

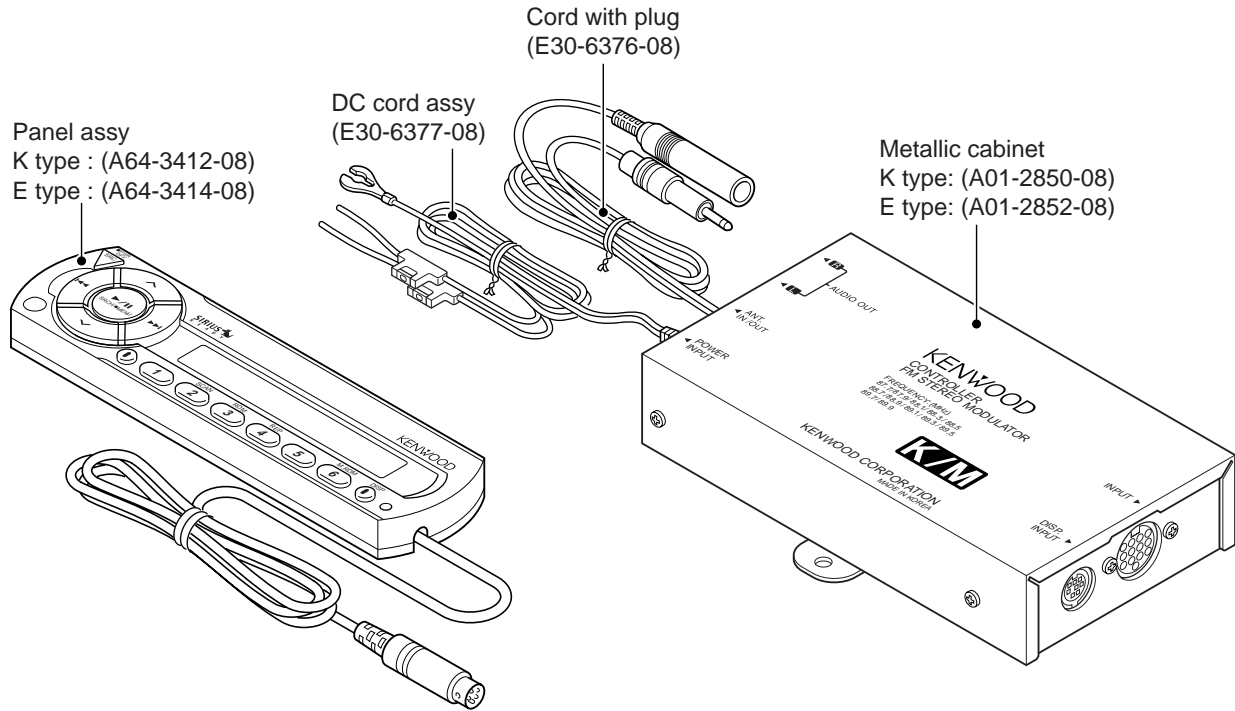
FM MODULATOR

KCA-R71FM

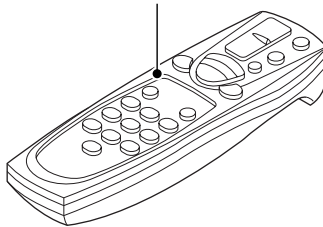
SERVICE MANUAL

KENWOOD

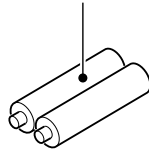
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B53-0149-00 (N) 2438



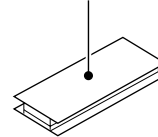
Remote controller assy
K type: (A70-2051-05) (RC-535)
E type: (A70-2052-05) (RC-525)



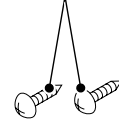
Size AAA battery
(Not supplied)



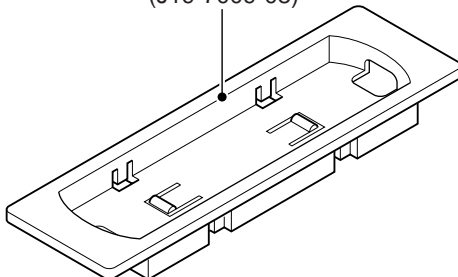
Velcro
(W01-1633-08)



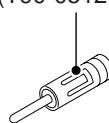
Screw
(N99-1755-08) x2



Unit holder
(J19-7009-08)

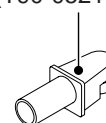


Antenna adaptor
(T90-0512-05)



(E type only)

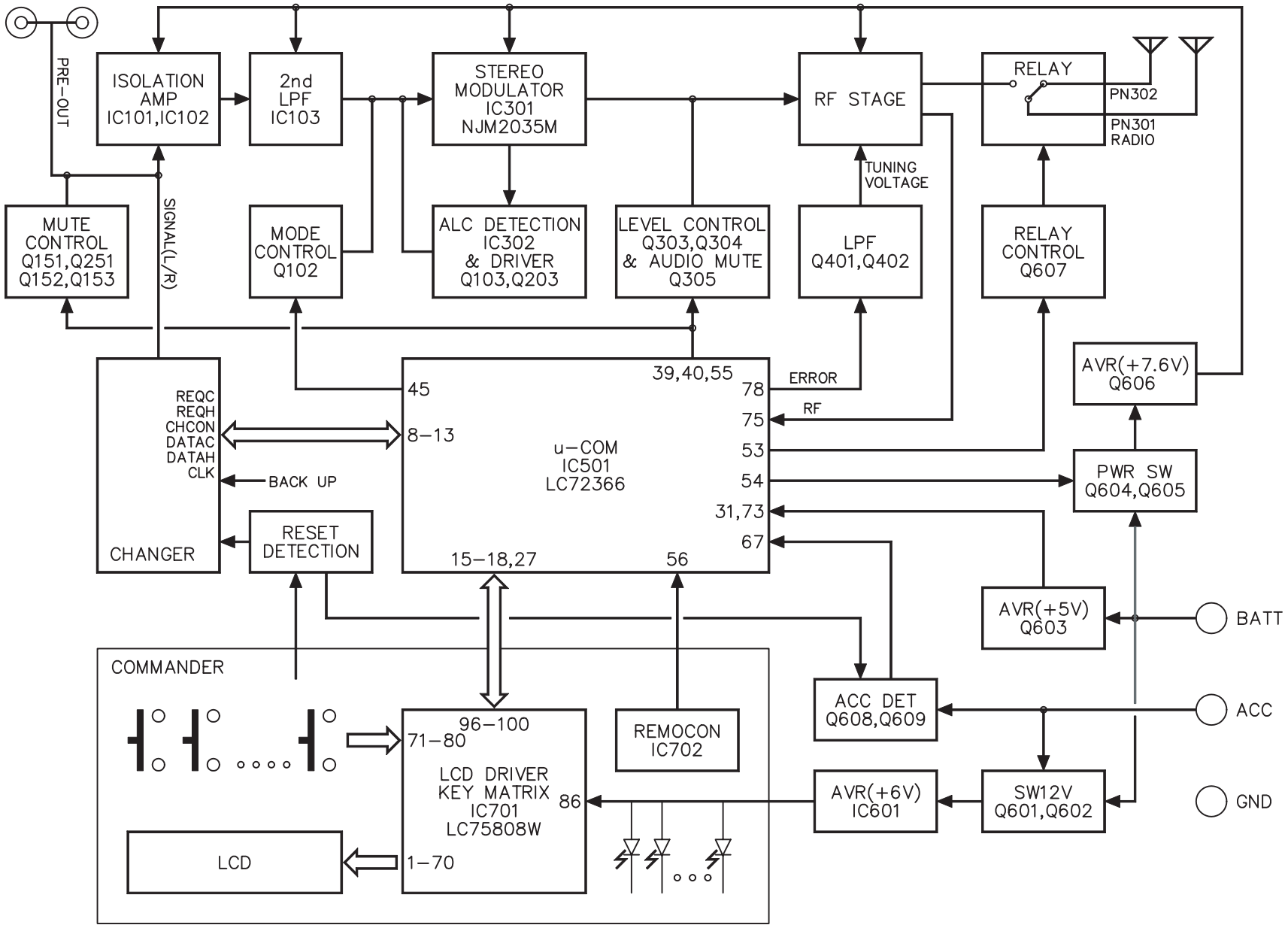
Antenna adaptor
(T90-0521-05)



(E type only)



BLOCK DIAGRAM



COMPONENTS DESCRIPTION

● CONTROL UNIT

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC701	LCD Driver with Key-matrix	
IC702	Remote Control Light Sensor	
Q701	LED ON/OFF SW	
Q702	Key-matrix Permission SW	
Q703	Remote Control ON/OFF SW	

