harman/kardon

AVR240

7 X 50W 7.1 CHANNEL A/V RECEIVER

PRELIMINARY SERVICE MANUAL

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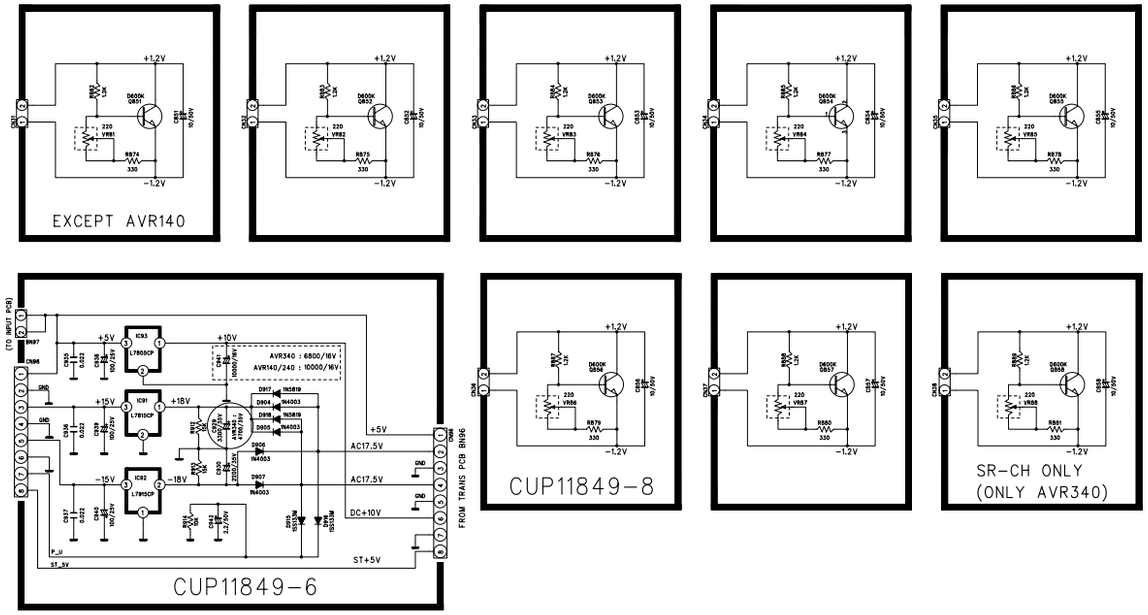
harman/kardon, Inc.

