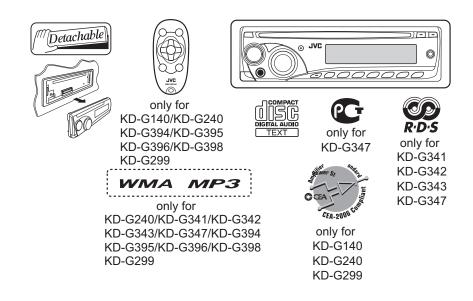


SERVICE MANUAL

CD RECEIVER

KD-G140J, KD-G240J, KD-G244UI, KD-G245U, KD-G245UN, KD-G245UT, KD-G245UH, KD-G248UF, KD-G341E, KD-G341EX, KD-G341EY, KD-G341EU, KD-G342E, KD-G342EX, KD-G342EY, KD-G342EU, KD-G343E, KD-G343EX, KD-G343EY, KD-G343EU, KD-G347SEE, KD-G347BEE, KD-G394UI, KD-G395U, KD-G395UN, KD-G395UT, KD-G395UH, KD-G396U, KD-G396UH, KD-G398UF, KD-G396SUI, KD-G299UR



Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade) Lead free solder used in the board (material : Sn-Cu, melting point : 230 Centigrade)

TABLE OF CONTENTS

1	PRECAUTION	. 1-8
2	SPECIFIC SERVICE INSTRUCTIONS	1-11
3	DISASSEMBLY	1-12
4	ADJUSTMENT	1-24
5	TROUBLESHOOTING	1-25

SPECIFICATION

KD-G140/KD-G240

	Audi	o amplifier section	
Power Output		20 W RMS \times 4 Channels at 4 Ω and < or = 1% THD+N	
Signal to Noise Ratio		80 dBA (reference: 1 W into 4 Ω)	
Load Impedance		4 Ω (4 Ω to 8 Ω allowance)	
Tone Control Range	Bass	±12 dB at 60 Hz	
Tone Control Nange	Mid-range	±12 dB at 1 kHz	
	Treble	±12 dB at 7.5 kHz	
Francisco Decresos	Treble	40 Hz to 20 000 Hz	
Frequency Response			
Line-Out Level/Impedance		2.5 V/20 kΩ load (full scale)	
Output Impedance		1 kΩ	
Subwoofer-Out Level/Imp		2.5 V/20 kΩ load (full scale)	
		Tuner section	
Frequency Range	FM	87.5 MHz to 107.9 MHz (with channel interval set to 100 kHz or 200 kHz) 87.5 MHz to 108.0 MHz (with channel interval set to 50 kHz)	
	AM	530 kHz to 1 710 kHz (with channel interval set to 10 kHz) 531 kHz to 1 602 kHz (with channel interval set to 9 kHz)	
FM Tuner	Usable Sensitivity	11.3 dBf (1.0 μV/75 Ω)	
	50 dB Quieting Sensitivity	16.3 dBf (1.8 μV/75 Ω)	
	Alternate Channel Selectivity (400 kHz)	65 dB	
	Frequency Response	40 Hz to 15 000 Hz	
	Stereo Separation	35 dB	
AM Tuner	Sensitivity/Selectivity	20 μV/35 dB	
	CI	D player section	
Туре		Compact disc player	
Signal Detection System		Non-contact optical pickup (semiconductor laser)	
Number of channels		2 channels (stereo)	
Frequency Response		5 Hz to 20 000 Hz	
Dynamic Range		93 dB	
Signal-to-Noise Ratio		98 dB	
Wow and Flutter		Less than measurable limit	
MP3 Decoding Format		MPEG1/2 Audio Layer 3	
(for KD-G240)	Max. Bit Rate	320 kbps	
WMA (Windows Media® Max. Bit Rate Audio) Decoding Format (for KD-G240)		192 kbps	
General			
Power Requirement	Operating Voltage	DC 14.4 V (11 V to 16 V allowance)	
Grounding System		Negative ground	
Allowable Operating Tem	perature	0°C to +40°C (32°F to 104°F)	
Dimensions (W \times H \times D)	Installation Size (approx.)	182 mm × 52 mm × 160 mm (7-3/16" × 2-1/16" × 6-5/16")	
	Panel Size (approx.)	188 mm × 58 mm × 5 mm (7-7/16" × 2-5/16" × 1/4")	
	Mass (approx.)	1.3 kg (2.9 lbs) (excluding accessories)	

KD-G244/KD-G245/KD-G248/KD-G394/KD-G395/KD-G396/KD-G398

	Audio ar	nplifier section	
Maximum Power Output: Front/Rear		50 W per channel	
Continuous Power Output (RMS): Front/Rear		19 W per channel into 4 Ω 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion.	
Load Impedance		4 Ω (4 Ω to 8 Ω allowance)	
Tone Control Range	Bass	±12 dB at 60 Hz	
	Mid-range	±12 dB at 1 kHz	
	Treble	±12 dB at 7.5 kHz	
Frequency Response	I	40 Hz to 20 000 Hz	
Signal-to-Noise Ratio		70 dB	
Line-Out Level/Impedance (for K	D-G395/KD-G396/KD-G398)	2.5 V/20 kΩ load (full scale)	
Output Impedance (for KD-G395	/KD-G396/KD-G398)	1 kΩ	
Other Terminal (except for KD-G	248/KD-G398)	AUX (auxiliary) input jack	
	Tun	er section	
Frequency Range	FM	87.5 MHz to 108.0 MHz	
	AM	531 kHz to 1 602 kHz	
FM Tuner	Usable Sensitivity	11.3 dBf (1.0 μV/75 Ω)	
	50 dB Quieting Sensitivity	16.3 dBf (1.8 μV/75 Ω)	
	Alternate Channel Selectivity (400 kHz)	65 dB	
	Frequency Response	40 Hz to 15 000 Hz	
	Stereo Separation	(for KD-G244/KD-G394) 35 dB (for others) 30 dB	
AM Tuner	Sensitivity/Selectivity	20 μV/35 dB	
	CD pl	ayer section	
Туре		Compact disc player	
Signal Detection System		Non-contact optical pickup (semiconductor laser)	
Number of channels		2 channels (stereo)	
Frequency Response		5 Hz to 20 000 Hz	
Dynamic Range		93 dB	
Signal-to-Noise Ratio		98 dB	
Wow and Flutter		Less than measurable limit	
MP3 Decoding Format (MPEG1/ 2 Audio Layer 3) (for KD-G395/ KD-G396/KD-G398)		320 kbps	
WMA (Windows Media® Audio) Max. Bit Rate Decoding Format (for KD-G395/KD-G396/KD-G398)		192 kbps	
		General	
Power Requirement	Operating Voltage	DC 14.4 V (11 V to 16 V allowance)	
Grounding System		Negative ground	
Allowable Operating Temperatur	e	0°C to +40°C	
Dimensions (W \times H \times D)	Installation Size (approx.)	182 mm × 52 mm × 160 mm	
	Panel Size (approx.)	188 mm × 58 mm × 5 mm	
	Mass (approx.)	1.3 kg (excluding accessories)	