● FM MODULATOR UNIT

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC101,102	GND Isolation AMP	
IC103	Low Pass Filter	
IC301	FM Stereo Modulator	
IC302	1/2 Vcc Driver, ALC Detection Amp	
IC501	System μ com	
IC601	6V AVR	
Q102	L/R Mixer SW	D.cont off : L, D.cont on : H
Q103,203	ALC Control SW	
Q151,251	Pre-out Mute	
Q152,153	Pre-out Mute Control	
Q301	Composite Buffer	
Q351	Temperature compensation	
Q303,304	Level Control SW	LEVEL 1/2 : L, LEVEL 3/4 : H, LEVEL 2/4 : L, LEVEL 1/3 : H
Q305	Audio Mute	Power on : L, Power off : H
Q401,402	PLL Low Pass Filter	
Q411	RF Amp	
Q501	Changer Reset SW	
Q502	Reset SW	
Q601,602	Display Unit Power SW	
Q603	Backup 5V AVR	
Q604,605	Power SW	
Q606	8V AVR	
Q607	Relay Driver	
Q608	ACC Detection	
Q609	Hold Detection	

KCA-R71FM

MICROCOMPUTER'S TERMINAL DESCRIPTION

● SYSTEM MICROCOMPUTER : LC72366-9B63 (FM MODULATOR UNIT : IC501)

Pin No.	Pin Name	I/O	Terminal name	Description	Operation in HOLD
1	XIN	I	X IN	X_tal	-
2	TEST2	-	GND	Ground connection terminal	-
3~5	PG3~1	O	NC	Not used (pull down to GND lines.)	L
6	PG0	I	GND	Connected to GND lines.	-
7	PF3	O	NC	Not used (open)	L
8	PF2	I	$\overline{\text{REQC}}$	CD-Changer REQC (Active "Low")	-
9	PF1	O	$\overline{\text{REQH}}$	CD-Changer REQH (Active "Low")	H
10	PF0	O	CHCON	CD-Changer ON	L
11	SI2	I	CH_DATA_C	CD-Changer DATA in	-
12	SO2	O	CH_DATA_H	CD-Changer DATA out	L
13	SCK2	O	$\overline{\text{CH_CLK}}$	CD-Changer DATA SCK (Active "Low")	H
14	PE0	O	NC	Not used (open)	L
15	PD3	O	LCD DATA out	LCD Driver DATA out	L
16	PD2	O	LCD CLK	LCD Driver CLK out	L
17	PD1	O	LCD RESET	LCD Driver RESET out	L
18	PD0	O	LCD CE	LCD Driver CE out	L
19~26	PC3~PB0	O	NC	Not used (open)	L
27	PA3	I	LCD DATA in	LCD Driver DATA in	-
28~30	PA2~0	I	NC	Not used (pull down to GND lines.)	-
31	VDD	-	Vdd	5V	-
32	PQ0	O	NC	Not used (open)	L
33~44	PP3~PN0	O	GAIN12~1	Modulation output switching	L
45	PM3	O	SEP-ATT	When it has GAIN5 output, "Hi" output	L
46~52	PM2~PL0	O	NC	Not used (open)	L
53	PK3	O	RELAY	Antenna relay control output terminal	L
54	PK2	O	P-on	P_ON	L
55	PK1	O	MUTE	Mute output terminal for the Tuner frequency change	L
56	INT0	I	REMOCON	Remote controller signal input	
57~60	PJ3~0	O	NC	Not used (open)	L
61~66	PI1~PH0	I	NC	Not used (pull down to GND lines.)	-
67	$\overline{\text{HOLD}}$	I	$\overline{\text{HOLD}}$	ACC detection (Operation in HOLD "Low")	L
68	$\overline{\text{SNS}}$	I	Vdd	Vdd	-
69	LCTR	I	NC	Not used (pull down to GND lines.)	-
70	HCTR	I	NC	Not used (pull down to GND lines.)	-
71	EO3	O	NC	Not used (open)	Hi-Z
72	SUBPD	O	NC	Not used (open)	Hi-Z
73	VDD	-	Vdd	Vdd	-
74	AMIN	I	NC	Not used (pull down to GND lines.)	-
75	FMIN	I	VCO in	VCO input	-

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Terminal name	Description	Operation in HOLD
76	VSS	-	Vss	Vss	-
77	EO2	O	NC	Not used (open)	Hi-Z
78	EO1	O	Error out	Phase Detector Error output	Hi-Z
79	TEST1	-	NC	Not used (pull down to GND lines.)	-
80	XOUT	O	X-out	X-tal	

ADJUSTMENT

Instrument :

SSG, OSC (5MHz), AC VOLTMETER, PWR SUPPLY, H/UNIT, CD-CH

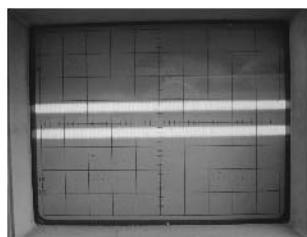
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	RECEIVER (MODULATOR) FREQ	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	L/R Balance Adj.	CD-CH signal off (Tr No.29 or Pause)	Connect a Oscilloscope to Q301 Base.	88.3MHz	VR301	Min Level	(a)
2	Moduration level Adj.	1. Ref.FM 1kHz 80dB μ V Stereo, CD-CH Tr No.1 2. D.Cont Off MOD Lv:2	Connect a AC voltmeter to Receiver PreOut	88.3MHz	VR302	Difference between FM and a CD-CH level is adjusted to (-0.5 \pm 1.0dB).	

* After Adj. The glue is applied to VR301, VR302.

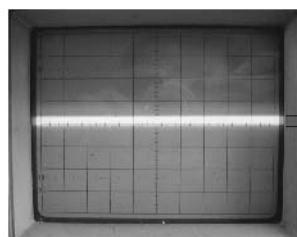
(Scope Setting Condition for L/R BAL. Adj.)

1. VOLTAGE RANGE : 5mV

2. TIME/DIV : 50 μ s



(Before Adj.)



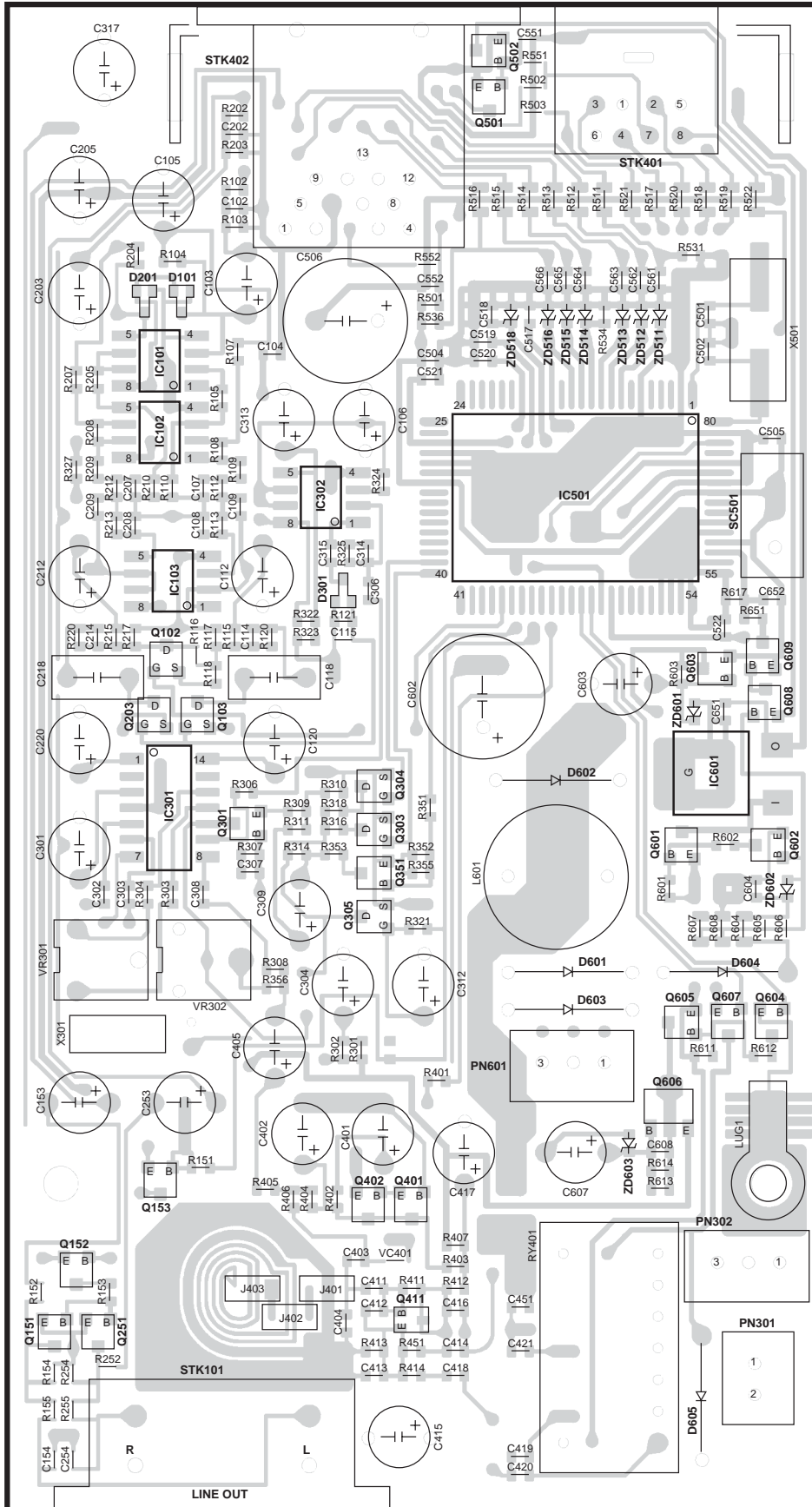
(After Adj.)

