

# KDC-4551UB/455UW

# KDC-4651URY

# KDC-U449/U5049

## SERVICE MANUAL

# KENWOOD

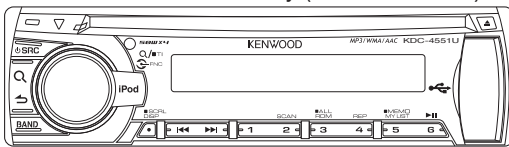
Kenwood Corporation

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B53-0835-00 (N) 223

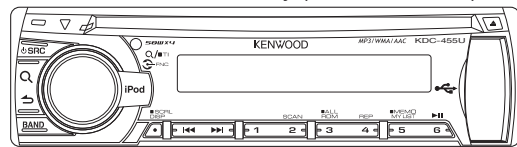
### Tuner setting adjustment after replacing E2PROM

After replacing E2PROM (IC771 on X34), tuner setting adjustment is needed.  
The adjustment is that to perform the "TUNER Setting Adjustment Mode" (Page 5)  
in the "Tuner Test Mode Specification" of "Production Test Mode".

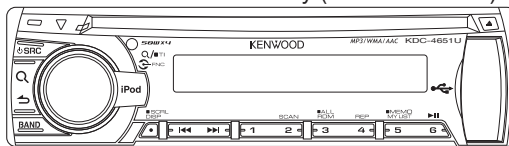
KDC-4451UB : Panel assy (GE20277-001A)



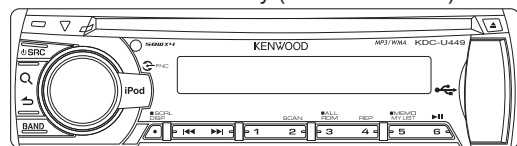
KDC-455UW : Panel assy (GE20277-002A)



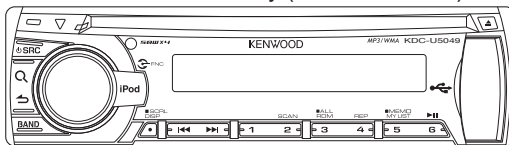
KDC-4651URY : Panel assy (GE20280-015A)



KDC-U449 : Panel assy (GE20277-007A)

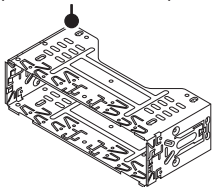
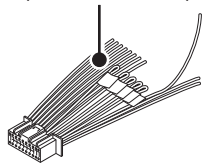
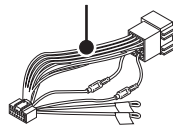
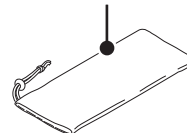
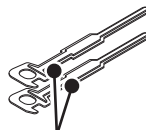
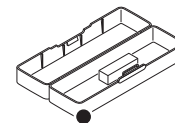
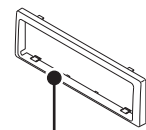


KDC-U5049 : Panel assy (GE20277-010A)



### TDF SPARE-PANEL

MAIN UNIT NAME	TDF PARTS No.	TDF NAME
KDC-4551UB	Y33-3382-71	TDF-4551UB
KDC-455UW	Y33-3382-72	TDF-455UW
KDC-4651URY	Y33-3382-73	TDF-4651URY
KDC-U449	Y33-3380-21	TDF-U449
KDC-U5049	Y33-3383-01	TDF-U5049

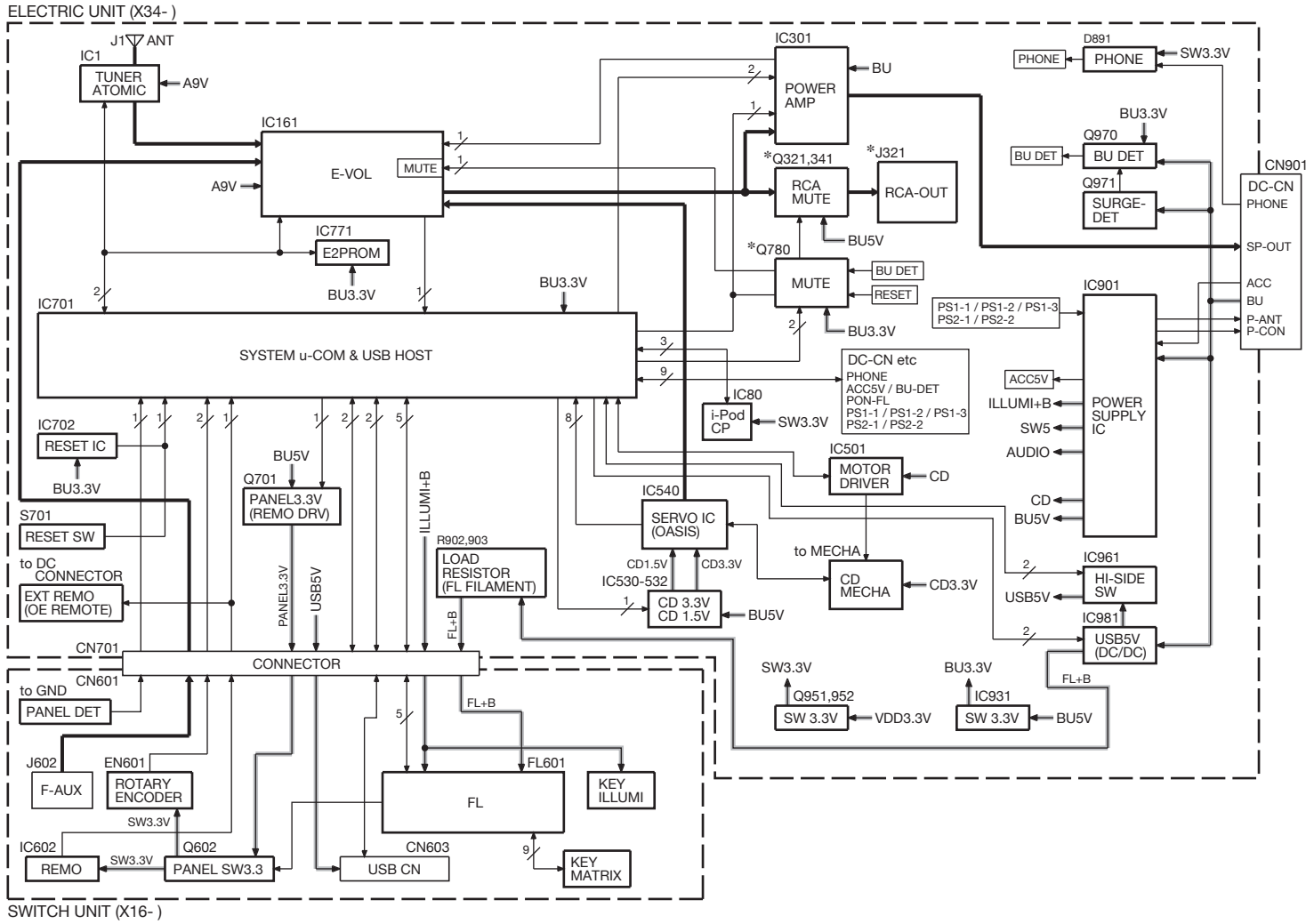
Mounting sleeve assy  
(GE34134-001A)\* Car cable  
(QAM1341-001)\* Car cable  
(E30-6937-05)\* Carrying case  
(W01-1710-05)\* Remote control unit (RC-405)  
(A70-2104-05)\* Tap screw (2x8)  
(N80-2008-43)\* Screw set  
(N99-1757-15)Hook  
(GE40510-001A) x2\* Hard case assy  
(A02-2757-13)Trim plate  
(GE20274-001A)

\* Depends on the model. Refer to the parts list.

This product uses Lead Free solder.

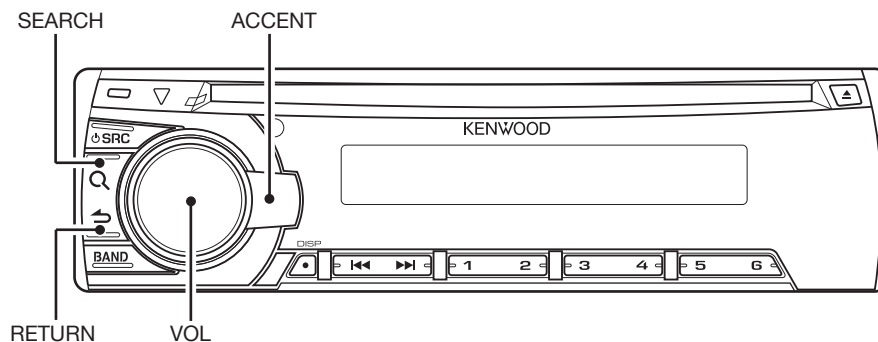
This product complies with the **RoHS** directive for the European market.

BLOCK DIAGRAM



# TEST MODE

## 1. Panel



## 2. How to enter each Test Mode

Test Mode name	Operation
Production Test Mode	Press and hold [1] key and [3] key and reset.
Service Test Mode	In the STANDBY source, while pressing and holding [2] key, press [6] key for 7 seconds. (Starting to press [2] key and [6] key at the same time can not be entered into the mode)
DC Error Information Mode	Press and hold [3] key and [6] key and reset.

\* Transition to Test Mode shall be available during DC Error detection.

## 3. How to release each Test Mode

- Reset
- Momentary voltage drop
- ACC OFF
- POWER OFF
- Panel Detach

## 4. Production Test Mode

### ● Default status immediately after the mode activation

It shall be same as normal RST start in other than the below setting.

Details		
Difference in action	Period to prohibit TEL/LINE MUTE immediately after activation (normally 10 seconds)	1 second
	Mecha Initialize Action	Prohibited
	Write-in to E2PROM when detecting a DC error	Prohibited
	Demo Mode ON/OFF Setting Menu	Prohibited
	Power supply during ACC OFF (Back Up On)	MUTE terminal turns OFF after 2 seconds
	BEEP sound	Beep with short-pressing in any functions
Various setting value	Volume	30 (-10dB)
	BASS BOOST/LOUD	OFF
	EQ	NATURAL
	Fader/Balance	Center
	DEMO Mode Setting	OFF
	AUX Setting	ON1
	NAVI MUTE Setting for Japan	Detecting function valid (ATT)

# TEST MODE

## ● Mode structure

Some Test Modes change according to the current source.

The following table shows the current source in Set and the related test mode status.

KWD model source	Test mode
POWER OFF	-
Standby	STANDBY Test Mode
TUNER	TUNER Test Mode
CD	CD Test Mode
USB	-
AUX	-

## ● Mode content

Syscom shall display the following information after entering this mode. The operation shown below shall be workable.

Display content	Details
P R O <input type="checkbox"/> T E S T <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	The display is released when another operation is executed. The display will blink if sub clock is not functioning.

## ● STANDBY Test Mode Specification

Operation	Display content	Details
1 (Toggle)	Syscom version display <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> S Y S 0 * - * * *	Syscom version (Refer to Syscom Version Table)
	All lights ON <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	All lights ON (Switch to other display)
2 (Toggle)	Serial No. display <input type="checkbox"/> S N <input type="checkbox"/> <input type="checkbox"/> : 0 0 0 0 0 0 0 0	Serial No. display (8-digit) * Display as it is in hex
	All lights ON <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	All lights ON (Switch to other display)
3 (Toggle)	All lights ON/OFF <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	All lights ON/OFF with toggle
4 (Toggle)	Information display iPod verification IC mount status display i P o d <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> : <input type="checkbox"/> <input type="checkbox"/> i P o d <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> : O K i P o d <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> : N G i P o d <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> : * *	iPod verification IC mount status display Blank: Verifying OK: Verification IC mounted NG: Verification IC not mounted **: Non-iPod support model
	All lights ON <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	All lights ON (Switch to other display)
5 (Toggle)	Preout switch S W P R E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> R E A R <input type="checkbox"/> S W P R E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> S U B - W	Switch Preout with Toggle (1Preout/2Preout model only)
6 (Toggle)	All lights ON/OFF <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	All lights ON/OFF with toggle
SOURCE Transition	Mode release <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Return to Normal mode
■RETURN	Mode release <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Return to Normal mode

## ● Tuner Test Mode Specification

The following displays shall be indicated according to the TUNER status.

Status	Display content	Details
TUNER IC Communication error	T U N <input type="checkbox"/> C O N <input type="checkbox"/> N G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Communication to TUNER IC not available (indicated unless the mode is in Clock Display Mode).

# TEST MODE

Status	Display content	Details
Adjustment not implemented	* E R R * [ ] [ ] A [ ] 9 7 . 9 A	For models that TUNER adjustment is necessary but not done (adjustment value: 0x00 or 0xFF), the following TUNER Test Mode functions are valid (“*ERR*” display is continuing). Display “*ERR*” blinks with 250ms interval.
RDS Specified data reception	R D S [ ] T E S T [ ] [ ] [ ] [ ] [ ]	Turn OFF P-CON forcibly if PS=RDS TEST is received. P-CON recovers with Power OFF/ON.

## ◇ Operations

Operation	Display content	Details
ACCENT	TUNER IC display A T O M [ ] R D S [ ] [ ] [ ] [ ]	Display TUNER IC version * Display content is assigned by Tuner Development G.
4	Preset operation F M 1 - 3 [ ] [ ] A [ ] 9 7 . 9 A	Switch to either 98.3 (except for J type)
BAND	BAND switch operation F M 1 - 3 [ ] [ ] A [ ] 9 7 . 9 A	Execute Band Switch as shown in the following table every time Band key is pressed in each type.
SEARCH	S meter voltage judgment display S - M T R [ ] [ ] [ ] [ ] x x : O K S - M T R [ ] [ ] [ ] [ ] x x : N G S - M T R [ ] [ ] [ ] [ ] x x : - -	S meter value xx: Current S meter value Determination result OK: Within S meter voltage spec NG: Out of S meter voltage spec -- : No LEVEL OFFSET adjustment
■DISP	Shift to TUNER setting mode [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Transit to TUNER setting adjustment mode after switching to 98.3MHz Frequency: 98.3MHz, Modulation frequency: 1kHz, Modulation mode: MONO, Modulation: OFF, Deviation: 40kHz, ANT input level: 34dBμV

## ◇ TUNER Setting Adjustment Mode

### 1. Operation (Operation after performance of above-mentioned “Shift to TUNER setting mode” item)

Operation	Display content	Details
■BAND (Toggle)	AUTO Adjustment Mode A [ ] S - x x [ ] L - x x [ ] [ ]	Select TUNER adjustment method (A: AUTO) using BAND key. S-xx: Current S meter value (Hex) L-xx: Level offset value (Hex) * In case that the level offset value is not adjusted (0xFF or 0x00), display “- -”.

### 2. Operations in AUTO Adjustment Mode

Operation	Display content	Details
VOL PUSH	Adjustment start A [ ] S - x x [ ] L - x x [ ] [ ]	Start Adjustment (Start Auto adjustment, and transit to Success/Failure display depending on the adjustment result)

### 3. Status display during adjustment

Status	Display content	Details
Adjustment success	A D J [ ] O K [ ] [ ] [ ] [ ] : x x	When the adjustment value write-in to E2PROM (IC771 on X34) has been completed. xx: Level offset value (HEX)
Adjustment failure	A D J [ ] N G [ ] [ ] [ ] [ ] [ ]	When the adjustment value write-in to E2PROM (IC771 on X34) has failed.

# TEST MODE

## 4. Operation of return to TUNER Test Mode

Operation	Display content												Details	
RETURN	Mode release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Return to TUNER Test Mode.

### ● BAND switch list

Type	BAND1	BAND2	BAND3	BAND4	BAND5	BAND6	Details
E	①FM1	FM2	FM3	②MW/LW	-	-	①→②→①...
M/C	①FM1	FM2	FM3	②MW	③SW1	④SW2	①→②→③→④→①...

### ● CD Test Mode Specification

It shall be the same as normal RST start in other than the below setting.

Content	Details
Playback track from top	No.9
Default for Display mode	Play time

### ◇ Operations in CDDA playback

Operation	Display content												Details	
▶▶	Special track up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pressed Track up depend on different cases. Case 1: Track>23 No.9→No.15→No.10→No.22→No.12 →No.13→No.14→No.9 Case 2: Track<8 No.1→No.2→No.3→Until Last Track Case 3: 8<Track<22 No.9→No.15→No.10→Until Last Track
◀◀	Special track down	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	One-by-one Track down by sequence follow Track No.
1 (Toggle)	HC1/2 Judge- ment Information Display	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HC1/2 Judgement Information. HC1: HC1 mecha (for this model) HC2: HC2 mecha ***: Impossible of Judgement
	Normal Display	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Normal Display
3	Special jump operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Jump to No.28 (Scratch 0.7mm for MUSIC line vibration test)
4	Special jump operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Jump to No.14 (Damaged disc TCD-731RA Tr14)
5	Special jump operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Jump to No.15 Set Volume value at 26 (for error operation FCT check of 20Hz 0dB DC protection)
6	Special jump operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Jump to No.9 if the other than track No.9 is playing. Jump to No.22 if the track No.9 is playing.