KD-G341/KD-G342/KD-G343

	Aud	io amplifier section	
Maximum Power Output: Fro		50 W per channel	
Continuous Power Output (RMS): Front/Rear		19 W per channel into 4 Ω 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion.	
Load Impedance		4 Ω (4 Ω to 8 Ω allowance)	
Tone Control Range	Bass	±12 dB at 100 Hz	
	Treble	±12 dB at 10 kHz	
Frequency Response		40 Hz to 20 000 Hz	
Signal-to-Noise Ratio		70 dB	
Line-Out Level/Impedance		2.5 V/20 kΩ load (full scale)	
Output Impedance		1 kΩ	
Other Terminal		AUX (auxiliary) input jack	
		Tuner section	
Frequency Range	FM	87.5 MHz to 108.0 MHz	
	AM	MW: 522 kHz to 1 620 kHz LW: 144 kHz to 279 kHz	
FM Tuner	Usable Sensitivity	11.3 dBf (1.0 μ V/75 Ω)	
	50 dB Quieting Sensitivity	16.3 dBf (1.8 μ V/75 Ω)	
	Alternate Channel Selectivity (400 kHz)	65 dB	
	Frequency Response	40 Hz to 15 000 Hz	
	Stereo Separation	30 dB	
MW Tuner Sensitivity/Selectivity		20 μV/35 dB	
LW Tuner	Sensitivity	50 μV	
	С	D player section	
Туре		Compact disc player	
Signal Detection System		Non-contact optical pickup (semiconductor laser)	
Number of channels		2 channels (stereo)	
Frequency Response		5 Hz to 20 000 Hz	
Dynamic Range		93 dB	
Signal-to-Noise Ratio		98 dB	
Wow and Flutter		Less than measurable limit	
MP3 Decoding Format Max. Bit Rate (MPEG1/2 Audio Layer 3)		320 kbps	
WMA (Windows Media® Audio) Decoding Format	Max. Bit Rate	192 kbps	
		General	
Power Requirement	Operating Voltage	DC 14.4 V (11 V to 16 V allowance)	
Grounding System		Negative ground	
Allowable Operating Tempe	rature	0°C to +40°C	
Dimensions (W \times H \times D)	Installation Size (approx.)	182 mm × 52 mm × 160 mm	
	Panel Size (approx.)	188 mm × 58 mm × 13 mm	
Mass (approx.)		1.3 kg (excluding accessories)	

KD-G347

	Audio	o amplifier section	
Maximum Power Output: Fro		50 W per channel	
Continuous Power Output (RMS): Front/Rear		19 W per channel into 4 Ω 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion.	
Load Impedance		4 Ω (4 Ω to 8 Ω allowance)	
Tone Control Range	Bass	±12 dB at 100 Hz	
_	Treble	±12 dB at 10 kHz	
Frequency Response		40 Hz to 20 000 Hz	
Signal-to-Noise Ratio		70 dB	
Other Terminal		AUX (auxiliary) input jack	
	7	Funer section	
Frequency Range	FM1/2	87.5 MHz to 108.0 MHz	
	FM3	65.00 MHz to 74.00 MHz	
	AM	MW: 522 kHz to 1 620 kHz LW: 144 kHz to 279 kHz	
FM Tuner	Usable Sensitivity	11.3 dBf (1.0 μV/75 Ω)	
	50 dB Quieting Sensitivity	16.3 dBf (1.8 μV/75 Ω)	
	Alternate Channel Selectivity (400 kHz)	65 dB	
	Frequency Response	40 Hz to 15 000 Hz	
	Stereo Separation	30 dB	
MW Tuner	ner Sensitivity/Selectivity 20 μV/35 dB		
LW Tuner	Sensitivity	50 μV	
	CD	player section	
Туре		Compact disc player	
Signal Detection System		Non-contact optical pickup (semiconductor laser)	
Number of channels		2 channels (stereo)	
Frequency Response		5 Hz to 20 000 Hz	
Dynamic Range		93 dB	
Signal-to-Noise Ratio		98 dB	
Wow and Flutter		Less than measurable limit	
MP3 Decoding Format (MPEG1/2 Audio Layer 3)	Max. Bit Rate	320 kbps	
WMA (Windows Media® Max. Bit Rate Audio) Decoding Format		192 kbps	
		General	
Power Requirement	Operating Voltage	DC 14.4 V (11 V to 16 V allowance)	
Grounding System		Negative ground	
Allowable Operating Tempe	rature	0°C to +40°C	
Dimensions (W \times H \times D)	Installation Size (approx.)	$182 \text{ mm} \times 52 \text{ mm} \times 160 \text{ mm}$	
	Panel Size (approx.)	188 mm × 58 mm × 13 mm	
	Mass (approx.)	1.3 kg (excluding accessories)	

KD-G396

AUDIO AMPLIFIER SECTION				
Martin Direction		·		
	Front/Rear	50 W per channel		
Continuous Power Output (RMS)	Front/Rear	19 W per channel into 4 Ω 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion.		
Load Impedance		4 Ω (4 Ω to 8 Ω allowance)		
Tone Control Range	Bass	±12 dB at 60 Hz		
	Mid-range	±12 dB at 1 kHz		
	Treble	±12 dB at 7.5 kHz		
Frequency Response		40 Hz to 20 000 Hz		
Signal-to-Noise Ratio		70 dB		
Line-Out Level/Impedance		2.5 V/20 kΩ load (full scale)		
Output Impedance		1 kΩ		
Other Terminal		AUX (auxiliary) input jack		
	TUNE	R SECTION		
Frequency Range	FM	87.5 MHz to 108.0 MHz		
	AM	531 kHz to 1 602 kHz		
FM Tuner	Usable Sensitivity	11.3 dBf (1.0 μV/75 Ω)		
	50 dB Quieting Sensitivity	16.3 dBf (1.8 μ V/75 Ω)		
	Alternate Channel Selectivity (400 kHz)	65 dB		
	Frequency Response	40 Hz to 15 000 Hz		
	Stereo Separation	30 dB		
AM Tuner Sensitivity/Selectivity		20 μV/35 dB		
	CD PLA	YER SECTION		
Туре		Compact disc player		
Signal Detection System		Non-contact optical pickup (semiconductor laser)		
Number of Channels		2 channels (stereo)		
Frequency Response		5 Hz to 20 000 Hz		
Dynamic Range		93 dB		
Signal-to-Noise Ratio		98 dB		
Wow and Flutter		Less than measurable limit		
MP3 Decoding Format (M	PEG1/2 Audio Layer 3)	Max. Bit Rate: 320 kbps		
WMA (Windows Media [®] Audio) Decoding Format		Max. Bit Rate: 192 kbps		
GENERAL				
Power Requirement	Operating Voltage	DC 14.4 V (11 V to 16 V allowance)		
Grounding System		Negative ground		
Allowable Operating Temp	erature	0°C to +40°C		
Dimensions (W \times H \times D)	Installation Size	178 mm × 50 mm × 160 mm		
(approx.)	Panel Size	178 mm × 50 mm × 17 mm		
Mass		1.3 kg (excluding accessories)		