Adjusted to be min level point

Fig. (a)

KCA-R71FM PC BOARD (COMPONENT SIDE VIEW)

FM MODULATOR UNIT



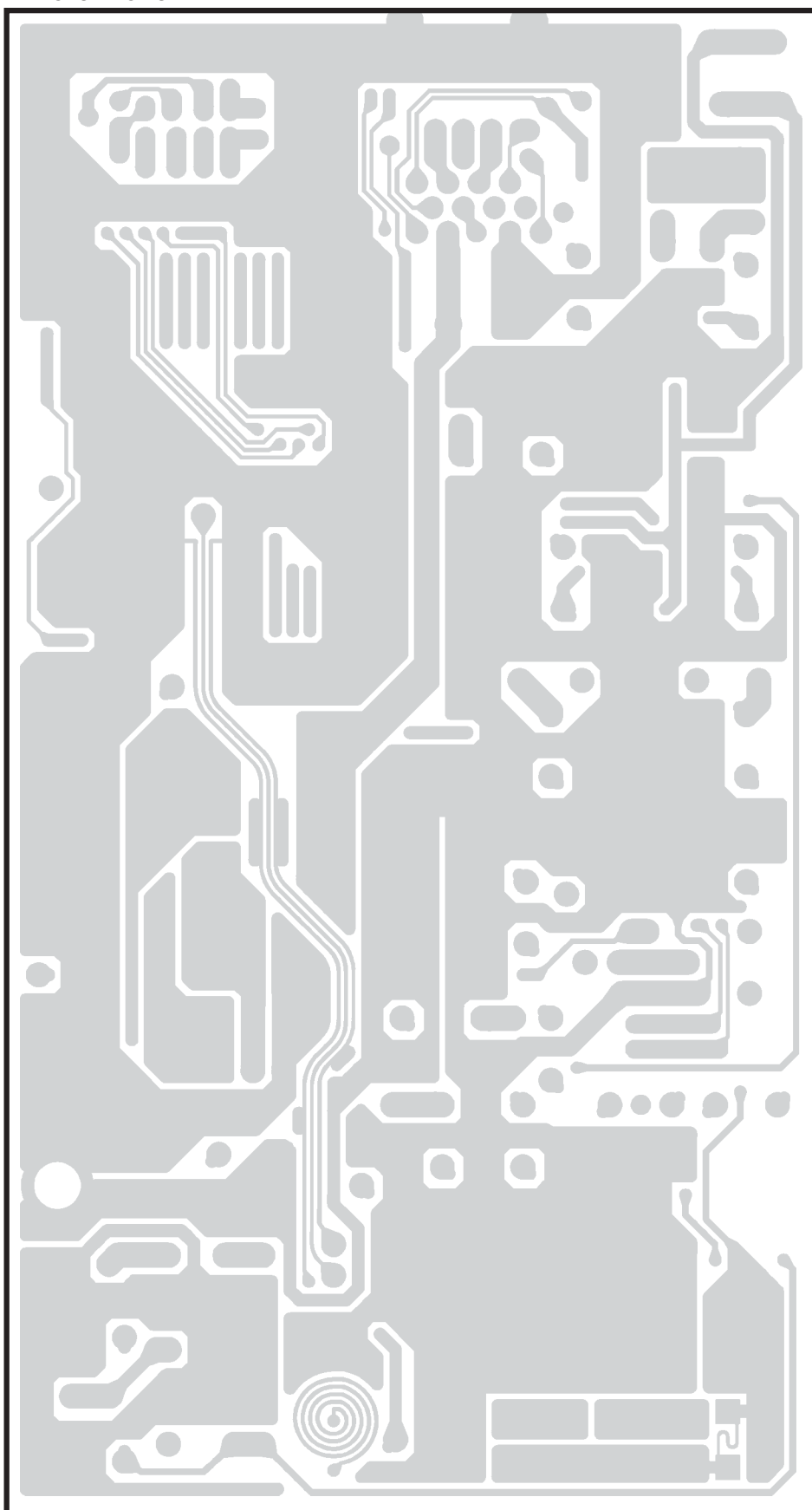
FM MODULATOR UNIT

Ref. No.	Address
IC101	3B
IC102	3B
IC103	4B
IC301	4B
IC302	3B
IC501	3C
IC601	4D
Q102	4B
Q103	4B
Q151	6A
Q152	6A
Q153	6B
Q203	4B
Q251	6B
Q301	4B
Q303	5C
Q304	4C
Q305	5B
Q351	5C
Q401	6C
Q402	6C
Q411	6C
Q501	2C
Q502	2C
Q601	5D
Q602	5D
Q603	4D
Q604	5D
Q605	5D
Q606	5D
Q607	5D
Q608	4D
Q609	4D

Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (FOIL SIDE VIEW)

FM MODULATOR UNIT



1

2

3

4

5

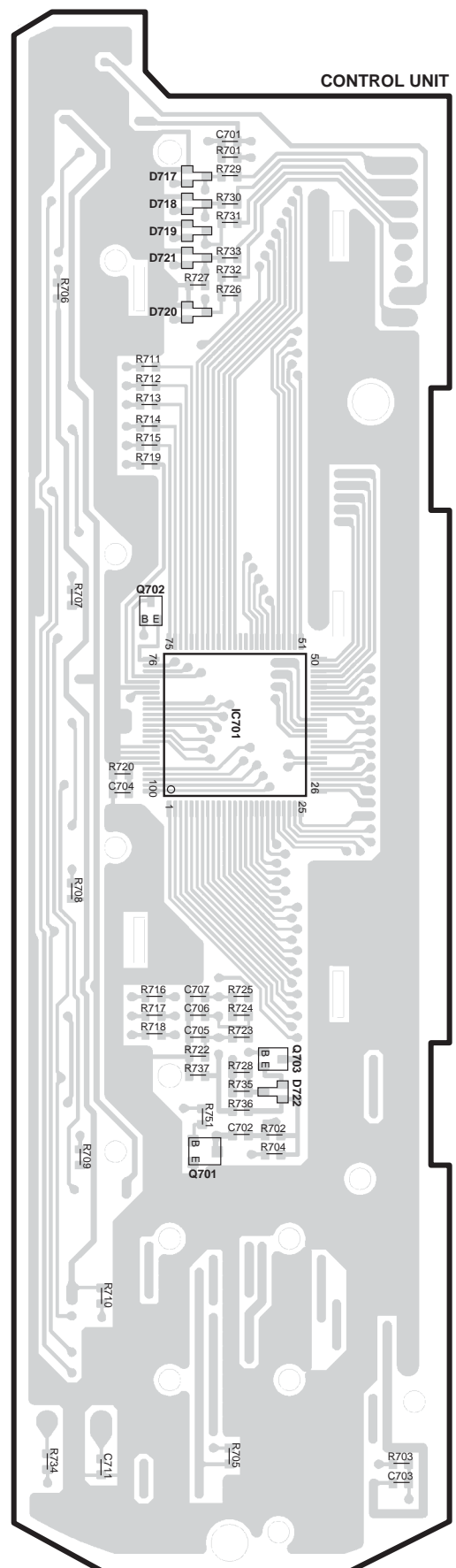
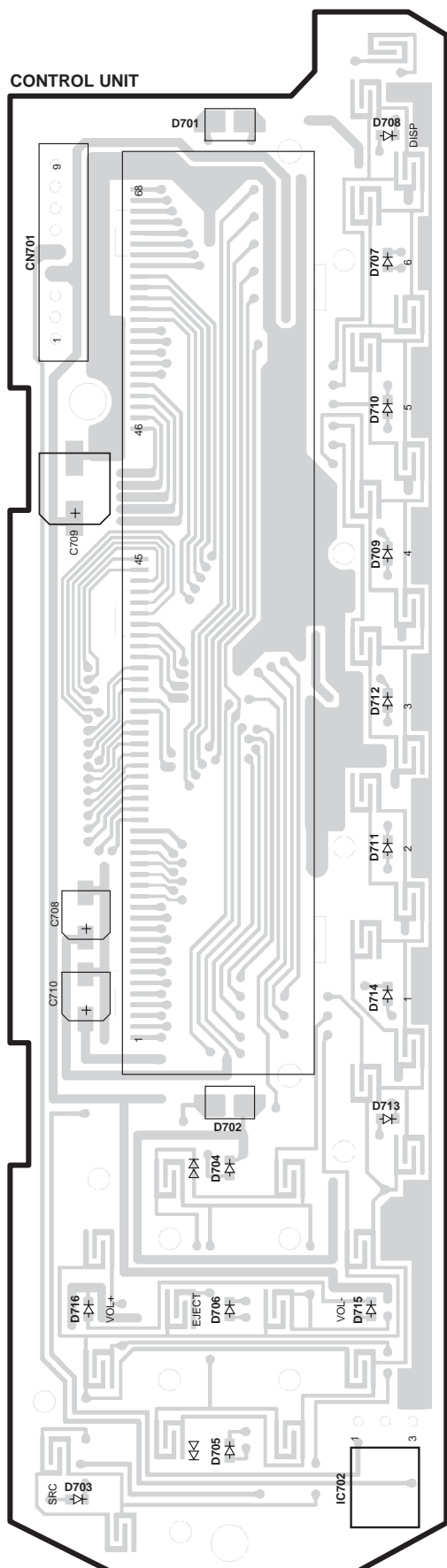
6

7

KCA-R71FM

PC BOARD (COMPONENT SIDE VIEW)

(FOIL SIDE VIEW)



CONTROL UNIT

Ref. No.	Address
IC702	7L

CONTROL UNIT

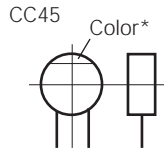
Ref. No.	Address
IC701	40
Q701	60
Q702	3N
Q703	50

Refer to the schematic diagram for the values of resistors and capacitors.