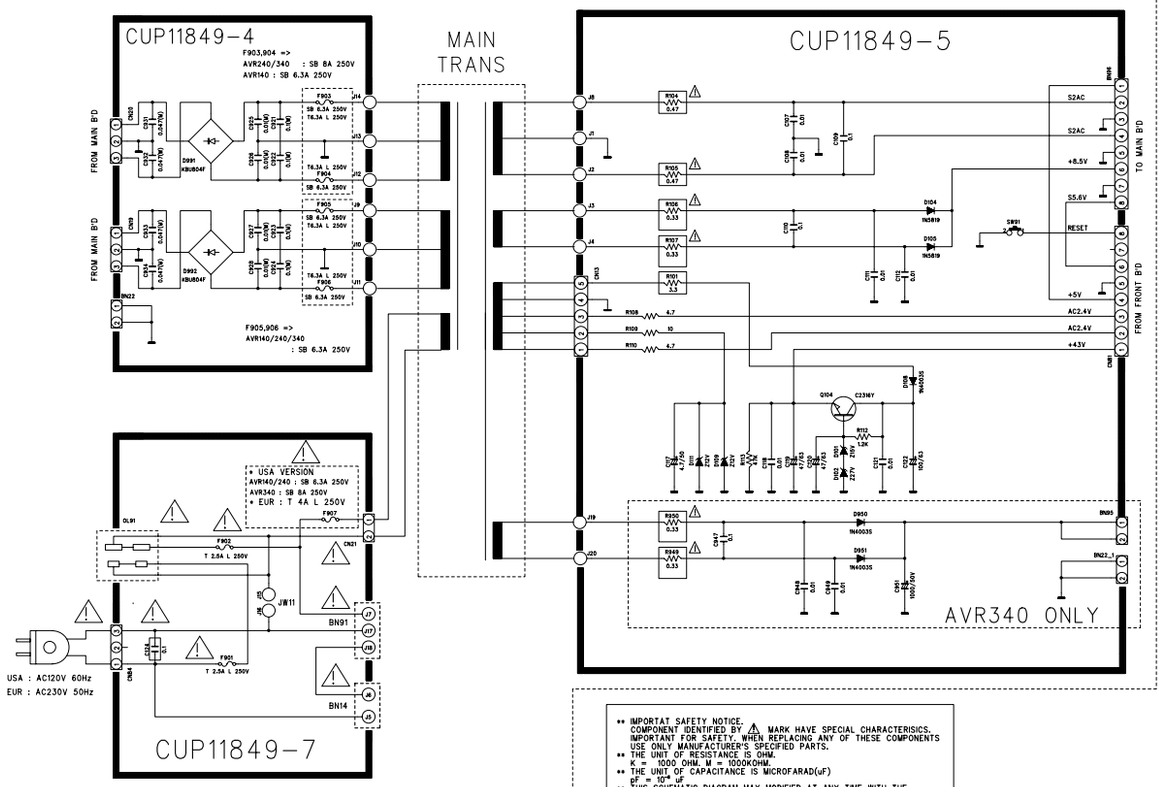
250 Crossways Park Dr.