## 5. Service Test Mode

### ● Default status immediately after the mode activation

It shall be same as the normal activation.

### ● Mode structure

Service Test Mode is enabled only STANDBY source.

# TEST MODE

## ● Mode content

Syscon shall display the following information after entering this mode. The operation shown below shall be workable.

Display content	Details
S R V □ T E S T □ □ □ □ □	The display is released when another operation is executed.

## ● Common operation mode for only STANDBY sources

Operation	Display content	Details
1	Development name status display 1 0 1 1 W E □ □ □ - 2 0 0	Development name – Version (Micom)
3	Power ON duration display P O N T M □ □ □ 0 H x x □	00~50 are displayed in “xx”. For less than 1 hour, the display is indicated per 10 minutes.
	P O N T M □ □ □ x x x x x	00001~10922 are displayed in “xxxxx”. MAX 10922 (hours)
4	Disc action duration display C D T M □ □ □ 0 H x x □	0~50 are displayed in “xx”. For less than 1 hour, the display is indicated per 10 minutes.
	C D T M □ □ □ x x x x x	00001~10922 are displayed in “xxxxx”. MAX 10922 (hours)
5	Disc Eject number of times display E J C N T □ □ □ x x x x x	Display Disc Eject number of times. MAX 65535 (times)
■5	Disc Eject number of times clear □ □ □ □ □ □ □ □ □ □ □	Clear Disc Eject number of times by pressing for 2 seconds when it is displayed.
⏪	Forced Power OFF information display P O F F □ - - □ □ □ □ □	No forced Power OFF
	P O F F □ P N L □ □ □ □ □	Forced Power OFF due to Syscon-Panel communication error.
■⏪	Forced Power OFF info clear □ □ □ □ □ □ □ □ □ □ □	Clear forced Power OFF information by pressing for 2 seconds when it is displayed.

## ● CD Error Information Display Mode

Operation	Display content	Details
DISP	CD error information display mode	Transit to CD error information display mode.
Move between BAND (Forward search)	CD Mech error log display M E C H A □ □ □ E R #: x x	Mech error history 1,2,3 (latest) #: History No. (1,2,3) xx: numbers of errors, “--” when there is none
	CD Load error info display L O A D □ □ □ □ E R #: x x	Load error switch 1,2 #: Switch No. (1,2) xx: numbers of errors, “--” when there is none
	CD Eject error info display E J E C T □ □ □ □ E R #: x x	Eject error switch 1,2,3,4 #: Switch No. (1,2,3,4) xx: numbers of errors, “--” when there is none
items with ⏪/⏩	CD time code error count information (count skip) mode display C N T □ L O S E □ □ □ □ □	CD time code error count information (count skip) mode display
	CD-DA error count numbers C D D A □ □ □ □ □ □: x x	CD-DA error count numbers xx: numbers of errors and “--” when there is none
	CD-ROM (compressed file) error count numbers C D R O M □ □ □ □ □ □: x x	CD-ROM (compressed file) error count numbers xx: numbers of errors and “--” when there is none

## TEST MODE

Operation	Display content		Details
Move between BAND (Forward search) items with ⏪/⏩	CD time code error count information display (no count update)	C N T □ S T A Y □ □ □ □ □	CD time code error count information (count not updated) mode display
		C D D A □ □ □ □ □ □ □ : x x	CD-DA error count numbers xx: numbers of errors and "--" when there is none
		C D R O M □ □ □ □ □ □ □ : x x	CD-ROM (compressed file) error count numbers xx: numbers of errors and "--" when there is none
■DISP	CD error information clear		CD error information all clear
DISP	Mode release		CD error information display mode release

### 6. DC Error Information Mode

#### ● Default status immediately after the mode activation

It shall be same as normal activation.

#### ● Mode structure

DC Error Info Mode is enabled regardless of current source.

#### ● Mode content

Syscon shall display the following information after entering this mode. The operation shown below shall be workable.

Display content	Details
D C □ □ E R R □ □ □ □ □ □	When DC error is detected (in case that one of capacitor leakage, wrong connection or other detection is found)
D C □ □ O K □ □ □ □ □ □ □ □	When DC error is not detected (in case that none of capacitor leakage, wrong connection or other detection is not found)

#### ● Mode operation specification

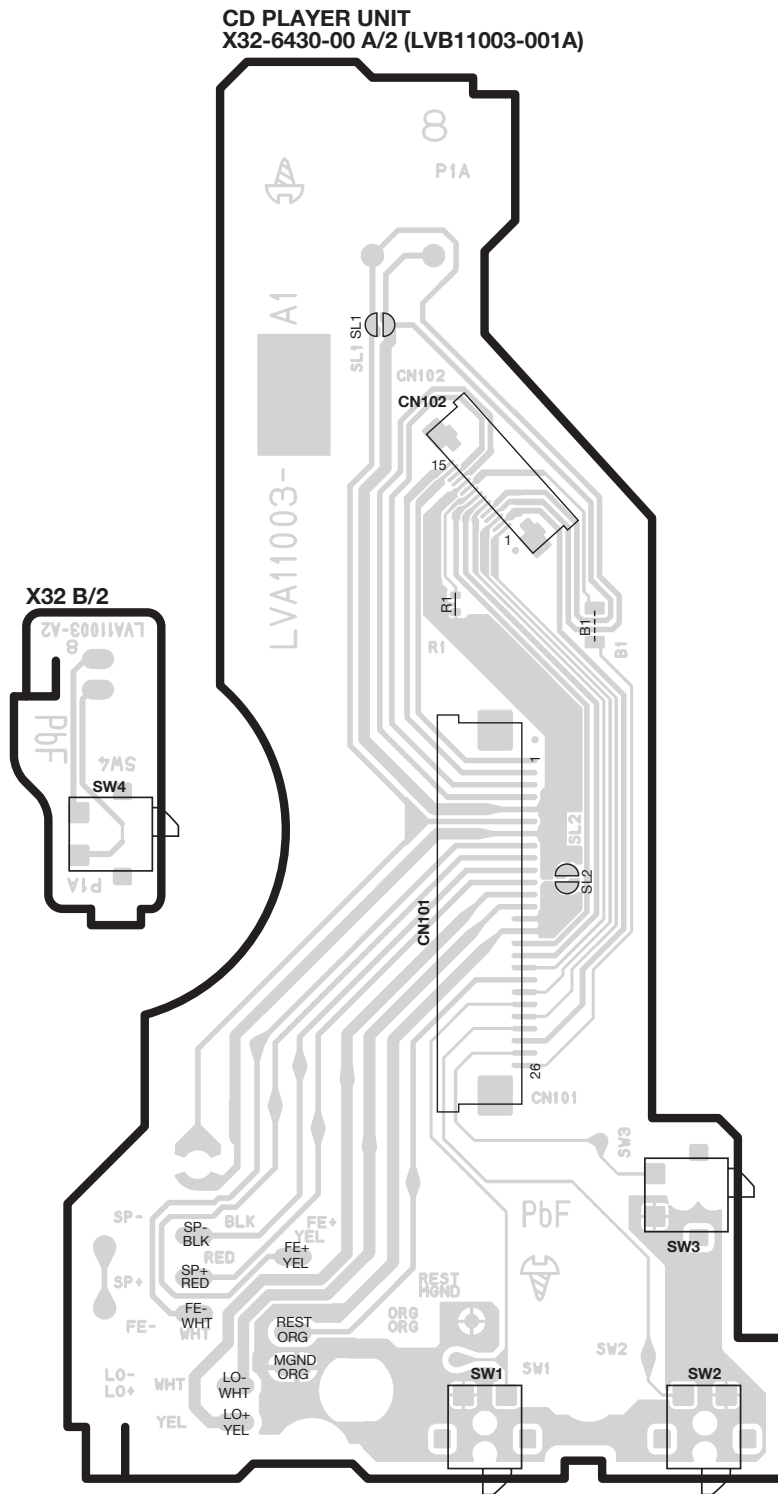
Operation	Display content		Details
1	DC ERR1 display	D C 1 □ E R R □ □ □ □ □ □ □	When wrong connection & DC error in other detection duration is detected
		D C 1 □ O K □ □ □ □ □ □ □ □	When wrong connection & DC error in other detection duration is not detected
■1	DC ERR1 clear	D C 1 □ O K □ □ □ □ □ □ □ □	Clear detection information when wrong connection & DC error in other detection duration is displayed. (Clear data flash)
2	DC ERR2 display	D C 2 □ 4 □ □ □ □ □ □ □ □	Display detecting number of times in capacitor leakage detection duration (0-4)
■2	DC ERR2 clear	D C 2 □ 0 □ □ □ □ □ □ □ □	Clear number of times for detection information in capacitor leakage detection duration. (Clear data flash)

### 7. FM/AM Channel space switching (Except models for destination "E")

Procedure	Note
While Power OFF, pressing and holding [1] key and [5] key, and press [SRC] key to Power ON.	FM200kHz/AM10kHz ↔ FM50kHz/AM9kHz



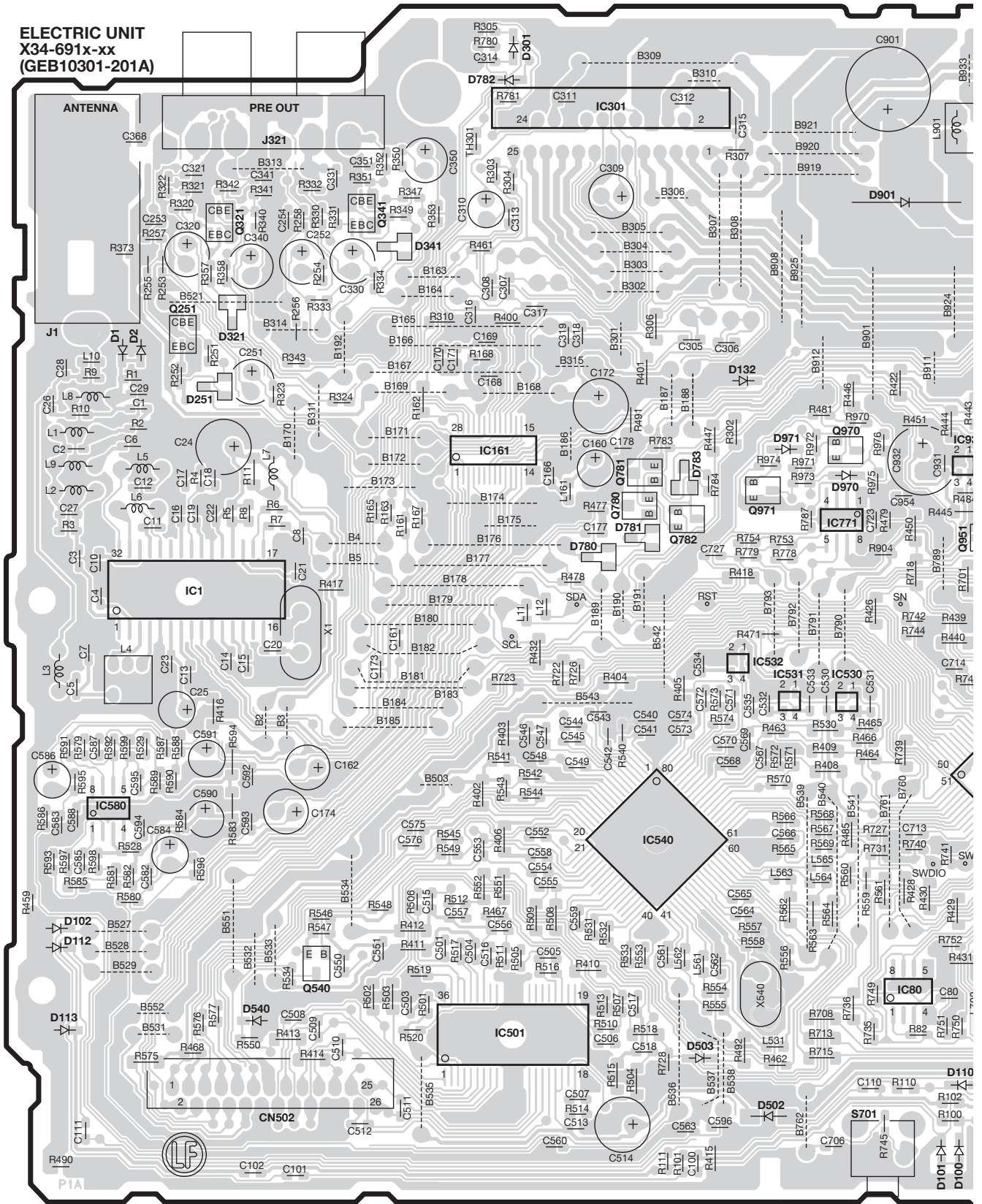
# PC BOARD (FOIL SIDE VIEW)

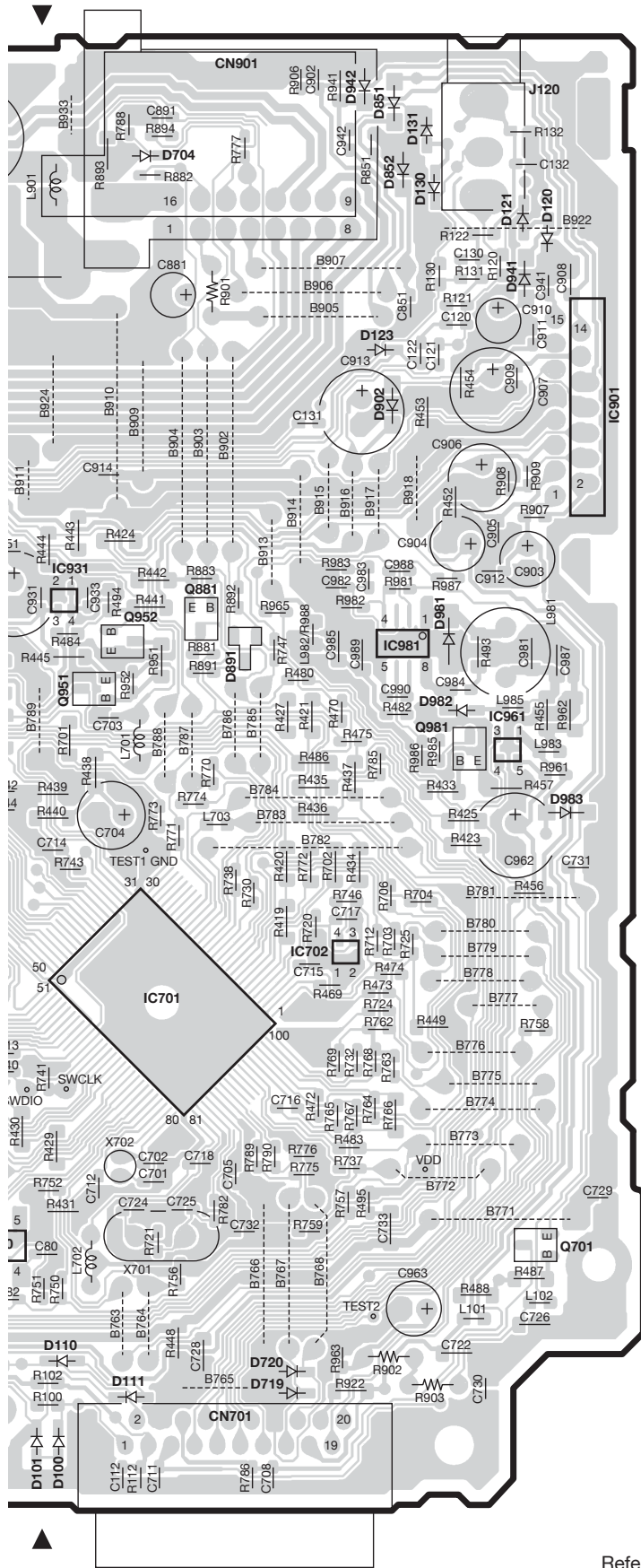


Refer to the schematic diagram for the values of resistors and capacitors.