CAPACITORS

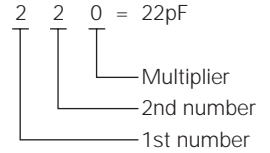
$\frac{C}{1} \frac{C}{2} \frac{45}{3} \frac{TH}{4} \frac{1H}{5} \frac{220}{6} \frac{J}{6}$

- 1 = Type ... ceramic, electrolytic, etc.
- 2 = Shape ... round, square, etc.
- 3 = Temp. coefficient
- 4 = Voltage rating
- 5 = Value
- 6 = Tolerance



• Capacitor value

- 010 = 1pF
- 100 = 10pF
- 101 = 100pF
- 102 = 1000pF = 0.001μF
- 103 = 0.01μF



• Temperature coefficient

1st Word	C	L	P	R	S	T	U
Color*	Black	Red	Orange	Yellow	Green	Blue	Violet
ppm/°C	0	-80	-150	-220	-330	-470	-750

2nd Word	G	H	J	K	L
ppm/°C	±30	±60	±120	±250	±500

Example : CC45TH = -470±60ppm/°C

• Tolerance (More than 10pF)

Code	C	D	G	J	K	M	X	Z	P	No code
(%)	±0.25	±0.5	±2	±5	±10	±20	+40 -20	+80 -20	+100 -0	More than 10μF : -10~+50 Less than 4.7μF : -10~+75

(Less than 10pF)

Code	B	C	D	F	G
(pF)	±0.1	±0.25	±0.5	±1	±2

• Voltage rating

2nd word \ 1st word	A	B	C	D	E	F	G	H	J	K	V
0	1.0	1.25	1.6	2.0	2.5	3.15	4.0	5.0	6.3	8.0	-
1	10	12.5	16	20	25	31.5	40	50	63	80	35
2	100	125	160	200	250	315	400	500	630	800	-
3	1000	1250	1600	2000	2500	2150	4000	5000	6300	8000	-

CHIP CAPACITORS

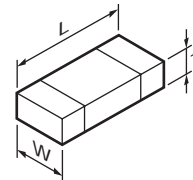
(EX) $\frac{C}{1} \frac{C}{2} \frac{73}{3} \frac{F}{4} \frac{SL}{5} \frac{1H}{6} \frac{000}{7} \frac{J}{7}$
 (Chip) (CH, RH, UJ, SL)

(EX) $\frac{C}{1} \frac{K}{2} \frac{73}{3} \frac{F}{4} \frac{F}{5} \frac{1H}{6} \frac{000}{7} \frac{Z}{7}$
 (Chip) (B, F)

Refer to the table above.

- 1 = Type
- 2 = Shape
- 3 = Dimension
- 4 = Temp. coefficient
- 5 = Voltage rating
- 6 = Value
- 7 = Tolerance

• Dimension



Chip capacitor

Code	L	W	T
Empty	5.6±0.5	5.0±0.5	Less than 2.0
A	4.5±0.5	3.2±0.4	Less than 2.0
B	4.5±0.5	2.0±0.3	Less than 2.0
C	4.5±0.5	1.25±0.2	Less than 1.25
D	3.2±0.4	2.5±0.3	Less than 1.5
E	3.2±0.2	1.6±0.2	Less than 1.25
F	2.0±0.3	1.25±0.2	Less than 1.25
G	1.6±0.2	0.8±0.2	Less than 1.0
H	1.0±0.05	0.5±0.05	0.5±0.05

Chip resistor

Code	L	W	T
E	3.2±0.2	1.6±0.2	1.0
F	2.0±0.3	1.25±0.2	1.0
G	1.6±0.2	0.8±0.2	0.5±0.1
H	1.0±0.05	0.5±0.05	0.35±0.05

RESISTORS

• Chip resistor (Carbon)

(EX) $\frac{R}{1} \frac{D}{2} \frac{73}{3} \frac{E}{4} \frac{B}{5} \frac{2B}{6} \frac{000}{7} \frac{J}{7}$
 (Chip) (B, F)

• Carbon resistor (Normal type)

(EX) $\frac{R}{1} \frac{D}{2} \frac{14}{3} \frac{B}{4} \frac{B}{5} \frac{2C}{6} \frac{000}{7} \frac{J}{7}$
 (Chip) (B, F)

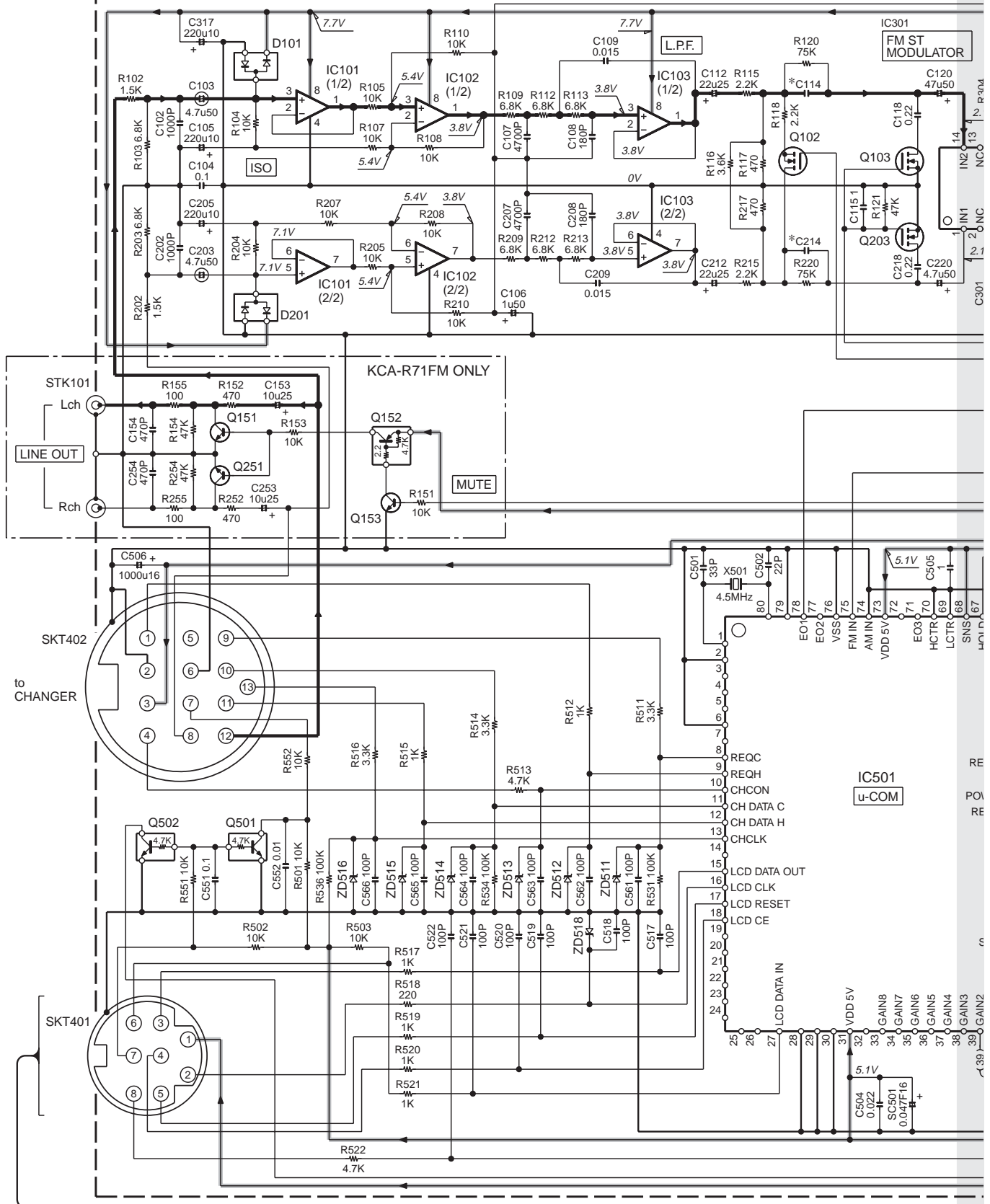
- 1 = Type ... ceramic, electrolytic, etc.
- 2 = Shape ... round, square, etc.
- 3 = Dimension
- 4 = Temp. coefficient
- 5 = Voltage rating
- 6 = Value
- 7 = Tolerance

