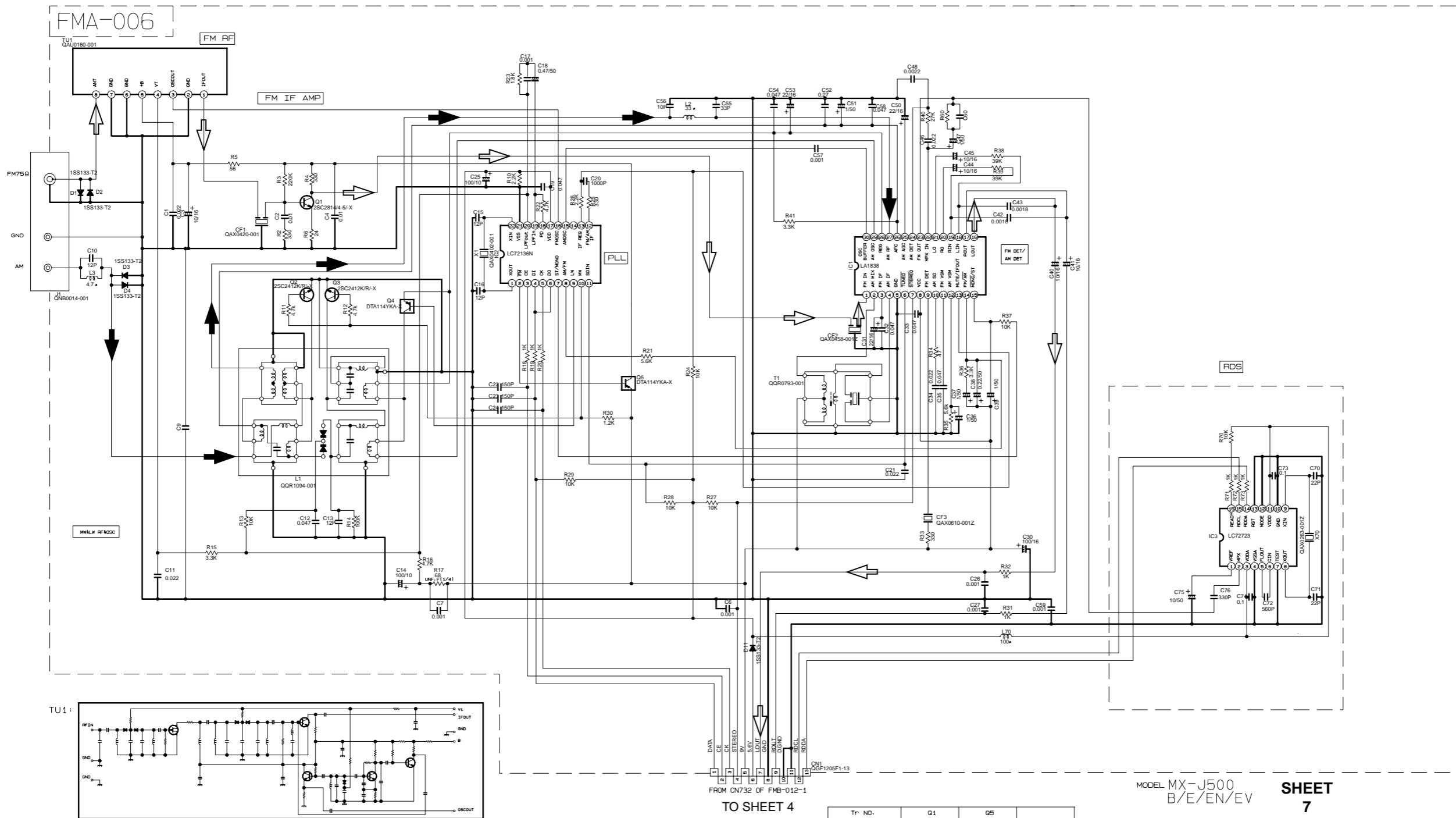
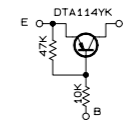
TO TAPE P.B. signal

■ Tuner section

NOTES

- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.
- ALL RESISTORS ARE 1/8W ±5% METAL GLAZE RESISTOR.
- ALL RESISTANCE VALUES ARE IN OHM(Ω).
- ALL CAPACITANCE VALUES ARE IN pF(pF).
- ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (±F)/RATED VOLTAGE (V).
- SI DIODES (D) ARE ALL 1SS133-T THAT CAN BE CHANGED TO SIMILAR DIODE SUCH AS MA165 OR HSS104J.
- PARTS NO. OF TRANSISTORS ARE AS FOLLOWS:
 Q1 2SC2814/4-5/-X Q2, Q3 2SC2412K/R/-X
 Q4-Q5 DTA114YKA-X

B. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS:

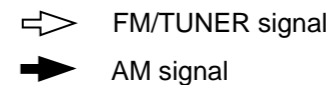


TO SHEET 4

MODEL MX-J500 B/E/EN/EV SHEET 7

CONDITION	PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
IC1 FM NO SIGNAL		3.6	8.9	3.6	3.6	0	5.0	5.0	8.9	8.9	1.3	0.1	0	0.9	7.8	7.8	4.3	4.3	4.3	4.3	3.4	3.4	2.8	3.4	0	0	3.5	3.5	3.6	3.6	2.7
IC1 FM 600B STEREO		3.6	8.9	3.6	3.6	0	5.0	5.0	8.9	8.9	1.3	4.3	0	0.9	7.8	7.8	4.3	4.3	4.3	4.3	3.4	3.4	2.8	3.4	0	0	3.6	3.6	3.6	3.6	2.7
IC1 AM NO SIGNAL		3.5	9.0	3.5	3.5	0	5.0	5.1	9.0	2.6	1.3	0	0	0.9	4.7	5.5	4.3	4.3	4.3	4.3	3.3	3.2	2.8	ust	0.7	0.7	3.6	3.6	3.6	3.6	2.1
IC2 FM NO SIGNAL		2.5	0	0	5.0	4.9	5.0	7.9	7.8	3.6	6.1	5.1	0	0	0	2.5	5.1	0.9	0.9	3.8	0	2.3									

Tr. NO.	Q1	Q2	Q3	Q4	Q5	
PIN NO.	E	C	B	E	C	B
FM 87.5MHz NO SIGNAL	0	7.1	0.85	8.9	8.8	0
AM 522kHz NO SIGNAL	0	0	0	9.0	0	8.9
Tr. NO.	Q2	Q3	Q4			
PIN NO.	E	C	B	E	C	B
AM 522kHz NO SIGNAL	0	0	0.7	0	0	0.7
AM 144kHz NO SIGNAL	0	0	0.3	0	0.3	0.3



5
4
3
2
1

A B C 2-8 D E F G H



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