Woodbury, New York 11797

< BIAS T.R PCB >



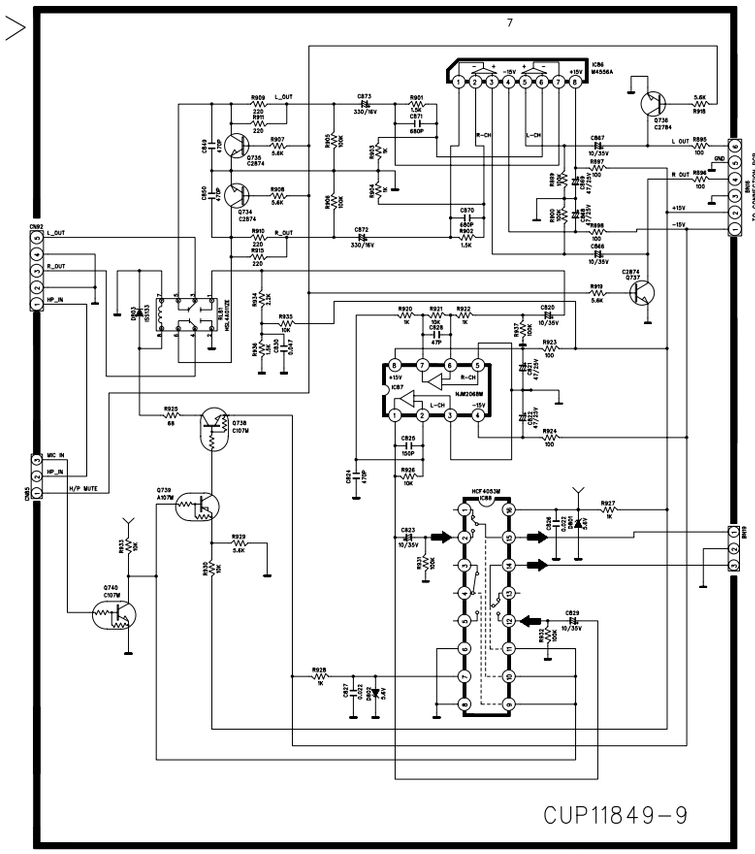
< POWER TRANS & OUTLET PCB >

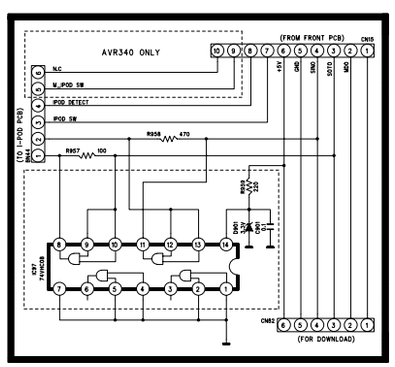


** IMPORTAT SAFETY NOTICE.
COMPONENT IDENTIFIED BY ⚠ MARK HAVE SPECIAL CHARACTERISICS.
IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS USE ONLY MANUFACTURER'S SPECIFIED PARTS.
** THE UNIT OF RESISTANCE IS OHM.
K = 1000 OHM, M = 1000KOHM.
** THE UNIT OF CAPACITANCE IS MICROFARAD(uF)
pF = 10^6 uF
** THIS SCHEMATIC DIAGRAM MAY MODIFIED AT ANY TIME WITH THE IMPOROVEMENT OF PERFORMANCE.

