



DVD
MICRO COMPO
Service Manual

Model: MC-8250DVD

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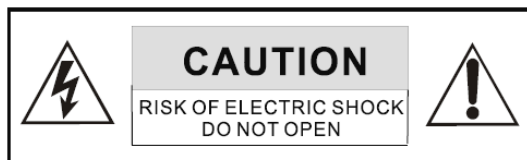
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CIRCUIT DIAGRAM

B.O.M LIST

SAFETY PRECAUTIONS



THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE UNIT'S CABINET THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE MANUAL ACCOMPANYING THE UNIT.

WARNING:

TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THE UNIT TO RAIN OR MOISTURE. NEVER ATTEMPT TO OPEN THE CABINET, DANGEROUS HIGH VOLTAGES ARE PRESENTED IN THE UNIT. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION:

TO PREVENT ELECTRIC SHOCK, MATCH WIDE- BLADE PLUG WITH WIDE SLOT AND FULLY INSERT.
THE APPARATUS SHALL NOT BE EXPOSED TO WATER AND NO OBJECTS FILLED WITH LIQUID SUCH AS VASES SHALL BE PLACED ON THE APPARATUS.

CAUTION:

THE UNIT EMPLOYS A LASER SYSTEM. TO ENSURE THE PROPER USE OF THE UNIT, READ THIS MANUAL CAREFULLY AND KEEP IT FOR FUTURE REFERENCE.

IF THE UNIT REQUIRES SERVICING, CONTACT THE SELLER OR SEE "TROUBLESHOOTING".

TO PREVENT DIRECT EXPOSURE TO THE LASER RADIATION, DO NOT OPEN THE CABINET. VISIBLE LASER MAY RADIATE WHEN THE CABINET IS OPENED OR THE INTERLOCKS ARE DEFEATED. DO NOT STARE INTO THE LASER BEAMS.

CAUTION:

THE DVD VIDEO PLAYER IS A CLASS 1 LASER PRODUCT. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
AS THE LASER BEAM USED IN THIS DVD VIDEO PLAYER IS HARMFUL TO THE EYES, DO NOT ATTEMPT TO DISASSEMBLE THE CABINET.
REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

WARNING:

FCC REGULATIONS STATE THAT ANY CHANGE OR MODIFICATION TO THE EQUIPMENT, NOT EXPRESSLY APPROVED BY MAKER OR ITS AUTHORIZED PARTIES, COULD VOID USER'S AUTHORITY TO OPERATE THIS EQUIPMENT.

IMPORTANT SAFETY INSTRUCTIONS

1. Read Instructions

All the safety and operating instructions should be read before the product is operated.

2. Retain Instructions

The safety and operating instructions should be retained for future reference.

3. Heed Warnings

All warnings on the product and in the operating instructions should be adhered to.

4. Follow Instructions

All operating instructions should be followed.

5. Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

6. Attachments

Do not use attachments not recommended by the product manufacturer as they may cause hazards.

7. Water and Moisture

Do not use this product near water for example, near a bathtub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.

8. Accessories

Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

9. Portable Cart Warning

A product and cart combination should be moved with care. Quick stop, excessive force, and uneven surface may cause the product and cart combination to overturn.

10. Ventilation

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

11. Power Sources

This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power or other sources, refer to the operating instructions.

12. Grounding or Polarization

This product may be equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

13. Power Cord Protection

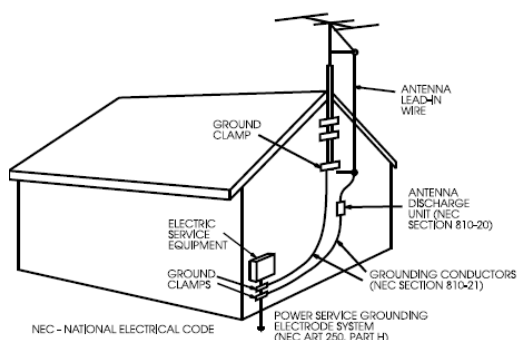
Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.



(Symbol provided by RETAC)

14. Outdoor Antenna Grounding

If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See figure below.



15. Lightning

For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power lines surges.

16. Power Lines

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

17. Overloading

Do not overload wall outlets, extension cords, or integral convenience receptacles, as this can result in a risk of fire or electric shock.

18. Object and Liquid Entry

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

19. Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

20. Damage Requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- A) When the power-supply cord or plug is damaged,
- B) If liquid has been spilled, or objects have fallen into the product,
- C) If the product has been exposed to rain or water,
- D) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation,
- E) If the product has been dropped or damaged in any way.
- F) When the product exhibits a distinct change in performance this indicates a need for service.

21. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

22. Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

23. Wall or Ceiling Mounting

The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

24. Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

SPECIFICATIONS

Disc type	DVD/VCD/CD/MP3/CD-R/JPEG
Input	AUX IN FM antenna input, AM antenna input
Output	Video output:1.0Vp-p(load 75 Ohm) Stereo output:2Vp-p (load 10K Ohm) Earphone output;800mVp-p(load 32 Ohm) Speaker output:8W+8W(Load 4 Ohm)
Voltage	AC 220V-240V~50/60Hz
Power Max.	46W
Frequency response	20Hz–20KHz(+/-3dB)

Accessories:

- 1) Instruction manual
- 2) AV line
- 3) Remote controller
- 4) AM antenna
- 5) AUX in cable (3.5mm jack).Not include

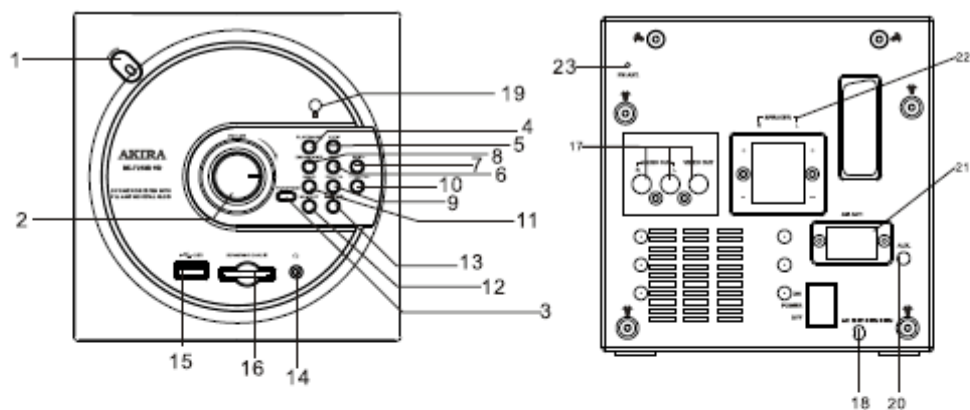
CAUTION!

THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

WARNING:

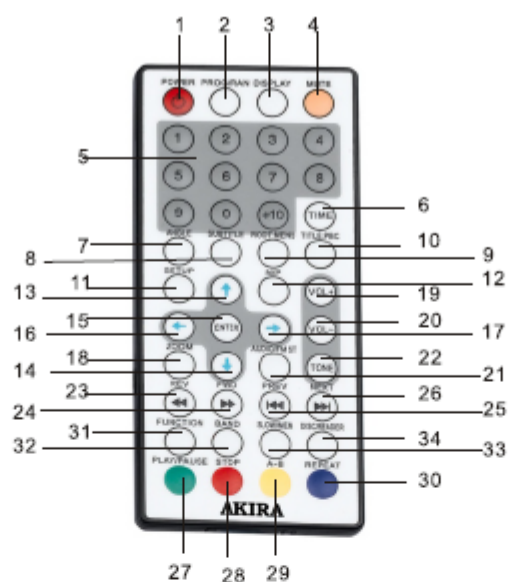
TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

APPEARANCE VIEW & FUNCTION



- | | |
|---------------|------------------------|
| 1.POWER | 12.MEMORY |
| 2.VOLUME | 13.FM.ST.L/R |
| 3.FUNCTION | 14.EARPHONE |
| 4.PLAY/PAUSE | 15.USB |
| 5.STOP | 16.SD/MMC/MS CARD |
| 6.SKIP- | 17.VIDEO OUT/AUDIO OUT |
| 7.SKIP+ | 18.AC220~240V ~50/60HZ |
| 8.DISC/READER | 19.IR |
| 9.REPEAT/TU- | 20.AUX IN |
| 10.TITLE/TU+ | 21.AM ANT |
| 11.BAND | 22.SPEAKER |
| | 23.FM ANT. |

REMOTE CONTROL



Remote controller usage

1.POWER	20.VOL -
2.PROG/RAN	21.AUDIO /FM/ST
3.DISPLAY	22. TONE
4.MUTE	23. REV
5. NUMERIC BUTTON	24. FWD
6.TIME	25. PREV
7.ANGLE	26. NEXT
8.SUB-TITLE	27. PLAY/PAUSE
9.ROOT MENU	28. STOP
10.TITLE.PBC	29. A-B
11.SETUP	30. REPEAT
12.PN	31.FUNCTION
13.UP	32.BAND
14.DOWN	33.MEMORY/SLOW
15.ENTER	34.DISC/READER
16.LEFT	
17.RIGHT	
18.ZOOM	
19.VOL+	

BASIC OPERATION

I. Startup

Press the POWER ON/OFF key to start up the device, and the TV screen will display “Reading”. If there is no any disc available, the TV screen will display “No disc”.

II. Placing disc

Press the OPEN key to open the DVD device tray, and the TV screen will display “Opening”. Load the disc into the device, close the DVD tray and the TV screen will display “Reading”. The device begins to read the information from the disc, and automatically plays the disc after reading. (Note: For some of the discs, when the types of the discs are read you have to press the PLAY key or the ENTER key before the device begins playing the disc).