# PC BOARD (FOIL SIDE VIEW)

ELECTRIC UNIT  
X34-691x-xx  
(GEB10301-201A)





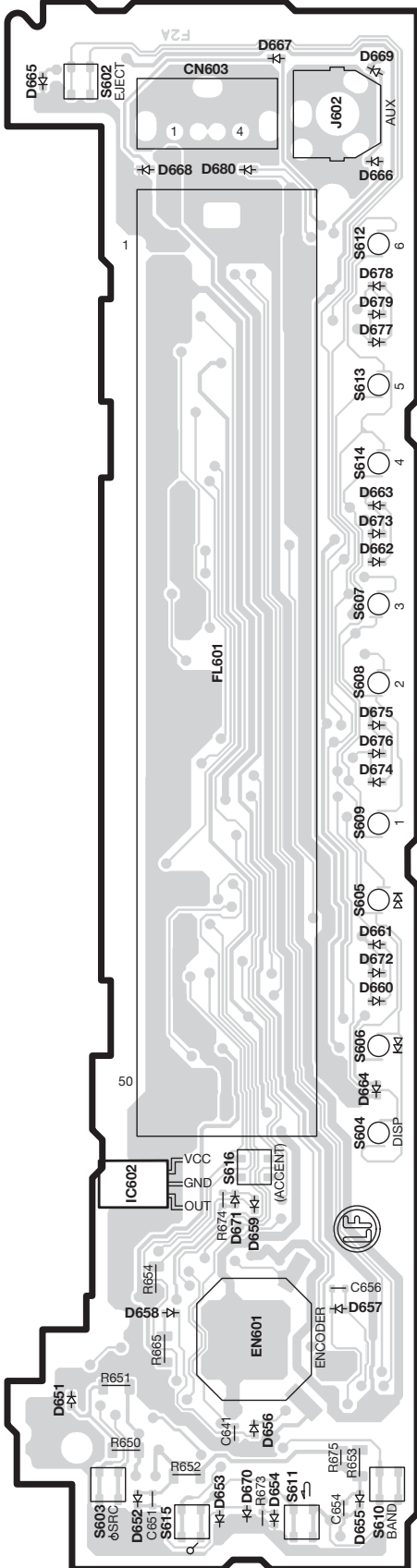
**X34-691x-xx**

Ref. No.	Address
IC1	4G
IC80	6J
IC161	3H
IC301	2I
IC501	6H
IC530	4J
IC531	4J
IC532	4J
IC540	5I
IC701	5K
IC702	5L
IC771	4J
IC901	3M
IC931	3K
IC961	4L
IC981	4L
Q321	2G
Q341	2H
Q540	6G
Q701	6M
Q780	4I
Q781	3I
Q782	4I
Q881	3K
Q951	4K
Q952	4K
Q970	3J
Q971	4J
Q981	4L

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

# PC BOARD (COMPONENT SIDE VIEW)

SWITCH UNIT  
X16-704x-xx (GEB10302-002A)

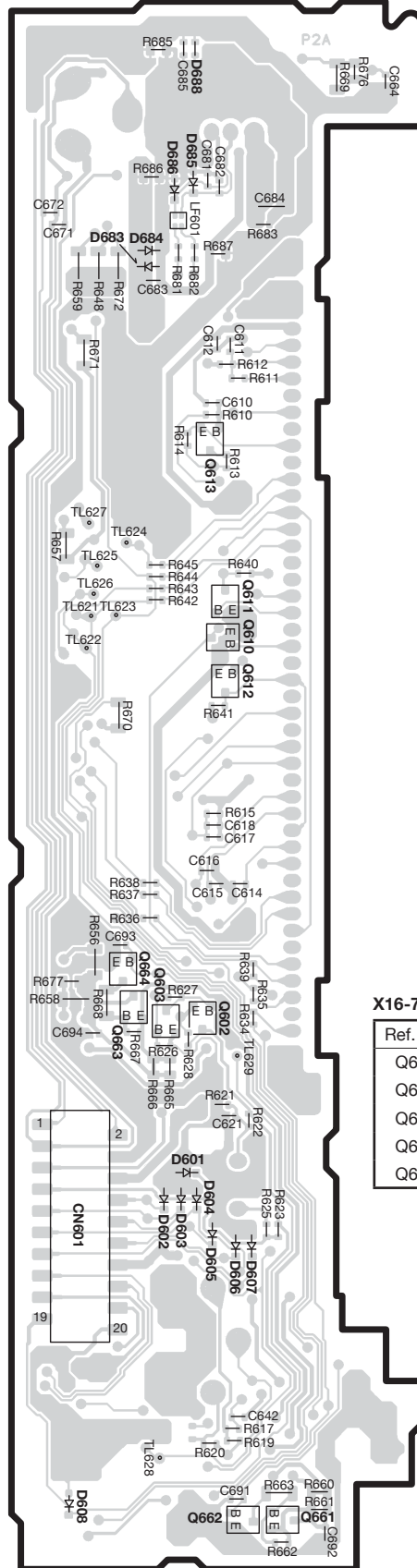


X16-704x-xx

Ref. No.	Address
IC602	6P

# (FOIL SIDE VIEW)

SWITCH UNIT  
X16-704x-xx (GEB10302-002A)

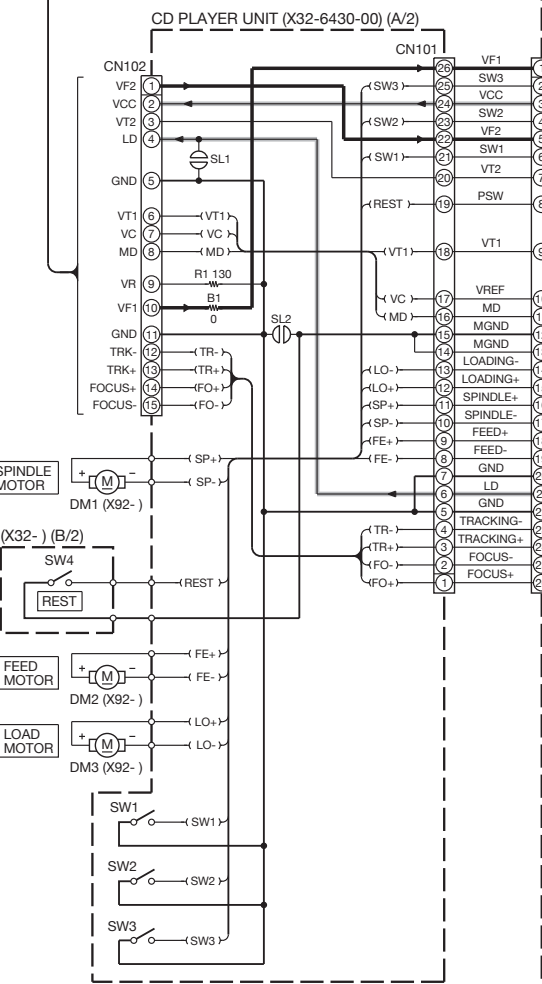
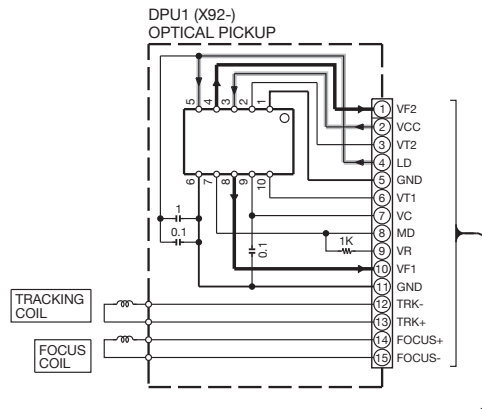


X16-704x-xx

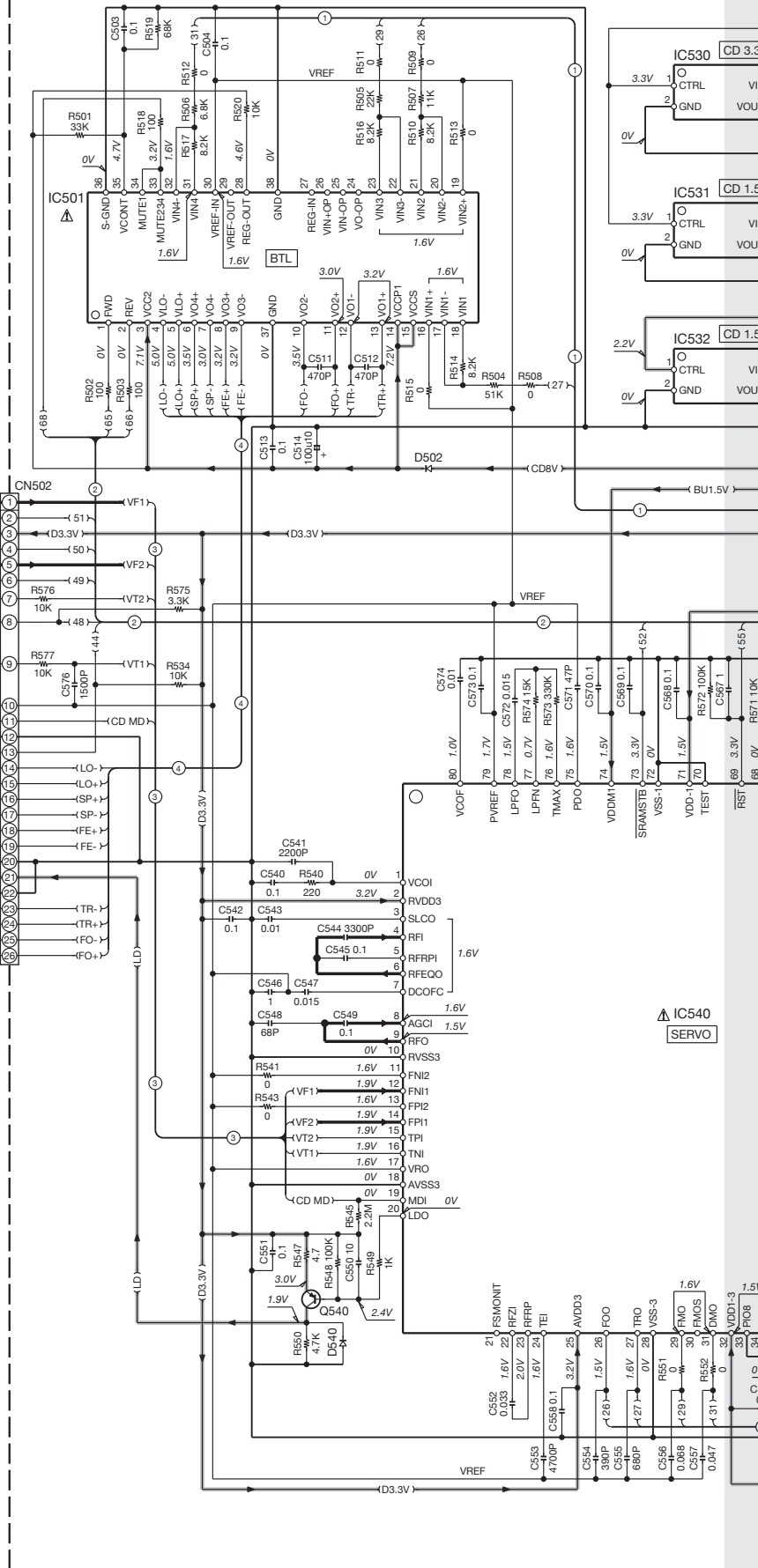
Ref. No.	Address
Q602	5S
Q603	5S
Q610	4S
Q611	4S
Q602	5S

# KDC-4551UB/455UW/4651URY KDC-U449/U5049

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## ELECTRIC UNIT (X34-69xx-xx)

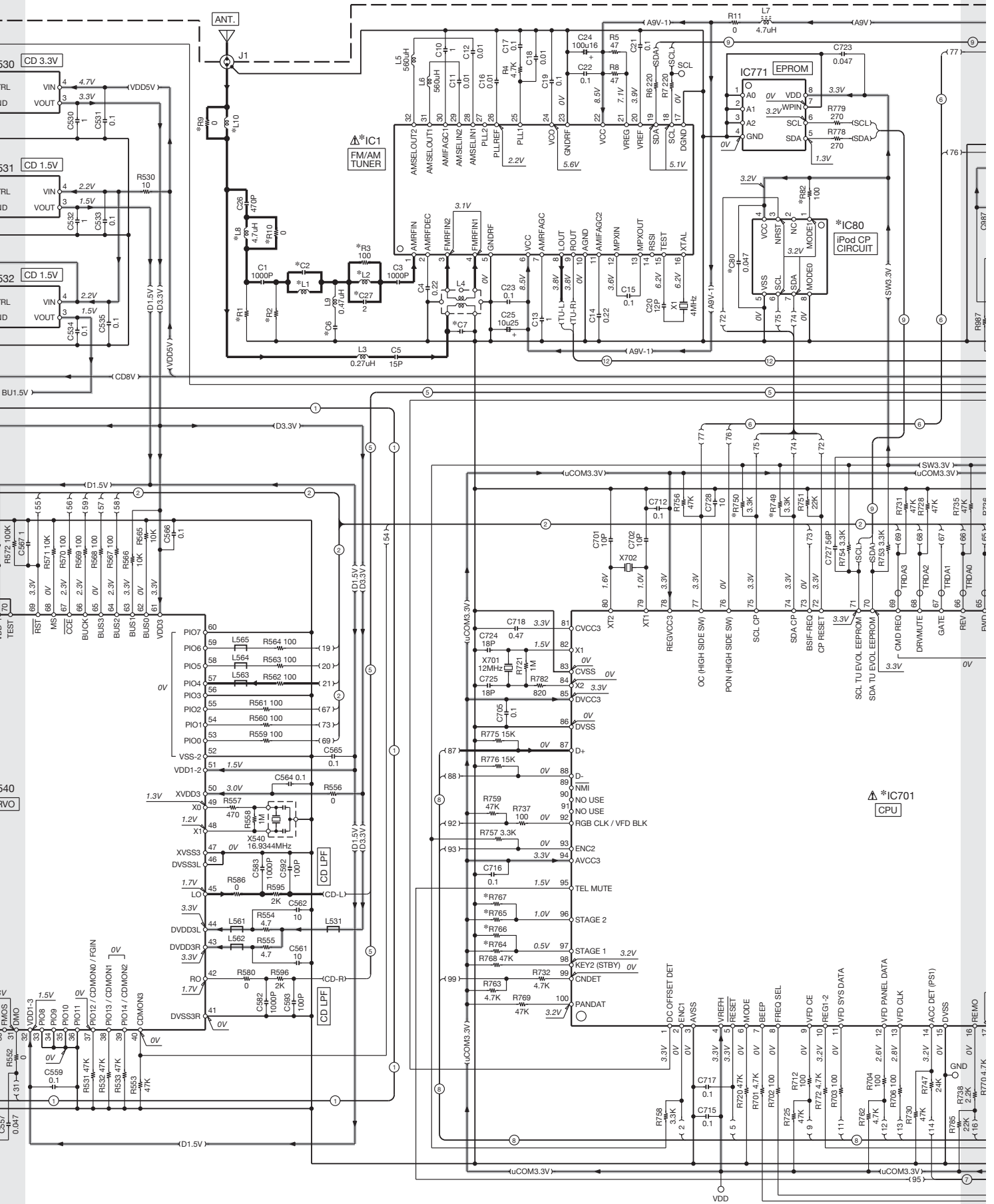


**CAUTION :** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  
 ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

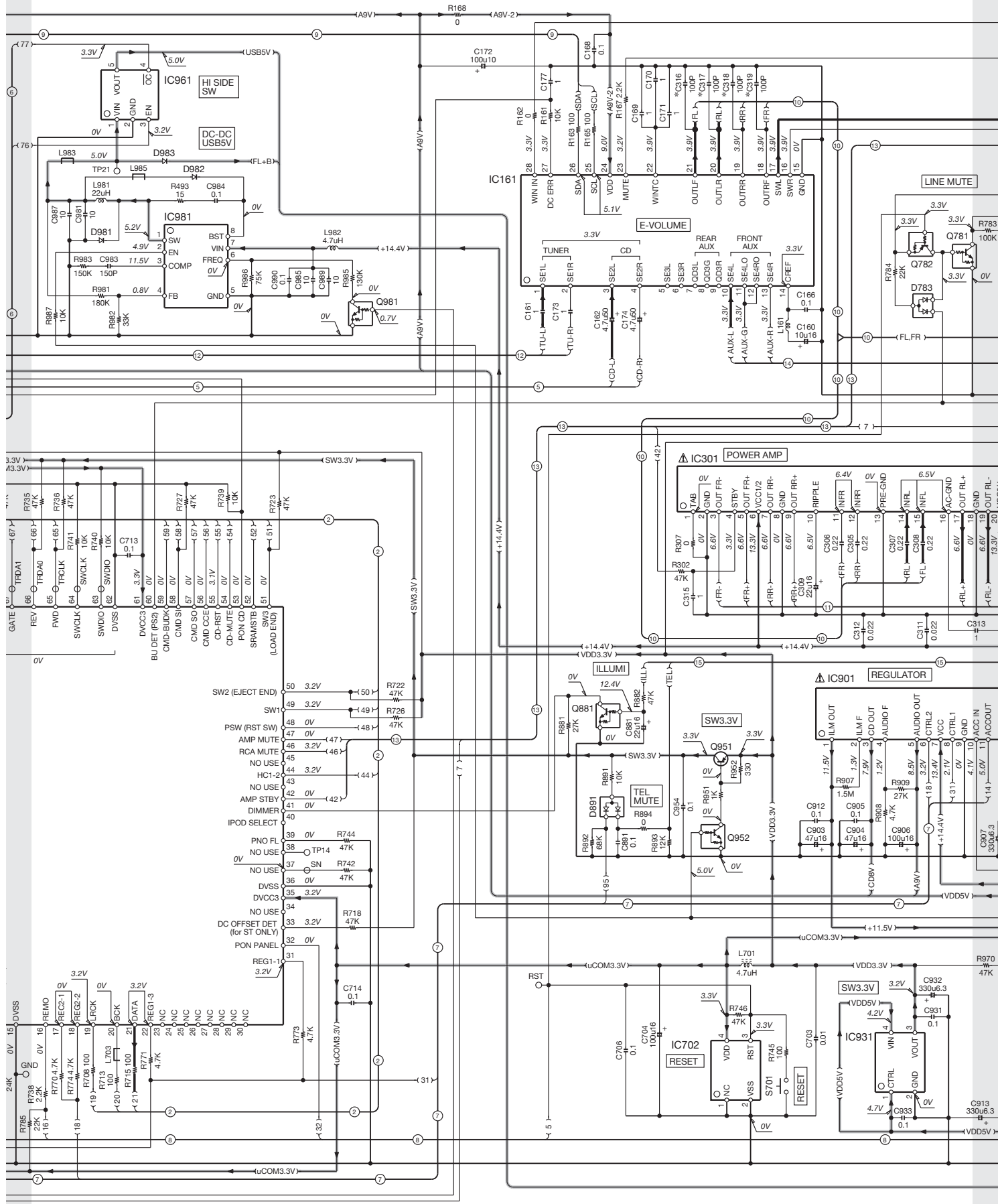
- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.