• Rating wattage

Code	Wattage	Code	Wattage	Code	Wattage
1J	1/16W	2C	1/6W	3A	1W
2A	1/10W	2E	1/4W	3D	2W
2B	1/8W	2H	1/2W		

KCA-R71FM

FM MODULATOR UNIT

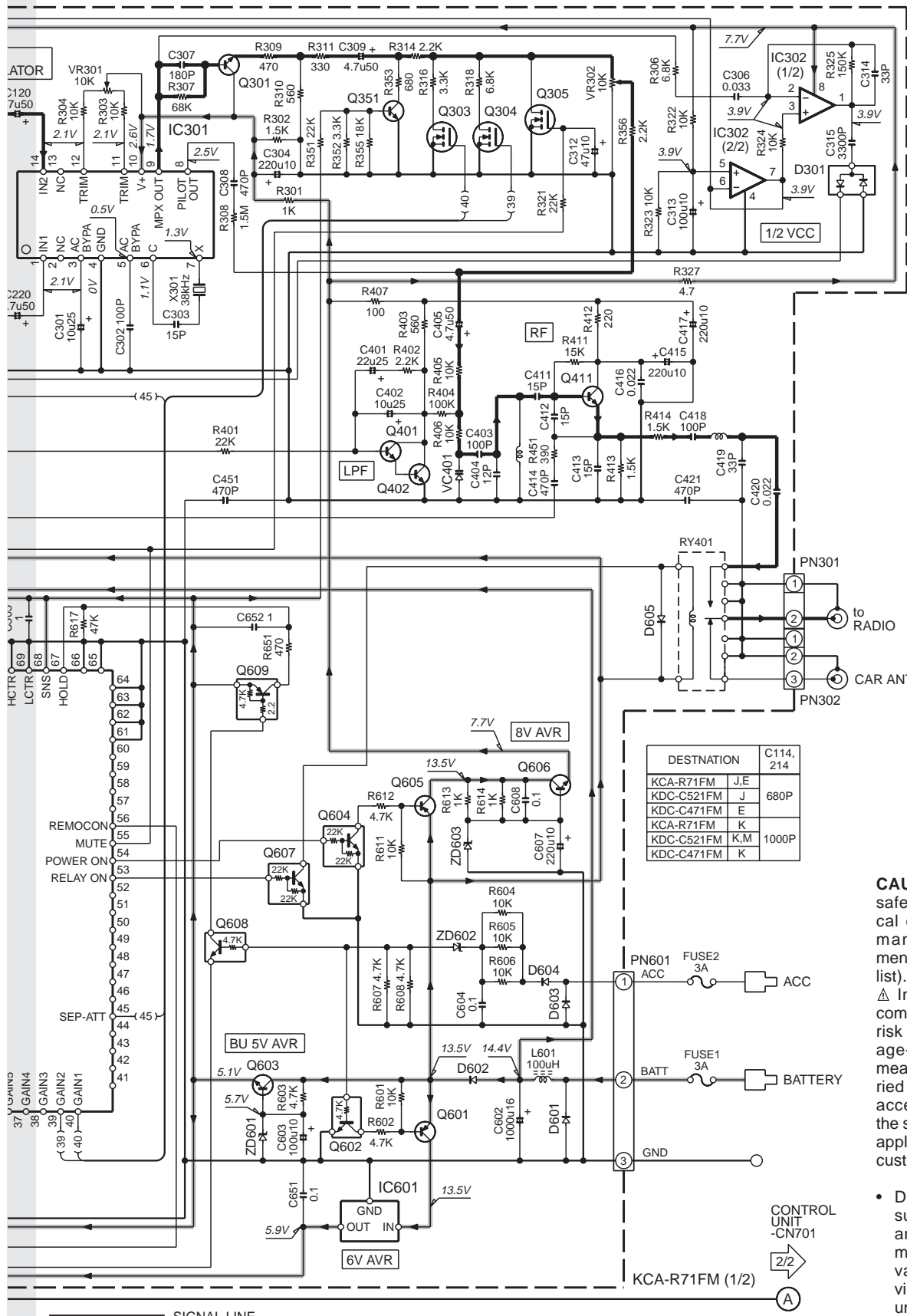


IC101-103,302 : CO5532A
 IC301 : NJM2035M
 IC501 : LC72366
 IC601 : KIA7806AF

Q102,103,203,303-305 : KTK5134S
 Q151,153,251,301,351,603 : KTC3875S-Y
 Q152,609 : KRA105S
 Q401,402 : KTC3879S-Y
 Q411 : KTC4080-O
 Q501,502,602,608 : KRC110S
 Q601,605 : KTA1505S-Y
 Q604,607 : KRC103S
 Q606 : KTC4374-Y

D101,201,301 : KDS122
 D601-605 : 1N4004A
 VC401 : KDV1472
 ZD511-516,518,601,602 : KDZ5.6EV
 ZD603 : KDZ8.2EV

KCA-R71FM



SIGNAL LINE
 GND LINE
 +B LINE

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).

⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

KCA-R71FM

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).

⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

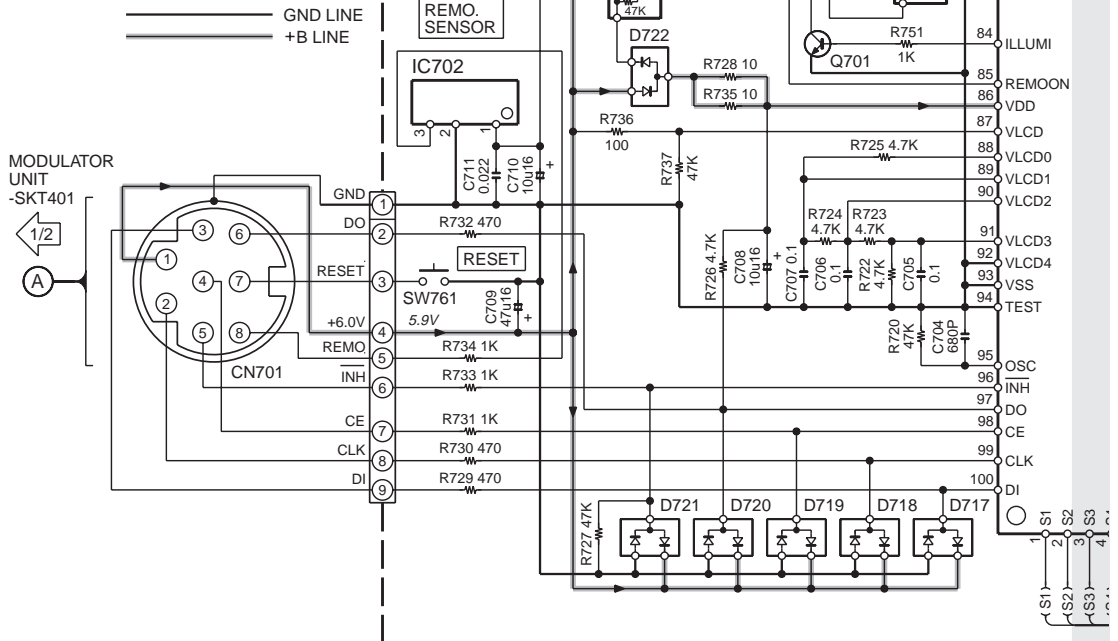
- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