KD-G299

KD-G299	A1!:	a amplifier acction	
Davis Out to t	Audio	o amplifier section	
Power Output		20 W RMS \times 4 Channels at 4 Ω and $<$ or = 1% THD+N	
Signal to Noise Ratio		80 dBA (reference: 1 W into 4 Ω)	
Load Impedance		4 Ω (4 Ω to 8 Ω allowance)	
Tone Control Range	Bass	±12 dB at 60 Hz	
	Mid-range	±12 dB at 1 kHz	
	Treble	±12 dB at 7.5 kHz	
Frequency Response		40 Hz to 20 000 Hz	
Line-Out Level/Impedance		2.5 V/20 kΩ load (full scale)	
Output Impedance		1 kΩ	
Subwoofer-Out Level/Impe	edance	2.5 V/20 kΩ load (full scale)	
		Tuner section	
Frequency Range	FM	87.5 MHz to 107.9 MHz (with channel interval set to 100 kHz or 200 kHz) 87.5 MHz to 108.0 MHz (with channel interval set to 50 kHz)	
	AM	530 kHz to 1 710 kHz (with channel interval set to 10 kHz) 531 kHz to 1 602 kHz (with channel interval set to 9 kHz)	
FM Tuner	Usable Sensitivity	11.3 dBf (1.0 μV/75 Ω)	
	50 dB Quieting Sensitivity	16.3 dBf (1.8 μV/75 Ω)	
	Alternate Channel Selectivity (400 kHz)	65 dB	
	Frequency Response	40 Hz to 15 000 Hz	
	Stereo Separation	35 dB	
AM Tuner	Sensitivity/Selectivity	20 μV/35 dB	
	CI	D player section	
Туре		Compact disc player	
Signal Detection System		Non-contact optical pickup (semiconductor laser)	
Number of channels		2 channels (stereo)	
Frequency Response		5 Hz to 20 000 Hz	
Dynamic Range		93 dB	
Signal-to-Noise Ratio		98 dB	
Wow and Flutter		Less than measurable limit	
MP3 Decoding Format		MPEG1/2 Audio Layer 3	
	Max. Bit Rate	320 kbps	
WMA (Windows Media® Audio) Decoding Format	Max. Bit Rate	192 kbps	
		General	
Power Requirement	Operating Voltage	DC 14.4 V (11 V to 16 V allowance)	
Grounding System		Negative ground	
Allowable Operating Temp	perature	0°C to +40°C (32°F to 104°F)	
Dimensions (W \times H \times D)	Installation Size (approx.)	182 mm × 52 mm × 160 mm (7-3/16" × 2-1/16" × 6-5/16")	
	Panel Size (approx.)	188 mm × 58 mm × 5 mm (7-7/16" × 2-5/16" × 1/4")	
	Mass (approx.)	1.3 kg (2.9 lbs) (excluding accessories)	
		1	

SECTION 1 PRECAUTION

1.1 Safety Precautions

CAUTION Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.

1.2 Preventing static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

1.2.1 Grounding to prevent damage by static electricity

Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as laser products.

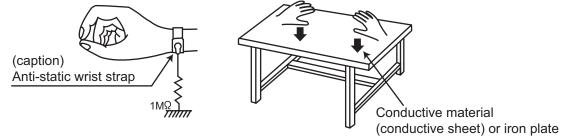
Be careful to use proper grounding in the area where repairs are being performed.

(1) Ground the workbench

Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

(2) Ground yourself

Use an anti-static wrist strap to release any static electricity built up in your body.



(3) Handling the optical pickup

- In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
- Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily
 destroy the laser diode.

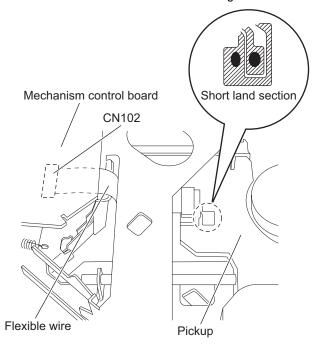
1.3 Handling the traverse unit (optical pickup)

- (1) Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
- (2) Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.
- (3) Handle the flexible cable carefully as it may break when subjected to strong force.
- (4) It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

1.4 Attention when traverse unit is decomposed

*Please refer to "Disassembly method" in the text for the pickup unit.

- Apply solder to the short land before the card wire is disconnected from the connector on the pickup unit. (If the card wire is disconnected without applying solder, the pickup may be destroyed by static electricity.)
- In the assembly, be sure to remove solder from the short land after connecting the card wire.



1.5 Important for laser products

1.CLASS 1 LASER PRODUCT

2.CAUTION:

(For U.S.A.) Visible and/or invisible class II laser radiation when open. Do not stare into beam.

(Others) Visible and/or invisible class 1M laser radiation when open. Do not view directly with optical instruments.

- 3.CAUTION: Visible and/or invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.
- 4.CAUTION: This laser product uses visible and/or invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.

(For U.S.A.)

CAUTION: Visible and/or invisible class II laser radiation when open. Do not stare into beam. (Others)

CAUTION: Visible and/or invisible class 1M laser radiation when open. Do not view directly with optical instruments

ACHTUNG: Sichtbare und/oder unsichtbare Laserstrahlung der Klasse 1M bei offenen Abdeckungen. Nicht direkt mit optischen Instrumenten betrachten.

ATTENTION: Ravonnement laser visible et/ou invisible de classe 1M une fois ouvert. Ne pas regarder directement avec des instruments optiques.

VOORZICHTIG: Zichtbare en/of onzichtbare klasse 1M laserstralen indien geopend. Bekijk niet direct met optische instrumenten.

ATTENZIONE: Radiazione laser in classe 1M visibile e/o invisibile quando aperto. Non osservare direttamente con strumenti ottici.

VARNING: Synlig och/eller osynlig laserstrålning, klass 1M, när denna del är öppnad. Betrakta ej strålen med optiska instrument.

VARO!: Avattaessa olet alttima nakyvalle ja/tai näkymättömälle luokan 1M lasersateilylle. Älä tarkastele sita optisen laitteen lapi.

ADVARSEL: Synlig og/eller usynlig klasse 1M-laserstråling ved åbning. Se ikke direkte med optiske instrumenter.

AVISO: Radiación láser de clase 1M visible y/o invisible cuando está abierto. No mirar directamente con instrumental óptico.

PRECAUÇÃO: Radiação laser de classe 1M visível e/ou invisível quando aberto. Não olhe directamente com instrumentos ópticos.

5.CAUTION: If safety switches malfunction, the laser is able to function.

6.CAUTION: Use of controls, adjustments or performance of procedures other than those specified here in may result in hazardous radiation exposure.

♠ CAUTION Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.

PRECAUÇÃO: Radiação laser de classe 1M visível e/ou invisível quando aberto. Não olhe diretamente com instrumentos óticos.

ПРЕДУПРЕЖДЕНИЕ: В открытом состоянии происходит видимое и/или невидимое излучение лазера класса 1M. Не смотрите непосредственно в оптические инструменты.

UWAGA: Otwarcie spowoduje narażenie na widzialne i/lub niewidzialne promieniowanie lasera klasy 1M. Nie patrzeć bezpośrednio w przyrządy optyczne.