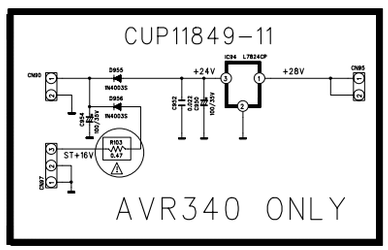
< MIC & HP PCB >

AVR240, 340 ONLY

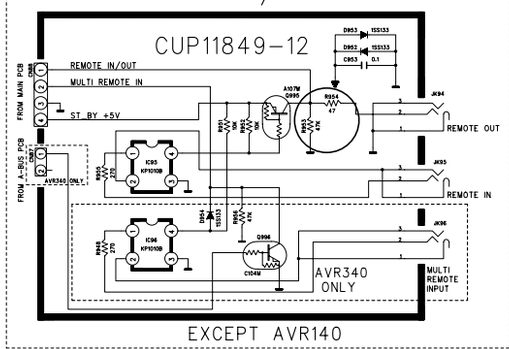




< +24V REGULATOR PCB >



< REMOTE IN/OUT PCB >

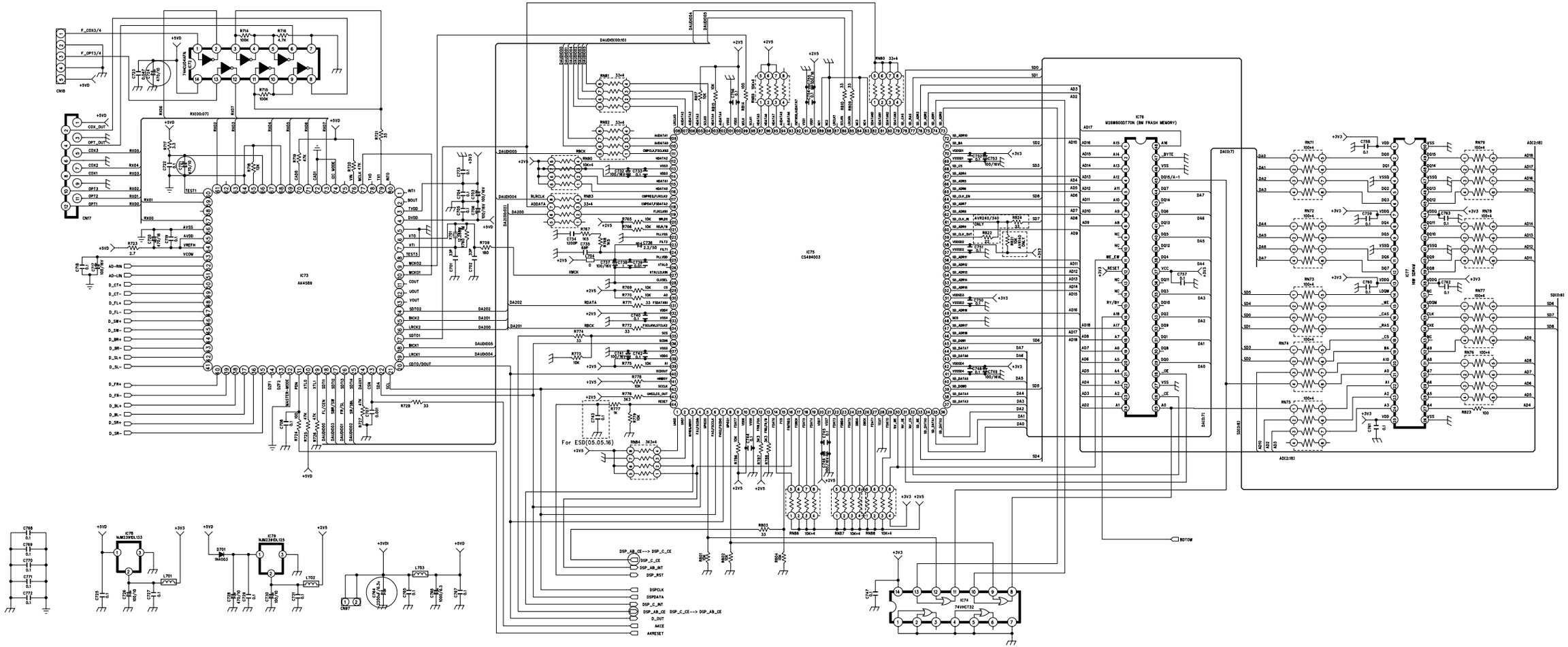


M/P

2002.06.0

REVISION	2		4		6	
1		3		5		7

SCHEMATIC DIAGRAM			SHEET
MODEL	AVR240, AVR340		7/8
DESIGN	CHECK	APPROVE	DRAWING NO
LEE C B	Y.W.Y	L.H.W	1849SCMZ
05.02.03			(BIAS&MIC&POWER TRANS) 2/2