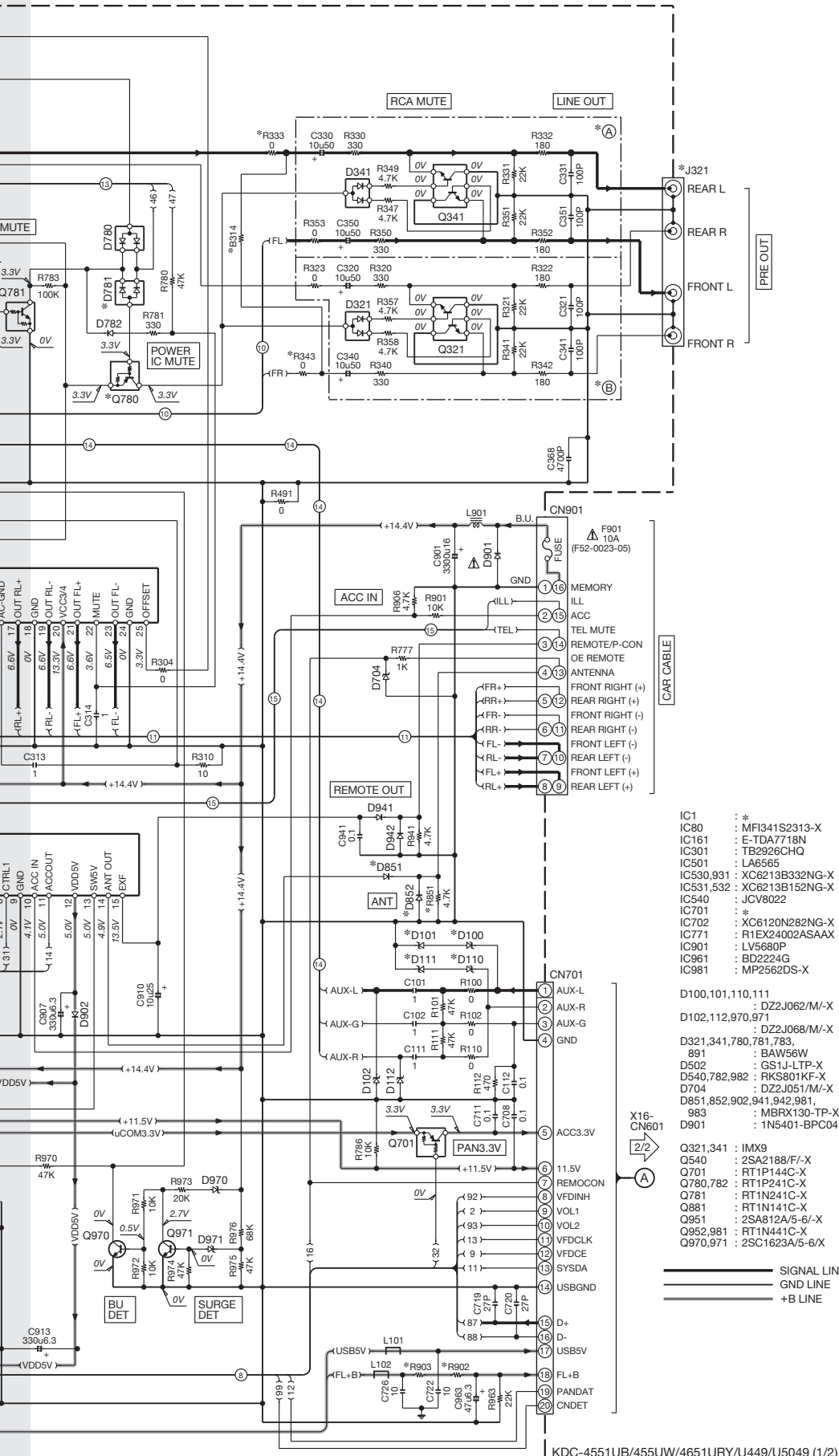
F G H J  
**KDC-4551UB/455UW/4651URY**  
**KDC-U449/U5049**



# KDC-4551UB/455UW/4651URY KDC-U449/U5049



KDC-4551UB/455UW/4651URY  
KDC-U449/U5049



MODEL NAME	DEST. NATLON	UNIT No.	⑤	⑥	IC60	IC701	J321	L1	L2	L8	L10	Q780	R1.2	R6	R333	R343	R344	R345	R764	R765	R766	R767	R851	R852
U330E/R	J1/J2/J3	X34-6910-01	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-248U	K3	X34-6910-11	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-MP148U	K2	X34-6910-10	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-MP248U	K1	X34-6910-11	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-U051UGM/URM	M6/M5	X34-6910-23	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-U03048	M	X34-6910-21	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-U3489A/G/R/S	M1/M2/M3/M4/M5	X34-6910-22	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-U0449	M1	X34-6910-21	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-U0499	C1	X34-6910-22	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-U0499	C1	X34-6910-21	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-U051UG/UR	E1/E3	X34-6912-72	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-U051UG/UR	E1/E4	X34-6912-71	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-U451U/R	E7	X34-6912-74	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-U451U/R	E7	X34-6912-73	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-U451U/R	E2	X34-6912-72	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-U451U/R	E3	X34-6912-71	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

- IC1 : MFI341S2313-X
  - IC60 : E-TD47718N
  - IC301 : TB2926CHQ
  - IC501 : LA6565
  - IC530,931 : XC6213B332NG-X
  - IC531,532 : XC6213B152NG-X
  - IC540 : JCV8022
  - IC701 : XC6120N282NG-X
  - IC702 : R1EX24002ASAAX
  - IC901 : LV5680P
  - IC961 : BD2224G
  - IC981 : MP2562DS-X
- D100,101,110,111 : D22J062/M-X  
D102,112,970,971 : D22J068/M-X  
D321,341,780,781,783,891 : BAW56W  
D502 : GS1J-LTP-X  
D540,782,982 : RKS801KF-X  
D704 : D22J051/M-X  
D851,852,902,941,942,981,983 : MBRX130-TP-X  
D901 : 1N5401-BPC04
- Q321,341 : 1MX9  
Q540 : 2SA2188/F-X  
Q701 : RT1P144C-X  
Q780,782 : RT1P241C-X  
Q781 : RT1N241C-X  
Q881 : RT1N141C-X  
Q951 : 2SA812A/5-6-/X  
Q952,981 : RT1N441C-X  
Q970,971 : 2SC1623A/5-6/X



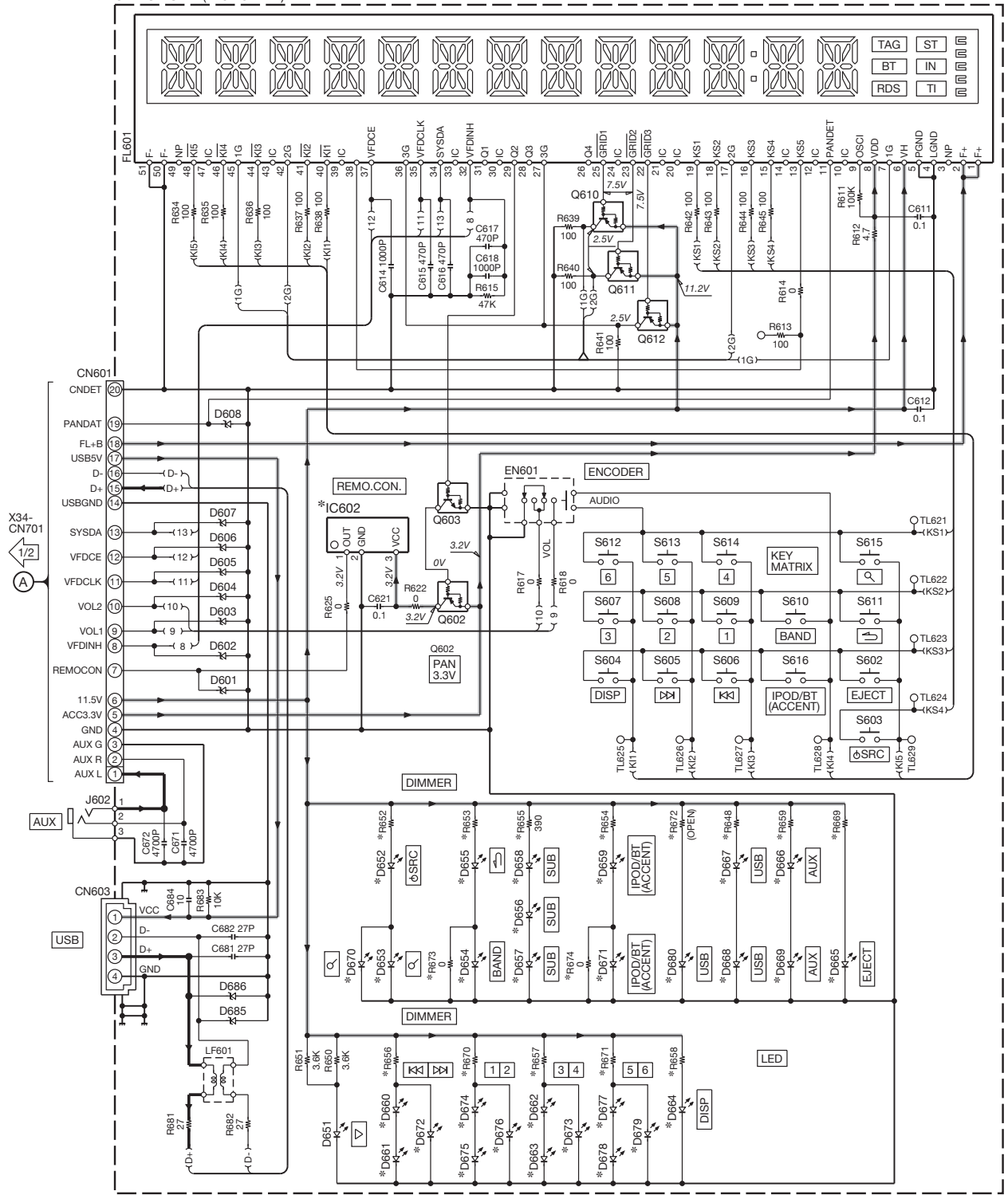
KDC-4551UB/455UW/4651URY/U449/U5049 (1/2)

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# KDC-4551UB/455UW/4651URY KDC-U449/U5049

SWITCH UNIT (X16-704x-xx)



KDC-4551UB/455UW/4651URY/U449/U5049 (2/2)

(X16-704x-xx)

CATEGORY	MODEL NAME	UNIT No.	DESTINATION	D652,655,659,665-669,680	D653,654,656-658,660-663,671,674,675,677,678	D664	D670	D672,673,676,679	IC602	R648	R652	R653,654,656,657,670,671	R655	R658,669	R659	R673,674	
ENTRY USB	KDC-U449	2-70	M1	B30-3210-05	—	B30-3210-05	B30-3210-05	B30-3210-05	—	YES	560	680	750	—	750	15K	YES
	KDC-U5049	3-01	C1	B30-1780-05	YES	B30-1780-05	—	—	—	YES	560	470	470	YES	560	390	—
	KDC-4551UB	2-73	E1	B30-3210-05	—	B30-3210-05	B30-3210-05	B30-3210-05	—	—	560	680	750	—	750	15K	YES
	KDC-455UW	2-71	E2	SMLE12WBCR1R2X	—	SMLE12WBCR1R2X	SMLE12WBCR1R2X	SMLE12WBCR1R2X	SMLE12WBCR1R2X	—	560	680	750	—	750	15K	YES
ENTRY HD	KDC-4651URY	2-72	E3	B30-1779-05	—	B30-1779-05	B30-1779-05	B30-1779-05	YES	470	560	750	—	750	15K	YES	
	KDC-HD548U	0-11	K	B30-3210-05	—	SMLE12WBCR1R2X	B30-3210-05	SMLE12WBCR1R2X	YES	680	680	750	—	750	15K	YES	

IC602 : KSM-2003TN5B

Q602,610-612 : RT1P141C-X

Q603 : RT1N241C-X

D601-608,685,686 : DZZJ051/M/-X

D651 : B30-1566-05

D652,655,659,665-669,680 : \*

FL601 : QLF0202-001

D653,654,656-658,660-663,671,674,675,677,678 : \*

D664 : \*

D670 : \*

D672,673,676,679 : \*

— 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.

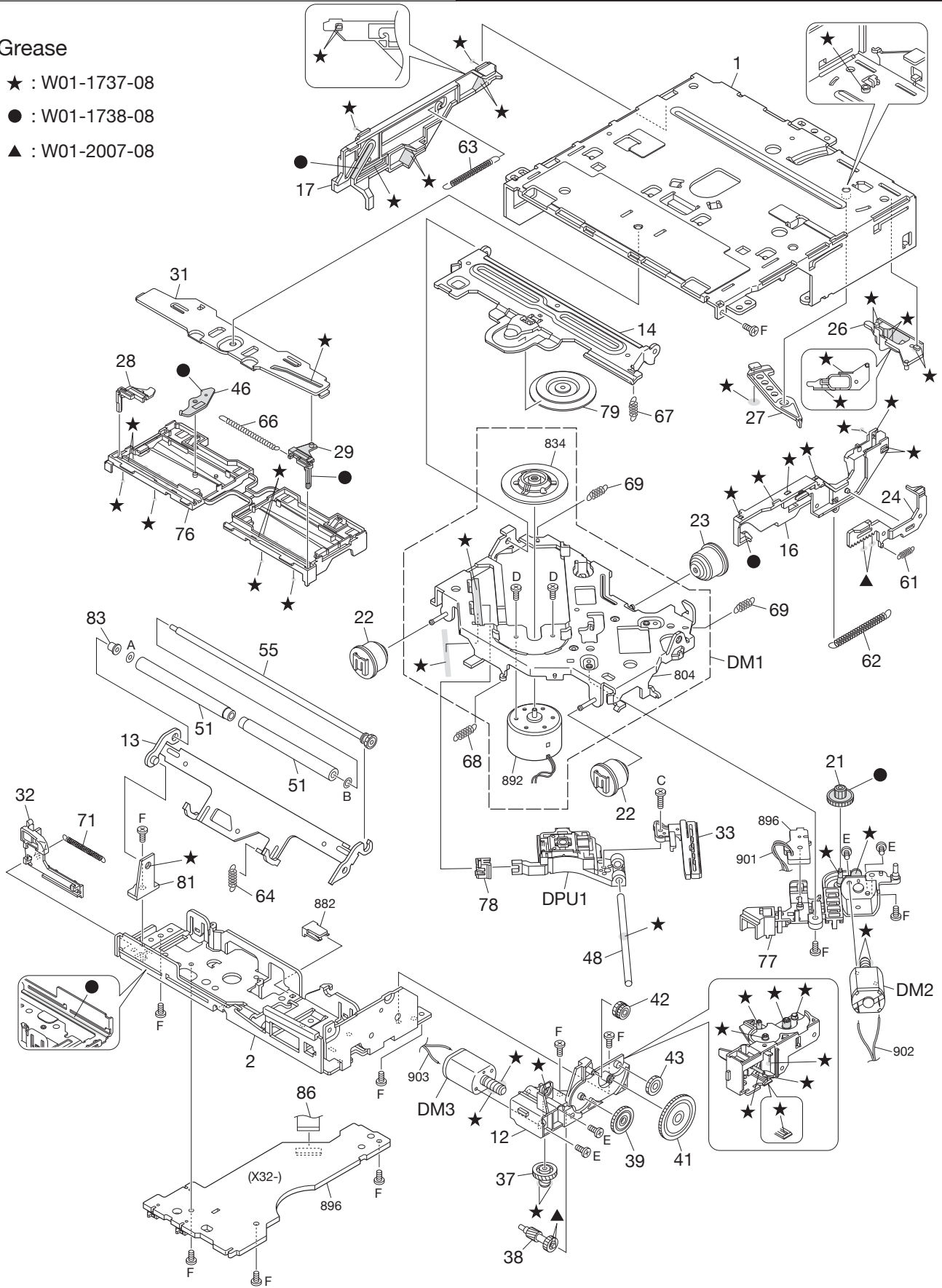
# EXPLODED VIEW (CD MECHANISM)