UPOZORNĚNÍ: Při otevření vydává viditelné popř. neviditelné laserové ozáření třídy 1M. Nedívejte se do otvoru přímo s optickými nástroji.

FIGYELMEZTETÉS: Látható és/vagy láthatatlan 1M osztályú sugárzás nyitott állapotban. Ne nézze közvetlenül optikai műszerekkel.

注意:打開蓋板可能會產生可見或不可見的 1M 級鐳射。 不要使用光學儀器直接進行窺視。

注意: 打开盖板可能会产生可见或不可见的 1M 级镭射。 不要使用光学仪器直接进行窥视。

> تنبيه: يوجد إشعاع ليزري مرئي و/أو غير مرئي من الفئة 1M عندما يكون الجهاز مفتوحاً. تجنب النظر مباشرة داخل الجهاز باستخدام أدوات بصرية. احتیاط: هنگامی که باز گردد، تشعشع مرئی و یا نامرئی کلاس 1M لیزر وجود دارد. با لوازم چشمی مستقیاً به آن نگاه نکنید.

주의: 개방하면 가시 및/또는 비가시 클래스 1M 레이저 방사선이 나옵니다. 광학 기구로 직접 들여다보지 마십시오.

REPRODUCTION AND POSITION OF LABELS and PRINT **WARNING LABEL and PRINT**



ここを聞くと可視 及び/または不可視 のクラス 1 M SYNLIG OCH/ELLER /ISIBLE AND/OR NVISIBLE CLASS UVERT. CUANDO ESTÁ
IDER ABIERTO. NO MIRAR
AVEC DIRECTAMENTE
NTS CON INSTRUMENTAL.
(FRA) ÓPTICO. (ESP)

SECTION 2 SPECIFIC SERVICE INSTRUCTIONS

This service manual does not describe	SPECIFIC SERVICE INSTRUCTIONS
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SECTION 3 DISASSEMBLY

3.1 Main body (used figure is KD-G341)

3.1.1 Removing the FRONT CHASSIS assembly (See Fig.1)

(1) Disengage the four hooks **a** engaged the both side of the FRONT CHASSIS assembly.



Fig.1

3.1.2 Removing the HEAT SINK (See Fig.2, 3)

- (1) Remove the three screws **A** and the two screws **B** attaching the HEAT SINK. (See Fig.2)
- (2) Remove the two screws **C** and the one screw **D** attaching the HEAT SINK. (See Fig.3)

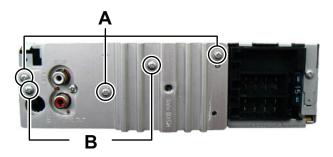


Fig.2

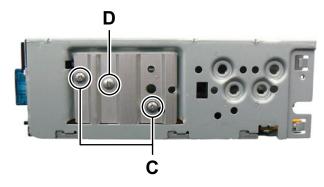


Fig.3

3.1.3 Removing the BOTTOM COVER (See Fig.4)

- (1) Remove the one screw **E** attaching the BOTTOM COVER.
- (2) Slide the BOTTOM COVER to backward.



Fig.4

3.1.4 Removing the MAIN BOARD assembly (See Fig.5)

- (1) Remove the two screws **F** attaching the MAIN BOARD assembly.
- (2) Disconnect the connector CN501 connected to MAIN BOARD assembly and CD MECHANISM assembly.

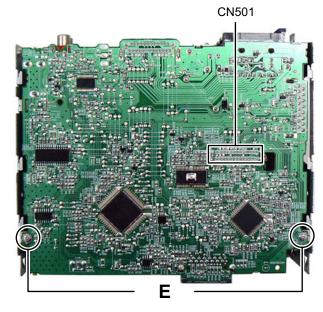


Fig.5

3.1.5 Removing the CD MECHANISM assembly (See Fig.6)

(1) Remove the three screws **G** attaching the CD MECHANISM assembly.

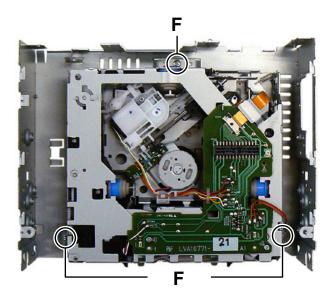


Fig.6

3.1.6 Removing the SWITCH BOARD assembly (See Fig.7)

- (1) Remove the VOLUME KNOB.
- (2) Remove the four screws **H** attaching the REAR COVER.
- (3) Disengage the nine hooks **b** engaged the REAR COVER.

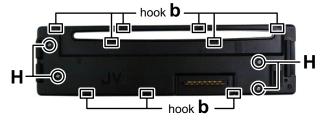


Fig.7

3.2 CD MECHANISM assembly section

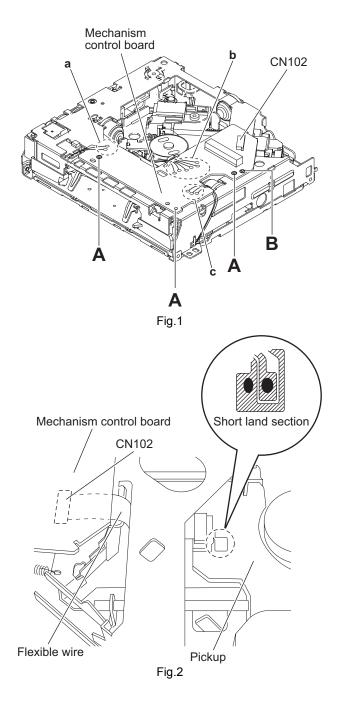
• Remove the CD MECHANISM assembly from the main body.

3.2.1 Removing the MECHANISM CONTROL BOARD assembly (See Fig.1 and 2)

- (1) From the bottom side of CD MECHANISM assembly, remove the solders from the soldered sections (a, b and c) on the MECHANISM CONTROL BOARD assembly. (See Fig.1.)
- (2) Remove the three screws A and one screw B attaching the MECHANISM CONTROL BOARD assembly. (See Fig.1.)
- (3) Solder the short land sections on the pickup. (See Fig.2.)

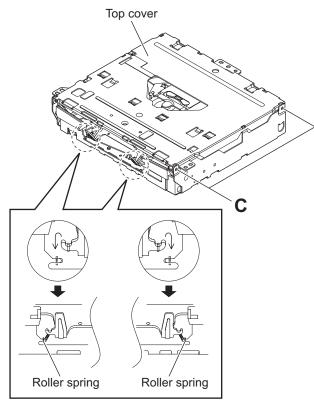
Caution:

- Solder the short land sections on the pickup before disconnecting the flexible wire from the connector <u>CN102</u> on the MECHANISM CONTROL BOARD assembly.
 - If the card wire is disconnected without attaching solder, the pickup may be destroyed by static electricity. (See Fig.2.)
- When attaching the MECHANISM CONTROL BOARD assembly, remove the solders from the short land sections after connecting the flexible wire to the connector <u>CN102</u> on the MECHANISM CONTROL BOARD assembly.