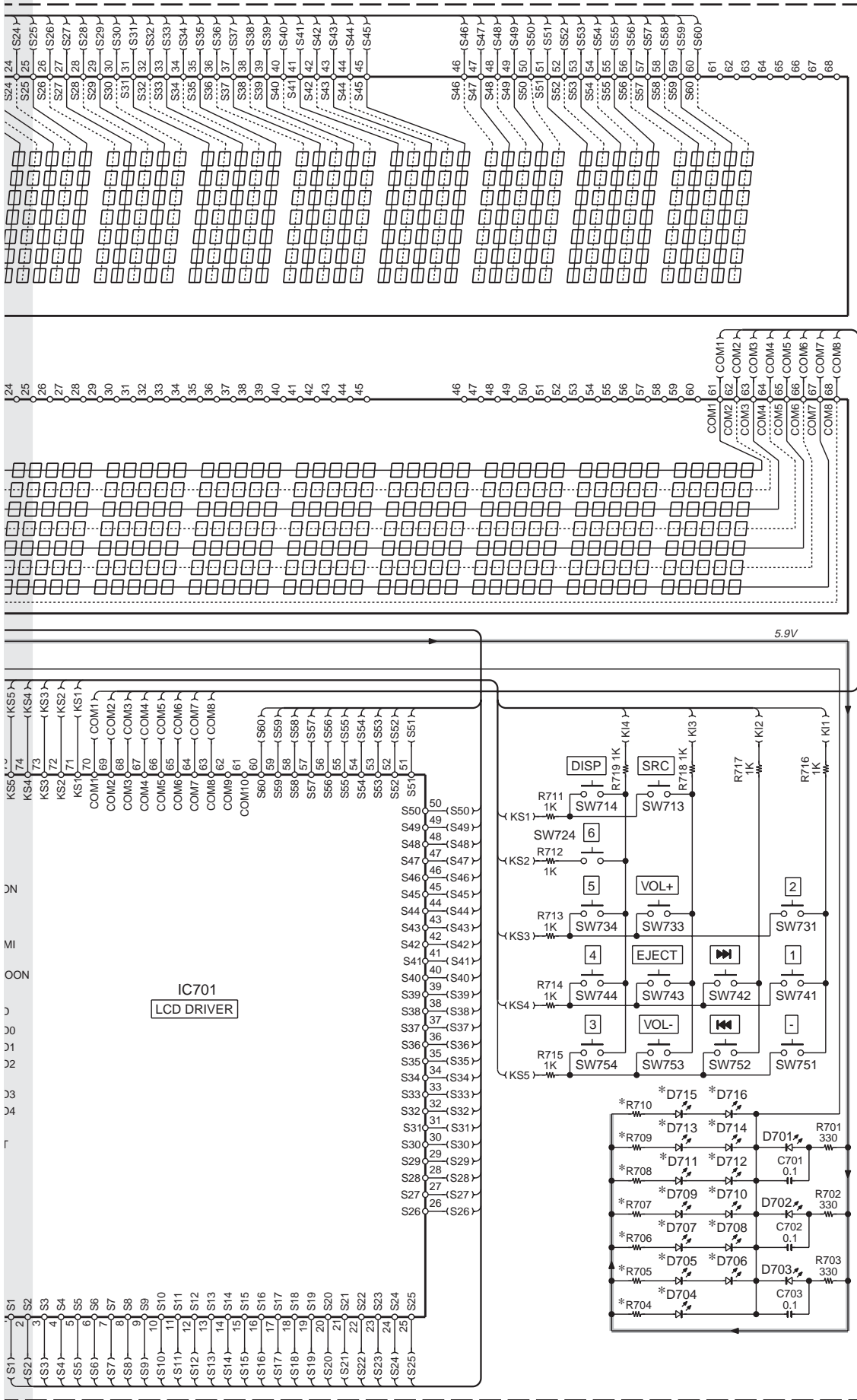
D701,702 : B30-1698-05
 D703 : B30-1564-05
 D704-716 : *
 D717-722 : KDS122

Q701 : KTC3875S
 Q702 : KRA303
 Q703 : KRA305

IC701 : LC75808W
 IC702 : NJL67H380A

DESTINATION	R704	R705-710	D704-716
KCA-R71FM J	330	150	B30-1690-05
KDC-C521FM J			
KCA-R71FM K,E	390	220	B30-1567-05
KDC-C521FM K,M			
KDC-C471FM K,E			

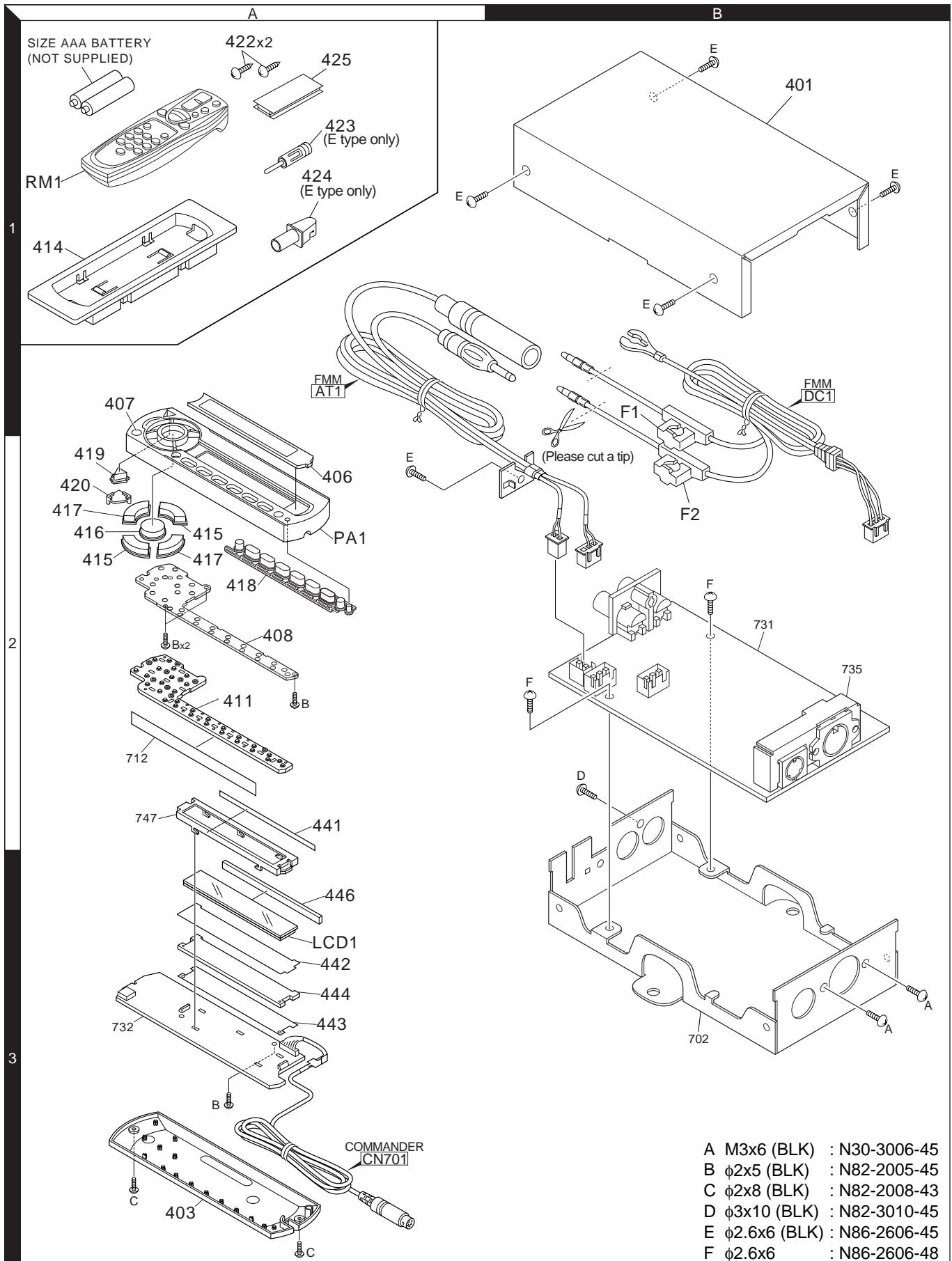




KCA-R71FM (2/2)

KCA-R71FM

EXPLODED VIEW



- A M3x6 (BLK) : N30-3006-45
- B φ2x5 (BLK) : N82-2005-45
- C φ2x8 (BLK) : N82-2008-43
- D φ3x10 (BLK) : N82-3010-45
- E φ2.6x6 (BLK) : N86-2606-45
- F φ2.6x6 : N86-2606-48

PARTS LIST

* New parts

Parts without **Parts No.** are not supplied.

Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.

Teile ohne **Parts No.** werden nicht geliefert.

Ref. No.	Add	New	Parts No.	Description	Destination
KCA-R71FM					
401	1B	*	A01-2850-08	METALLIC CABINET	K
401	1B	*	A01-2852-08	METALLIC CABINET	E
403	3A	*	A46-1806-08	REAR COVER	K
403	3A	*	A46-1812-08	REAR COVER	E
PA1	2A	*	A64-3412-08	PANEL ASSY	K
PA1	2A	*	A64-3414-08	PANEL ASSY	E
RM1	1A	*	A70-2051-05	REMOTE CONTROLLER ASSY (RC-535)	K
RM1	1A	*	A70-2052-05	REMOTE CONTROLLER ASSY (RC-525)	E
-			B46-0100-50	WARRANTY CARD	
-		*	B58-1401-04	CAUTION CARD	
-		*	B64-2780-00	INST.MANUAL (ENG.FRE.SPA.T-CHI)	K
-		*	B64-2781-00	INSTRUCTI.MANUAL (ENG.FRE.SPA.)	E
-		*	B64-2782-00	INSTR.MANUAL (GER.DUT.ITA.POR.)	E
406	2A	*	B10-4561-08	FRONT GLASS	
407	1A	*	B19-2269-08	LIGHTING BOARD	
408	2A	*	B19-2270-08	LIGHTING BOARD	
411	2A	*	E29-1992-08	CONDUCTIVE RUBBER	
F1,2			F06-3026-05	FUSE 3A	
-		*	H12-2756-08	PACKING FIXTURE	
-		*	H54-3157-08	ITEM CARTON CASE	K
-		*	H54-3160-08	ITEM CARTON CASE	E
414	2A	*	J19-7009-08	UNIT HOLDER	
415	2A	*	K24-4174-08	KNOB (UP/DOWN)	K
415	2A	*	K24-4215-08	KNOB (UP/DOWN)	E
416	2A	*	K24-4175-08	KNOB (MENU)	K
416	2A	*	K24-4217-08	KNOB (MENU)	E
417	2A	*	K24-4213-08	KNOB (SEEK)	K
417	2A	*	K24-4216-08	KNOB (SEEK)	E
418	2A	*	K25-1653-08	KNOB (1-6)	
419	2A	*	K29-7101-08	KEY TOP (SRC)	
420	2A	*	K29-7102-08	KNOB BASE (SRC HOLDER)	
422	1A	*	N99-1755-08	SCREW	
A	3B		N30-3006-45	PAN HEAD MACHINE SCREW	
B	2A		N82-2005-45	BINDING HEAD TAPTITE SCREW	
C	3A	*	N82-2008-43	BINDING HEAD TAPTITE SCREW	
D	2B		N82-3010-45	BINDING HEAD TAPTITE SCREW	
E	1B		N86-2606-45	BINDING HEAD TAPTITE SCREW	
F	2B	*	N86-2606-48	BINDING HEAD TAPTITE SCREW	
423	1A		T90-0512-05	ANTENNA ADAPTOR	E
424	1A	*	T90-0521-05	ANTENNA ADAPTOR	E
425	1A	*	W01-1633-08	VELCRO	
FM MODULATOR UNIT					
C1			CE04DW1A221M	ELECTRO 220UF 10WV	
C102		*	C93-1371-08	CHIP C 1000PF J	
C103			CE04BW1H4R7M	NP-ELEC 4.7UF 50WV	
C104			CK73GB1C104K	CHIP C 0.10UF K	
C106			CE04DW1H010M	ELECTRO 1.0UF 50WV	
C107			CK73GB1H472K	CHIP C 4700PF K	