**Grease**

★ : W01-1737-08

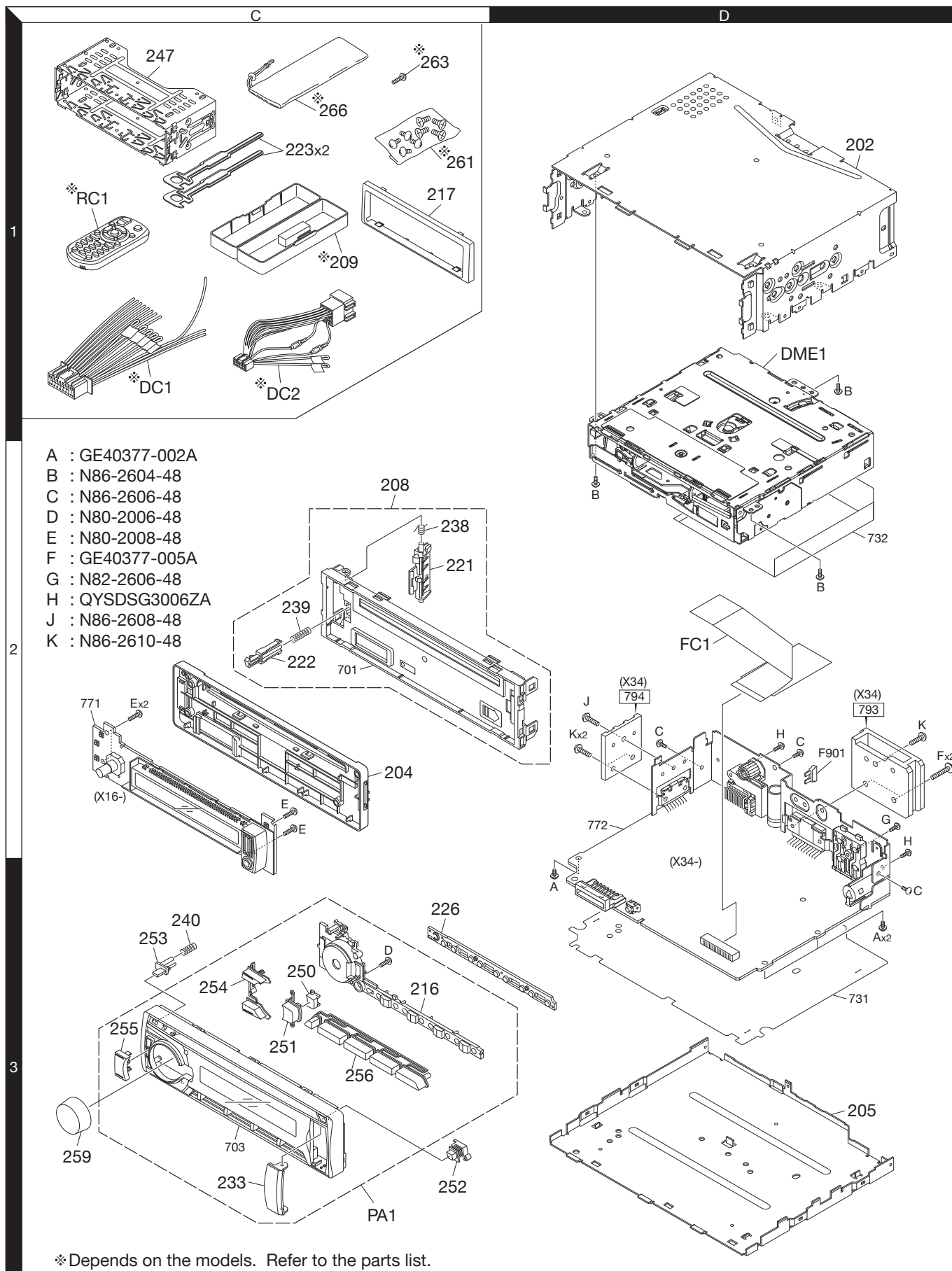
● : W01-1738-08

▲ : W01-2007-08



Parts with the exploded numbers larger than 700 are not supplied.

# EXPLODED VIEW (UNIT)



Parts with the exploded numbers larger than 700 are not supplied.

# 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.	A d d	N e w	Parts No.	Description	Desti- nation
<b>KDC-4551UB/455UW/4651URY/U449/U5049</b>					
202	1D		GE10283-001A	TOP CHASSIS	
204	2C		GE10286-001A	REAR COVER	
205	3D	*	GE20271-002A	BOTTOM COVER	
208	2C		GE34074-001A	FRONT CHASSIS ASSY	
209	1C		A02-2757-13	HARD CASE ASSY	M1
PA1	3C	*	GE20277-001A	PANEL ASSY	E1
PA1	3C	*	GE20277-002A	PANEL ASSY	E2
PA1	3C	*	GE20277-007A	PANEL ASSY	M1
PA1	3C	*	GE20277-010A	PANEL ASSY	C1
PA1	3C	*	GE20280-015A	PANEL ASSY	E3
RC1	1C		A70-2104-05	REMOTE CONTROL UNIT (RC-405)	E3M1C1
-		*	GET0689-002A	INSTRUCTION BOOK (FRE.DUT.ITA.)	E1E2
-		*	GET0689-002A	INSTRUCTION BOOK (SPA.POR.)	E1E2
-		*	GET0689-005A	INSTRUCTION BOOK (ENG.GER.)	E1E2E3
-		*	GET0689-005A	INSTRUCTION BOOK (RUS.UKR.)	E1E2E3
-		*	GET0691-001A	INSTRUCTION BOOK (ENGLISH)	M1
-		*	GET0691-002A	INSTRUCTION BOOK (ARABIC)	M1
-		*	GET0693-001A	INSTRUCTION BOOK (S-CHINESE)	C1
216	3C	*	GE10289-001A	LIGHT GUIDE	
217	1C		GE20274-001A	TRIM PLATE	
221	2C		GE34045-001A	LOCK LEVER	
222	2C		GE34046-001A	RELEASE LEVER	
223	1C		GE40510-001A	HOOK	
226	3C		GE34058-001A	CONDUCTIVE RUBBER	
DC1	1C	*	QAM1341-001	CAR CABLE	M1C1
DC2	1C		E30-6937-05	CAR CABLE	E1E2E3
FC1	2D	*	WJT0254-001A-E	E-CARD WIRE	
233	3C	*	GE34055-001A	USB DOOR COVER	
F901	2D		F52-0023-05	FUSE (10A)	
238	2C		GE40504-001A	SPRING (TORSION)	
239	2C		GE40505-001A	SPRING (COMPRESSION)	
240	3C		GE40505-002A	SPRING (DETACH)	
-		*	GE34220-001A	INNER CARTON	E1
-		*	GE34222-001A	INNER CARTON	E2
-		*	GE34224-001A	INNER CARTON	E3
-		*	GE34236-001A	INNER CARTON	M1
-		*	GE34246-001A	INNER CARTON	C1
247	1C		GE34134-001A	MOUNTING SLEEVE ASSY	
250	3C	*	GE34053-001A	ACCENT BUTTON BASE	
251	3C	*	GE34052-001A	ACCENT BUTTON TOP (iPod)	
252	3C		GE34059-001A	EJECT BUTTON	
253	3C		GE34060-001A	DETACH BUTTON	
254	3C		GE34061-001A	SRC BUTTON	
255	3C		GE34063-001A	SEARCH BUTTON	
256	3C		GE34064-001A	PRESET BUTTON	
259	3C		GE40511-001A	VOL KNOB RUBBER	E1E2E3
259	3C		GE40511-001A	VOL KNOB RUBBER	C1
259	3C	*	GE40511-002A	VOL KNOB RUBBER	M1
261	1C		N99-1757-15	SCREW SET	M1C1
263	1C		N80-2008-43	TAP SCREW (ACCESSORY)	M1C1

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
A	3D		GE40377-002A	SPECIAL SCREW	
B	2D		N86-2604-48	TAP SCREW	
C	2D		N86-2606-48	TAP SCREW	
D	3C		N80-2006-48	TAP SCREW	
E	2C		N80-2008-48	TAP SCREW	
266	1C		W01-1710-05	CARRYING CASE	E1E2E3
DME1	1D		X92-6630-00	MECHANISM ASSY (HCS-1000W)	
<b>SWITCH UNIT (X16-704x-xx)</b>					
D651			B30-1566-05	LED	
D652			B30-1779-05	LED	E3
D652			B30-3210-05	LED	E1M1
D652		*	SMLE12WBCR1R2X	LED	E2
D652-669			B30-1780-05	LED	C1
D655			B30-1779-05	LED	E3
D655			B30-3210-05	LED	E1M1
D655		*	SMLE12WBCR1R2X	LED	E2
D659			B30-1779-05	LED	E3
D659			B30-3210-05	LED	E1M1
D659		*	SMLE12WBCR1R2X	LED	E2
D664-670			B30-1779-05	LED	E3
D664-670			B30-3210-05	LED	E1M1
D664-670		*	SMLE12WBCR1R2X	LED	E2
D671			B30-1780-05	LED	C1
D672,673			B30-1779-05	LED	E3
D672,673			B30-3210-05	LED	E1M1
D672,673		*	SMLE12WBCR1R2X	LED	E2
D674,675			B30-1780-05	LED	C1
D676			B30-1779-05	LED	E3
D676		*	SMLE12WBCR1R2X	LED	E2
D677,678			B30-1780-05	LED	C1
D679,680			B30-1779-05	LED	E3
D679,680			B30-3210-05	LED	E1M1
D679,680		*	SMLE12WBCR1R2X	LED	E2
D680			B30-1780-05	LED	C1
C611,612			CK73GB1H104K	CHIP C 0.10UF	K
C614			CK73GB1H102K	CHIP C 1000PF	K
C615-617			CK73GB1H471K	CHIP C 470PF	K
C618			CK73GB1H102K	CHIP C 1000PF	K
C621			CK73GB1H104K	CHIP C 0.10UF	K
C671,672			CK73GB1H472K	CHIP C 4700PF	K
C681,682			CC73GCH1H270J	CHIP C 27PF	J
C684			NCJ11EK-106X-R	C CAPACITOR	
CN601			E59-0859-05	TDF CONNECTOR	
CN603		*	QNZ1057-001	USB CONNECTOR	
J602		*	QNS0308-001	DIA 3.5 TYPE JACK	
LF601		*	NQR0536-001X	CHOKE COIL	
R611			RK73GB2A104J	CHIP R 100K	J 1/10W
R612			RK73GB2A4R7J	CHIP R 4.7	J 1/10W
R613			RK73GB2A101J	CHIP R 100	J 1/10W
R614			RK73GB2A000J	CHIP R 0.0	J 1/10W
R615			RK73GB2A473J	CHIP R 47K	J 1/10W

**M1:** KDC-U449 **C1:** KDC-U5049  
**E1:** KDC-4551UB **E2:** KDC-455UW **E3:** KDC-4651URY

△ Indicates safety critical components.



# PARTS LIST

## SWITCH UNIT (X16-704x-xx)

Ref. No.	Add	New	Parts No.	Description	Destination
R617,618			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R622			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R625			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R634-645			RK73GB2A101J	CHIP R 100 J 1/10W	
R648			RK73EB2E471J	CHIP R 470 J 1/4W	E3
R648			RK73EB2E561J	CHIP R 560 J 1/4W	E1E2M1
R648			RK73EB2E561J	CHIP R 560 J 1/4W	C1
R650,651			RK73EB2E362J	CHIP R 3.6K J 1/4W	
R652			RK73EB2E561J	CHIP R 560 J 1/4W	E3
R652			RK73EB2E681J	CHIP R 680 J 1/4W	E1E2M1
R652-654			RK73EB2E471J	CHIP R 470 J 1/4W	C1
R653,654			RK73EB2E751J	CHIP R 750 J 1/4W	E1E2E3
R653,654			RK73EB2E751J	CHIP R 750 J 1/4W	M1
R655			RK73EB2E391J	CHIP R 390 J 1/4W	C1
R656-658			RK73EB2E751J	CHIP R 750 J 1/4W	E1E2E3
R656-658			RK73EB2E751J	CHIP R 750 J 1/4W	M1
R656,657			RK73EB2E471J	CHIP R 470 J 1/4W	C1
R658			RK73EB2E561J	CHIP R 560 J 1/4W	C1
R659			RK73EB2E152J	CHIP R 1.5K J 1/4W	E1E2E3
R659			RK73EB2E152J	CHIP R 1.5K J 1/4W	M1
R659			RK73EB2E391J	CHIP R 390 J 1/4W	C1
R669			RK73EB2E561J	CHIP R 560 J 1/4W	C1
R669-671			RK73EB2E751J	CHIP R 750 J 1/4W	E1E2E3
R669-671			RK73EB2E751J	CHIP R 750 J 1/4W	M1
R670,671			RK73EB2E471J	CHIP R 470 J 1/4W	C1
R673,674			RK73GB2A000J	CHIP R 0.0 J 1/10W	E1E2E3
R673,674			RK73GB2A000J	CHIP R 0.0 J 1/10W	M1
R681,682			RK73GB2A270J	CHIP R 27 J 1/10W	
R683			RK73GB2A103J	CHIP R 10K J 1/10W	
S602,603			NSW0326-001X	TACT SWITCH	
S610,611			NSW0326-001X	TACT SWITCH	
S615,616			NSW0326-001X	TACT SWITCH	
EN601			QSW1288-001	ROTARY ENCODER	
D601-608			DZ2J051/M/-X	ZENER DIODE	
D685,686			DZ2J051/M/-X	ZENER DIODE	
FL601	*		QLF0202-001	FLUORESCENT INDICATOR TUBE	
IC602			KSM-2003TN5B	ANALOGUE IC	E3M1C1
Q602			RT1P141C-X	D TRANSISTOR	
Q603			RT1N241C-X	D TRANSISTOR	
Q610-612			RT1P141C-X	D TRANSISTOR	
<b>CD PLAYER UNIT (X32-6430-00) IN CD MECHA</b>					
CN101			QGF1049F1-26X	CONNECTOR	
CN102			QGF0522F3-15W	CONNECTOR	
B1			RK73EB2E000J	CHIP R 0.0 J 1/4W	
R1			RK73GB2A131J	CHIP R 130 J 1/10W	
SW1 -4			NSW0291-001X	DETECT SWITCH	
<b>ELECTRIC UNIT (X34-691x-xx)</b>					
C1			CK73GB1H102K	CHIP C 1000PF K	
C2			CC73GCH1H040C	CHIP C 4.0PF C	M1C1
C2			CC73GCH1H070D	CHIP C 7.0PF D	E1E2E3
C3			CK73GB1H102K	CHIP C 1000PF K	
C4			CK73GB1C224K	CHIP C 0.22UF K	