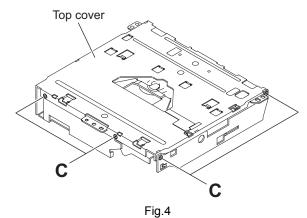


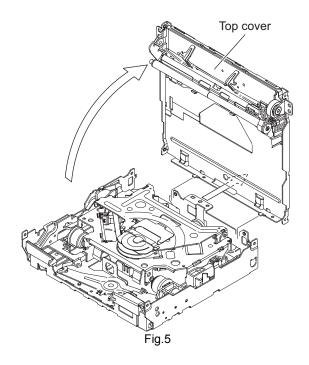
3.2.2 Removing the top cover (See Fig.3 to 5)

- Remove the MECHANISM CONTROL BOARD assembly.
 - (1) From the front side of the CD MECHANISM assembly, change the hook position of the two roller springs. (See Fig.3.)
 - (2) From the side of the CD MECHANISM assembly, remove the six screws **C** attaching the top cover. (See Fig.3 and 4.)
 - (3) Take out the top cover in an upward direction. (See Fig.5.)







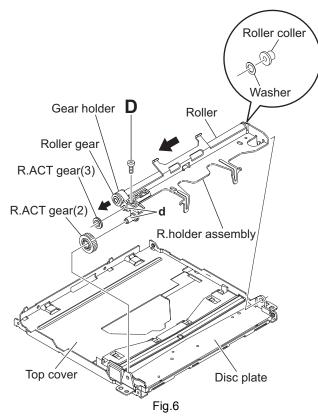


3.2.3 Removing the roller (See Fig.6)

- Remove the MECHANISM CONTROL BOARD assembly and top cover.
 - From the bottom side of the top cover, remove the screw D
 attaching the gear holder.
 - (2) Remove the R.holder assembly from disc plate, and then take out the roller from R.holder assembly in the direction of the arrow.

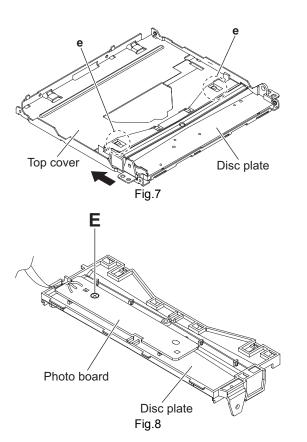
Reference:

When attaching the R.ACT gear (2) and R.ACT gear (3), apply grease to the section **d** of R.holder assembly.



3.2.4 Removing the PHOTO BOARD assembly (See Fig.7 and 8)

- Remove the MECHANISM CONTROL BOARD assembly and top cover.
 - (1) From the bottom side of the top cover, release the projection e from the notch of the disc plate. (See Fig.7.)
 - (2) Take out the disc plate in the direction of the arrow. (See Fig.7.)
 - (3) From the reverse side of the disc plate, remove the screw **E** attaching the PHOTO BOARD assembly. (See Fig.8.)



3.2.5 Removing the mechanism section (See Fig.9 and 10)

- Remove the MECHANISM CONTROL BOARD assembly and top cover.
 - (1) From the top side of the CD MECHANISM assembly, remove the two screws **F** attaching the loading motor assembly. (See Fig.9.)
 - (2) Remove the two roller springs on the top side of the mecha frame. (See Fig.9.)
 - (3) Remove the four SUS springs on the top side of the mecha frame. (See Fig.9.)
 - (4) Remove the link spring on the top side of the mecha frame. (See Fig.10.)
 - (5) Release section **f** of the three dampers from the mecha frame. (See Fig.10.)

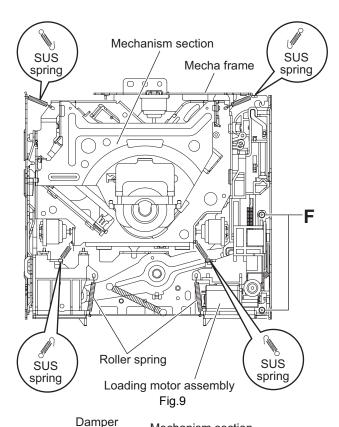
Reference:

When attaching the roller spring and SUS spring, keep direction before remove.

(6) Move the slide cam (R) assembly in the direction of the arrow, and then take out the mechanism section in an upward direction. (See Fig.10.)

Reference:

When attaching the mechanism section, apply grease to the section ${\bf g}$. (See Fig.10.)



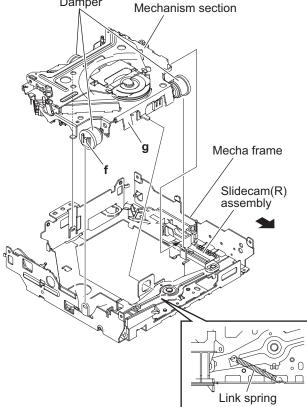


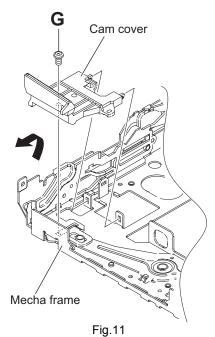
Fig.10

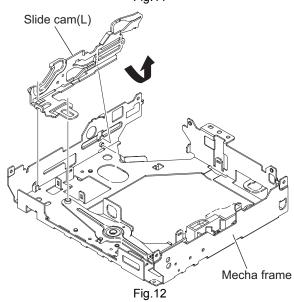
3.2.6 Removing the slide cam (L) (See Fig.11 to 13)

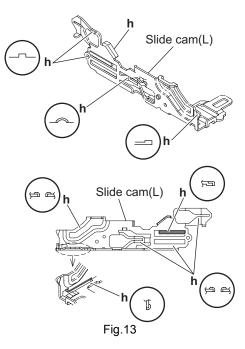
- Remove the MECHANISM CONTROL BOARD assembly, top cover and mechanism section.
 - (1) From the top side of the mecha frame, remove the screw **G** attaching the cam cover. (See Fig.11.)
 - (2) Take out the cam cover from mecha frame in an upward direction. (See Fig.11.)
 - (3) Take out the slide cam (L) in the direction of the arrow. (See Fig.12.)

Reference:

When attaching the slide cam (L), apply grease to the section ${\bf h}$. (See Fig.13.)





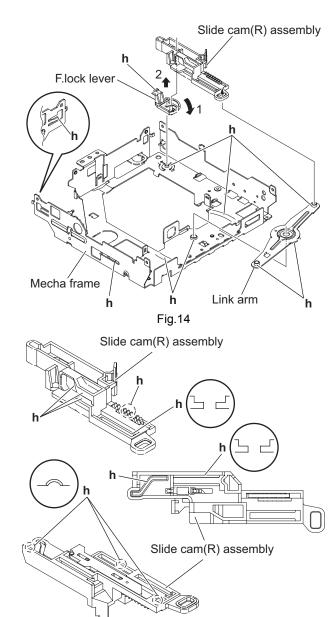


3.2.7 Removing the F.lock lever and slide cam (R) (See Fig.14 and 15)

- Remove the MECHANISM CONTROL BOARD assembly, top cover and mechanism section.
 - (1) From the top side of the mecha frame, take out the slide cam (R) assembly in an upward direction. (See Fig.14.)
 - (2) Rotate the F.lock lever in the direction of the arrow 1, and then take out the direction of the arrow 2. (See Fig.14.)