Ref. No.	Add	New	Parts No.	Description	Destination
C108			CC73GCH1H180J	CHIP C 18PF J	
C109			CK73GB1H153K	CHIP C 0.015UF K	
C112			CE04DW1E220M	ELECTRO 22UF 25WV	
C114			CC73GCH1H681J	CHIP C 680PF J	E
C114		*	C93-1371-08	CHIP C 1000PF J	K
C115			CK73GB0J105K	CHIP C 1.0UF K	
C118		*	C91-2274-08	MP-F C 0.22UF J	
C120			CE04DW1H4R7M	ELECTRO 4.7UF 50WV	
C153			CE04DW1E100M	ELECTRO 10UF 25WV	
C154			CC73GCH1H471J	CHIP C 470PF J	
C202		*	C93-1371-08	CHIP C 1000PF J	
C203			CE04BW1H4R7M	NP-ELEC 4.7UF 50WV	
C207			CK73GB1H472K	CHIP C 4700PF K	
C208			CC73GCH1H180J	CHIP C 18PF J	
C209			CK73GB1H153K	CHIP C 0.015UF K	
C212			CE04DW1E220M	ELECTRO 22UF 25WV	
C214			CC73GCH1H681J	CHIP C 680PF J	E
C214		*	C93-1371-08	CHIP C 1000PF J	K
C218		*	C91-2274-08	MP-F C 0.22UF J	
C220			CE04DW1H4R7M	ELECTRO 4.7UF 50WV	
C253			CE04DW1E100M	ELECTRO 10UF 25WV	
C254			CC73GCH1H471J	CHIP C 470PF J	
C301			CE04DW1E100M	ELECTRO 10UF 25WV	
C302			CC73GCH1H101J	CHIP C 100PF J	
C303			CC73GCH1H150J	CHIP C 15PF J	
C306			CK73GB1E333K	CHIP C 0.033UF K	
C307			CC73GCH1H180J	CHIP C 18PF J	
C308			CC73GCH1H471J	CHIP C 470PF J	
C309			CE04DW1H4R7M	ELECTRO 4.7UF 50WV	
C312			CE04DW1E470M	ELECTRO 47UF 25WV	
C313			CE04DW1A101M	ELECTRO 100UF 10WV	
C314			CC73GCH1H330J	CHIP C 33PF J	
C315			CK73GB1H332K	CHIP C 3300PF K	
C401			CE04DW1E220M	ELECTRO 22UF 25WV	
C402			CE04DW1E100M	ELECTRO 10UF 25WV	
C403			CC73GCH1H101J	CHIP C 100PF J	
C404			CC73GCH1H120J	CHIP C 12PF J	
C405			CE04DW1H4R7M	ELECTRO 4.7UF 50WV	
C411-413			CC73GCH1H150J	CHIP C 15PF J	
C414			CC73GCH1H471J	CHIP C 470PF J	
C416			CK73GB1E223K	CHIP C 0.022UF K	
C418			CC73GCH1H101J	CHIP C 100PF J	
C419			CC73GCH1H330J	CHIP C 33PF J	
C420			CK73GB1E223K	CHIP C 0.022UF K	
C421			CC73GCH1H471J	CHIP C 470PF J	
C451			CC73GCH1H471J	CHIP C 470PF J	
C501			CC73GCH1H330J	CHIP C 33PF J	
C502			CC73GCH1H220J	CHIP C 22PF J	
C504			CK73GB1E223K	CHIP C 0.022UF K	
C505			CK73GB0J105K	CHIP C 1.0UF K	
C506		*	C94-0228-08	ELECTRO 1000UF 16WV	
C517-522			CC73GCH1H101J	CHIP C 100PF J	
C551			CK73GB1C104K	CHIP C 0.10UF K	
C552			CK73GB1H103K	CHIP C 0.010UF K	
C561-566			CC73GCH1H101J	CHIP C 100PF J	

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KCA-R71FM

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FM MODULATOR UNIT

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
C602		*	C94-0228-08	ELECTRO 1000UF 16WV	
C603			CE04DW1A101M	ELECTRO 100UF 10WV	
C604			CK73GB1C104K	CHIP C 0.10UF K	
C608			CK73GB1C104K	CHIP C 0.10UF K	
C651			CK73GB1C104K	CHIP C 0.10UF K	
C652			CK73GB0J105K	CHIP C 1.0UF K	
SC501		*	C90-6703-08	ELECTRO 0.47F 5.5WV	
AT1	1A	*	E30-6376-08	CORD WITH PLUG (ANT)	
DC1	1B	*	E30-6377-08	DC CORD ASSY	
LUG1			E23-0746-05	TERMINAL	
PN301,302		*	E41-2228-08	PIN ASSY	
PN302		*	E41-2229-08	PIN ASSY	
SKT101		*	E63-0904-08	PIN JACK	
SKT401		*	E56-0860-08	CYLINDRICAL RECEPTACLE (8P MIN DIN)	
SKT402		*	E56-0861-08	CYLINDRICAL RECEPTACLE (13P DIN)	
VC401		*	KDV1472-B	VARIABLE CAPACITANCE DIODE	
L601		*	L33-2220-08	CHOKE COIL 100UH	
X301		*	L77-2895-08	CRYSTAL RESONATOR 38KHZ	
X501		*	L77-2894-08	CRYSTAL RESONATOR 4.5MHZ	
J401-403			R92-2053-05	CHIP R 0 J 1/8W	
R102			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R103			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R104,105			RK73GB2A103J	CHIP R 10K J 1/10W	
R107,108			RK73GB2A103J	CHIP R 10K J 1/10W	
R109			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R110			RK73GB2A103J	CHIP R 10K J 1/10W	
R112,113			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R115			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R116			RK73GB2A362J	CHIP R 3.6K J 1/10W	
R117			RK73GB2A471J	CHIP R 470 J 1/10W	
R118			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R120		*	RK73GB2A753J	CHIP R 75K J 1/10W	
R121			RK73GB2A473J	CHIP R 47K J 1/10W	
R151			RK73GB2A103J	CHIP R 10K J 1/10W	
R152			RK73GB2A471J	CHIP R 470 J 1/10W	
R153			RK73GB2A103J	CHIP R 10K J 1/10W	
R154			RK73GB2A473J	CHIP R 47K J 1/10W	
R155			RK73GB2A101J	CHIP R 100 J 1/10W	
R202			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R203			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R204,205			RK73GB2A103J	CHIP R 10K J 1/10W	
R207,208			RK73GB2A103J	CHIP R 10K J 1/10W	
R209			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R210			RK73GB2A103J	CHIP R 10K J 1/10W	
R212,213			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R215			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R217			RK73GB2A471J	CHIP R 470 J 1/10W	
R220		*	RK73GB2A753J	CHIP R 75K J 1/10W	
R252			RK73GB2A471J	CHIP R 470 J 1/10W	
R254			RK73GB2A473J	CHIP R 47K J 1/10W	
R255			RK73GB2A101J	CHIP R 100 J 1/10W	
R301			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R302			RK73GB2A152J	CHIP R 1.5K J 1/10W	