Ref. No.	Add	New	Parts No.	Description	Destination
C5			CC73GCH1H150J	CHIP C 15PF J	
C6			CC73GCH1H040C	CHIP C 4.0PF C	M1C1
C6			CC73GCH1H060D	CHIP C 6.0PF D	E1E2E3
C7			CC73GCH1H270J	CHIP C 27PF J	
C10			CK73FB1C105K	CHIP C 1.0UF K	
C11, 12			CK73GB1H103K	CHIP C 0.010UF K	
C13			CK73FB1C105K	CHIP C 1.0UF K	
C14			CK73GB1C224K	CHIP C 0.22UF K	
C15			CK73GB1C104K	CHIP C 0.10UF K	
C16			CK73GB1H103K	CHIP C 0.010UF K	
C17			CK73GB1C104K	CHIP C 0.10UF K	
C18			CK73GB1H103K	CHIP C 0.010UF K	
C19			CK73GB1C104K	CHIP C 0.10UF K	
C20			CC73GCH1H120J	CHIP C 12PF J	
C21 -23			CK73GB1C104K	CHIP C 0.10UF K	
C24			QEKJ1CM-107Z	E CAPACITOR	
C25			QEKJ1EM-106Z	E CAPACITOR	
C26			CC73GCH1H471J	CHIP C 470PF J	
C27			CC73GCH1H020C	CHIP C 2.0PF C	E1E2E3
C80			CK73GB1E473K	CHIP C 0.047UF K	
C101,102			CK73GB1C105K	CHIP C 1.0UF K	
C111			CK73GB1C105K	CHIP C 1.0UF K	
C112			CK73GB1C104K	CHIP C 0.10UF K	
C160			QEKJ1EM-106Z	E CAPACITOR	
C161			CK73GB1A105K	CHIP C 1.0UF K	
C162		*	QERF1HM-475Z	E CAPACITOR	
C166			CK73GB1C104K	CHIP C 0.10UF K	
C168			CK73GB1C104K	CHIP C 0.10UF K	
C169-171			CK73GB1A105K	CHIP C 1.0UF K	
C172			QERF1AM-107Z	E CAPACITOR	
C173			CK73GB1A105K	CHIP C 1.0UF K	
C174		*	QERF1HM-475Z	E CAPACITOR	
C177			CK73GB1A105K	CHIP C 1.0UF K	
C305-308		*	NCB21CK-224X-A	C CAPACITOR	
C309			QEKJ1CM-226Z	E CAPACITOR	
C311,312			CK73GB1H223K	CHIP C 0.022UF K	
C313		*	NCB21AK-105X-A	C CAPACITOR	
C314,315			CK73GB1A105K	CHIP C 1.0UF K	
C316-319			CC73GCH1H101J	CHIP C 100PF J	
C320		*	QEKJ1HM-106Z	E CAPACITOR	
C321			CC73GCH1H101J	CHIP C 100PF J	
C330		*	QEKJ1HM-106Z	E CAPACITOR	E3M1C1
C331			CC73GCH1H101J	CHIP C 100PF J	E3M1C1
C340		*	QEKJ1HM-106Z	E CAPACITOR	
C341			CC73GCH1H101J	CHIP C 100PF J	
C350		*	QEKJ1HM-106Z	E CAPACITOR	E3M1C1
C351			CC73GCH1H101J	CHIP C 100PF J	E3M1C1
C368			CK73GB1H472K	CHIP C 4700PF K	
C503,504			CK73GB1C104K	CHIP C 0.10UF K	
C511,512			CC73GCH1H471J	CHIP C 470PF J	
C513			CK73GB1C104K	CHIP C 0.10UF K	
C514			QERF1AM-107Z	E CAPACITOR	
C530			CK73GB1A105K	CHIP C 1.0UF K	
C531			CK73GB1C104K	CHIP C 0.10UF K	
C532			CK73GB1A105K	CHIP C 1.0UF K	

M1: KDC-U449 C1: KDC-U5049  
E1: KDC-4551UB E2: KDC-455UW E3: KDC-4651URY

△ Indicates safety critical components.

# PARTS LIST

## ELECTRIC UNIT (X34-691x-xx)

Ref. No.	Add	New	Parts No.	Description	Destination
C533-535			CK73GB1C104K	CHIP C 0.10UF K	
C540			CK73GB1C104K	CHIP C 0.10UF K	
C541			CK73GB1H222K	CHIP C 2200PF K	
C542			CK73GB1C104K	CHIP C 0.10UF K	
C543			CK73GB1H103K	CHIP C 0.010UF K	
C544			CK73GB1H332K	CHIP C 3300PF K	
C545			CK73GB1C104K	CHIP C 0.10UF K	
C546			CK73GB1A105K	CHIP C 1.0UF K	
C547			CK73GB1H153K	CHIP C 0.015UF K	
C548			CC73GCH1H680J	CHIP C 68PF J	
C549			CK73GB1C104K	CHIP C 0.10UF K	
C550		*	NCB10JK-106X-A	C CAPACITOR	
C551			CK73GB1C104K	CHIP C 0.10UF K	
C552			CK73GB1H333K	CHIP C 0.033UF K	
C553			CK73GB1H472K	CHIP C 4700PF K	
C554			CC73GCH1H391J	CHIP C 390PF J	
C555			CC73GCH1H681J	CHIP C 680PF J	
C556			CK73GB1C683K	CHIP C 0.068UF K	
C557			CK73GB1E473K	CHIP C 0.047UF K	
C558,559			CK73GB1C104K	CHIP C 0.10UF K	
C561,562			CK73FB0J106K	CHIP C 10UF K	
C564-566			CK73GB1C104K	CHIP C 0.10UF K	
C567			CK73GB1A105K	CHIP C 1.0UF K	
C568-570			CK73GB1C104K	CHIP C 0.10UF K	
C571			CC73GCH1H470J	CHIP C 47PF J	
C572			CK73GB1H153K	CHIP C 0.015UF K	
C573			CK73GB1C104K	CHIP C 0.10UF K	
C574			CK73GB1H103K	CHIP C 0.010UF K	
C576			CK73GB1H152K	CHIP C 1500PF K	
C582,583			CK73GB1H102K	CHIP C 1000PF K	
C592,593			CC73GCH1H101J	CHIP C 100PF J	
C701,702			CC73GCH1H100D	CHIP C 10PF D	
C703			CK73GB1H103K	CHIP C 0.010UF K	
C704			QEJ1CM-107Z	E CAPACITOR	
C705,706			CK73GB1C104K	CHIP C 0.10UF K	
C708			CK73GB1C104K	CHIP C 0.10UF K	
C711-717			CK73GB1C104K	CHIP C 0.10UF K	
C718			CK73GB1A474K	CHIP C 0.47UF K	
C719,720			CC73GCH1H270J	CHIP C 27PF J	
C722		*	NCB10JK-106X-A	C CAPACITOR	
C723			CK73GB1E473K	CHIP C 0.047UF K	
C724,725			CC73GCH1H180J	CHIP C 18PF J	
C726		*	NCB10JK-106X-A	C CAPACITOR	
C727			CC73GCH1H560J	CHIP C 56PF J	
C728		*	NCB10JK-106X-A	C CAPACITOR	
C881			QEJ1CM-226Z	E CAPACITOR	
C891			CK73GB1C104K	CHIP C 0.10UF K	
C901			QEZ0934-338	E CAPACITOR	
C903,904			QEJ1CM-476Z	E CAPACITOR	
C905			CK73GB1C104K	CHIP C 0.10UF K	
C906			QEJ1CM-107Z	E CAPACITOR	
C907			QERF0JM-337Z	E CAPACITOR	
C910			QEJ1EM-106Z	E CAPACITOR	
C912			CK73GB1C104K	CHIP C 0.10UF K	
C913			QERF0JM-337Z	E CAPACITOR	

Ref. No.	Add	New	Parts No.	Description	Destination
C914			CK73GB1H472K	CHIP C 4700PF K	
C931			CK73GB1C104K	CHIP C 0.10UF K	
C932			QERF0JM-337Z	E CAPACITOR	
C933			CK73GB1C104K	CHIP C 0.10UF K	
C941			CK73GB1C104K	CHIP C 0.10UF K	
C954			CK73GB1C104K	CHIP C 0.10UF K	
C962			QERF1AM-107Z	E CAPACITOR	
C963		*	QEJ0JM-476Z	E CAPACITOR	
C981		*	NCB10JK-106X-A	C CAPACITOR	
C983			CC73GCH1H151J	CHIP C 150PF J	
C984			CK73GB1C104K	CHIP C 0.10UF K	
C985		*	NCJ11EK-106X-A	C CAPACITOR	
C987		*	NCB10JK-106X-A	C CAPACITOR	
C989		*	NCJ11EK-106X-A	C CAPACITOR	
C990			CK73GB1H104K	CHIP C 0.10UF K	
CN502			QGF1040F1-26	FPC CONNECTOR	
CN701			E58-1124-05	TDF CONNECTOR	
CN901			E58-0991-05	CAR CONNECTOR	
J1			QNB0190-001	ANTENNA TERMINAL	
J321			QNN0864-001	PIN JACK	E1E2
J321			QNN0868-001	PIN JACK	E3M1C1
L1			L40-1091-17	INDUCTOR	M1C1
L1			L40-4781-17	INDUCTOR	E1E2E3
L2			L40-1891-17	INDUCTOR	E1E2E3
L2			L40-3391-17	INDUCTOR	M1C1
L3			QQL231K-R27Y	INDUCTOR	
L4			QQR1872-001	RF COIL	
L5 ,6			QQL244J-561Z	INDUCTOR	
L7			L40-4791-17	INDUCTOR	M1C1
L7 ,8			L40-4791-17	INDUCTOR	E1E2E3
L9			L40-4781-17	INDUCTOR	
L101,102			L92-0639-05	FERRITE BEADS	
L161			L40-2775-92	INDUCTOR	
L531			L92-0879-05	FERRITE BEADS	
L561-565			L92-0879-05	FERRITE BEADS	
L701			L40-4791-17	INDUCTOR	
L703			L92-0879-05	FERRITE BEADS	
L901			QQR1882-001	CHOKE COIL	
L981		*	QQL92AK-220Z	INDUCTOR	
L982		*	NQLH25M-4R7X	INDUCTOR	
L983			L92-0639-05	FERRITE BEADS	
L985			L92-0879-05	FERRITE BEADS	
X1		*	QAX0952-001Z	CRYSTAL	
X540			L78-1236-05	C RESONATOR	
X701		*	QAX0957-001Z	CRYSTAL	
X702			QAX0401-001	CRYSTAL	
F	2D		GE40377-005A	SPECIAL SCREW	
G	2D		N82-2606-48	TAP SCREW	
H	2D		QYSDSG3006ZA	TAP SCREW	
J	2D		N86-2608-48	TAP SCREW	
K	2D		N86-2610-48	TAP SCREW	
R1 ,2			RK73GB2A474J	CHIP R 470K J 1/10W	M1C1
R1 ,2			RK73GB2A684J	CHIP R 680K J 1/10W	E1E2E3
R3			RK73GB2A101J	CHIP R 100 J 1/10W	M1C1

# PARTS LIST

## ELECTRIC UNIT (X34-691x-xx)

Ref. No.	Add	New	Parts No.	Description	Destination	Ref. No.	Add	New	Parts No.	Description	Destination
R4			RK73GB2A472J	CHIP R 4.7K J 1/10W		R504			RK73EB2E513J	CHIP R 51K J 1/4W	
R5			RK73FB2B470J	CHIP R 47 J 1/8W		R505			RK73GB2A223J	CHIP R 22K J 1/10W	
R6 ,7			RK73GB2A221J	CHIP R 220 J 1/10W		R506			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R8			RK73FB2B470J	CHIP R 47 J 1/8W		R507			RK73GB2A113J	CHIP R 11K J 1/10W	
R9			RK73GB2A000J	CHIP R 0.0 J 1/10W	E1E2E3	R508,509			RK73EB2E000J	CHIP R 0.0 J 1/4W	
R9 ,10			RK73GB2A000J	CHIP R 0.0 J 1/10W	M1C1	R510			RK73GB2A822J	CHIP R 8.2K J 1/10W	
R11			RK73EB2E000J	CHIP R 0.0 J 1/4W		R511-513			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R82			RK73GB2A101J	CHIP R 100 J 1/10W		R514			RK73GB2A822J	CHIP R 8.2K J 1/10W	
R100			RK73GB2A000J	CHIP R 0.0 J 1/10W		R515			RK73EB2E000J	CHIP R 0.0 J 1/4W	
R101			RK73GB2A473J	CHIP R 47K J 1/10W		R516,517			RK73GB2A822J	CHIP R 8.2K J 1/10W	
R102			RK73GB2A000J	CHIP R 0.0 J 1/10W		R518			RK73EB2E101J	CHIP R 100 J 1/4W	
R110			RK73GB2A000J	CHIP R 0.0 J 1/10W		R519			RK73GB2A683J	CHIP R 68K J 1/10W	
R111			RK73GB2A473J	CHIP R 47K J 1/10W		R520			RK73GB2A103J	CHIP R 10K J 1/10W	
R112			RK73GB2A471J	CHIP R 470 J 1/10W		R530			RK73EB2E100J	CHIP R 10 J 1/4W	
R161			RK73GB2A103J	CHIP R 10K J 1/10W		R531-533			RK73GB2A473J	CHIP R 47K J 1/10W	
R162			RK73EB2E000J	CHIP R 0.0 J 1/4W		R534			RK73GB2A103J	CHIP R 10K J 1/10W	
R163			RK73GB2A101J	CHIP R 100 J 1/10W		R540			RK73GB2A221J	CHIP R 220 J 1/10W	
R165			RK73GB2A101J	CHIP R 100 J 1/10W		R541			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R167			RK73GB2A222J	CHIP R 2.2K J 1/10W		R543			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R168			RK73FB2B000J	CHIP R 0.0 J 1/8W		R545			RK73GB2A225J	CHIP R 2.2M J 1/10W	
R302			RK73EB2E473J	CHIP R 47K J 1/4W		R547			RK73GB2A4R7J	CHIP R 4.7 J 1/10W	
R304			RK73GB2A000J	CHIP R 0.0 J 1/10W		R548			RK73GB2A104J	CHIP R 100K J 1/10W	
R307			RK73GB2A000J	CHIP R 0.0 J 1/10W		R549			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R310			RK73EB2E100J	CHIP R 10 J 1/4W		R550			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R320			RK73GB2A331J	CHIP R 330 J 1/10W		R551,552			RK73EB2E000J	CHIP R 0.0 J 1/4W	
R321			RK73GB2A223J	CHIP R 22K J 1/10W		R553			RK73GB2A473J	CHIP R 47K J 1/10W	
R322			RK73GB2A181J	CHIP R 180 J 1/10W		R554,555			RK73FB2B4R7J	CHIP R 4.7 J 1/8W	
R323			RK73GB2A000J	CHIP R 0.0 J 1/10W		R556			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R330			RK73GB2A331J	CHIP R 330 J 1/10W	E3M1C1	R557			RK73GB2A471J	CHIP R 470 J 1/10W	
R331			RK73GB2A223J	CHIP R 22K J 1/10W	E3M1C1	R558			RK73GB2A105J	CHIP R 1.0M J 1/10W	
R332			RK73GB2A181J	CHIP R 180 J 1/10W	E3M1C1	R559,560			RK73GB2A101J	CHIP R 100 J 1/10W	
R333			RK73GB2A000J	CHIP R 0.0 J 1/10W		R561-564			RK73EB2E101J	CHIP R 100 J 1/4W	
R340			RK73GB2A331J	CHIP R 330 J 1/10W		R565,566			RK73GB2A103J	CHIP R 10K J 1/10W	
R341			RK73GB2A223J	CHIP R 22K J 1/10W		R567-570			RK73GB2A101J	CHIP R 100 J 1/10W	
R342			RK73GB2A181J	CHIP R 180 J 1/10W		R571			RK73GB2A103J	CHIP R 10K J 1/10W	
R343			RK73GB2A000J	CHIP R 0.0 J 1/10W	E3M1C1	R572			RK73GB2A104J	CHIP R 100K J 1/10W	
R347			RK73GB2A472J	CHIP R 4.7K J 1/10W	E3M1C1	R573			RK73GB2A334J	CHIP R 330K J 1/10W	
R349			RK73GB2A472J	CHIP R 4.7K J 1/10W	E3M1C1	R574			RK73GB2A153J	CHIP R 15K J 1/10W	
R350			RK73GB2A331J	CHIP R 330 J 1/10W	E3M1C1	R575			RK73EB2E332J	CHIP R 3.3K J 1/4W	
R351			RK73GB2A223J	CHIP R 22K J 1/10W	E3M1C1	R576,577			RK73GB2A103J	CHIP R 10K J 1/10W	
R352			RK73GB2A181J	CHIP R 180 J 1/10W	E3M1C1	R580			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R353			RK73GB2A000J	CHIP R 0.0 J 1/10W	E3M1C1	R586			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R357,358			RK73GB2A472J	CHIP R 4.7K J 1/10W		R595,596			RK73GB2A202J	CHIP R 2.0K J 1/10W	
R373			RK73GB2A000J	CHIP R 0.0 J 1/10W		R701			RK73EB2E472J	CHIP R 4.7K J 1/4W	
R400-406			RK73EB2E000J	CHIP R 0.0 J 1/4W		R702			RK73EB2E101J	CHIP R 100 J 1/4W	
R408-457			RK73EB2E000J	CHIP R 0.0 J 1/4W		R703,704			RK73GB2A101J	CHIP R 100 J 1/10W	
R459			RK73GB2A000J	CHIP R 0.0 J 1/10W		R706			RK73GB2A101J	CHIP R 100 J 1/10W	
R461-475			RK73GB2A000J	CHIP R 0.0 J 1/10W		R708			RK73EB2E101J	CHIP R 100 J 1/4W	
R477-483			RK73GB2A000J	CHIP R 0.0 J 1/10W		R712			RK73GB2A101J	CHIP R 100 J 1/10W	
R484			RK73FB2B000J	CHIP R 0.0 J 1/8W		R713			RK73EB2E101J	CHIP R 100 J 1/4W	
R485-488			RK73EB2E000J	CHIP R 0.0 J 1/4W		R715			RK73EB2E101J	CHIP R 100 J 1/4W	
R491			RK73EB2E000J	CHIP R 0.0 J 1/4W		R718			RK73EB2E473J	CHIP R 47K J 1/4W	
R493			RK73EB2E150J	CHIP R 15 J 1/4W		R720			RK73GB2A473J	CHIP R 47K J 1/10W	
R501			RK73GB2A333J	CHIP R 33K J 1/10W		R721			RK73GB2A105J	CHIP R 1.0M J 1/10W	
R502,503			RK73EB2E101J	CHIP R 100 J 1/4W		R722,723			RK73EB2E473J	CHIP R 47K J 1/4W	

M1: KDC-U449 C1: KDC-U5049  
E1: KDC-4551UB E2: KDC-455UW E3: KDC-4651URY

△ Indicates safety critical components.