Reference:

When attaching the slide cam (R) assembly, the f.lock lever and the link arm apply grease to the section h. (See Fig.14 and 15.)



3.2.8 Removing the damper (See Fig.16)

 Remove the MECHANISM CONTROL BOARD assembly, top cover and mechanism section.

From the mechanism section, pull out the three dampers in the direction of the arrow.

Reference:

Before inserting the shaft to the dampers, apply IPA to the pocket ${\bf j}$ of damper.

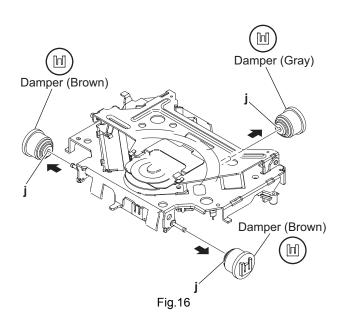


Fig.15

3.2.9 Removing the clamper assembly (See Fig.17)

- Remove the MECHANISM CONTROL BOARD assembly, top cover and mechanism section.
 - (1) From the top side of the mechanism section, release the clamper spring.
 - (2) Move the clamper assembly in the direction of the arrow, and then release the joints $({\bf k} \ {\rm and} \ {\bf m}).$
 - (3) Take out the clamper assembly from the T.M chassis assembly.

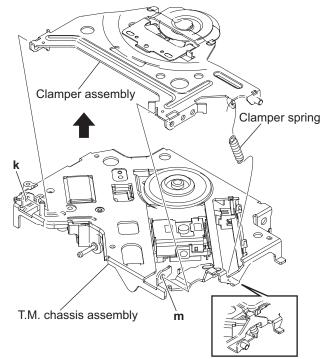


Fig.17

3.2.10 Removing the feed motor (See Fig.18 and 19)

- Remove the MECHANISM CONTROL BOARD assembly, top cover, mechanism section and clamper assembly.
 - From the bottom side of the T.M chassis assembly, remove the two screws H attaching the feed motor assembly. (See Fig.18.)
 - (2) Remove the two screws **J** attaching the feed motor to f.motor holder. (See Fig.19.)

Reference:

When attaching the f. wheel gear, trigger arm and feed motor, apply grease to the sections (n, p and q). (See Fig.18 and 19.)

3.2.11 Removing the SWITCH BOARD assembly (See Fig.18)

 Remove the MECHANISM CONTROL BOARD assembly, top cover, mechanism section, clamper assembly and feed motor assembly.

From the bottom side of the T.M chassis assembly, take out the SWITCH BOARD assembly in an upward direction from T.M chassis assembly.

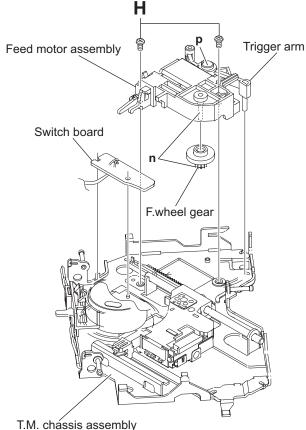
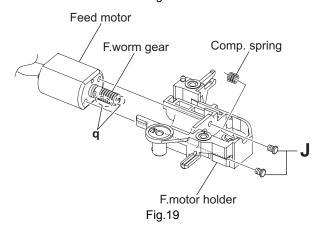


Fig.18

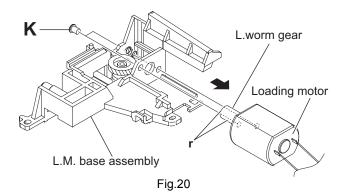


3.2.12 Removing the loading motor (See Fig.20)

- Remove the MECHANISM CONTROL BOARD assembly, top cover, mechanism section and clamper assembly.
 - (1) From the right side of the L.M base assembly, remove the two screws **K** attaching the loading motor.
 - (2) Take out the loading motor in the direction of the arrow from the L.M base assembly.

Reference:

When attaching the loading motor, apply grease to the section \mathbf{r} .



3.2.13 Removing the pickup assembly (See Fig.21 to 22)

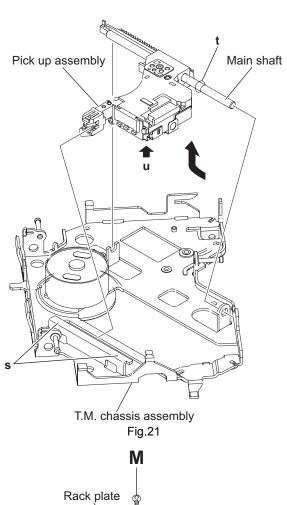
 Remove the MECHANISM CONTROL BOARD assembly, top cover, mechanism section, clamper assembly and feed motor assembly.

Caution:

- Do not touch section u on the pickup assembly. (See Fig.21 and 22.)
- (1) From the bottom side of the T.M chassis assembly, move the pickup assembly in the direction of the arrow from the T.M chassis assembly. (See Fig.21.)
- (2) Pull out the main shaft. (See Fig.21.)
- (3) Remove the screw **M** attaching the pickup to the rack plate. (See Fig.22.)

Reference:

When attaching the loading motor, apply grease to the sections ${\bf s}$ and ${\bf t}$. (See Fig.21.)



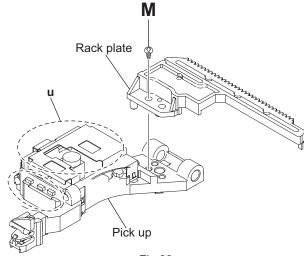


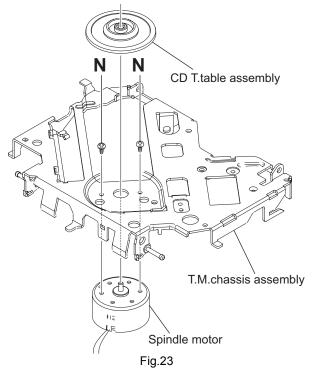
Fig.22

3.2.14 Removing the spindle motor (See Fig.23 and 24)

- Remove the MECHANISM CONTROL BOARD assembly, top cover, mechanism section, clamper assembly, feed motor assembly and pickup assembly.
 - (1) From the top side of the T.M chassis assembly, remove the CD T.table assembly from the spindle motor. (See Fig.23.)
 - (2) Remove the two screws ${\bf N}$ attaching the spindle motor. (See Fig.23.)
 - (3) Take out the spindle motor from the bottom side of the T.M chassis assembly. (See Fig.23.)

Reference:

When attaching the CD T.table assembly to the spindle motor shaft, apply loctite 460 to inside the CD T.table assembly. (See Fig.24.)