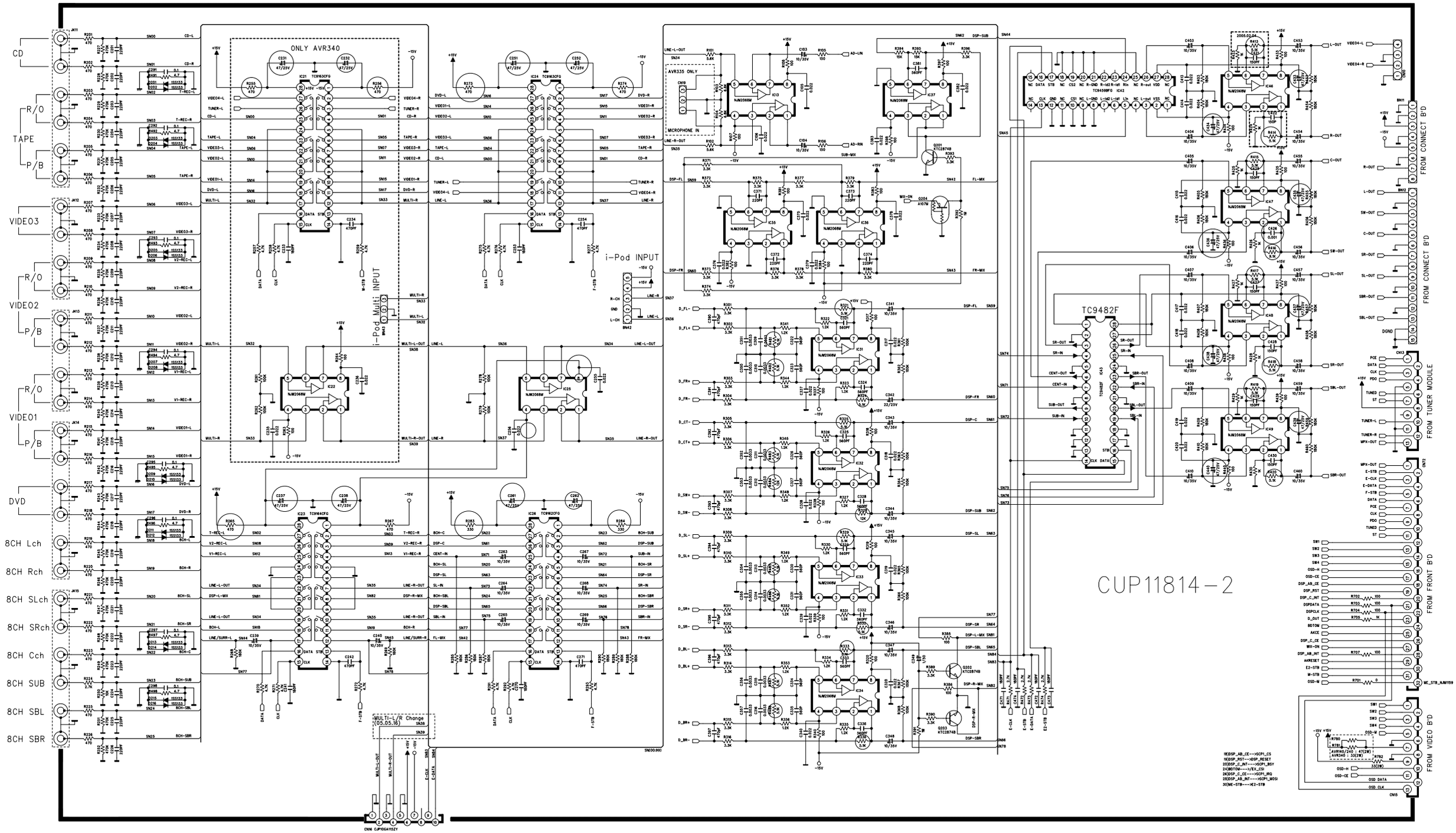
CUP11814-1

M/P

ISSUE
2005.05.0

REVISION	2		4		6	
1		3		5		7

SCHMATIC DIAGRAM				SHEET
MODEL	AVR140/240			
DESIGN	CHECK	APPROVE	DRAWING NO	
Y.W.Y	Y.W.Y	L.H.W	1814SCMZ	



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IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS
USE ONLY MANUFACTURER'S SPECIFIED PARTS.
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K=1000 OHM , M=1000 KOHM
** THE UNIT OF CAPACITANCE IS MICROFARAD. (uF)
pF=10^{-6} uF
** THIS SCHEMATIC DIAGRAM MAY MODIFIED AT ANY TIME WITH THE
IMPROVEMENT OF PERFORMANCE.