# PARTS LIST

## ELECTRIC UNIT (X34-691x-xx)

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation	Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
R725-728			RK73GB2A473J	CHIP R 47K J 1/10W		R930			RK73FB2B000J	CHIP R 0.0 J 1/8W	
R730,731			RK73GB2A473J	CHIP R 47K J 1/10W		R941			RK73EB2E472J	CHIP R 4.7K J 1/4W	
R732			RK73GB2A472J	CHIP R 4.7K J 1/10W		R951			RK73EB2E102J	CHIP R 1.0K J 1/4W	
R735			RK73GB2A473J	CHIP R 47K J 1/10W		R952			RK73GB2A331J	CHIP R 330 J 1/10W	
R736			RK73EB2E473J	CHIP R 47K J 1/4W		R963			RK73GB2A223J	CHIP R 22K J 1/10W	
R737			RK73GB2A101J	CHIP R 100 J 1/10W		R970			RK73GB2A473J	CHIP R 47K J 1/10W	
R738			RK73GB2A222J	CHIP R 2.2K J 1/10W		R971,972			RK73GB2A103J	CHIP R 10K J 1/10W	
R739			RK73EB2E103J	CHIP R 10K J 1/4W		R973			RK73GB2A203J	CHIP R 20K J 1/10W	
R740,741			RK73GB2A103J	CHIP R 10K J 1/10W		R974			RK73GB2A473J	CHIP R 47K J 1/10W	
R742-744			RK73GB2A473J	CHIP R 47K J 1/10W		R975			RK73FB2B473J	CHIP R 47K J 1/8W	
R745			RK73GB2A101J	CHIP R 100 J 1/10W		R976			RK73FB2B683J	CHIP R 68K J 1/8W	
R746			RK73GB2A473J	CHIP R 47K J 1/10W		R981			RK73GH2A184D	CHIP R 180K D 1/10W	
R747			RK73GB2A243J	CHIP R 24K J 1/10W		R982			RK73GH2A333D	CHIP R 33K D 1/10W	
R749,750			RK73GB2A332J	CHIP R 3.3K J 1/10W		R983			RK73GB2A154J	CHIP R 150K J 1/10W	
R751			RK73GB2A223J	CHIP R 22K J 1/10W		R985			RK73GH2A134D	CHIP R 130K D 1/10W	
R753,754			RK73GB2A332J	CHIP R 3.3K J 1/10W		R986			RK73GH2A753D	CHIP R 75K D 1/10W	
R756			RK73GB2A473J	CHIP R 47K J 1/10W		R987			RK73GB2A103J	CHIP R 10K J 1/10W	
R757			RK73EB2E332J	CHIP R 3.3K J 1/4W		S701			S70-0959-05	TACT SWITCH	
R758			RK73GB2A332J	CHIP R 3.3K J 1/10W		D102			DZ2J068/M/-X	ZENER DIODE	
R759			RK73GB2A473J	CHIP R 47K J 1/10W		D112			DZ2J068/M/-X	ZENER DIODE	
R762,763			RK73GB2A472J	CHIP R 4.7K J 1/10W	M1C1	D321			BAW56W	SILICON DIODE	
R764			RK73GB2A333J	CHIP R 33K J 1/10W	E1E2E3	D341			BAW56W	SILICON DIODE	E3M1C1
R764			RK73GB2A393J	CHIP R 39K J 1/10W		D502			GS1J-LTP-X	SILICON DIODE	
R765			RK73GB2A273J	CHIP R 27K J 1/10W		D540	*		RKS801KF-X	SILICON DIODE	
R766			RK73EB2E153J	CHIP R 15K J 1/4W	M1C1	D704			DZ2J051/M/-X	ZENER DIODE	
R766			RK73EB2E822J	CHIP R 8.2K J 1/4W	E1E2E3	D780,781			BAW56W	SILICON DIODE	
R767			RK73GB2A223J	CHIP R 22K J 1/10W		D782	*		RKS801KF-X	SILICON DIODE	
R768,769			RK73GB2A473J	CHIP R 47K J 1/10W		D783			BAW56W	SILICON DIODE	
R770,771			RK73GH2A472D	CHIP R 4.7K D 1/10W		D851,852			MBRX130-TP-X	SB DIODE	
R772			RK73EB2E472J	CHIP R 4.7K J 1/4W		D891			BAW56W	SILICON DIODE	
R773			RK73GB2A472J	CHIP R 4.7K J 1/10W		D901			1N5401-BPC04	SILICON DIODE	
R774			RK73GH2A472D	CHIP R 4.7K D 1/10W		D902			MBRX130-TP-X	SB DIODE	
R775,776			RK73GB2A153J	CHIP R 15K J 1/10W		D941,942			MBRX130-TP-X	SB DIODE	
R777			RK73GB2A102J	CHIP R 1.0K J 1/10W		D970,971			DZ2J068/M/-X	ZENER DIODE	
R778,779			RK73GB2A271J	CHIP R 270 J 1/10W		D981			MBRX130-TP-X	SB DIODE	
R780			RK73GB2A473J	CHIP R 47K J 1/10W		D982	*		RKS801KF-X	SILICON DIODE	
R781			RK73GB2A331J	CHIP R 330 J 1/10W		D983			MBRX130-TP-X	SB DIODE	
R782			RK73GB2A821J	CHIP R 820 J 1/10W		IC1			TEF6614TV1S3-X	ANALOGUE IC	E1E2E3
R783			RK73GB2A104J	CHIP R 100K J 1/10W		IC1			TEF6614TV1S4-X	ANALOGUE IC	M1C1
R784,785			RK73GB2A223J	CHIP R 22K J 1/10W		IC80	*		MF1341S2313-X	MPU-IC	
R786			RK73GB2A103J	CHIP R 10K J 1/10W		IC161			E-TDA7718N	ANALOGUE IC	
R787			RK73GB2A473J	CHIP R 47K J 1/10W		IC301			TB2926CHQ	ANALOGUE IC	
R851			RK73GB2A472J	CHIP R 4.7K J 1/10W		IC501			LA6565	ANALOGUE IC	
R881			RK73GB2A273J	CHIP R 27K J 1/10W		IC530			XC6213B332NG-X	ANALOGUE IC	
R882			RK73GB2A473J	CHIP R 47K J 1/10W		IC531,532			XC6213B152NG-X	ANALOGUE IC	
R891			RK73GB2A103J	CHIP R 10K J 1/10W		IC540	*		JCV8022	MOS-IC	
R892			RK73GB2A683J	CHIP R 68K J 1/10W		IC701	*		W05-1644-00	MCU-IC	
R893			RK73EB2E123J	CHIP R 12K J 1/4W		IC702			XC6120N282NG-X	MOS-IC	
R894			RK73GB2A000J	CHIP R 0.0 J 1/10W		IC771			R1EX24002ASAAX	ROM-IC	
R901			RD14BB2C103J	RD 10K J 1/6W		IC901			LV5680P	ANALOGUE IC	
R902,903			RD14BB2C7R5J	RD 7.5 J 1/6W		IC931			XC6213B332NG-X	ANALOGUE IC	
R906			RK73GB2A472J	CHIP R 4.7K J 1/10W		IC961			BD2224G	MOS-IC	
R907			RK73GB2A155J	CHIP R 1.5M J 1/10W		IC981	*		MP2562DS-X	ANALOGUE IC	
R908			RK73GB2A472J	CHIP R 4.7K J 1/10W							
R909			RK73GB2A273J	CHIP R 27K J 1/10W							



# PARTS LIST

## ELECTRIC UNIT (X34-691x-xx)

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
Q321			IMX9	P TRANSISTOR	E3M1C1
Q341			IMX9	P TRANSISTOR	
Q540			2SA2188/F/-X	SS TRANSISTOR	
Q701			RT1P144C-X	D TRANSISTOR	
Q780			RT1P241C-X	D TRANSISTOR	
Q781			RT1N241C-X	D TRANSISTOR	
Q782			RT1P241C-X	D TRANSISTOR	
Q881			RT1N141C-X	D TRANSISTOR	
Q951			2SA812A/5-6/-X	SS TRANSISTOR	
Q952			RT1N441C-X	D TRANSISTOR	
Q970,971			2SC1623A/5-6/X	SS TRANSISTOR	
Q981			RT1N441C-X	D TRANSISTOR	

## MECHANISM ASSY (X92-6630-00) HCS-1000W

1	1B	*	LV11685-503A	TOP FRAME	
2	3A		LV11686-501A	BOTTOM FRAME	
12	3B		LV11688-501A	LOADING BASE	
13	2A		LV11690-501A	ROLLER ARM	
14	1B	*	LV22825-502A	HC CLAMPER BASE	
16	2B	*	LV22826-502A	LOAD CAM	
17	1A		LV22827-501A	FL SLIDER (L)	
21	2B		LV36815-501A	F WHEEL GEAR	
22	2A		LV36904-001A	DAMPER (FRONT)	
23	2B		LV37061-001A	DAMPER (REAR)	
24	2B		LV38951-501A	TRIGGER RACK	
26	1B		LV38952-501A	FL SLIDER (B)	
27	1B		LV38953-501A	TRIGGER PLATE	
28	1A		LV38956-501A	SW SLIDER (L)	
29	2A		LV38957-501A	SW SLIDER (R)	
31	1A		LV38958-501A	JOINT PLATE	
32	2A		LV38959-501A	SW ACTUATOR	
33	2B		LV38960-501A	FEED RACK	
37	3B		LV38964-501A	D.WHEEL GEAR	
38	3B		LV38965-501A	ACT GEAR (1)	
39	3B		LV38966-501A	ACT GEAR (2)	
41	3B		LV38967-501A	ACT GEAR (3)	
42	3B		LV38968-501A	ROLLER ACT GEAR	
43	3B		LV38969-501A	DRIVE GEAR	
46	1A		LV39009-501A	JOINT LEVER	
48	3B		LV44555-001A	MAIN SHAFT	
51	2A		LV45424-001A	HC ROLLER	
55	2A		X94-2180-00	HC ROLLER SHAFT ASSY (SVC PRT)	
61	2B		LV45415-501A	TRIGGER SPRING	
62	2B		LV45416-501A	LOAD CAM SPRING	
63	1B		LV45417-501A	FL SLIDER SPRING	
64	3A		LV45418-501A	R.ARM SPRING	
66	1A		LV45420-501A	SW SLIDER SPRING	
67	1B		LV45421-501A	HC CL SPRING	
68	2B		LV45422-501A	SUS SPRING (F)	
69	2B		LV45423-501A	SUS SPRING (B)	
71	2A	*	LV45505-502A	SW ACT SPRING	
76	2A		LV11689-501A	DISC GUIDE	
77	3B		LV22828-501A	FEED BRACKET	
78	3B		LV36813-501A	SUB GUIDE CAP	

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
79	1B	*	LV36819-502A	CLAMPER	
81	3A		LV38954-501A	R.ARM GUIDE	
83	2A	*	LV45411-502A	RA COLLER (L)	
86	3A		QAL0817-003	FPC	
A	2A		LV45270-001A	WASHER (2)	
B	2A		LV45449-001A	WASHER	
C	2B		QYSPSGT1745ZA	TAP SCREW	
D	2B	*	LV45568-001A	MINI SCREW	
E	2B		QYSPSPT2025MA	SCREW	
F	3A		VKZ4539-054	MINI SCREW	
DPU1	3B		QAL1226-001	PICK UP	
DM1	2B		X94-2150-00	SPINDLE MOTOR ASSY (SVC PRT)	
DM2	3B		X94-2160-00	FEED MOTOR ASSY (SVC PRT)	
DM3	3A		X94-2170-00	LOADING MOTOR ASSY (SVC PRT)	

M1: KDC-U449 C1: KDC-U5049  
E1: KDC-4551UB E2: KDC-455UW E3: KDC-4651URY

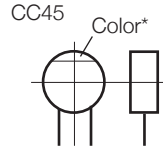
△ Indicates safety critical components.

# PARTS LIST

## CAPACITORS

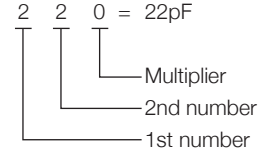
$\frac{CC}{1} \frac{45}{2} \frac{TH}{3} \frac{1H}{4} \frac{220}{5} \frac{J}{6}$

- 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

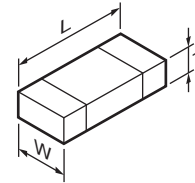
### • Voltage rating

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)  $\frac{CC}{1} \frac{73}{2} \frac{F}{3} \frac{SL}{4} \frac{1H}{5} \frac{000}{6} \frac{J}{7}$  → Refer to the table above.
- 1 = Type
  - 2 = Shape
  - 3 = Dimension
  - 4 = Temp. coefficient
  - 5 = Voltage rating
  - 6 = Value
  - 7 = Tolerance
- (Chip) (CH, RH, UJ, SL)
- (EX)  $\frac{CK}{1} \frac{73}{2} \frac{F}{3} \frac{F}{4} \frac{1H}{5} \frac{000}{6} \frac{Z}{7}$
- (Chip) (B, F)

### • 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

### • 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		

## RESISTORS

### • Chip resistor (Carbon)

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

### • Carbon resistor (Normal type)

- (EX)  $\frac{RD}{1} \frac{14}{2} \frac{B}{3} \frac{B}{4} \frac{2C}{5} \frac{000}{6} \frac{J}{7}$

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

# SPECIFICATIONS

## ■ Models for destination “M” and “C”

### FM tuner section

Frequency range	
200kHz space	87.9MHz~107.9MHz
50kHz space	87.5MHz~108.0MHz
Usable sensitivity (S/N=26dB)	11.2dBf (1.0μV/75Ω)
Quieting sensitivity (DIN S/N=46dB)	19.2dBf (2.5μV/75Ω)
Frequency response (±3dB)	30Hz~15kHz
Signal to Noise ratio (MONO)	63dB
Stereo separation (1kHz)	40dB

### AM tuner section

Frequency range	
Band 1 (MW)	
10kHz space	530kHz~1700kHz
9kHz space	531kHz~1611kHz
Band 2 (SW1)	
5kHz space	2940kHz~7735kHz
Band 3 (SW2)	
5kHz space	9500kHz~10135kHz / 11580kHz~18135kHz
Usable sensitivity (S/N=20dB)	
MW	31dBμ (36μV)
SW	32dBμ (40μV)

### CD player section

Laser diode	GaAlAs
Digital filter (D/A)	8 Times Over Sampling
D/A converter	24Bit
Spindle speed	500~200rpm (CLV)
Wow & Flutter	Below Measurable Limit
Frequency response (±1dB)	20Hz~20kHz
Total harmonic distortion (1kHz)	0.01%
Signal to Noise ratio (1kHz)	105dB
Dynamic range	90dB
MP3 decode	Compliant with MPEG-1/2 Audio Layer-3
WMA decode	Compliant with Windows Media Audio

### USB interface

USB standard	USB1.1/2.0 (Full speed)
Maximum supply current	500mA
File system	FAT16/32
MP3 decode	Compliant with MPEG-1/2 Audio Layer-3
WMA decode	Compliant with Windows Media Audio

### Audio section

Maximum output power	50W x 4
Full bandwidth power (at less than 1% THD)	22W x 4
Speaker impedance	4~8Ω
Tone action	
Bass	100Hz±8dB
Middle	1kHz±8dB
Treble	10kHz±8dB
Preout level/load (CD)	2000mV/10kΩ
Preout impedance	≤600Ω