CD T.table assembly

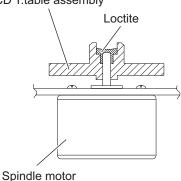


Fig.24

SECTION 4 ADJUSTMENT

4.1 Adjustment method

- ■Test instruments required for adjustment
 - (1) Digital oscilloscope (100MHz)
 - (2) Electric voltmeter
 - (3) Digital tester
 - (4) Tracking offset meter
 - (5) Test Disc JVC :CTS-1000
 - (6) Extension cable for check EXTGS004-26PL x 1
- ■Standard volume position

Balance and Bass &Treble volume: Indication"0"

Loudness: OFF

■How to connect the extension cable for adjusting

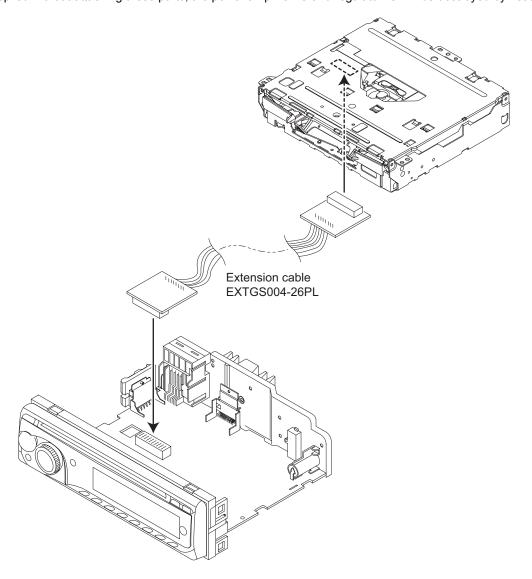
Caution:

Be sure to attach the heat sink and rear bracket onto the power amplifier IC and regulator IC respectively, before supply the power. If voltage is applied without attaching these parts, the power amplifier IC and regulator IC will be destroyed by heat.

■Standard measuring conditions Power supply voltage DC14.4V(10.5 to 16V) Load impedance 20K.(2 Speakers connection) Output Level Line out 2.5V (Vol. MAX)

■Dummy load Exclusive dummy load should be used for AM, and FM. For FM

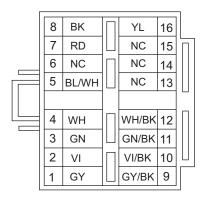
dummy load, there is a loss of 6dB between SSG output and antenna input. The loss of 6dB need not be considered since direct reading of figures are applied in this working standard.

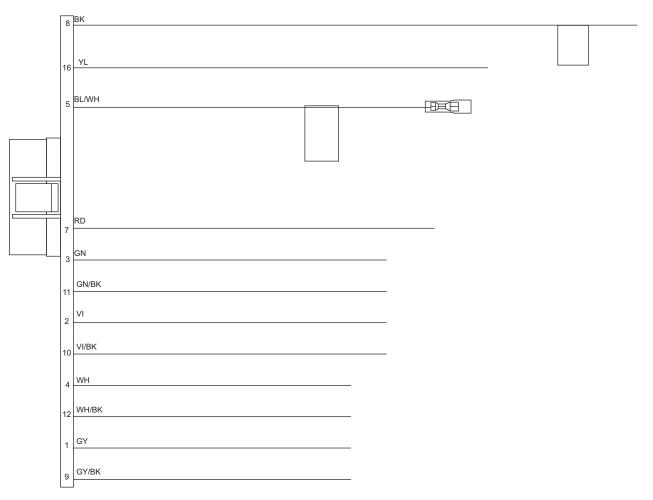


SECTION 5 TROUBLESHOOTING

5.1 16 PIN CORD DIAGRAM (for KD-G140, KD-G240)

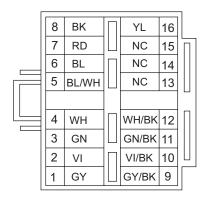
BK	Black	GN	Green
RD	Red	VI	Violet
BL	Blue	GY	Gray
WH	White	YL	Yellow

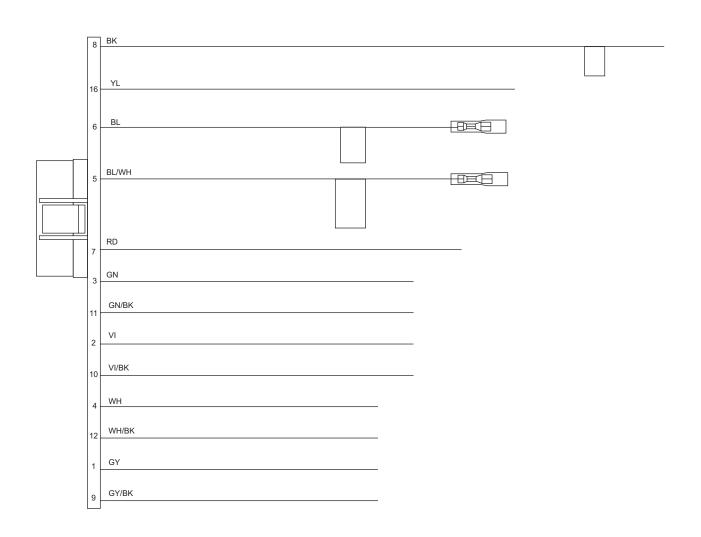




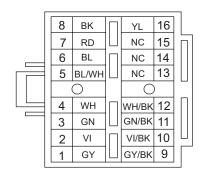
5.2 16 PIN CORD DIAGRAM (for Asia except KD-G248UF, KD-G398UF)

BK	Black	GN	Green
RD	Red	VI	Violet
BL	Blue	GY	Gray
WH	White	YL	Yellow

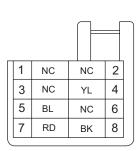


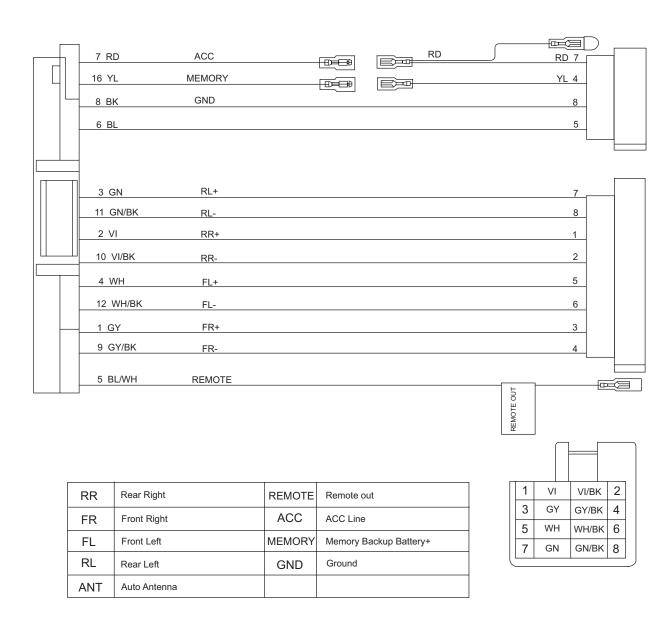


5.3 16 PIN CORD DIAGRAM (for KD-G248UF, KD-G398UF)