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
R303,304			RK73GB2A103J	CHIP R 10K J 1/10W	
R306			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R307			RK73GB2A683J	CHIP R 68K J 1/10W	
R308			RK73GB2A155J	CHIP R 1.5M J 1/10W	
R309			RK73GB2A471J	CHIP R 470 J 1/10W	
R310			RK73GB2A561J	CHIP R 560 J 1/10W	
R311			RK73FB2B331J	CHIP R 330 J 1/8W	
R314			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R316			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R318			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R321			RK73GB2A223J	CHIP R 22K J 1/10W	
R322-324			RK73GB2A103J	CHIP R 10K J 1/10W	
R325			RK73GB2A154J	CHIP R 150K J 1/10W	
R327			RK73GB2A4R7J	CHIP R 4.7 J 1/10W	
R351			RK73GB2A223J	CHIP R 22K J 1/10W	
R352			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R353			RK73GB2A681J	CHIP R 680 J 1/10W	
R355			RK73GB2A183J	CHIP R 18K J 1/10W	
R356			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R401			RK73GB2A223J	CHIP R 22K J 1/10W	
R402			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R403			RK73GB2A561J	CHIP R 560 J 1/10W	
R404			RK73GB2A104J	CHIP R 100K J 1/10W	
R405,406			RK73GB2A103J	CHIP R 10K J 1/10W	
R407			RK73GB2A101J	CHIP R 100 J 1/10W	
R411			RK73GB2A153J	CHIP R 15K J 1/10W	
R412			RK73GB2A221J	CHIP R 220 J 1/10W	
R413			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R414			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R451			RK73GB2A391J	CHIP R 390 J 1/10W	
R501			RK73GB2A103J	CHIP R 10K J 1/10W	
R502,503			RK73FB2B103J	CHIP R 10K J 1/8W	
R511			RK73FB2B332J	CHIP R 3.3K J 1/8W	
R512			RK73FB2B102J	CHIP R 1.0K J 1/8W	
R513			RK73FB2A472J	CHIP R 4.7K J 1/10W	
R514			RK73FB2B332J	CHIP R 3.3K J 1/8W	
R515			RK73FB2B102J	CHIP R 1.0K J 1/8W	
R516			RK73FB2B332J	CHIP R 3.3K J 1/8W	
R517			RK73FB2B102J	CHIP R 1.0K J 1/8W	
R518			RK73FB2B221J	CHIP R 220 J 1/8W	
R519-521			RK73FB2B102J	CHIP R 1.0K J 1/8W	
R522			RK73FB2A472J	CHIP R 4.7K J 1/10W	
R531			RK73GB2A104J	CHIP R 100K J 1/10W	
R534			RK73GB2A104J	CHIP R 100K J 1/10W	
R536			RK73GB2A104J	CHIP R 100K J 1/10W	
R551,552			RK73FB2B103J	CHIP R 10K J 1/8W	
R601			RK73GB2A103J	CHIP R 10K J 1/10W	
R602,603			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R604-606			RK73FB2B103J	CHIP R 10K J 1/8W	
R607			RK73FB2A472J	CHIP R 4.7K J 1/10W	
R611			RK73GB2A103J	CHIP R 10K J 1/10W	
R612			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R613,614			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R617			RK73FB2A472J	CHIP R 4.7K J 1/10W	
R617			RK73GB2A473J	CHIP R 47K J 1/10W	

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FM MODULATOR UNIT

Ref. No.	Add	New	Parts No.	Description	Destination
R651 VR301,302		*	RK73GB2A471J R32-0295-08	CHIP R 470 J 1/10W SEMI FIXED VARIABLE RESIS. 10K	
RY401		*	S76-0814-08	RELAY RF	
D101		*	KDS122	DIODE	
D201		*	KDS122	DIODE	
D301		*	KDS122	DIODE	
D601-605 IC101-103		*	1N4004A CO5532A	DIODE ANALOGUE IC	
IC301			NJM2035M	ANALOGUE IC	
IC302		*	CO5532A	ANALOGUE IC	
IC501		*	LC72366-9B63	MICROCONTROLLER IC	
IC601		*	KIA7806AF	ANALOGUE IC	
Q102,103		*	KTK5134S	FET	
Q151		*	KTC3875S-Y	TRANSISTOR	
Q152		*	KRC105S	TRANSISTOR	
Q153		*	KTC3875S-Y	TRANSISTOR	
Q203		*	KTK5134S	FET	
Q251		*	KTC3875S-Y	TRANSISTOR	
Q301		*	KTC3875S-Y	TRANSISTOR	
Q303-305		*	KTK5134S	FET	
Q351		*	KTC3875S-Y	TRANSISTOR	
Q401,402		*	KTC3879S-Y	TRANSISTOR	
Q411		*	KTC4080-0	TRANSISTOR	
Q501,502		*	KRC110S	TRANSISTOR	
Q601		*	KTA1505S-Y	TRANSISTOR	
Q602		*	KRC110S	TRANSISTOR	
Q603		*	KTC3875S-Y	TRANSISTOR	
Q604			KRC103S	TRANSISTOR	
Q605		*	KTA1505S-Y	TRANSISTOR	
Q606		*	KTC4374-Y	TRANSISTOR	
Q607			KRC103S	TRANSISTOR	
Q608		*	KRC110S	TRANSISTOR	
Q609		*	KRC105S	TRANSISTOR	
ZD511-516		*	KDZ5.6EV	ZENER DIODE	
ZD518		*	KDZ5.6EV	ZENER DIODE	
ZD601,602		*	KDZ5.6EV	ZENER DIODE	
ZD603		*	KDZ8.2EV	ZENER DIODE	
CONTROL UNIT					
441	2A	*	B11-1465-08	REFLECTION SHEET	
442	3A	*	B11-1466-08	OPTICAL DIFFUSER	
443	3A	*	B11-1467-08	REFLECTION SHEET	
444	3A	*	B19-2271-08	LIGHTING BOARD	
D701,702		*	B30-1698-05	LED	
D703			B30-1564-05	LED	
D704-716			B30-1567-05	LED	
LCD1	3A	*	B38-1161-08	LIQUID CRYSTAL	
C701-703			CK73GB1C104K	CHIP C 0.10UF K	
C704			CC73GCH1H681J	CHIP C 680PF J	
C705-707			CK73GB1C104K	CHIP C 0.10UF K	
C708		*	C92-1895-08	ELECTRO 10UF 16VV	
C709		*	C92-1896-08	ELECTRO 47UF 16VV	
C710		*	C92-1895-08	ELECTRO 10UF 16VV	
C711			CK73GB1E223K	CHIP C 0.022UF K	

Ref. No.	Add	New	Parts No.	Description	Destination
446 CN701	3A	*	E29-2020-08 E30-6378-08	CONDUCTIVE RUBBER CORD WITH DIN CONNECTOR	
R701-703 R704 R705-710 R711-719 R720			RK73GB2A331J RK73GB2A391J RK73GB2A221J RK73GB2A102J RK73GB2A473J	CHIP R 330 J 1/10W CHIP R 390 J 1/10W CHIP R 220 J 1/10W CHIP R 1.0K J 1/10W CHIP R 47K J 1/10W	
R722-726 R727 R728 R729,730 R731			RK73GB2A472J RK73GB2A473J RK73GB2A100J RK73GB2A471J RK73GB2A102J	CHIP R 4.7K J 1/10W CHIP R 47K J 1/10W CHIP R 10 J 1/10W CHIP R 470 J 1/10W CHIP R 1.0K J 1/10W	
R732 R733,734 R735 R736 R737			RK73GB2A471J RK73GB2A102J RK73GB2A100J RK73GB2A101J RK73GB2A473J	CHIP R 470 J 1/10W CHIP R 1.0K J 1/10W CHIP R 10 J 1/10W CHIP R 100 J 1/10W CHIP R 47K J 1/10W	
R751			RK73GB2A102J	CHIP R 1.0K J 1/10W	
D717-722 IC701 IC702 Q701 Q702		*	KDS122 LC75808W NJL67H380A KTC3875S KRA303	DIODE MOS-IC ANALOGUE IC TRANSISTOR TRANSISTOR	
Q703			KRA305	TRANSISTOR	

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KCA-R71FM

SPECIFICATIONS

Modulating Frequency (200kHz STEP) 87.7 / 87.9 / 88.1 / 88.3 / 88.5 / 88.7 MHz
88.9 / 89.1 / 89.3 / 89.5 / 89.7 / 89.9 MHz

Preout Level / Load-Unbalanced 1000mV/10k Ω (CD/CD-CH)

Preout Impedance $\leq 600\Omega$

General

Operating voltage (11~16V allowable) 14.4V

Current consumption 1.0A

Operating Temperature -10~50°C

Remote controller

Installation Size (W x H x D) 45 x 140 x 29 mm (1-12/16 x 5-8/16 x 1-1/8 in)

Weight 90g (0.20 lbs)

Display unit

Installation Size (W x H x D) 154 x 43 x 17 mm (6-1/16 x 1-11/16 x 11/16 in)

Weight 145g (0.32 lbs)

FM modulator unit

Installation Size (W x H x D) 126 x 30 x 69 mm (4-15/16 x 1-3/16 x 2-6/8 in)

Weight 400g (0.88 lbs)

Trim mount plate

Installation Size (W x H x D) 188 x 58 x 18 mm (7-3/8 x 2-5/16 x 11/16 in)

KENWOOD follows a policy of continuous advancements in development.

For this reason specifications may be changed without notice.

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