### Auxiliary input section

Frequency response (±3dB)	20Hz~20kHz
Input maximum voltage	1200mV
Input impedance	10kΩ

### General

Operating voltage (11~16V allowable)	14.4V
Maximum current consumption	10A
Installation size (W x H x D)	182 x 53 x 158 mm
Weight	1.3kg

## SPECIFICATIONS

### ■ Models for destination “E”

#### FM tuner section

Frequency range	
FM1/FM2/FM3 (50kHz space)	87.5MHz~108.0MHz
Usable sensitivity (S/N=26dB)	1.0 $\mu$ V/75 $\Omega$
Quieting sensitivity (DIN S/N=46dB)	2.5 $\mu$ V/75 $\Omega$
Frequency response ( $\pm$ 3dB)	30Hz~15kHz
Signal to Noise ratio (MONO)	63dB
Stereo separation (1kHz)	40dB

#### MW tuner section

Frequency range (9kHz space)	531kHz~1611kHz
Usable sensitivity (S/N=20dB)	36 $\mu$ V

#### LW tuner section

Frequency range	153kHz~279kHz
Usable sensitivity (S/N=20dB)	57 $\mu$ V

#### CD player section

Laser diode	GaAlAs
Digital filter (D/A)	8 Times Over Sampling
D/A converter	24Bit
Spindle speed	500~200rpm (CLV)
Wow & Flutter	Below Measurable Limit
Frequency response ( $\pm$ 1dB)	20Hz~20kHz
Total harmonic distortion (1kHz)	0.01%
Signal to Noise ratio (1kHz)	105dB
Dynamic range	90dB
MP3 decode	Compliant with MPEG-1/2 Audio Layer-3
WMA decode	Compliant with Windows Media Audio
AAC decode	AAC-LC “.m4a” files

#### USB interface

USB standard	USB1.1/2.0 (Full speed)
Maximum supply current	500mA
File system	FAT16/32
MP3 decode	Compliant with MPEG-1/2 Audio Layer-3
WMA decode	Compliant with Windows Media Audio
AAC decode	AAC-LC “.m4a” files

#### Audio section

Maximum output power	50W x 4
Output power (DIN 45324, +B=14.4V)	30W x 4
Speaker impedance	4~8 $\Omega$
Tone action	
Bass	100Hz $\pm$ 8dB
Middle	1kHz $\pm$ 8dB
Treble	10kHz $\pm$ 8dB
Preout level/load (CD)	2000mV/10k $\Omega$
Preout impedance	$\leq$ 600 $\Omega$

#### Auxiliary input section

Frequency response ( $\pm$ 3dB)	20Hz~20kHz
Input maximum voltage	1200mV
Input impedance	10k $\Omega$

#### General

Operating voltage (11~16V allowable)	14.4V
Maximum current consumption	10A
Installation size (W x H x D)	182 x 53 x 158 mm
Weight	1.3kg

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KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

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**DANGER:**

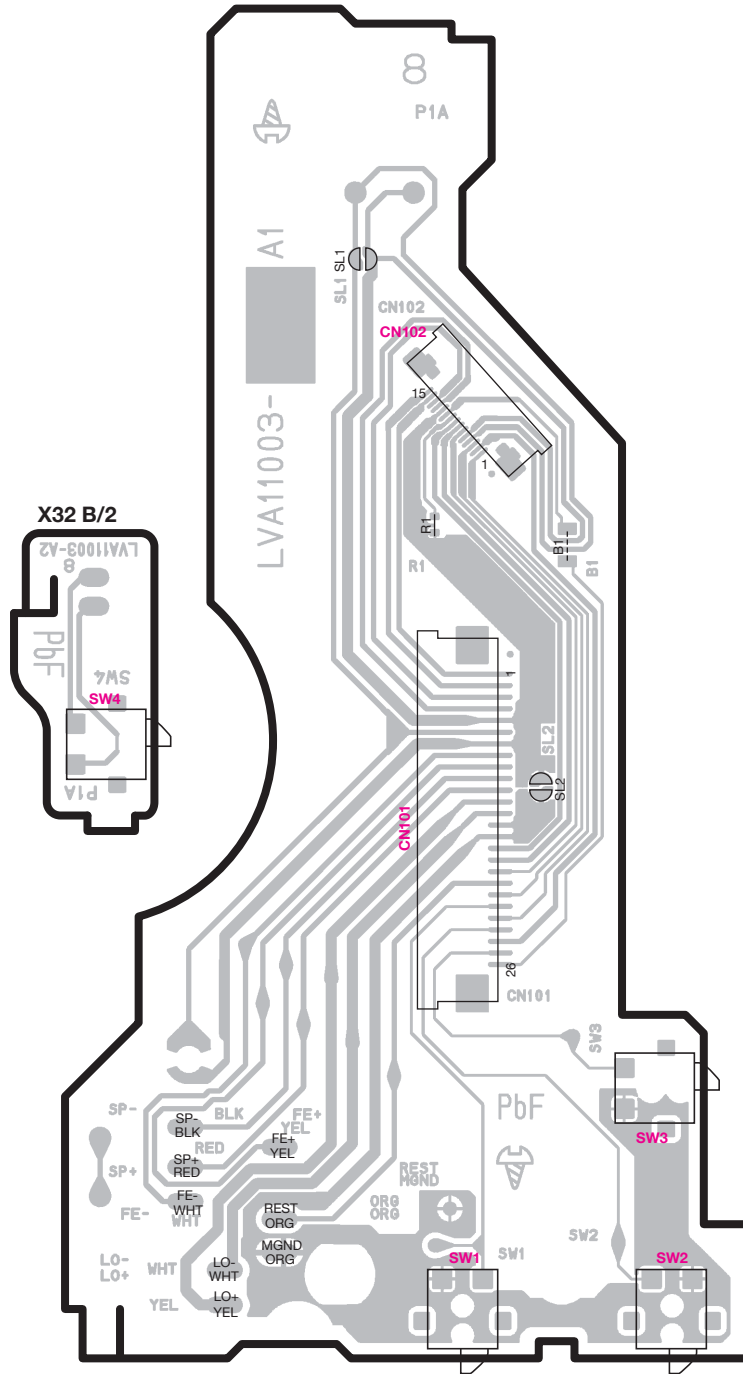
Please do not look at the laser beam directly during repair or operation check.



KDC-4551UB/455UW/4651URY  
KDC-U449/U5049

# PC BOARD (FOIL SIDE VIEW)

CD PLAYER UNIT  
X32-6430-00 A/2 (LVB11003-001A)







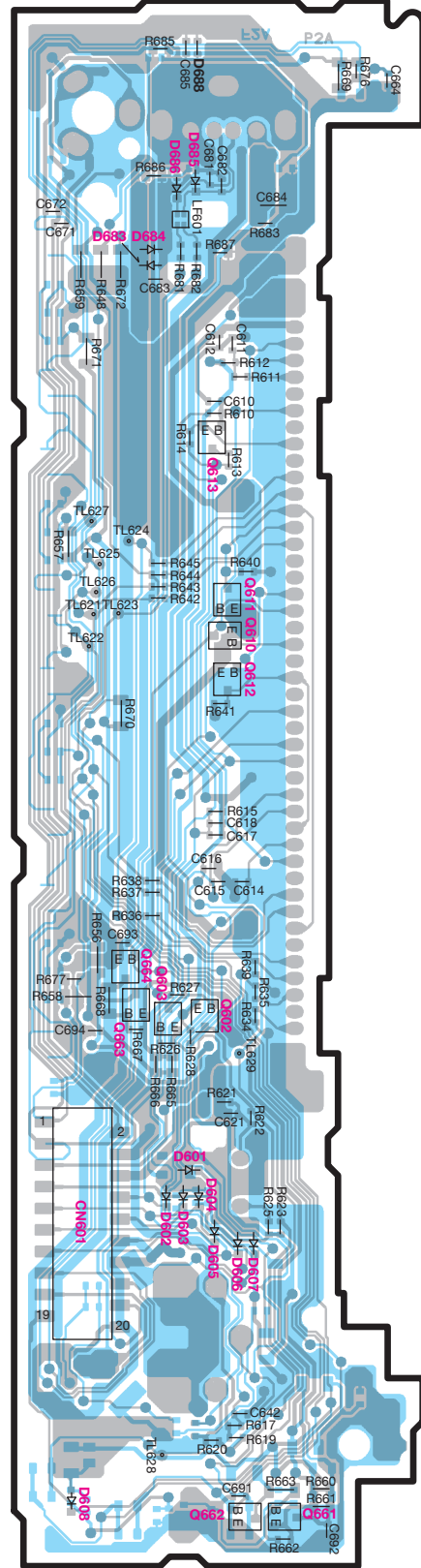
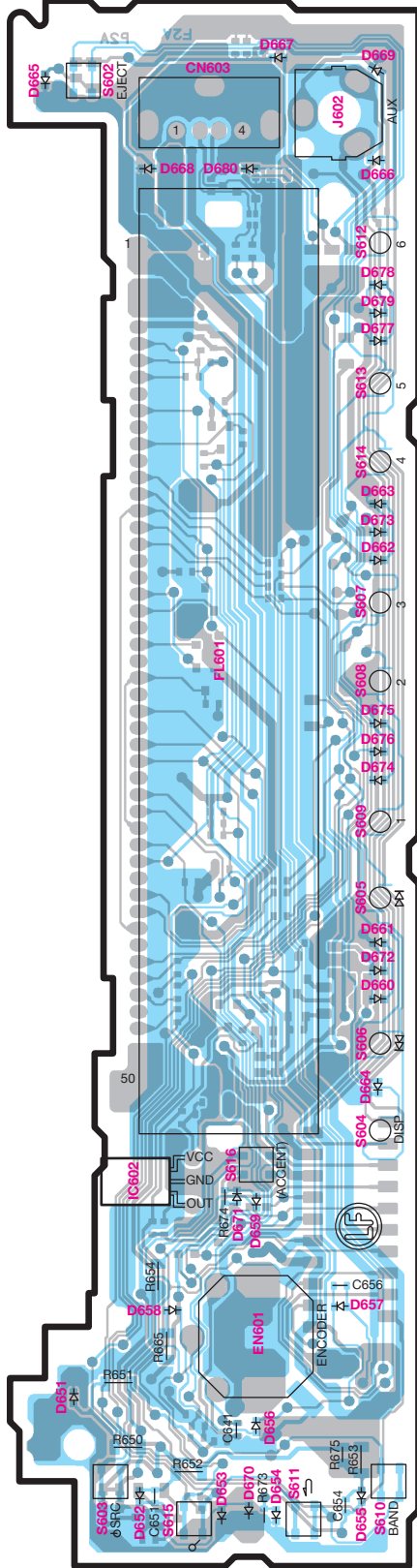
KDC-4551UB/455UW/4651URY  
KDC-U449/U5049

# PC BOARD (COMPONENT SIDE VIEW)

# (FOIL SIDE VIEW)

SWITCH UNIT  
X16-704x-xx (GEB10302-002A)

SWITCH UNIT  
X16-704x-xx (GEB10302-002A)

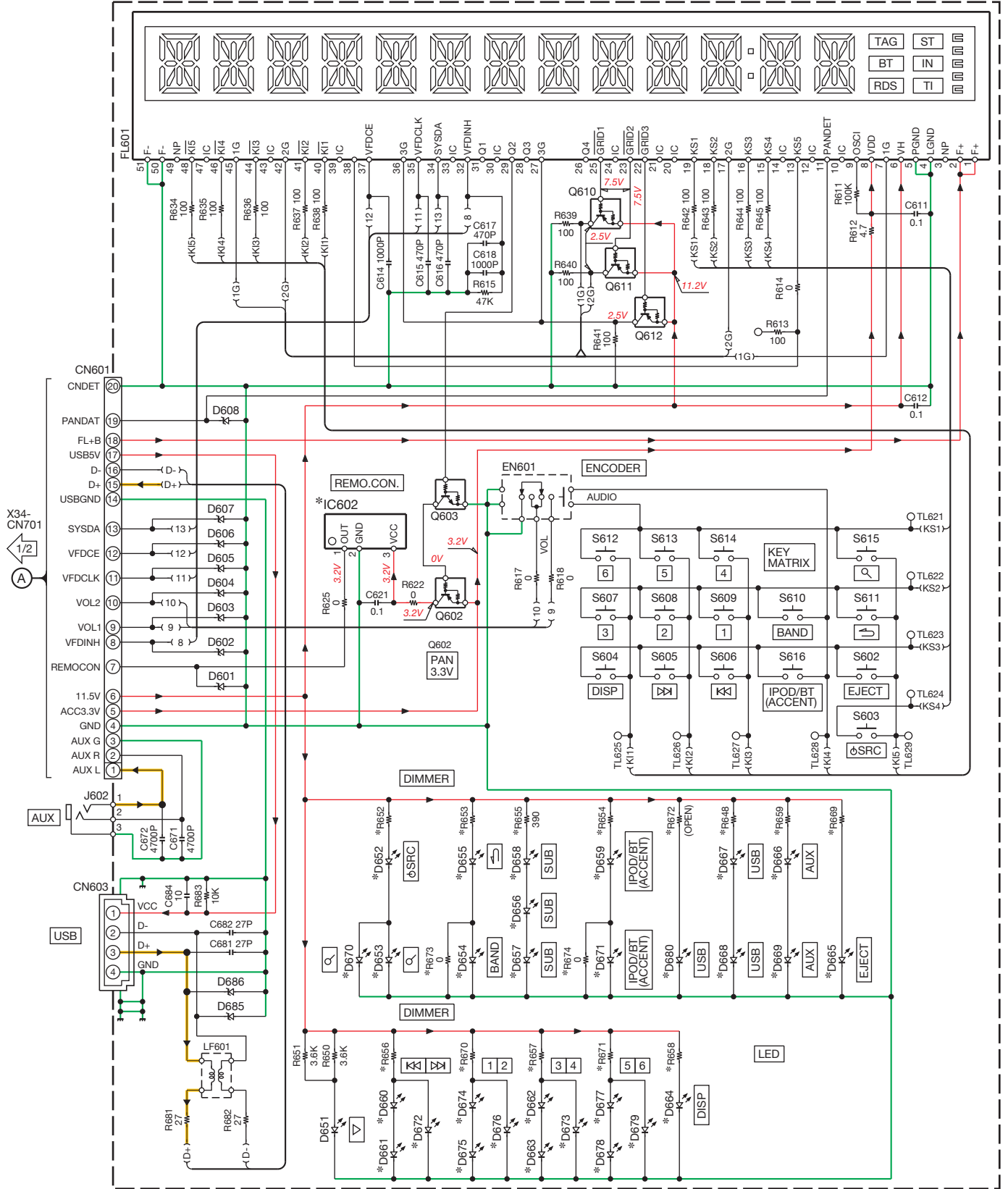








SWITCH UNIT (X16-704x-xx)



KDC-4551UB/455UW/4651URY/U449/U5049 (2/2)

(X16-704x-xx)

CATEGORY	MODEL NAME	UNIT No.	DESTI-NATION	D652,655,659,665-669,680	D653,654,656-658,660-663,671,674,675,677,678	D664	D670	D672,673,676,679	IC602	R648	R652	R653,654,656,657,670,671	R655	R658,669	R659	R673,674
ENTRY USB	KDC-U449	2-70	M1	B30-3210-05	—	B30-3210-05	B30-3210-05	B30-3210-05	YES	560	680	750	—	750	15K	YES
	KDC-U5049	3-01	C1	B30-1780-05	YES	B30-1780-05	—	—	YES	560	470	470	YES	560	390	—
	KDC-4551UB	2-73	E1	B30-3210-05	—	B30-3210-05	B30-3210-05	B30-3210-05	—	560	680	750	—	750	15K	YES
	KDC-455UW	2-71	E2	SMLE12WBCR1R2X	—	SMLE12WBCR1R2X	SMLE12WBCR1R2X	SMLE12WBCR1R2X	—	560	680	750	—	750	15K	YES
ENTRY HD	KDC-4651URY	2-72	E3	B30-1779-05	—	B30-1779-05	B30-1779-05	B30-1779-05	YES	470	560	750	—	750	15K	YES
	KDC-HD548U	0-11	K	B30-3210-05	—	SMLE12WBCR1R2X	B30-3210-05	SMLE12WBCR1R2X	YES	680	680	750	—	750	15K	YES

IC602 : KSM-2003TN5B

Q602,610-612

Q603 : RT1P141C-X

Q603 : RT1N241C-X

D601-608,685,686 : DZ2J051/M/-X

D651 : B30-1566-05

D652,655,659,665-669,680 : \*

FL601 : QLF0202-001

D653,654,656-658,

660-663,671,674,

675,677,678 : B30-1780-05

D664 : \*

D670 : \*

D672,673,676,679 : \*

SIGNAL LINE

GND LINE

+B LINE