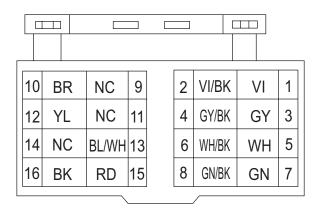


BK	Black	GN	Green
RD	Red	VI	Violet
BL	Blue	GY	Gray
WH	White	YL	Yellow

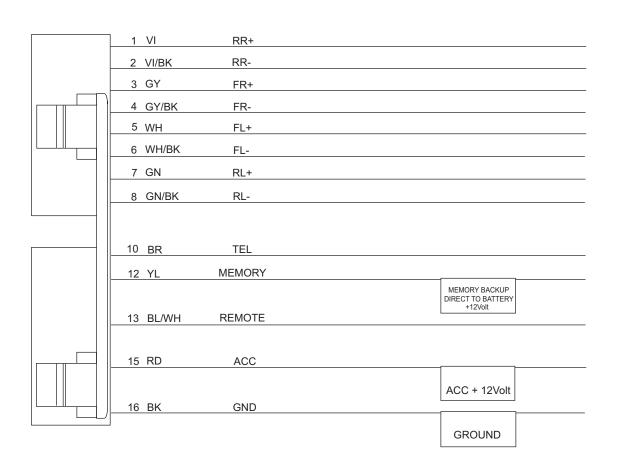




5.4 16 PIN CORD DIAGRAM (for Europe)

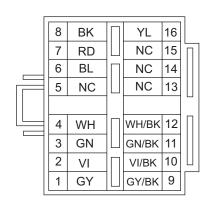


вк	Black	GN	Green
RD	Red	VI	Violet
BL	Blue	GY	Gray
WH	White	YL	Yellow
BR	Brown		

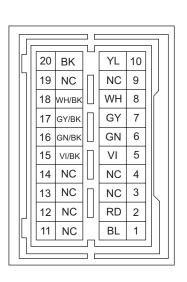


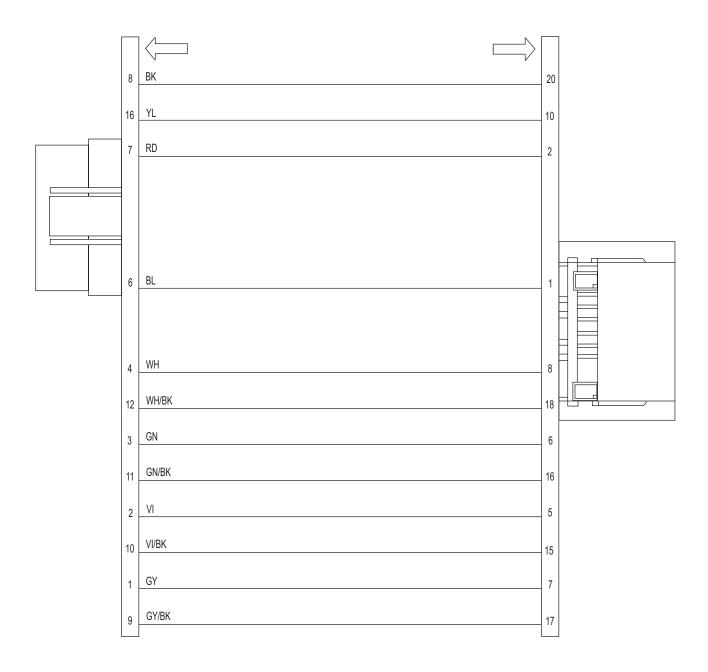
RR	Rear Right	ANT	Auto Antenna
FR	Front Right	ACC	ACC Line
FL	Front Left	TEL	Telephone Muting
RL	Rear Left	GND	Ground
REMOTE	Remote out	MEMORY	Memory Backup Battery+

5.5 16 PIN CORD DIAGRAM (for KD-G396S)

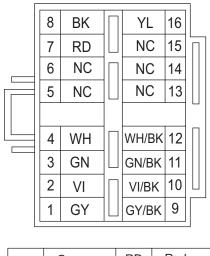


GY	Gray	BL	Blue
VI	Violet	RD	Red
GN	Green	BK	Black
WH	White	YL	Yellow

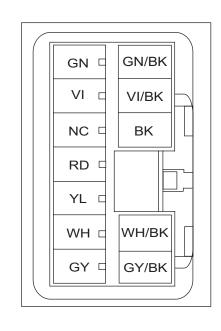


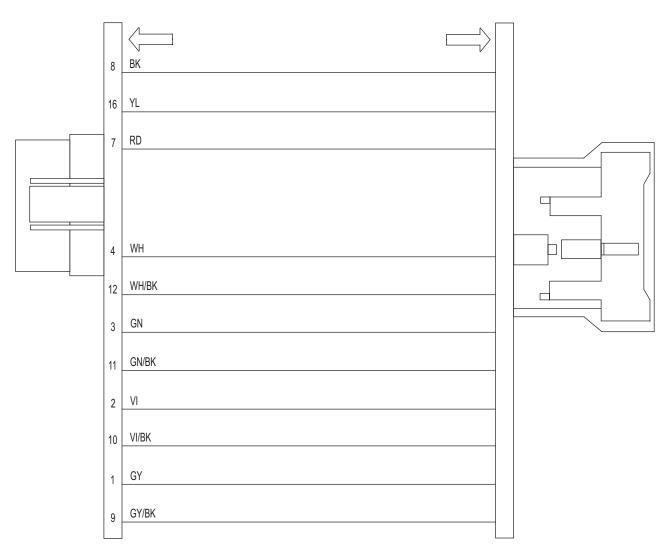


5.6 16 PIN CORD DIAGRAM (for KD-G396S)

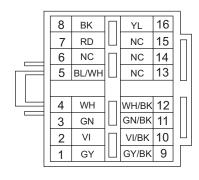


GY	Gray	RD	Red
VI	Violet	BK	Black
GN	Green	YL	Yellow
WH	White		

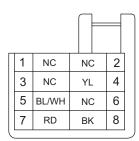


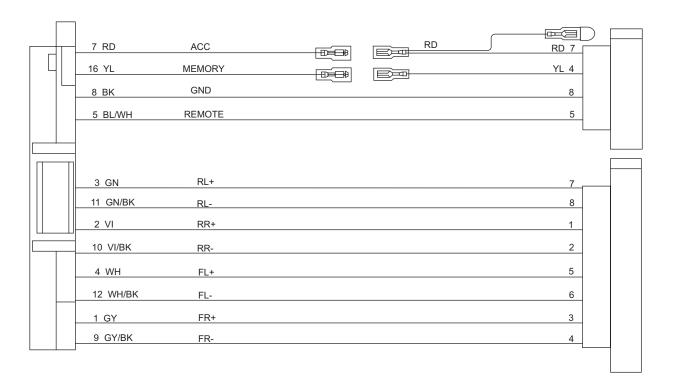


5.7 16 PIN CORD DIAGRAM (for KD-G299)

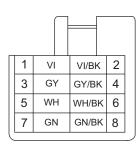


BK	Black	GN	Green
RD	Red	VI	Violet
BL	Blue	GY	Gray
WH	White	YL	Yellow





RR	Rear Right	REMOTE	Remote out
FR	Front Right	ACC	ACC Line
FL	Front Left	MEMORY	Memory Backup Battery+
RL	Rear Left	GND	Ground







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