M/P

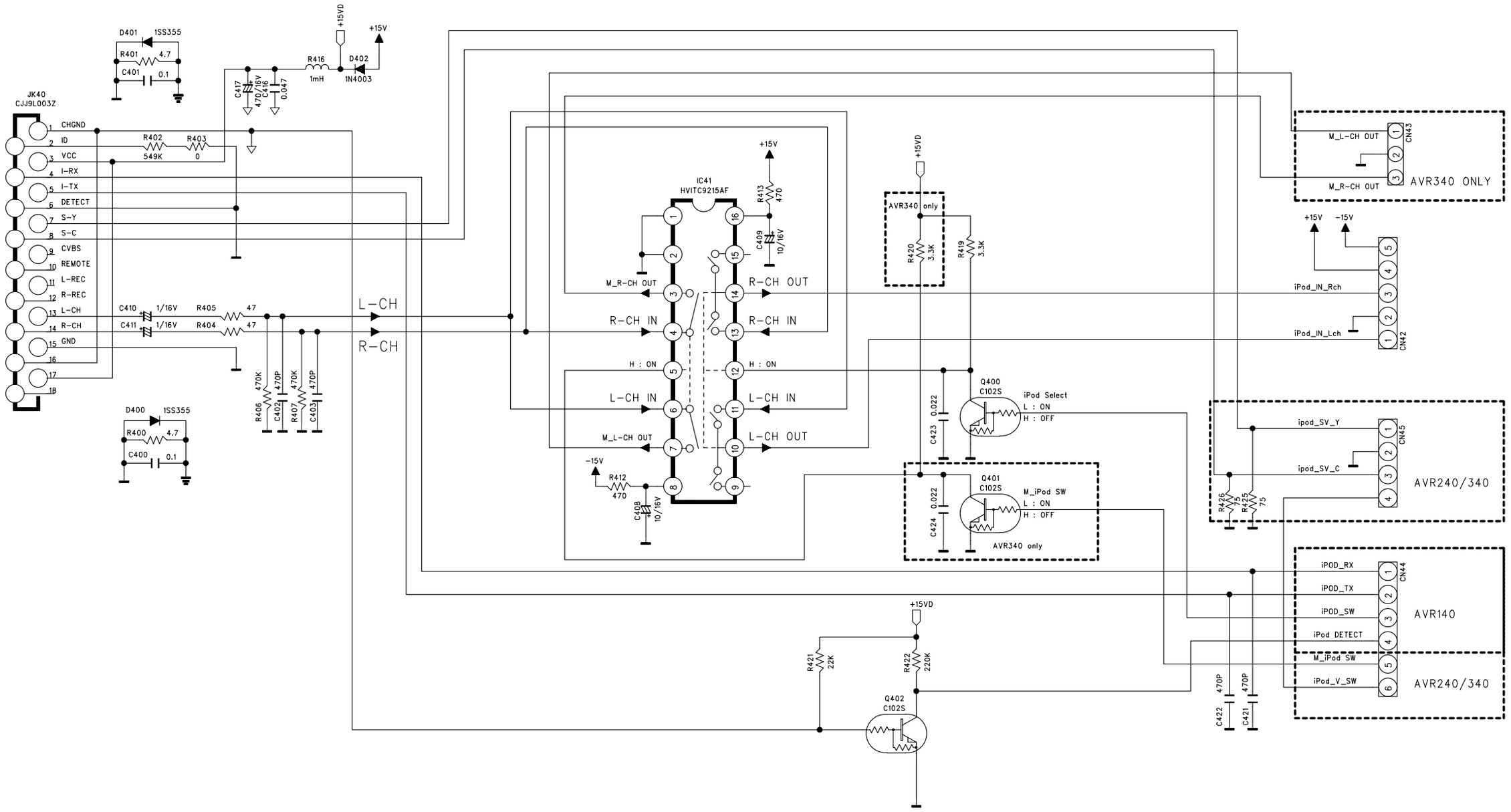
ISSUE
2005.05.0

REVISON	2	4	6
1	3	5	7

SCHEMATIC DIAGRAM — SHEET 3/6

MODEL	AVR140/240/340	
DESIGN	CHECK	APPROVE	DRAWING NO
K.M.S	Y.W.Y	L.H.W	1814SCEZ (INPUT) 1/2
04.02.20			

CUP11834Z



REVISION	2	4	6
1	3	5	7

SCHEMATIC DIAGRAM			SHEET
MODEL	AVR140/240/340		2/4
DESIGN	CHECK	APPROVE	DRAWING NO
L.J.Y	L.B.C	L.H.W	1834SCMZ (DMP)
05.06.28	05.07.29	05.07.29	1/1

CUP11835

SR-CH

C-CH

BL-CH

FR-CH

SL-CH

FL-CH

EXCEPT AVR140

BR-CH

AVR340 ONLY

GAIN	R561, R562, R563, R564, R565, R850 R851
AVR140	1.8K
AVR240	1.6K
AVR340	1.5K

DC PROTECTOR

THERMAL PROTECTOR

OVERLOAD DETECTION

EXCEPT AVR140

ONLY AVR140

MC7805

** IMPORTNAT SAFETY NOTICE.
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** THE UNIT OF RESISTANCE IS OHM.
K=1000 OHM, M=1000 K OHM.
** THE UNIT OF CAPACITANCE IS MICROFARAD (uF)
pF = 10^-6 uF
** THIS SCHEMATIC DIAGRAM MAY MODIFIED AT ANY TIME WIHE THE IMPROVEMENT OF PERFORMANCE

M/P

SUE

2002.02.2?

REVISION	1	2	3	
SCHEMATIC DIAGRAM				SHEET
MODEL	AVR140, AVR240, AVR340			2 / 6
DESIGN	CHECK	APPROVE	DRAWING NO	
L.C.B	Y.W.Y	L.H.W	1835SCMZ (MAIN)	1/1
04.02.24				

CUP11849-1

EXCEPT AVR340

AVR340 ONLY

AVR140, AVR240 : 3 PIN

AVR340 : 10 PIN

ONLY EUR VER.

+NJM2296 OPTION
==>V_MUTE "LOW" ACTIVE

FUNC.	SW1	SW2	SW3	SW4	SW5
VIDEO1	L	H	H	X	H
VIDEO2	H	L	L	L	H
VIDEO3	H	H	H	H	H
VIDEO4	H	H	H	L	H
DVD	H	H	L	H	H

74VHC4053 Connection Diagram

INPUT			"ON" CHANNELS		
INH	C	B	A	C	B	A
H	X	X	X	None	None	None
L	L	L	L	CX	BX	AX
L	L	L	H	CX	BX	AY
L	L	H	L	CX	BY	AX
L	L	H	H	CX	BY	AY
L	H	L	L	CY	BX	AX
L	H	L	H	CY	BX	AY
L	H	H	L	CY	BY	AX
L	H	H	H	CY	BY	AY

	C501	C502	X501
PAL	27P	27P	17.734
NTSC	33P	33P	14.318

< COMPONENT VIDEO PCB >

CUP11849-2

*NJM2586 OPTION

	SW1	SW2
INPUT1	L	X
INPUT2	H	L
INPUT3	H	H

AVR340 ONLY

CUP11849-3

AVR140, AVR240

CUP11849-13

AVR340 ONLY

M/P

2005.06

REVISION							
1		2		3		4	
		5		6		7	

SCHEMATIC DIAGRAM — SHEET 6/8

MODEL	AVR240, AVR340		
DESIGN	CHECK	APPROVE	DRAWING NO
LEE C B	Y.W.Y	L.H.W	1849SCMZ (VIDEO) 1/2
.02.01			

AVR240/340 WIRING DIAGRAM

USA : 120V 60Hz
EUR : 230V 50Hz

CUP11849-7
CUP11746-1
CUP11746-3 Remote IN/OUT B'd
CUP11849-2 COMPONENT B'd
CUP11849-1 VIDEO B'd
CUP11815-3 VIDEO CONVERTOR B'd AVR340 ONLY
CUP11849-4
POWER TRANS
CUP11849-5
CUP11816-3
CUP11818-5 MOMS S/W
CUP11818-6
CUP11818-1
CUP11849-11
CUP11814/5-1
TUNER MODULE
CUP11815-4 Multi Room A-Bus B'd
CUP11834 i-Pod B'd
CUP11849-3 OPT/COAX IN/OUT B'd
CUP11818-7
CUP11849-9 H/P & MIC B'd
CUP11818-10 H/P & MIC B'd
CUP11818-2
CUP11818-3 Tone & VOL B'd
CUP11818-8 OPT/COAX INPUT B'd
HEAT SINK ASS'Y
FAN

REVISION							
1		2		3		4	
5		6		7			

SCHEMATIC DIAGRAM			SHEET
MODEL	AVR240/340		1/1
DESIGN	CHECK	APPROVE	DRAWING NO
K.M.S	Y.W.Y	H.W.LEE	1818WCMZ
05.02.20			1/1