III. Play

This device displays a function list for users' choice after reading the data inside the disc. Press the PAUSE key to switch between play and pause. This device can provide play modes such as function list play title play and sequence play.

1. Menu play

If a super VCD or VCD is available, the TV screen will display the function list image for super VCD and VCD.

2. Title play (only applicable to DVD)

- i. Press the “TITLE” key, and the title content is displayed on the TV screen.
- ii. Press the direction key to move the cursor, and select the desired title; or, you can use digits to select a title.
- iii. The device begins playing from the first chapter of the selected title.

3. Sequence play

- i. In case of a super VCD or VCD, you can press the “PBC” key in the MENU PLAY ON state to switch to MENU PLAY OFF for sequence play; press “PBC” once more, and switch back to the MENU PLAY ON state.
 - ii. In addition to a super VCD and VCD, you can directly press the “PLAY” key in the stop state to realize the sequence play function.
- This function is valid for all discs applicable to the device.

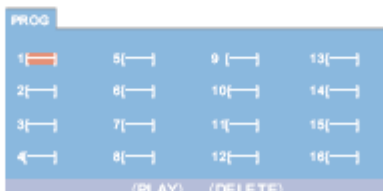
4. Programming play

You can use the programming play function to play a maximum of 16 songs according to the listed sequence on a random basis.

1.DVD/MP3/WMA Display PROG as follows:



2.CD/VCD Display PROG as follows:



5. Output interface

Video/audio output

FUNCTION OPERATIONS

I. Direct selection

1. For DVD, you can directly select a song on the function list page or the title page; during play, you can directly select the title.
2. For a super VCD or VCD, you can directly select a song during play.
(In the programming play state and MENU PLAY ON state, you cannot directly select a song, instead, you can only press PREV or NEXT key for selection).
3. For CD, CD-R, HD-CD you can directly press the digit keys for selection.
4. For WMA, MP3/MP4 and JPEG, you can directly press the digit keys to select the songs in the current list.

II. PREV/NEXT

1. Press the NEXT key to select the next title/chapter/song.
2. Press the PREV key to select the previous title/chapter/song.

III. REV/FWD

You can use the REV/FWD function during play. This device provides four ratings of FWD speeds. Press the FWD key to select the speed. You can select the speed by pressing the key for different times, namely, FWD x 2, FWD x 4, FWD x 8, FWD x 20 and play.

During REV/FWD, you can press the PLAY key to return to normal speed.

IV. Multi-rating slow play

When playing motion pictures, you can use the function for slow play.

This device provides six ratings of slow play. Press the SLOW PLAY key to select different speeds. You can select the speed by pressing the key for different times, namely, SLOW PLAY x 1/2, SLOW PLAY x 1/3, SLOW PLAY x 1/4, SLOW PLAY x 1/5, SLOW PLAY x 1/6, SLOW PLAY x 1/7, and play. During slow play, you can press the PLAY key to resume the normal speed.

V. Pause/play

You can press the PLAY/PAUSE key to enter the pause state. Press the play key or press the PAUSE key once more to resume the normal play state.

VI. Repeat

Press the key for the first time, and the current repeat mode is displayed.

This device provides three repeat modes. Press the REPEAT key to select the mode. You can choose different repeat modes by pressing the key for different times.

- 1.MP3/WMA Display:“Repeat:[off]Repeat:[Repeat one],Repeat:[Repeat dir], Repeat: [Repeat all]”.
- 2.CD/VCD Display:“Repeat:[off]Repeat:[Repeat one],Repeat:[Repeat all]”.
- 3.DVD Display:“Repeat:[off]Repeat:[Chapter],Repeat:[Title]”.

VII. Display

This device provides state display. Press the DISPLAY key on the remote controller to display the currently played title, chapter, time and other supporting information in the pull-down function list on the screen.

VIII. Time

This function is used to play starting from the point specified by the user.

Press the TIME key on the remote controller, the pull-down function list is displayed, and you enter the edit state. Key in the title/chapter/song to be viewed by pressing the digital keys (0-9, 10+) on the remote controller according to the location of the cursor, or input the whole disc search time. The moving of the cursor between various items is executed by the direction key. After editing, press the ENTER key to start playing from the set play point. If an unreasonable play point is entered there will be a prompt "Invalid key" displayed on the TV screen.

Note:

1. The TIME key is invalid in the programmed play state.
2. In the MENU PLAY ON state, the PBC is automatically off when search begins.
3. This function is unavailable when playing SD/MMC/MS、USB、WMA and Mp3 discs.

IX. AUDIO

Press this key for the first time to display the current audio mode.

1. Press this key to realize audio switchover.

Note:

For bilingual VCD, you can press the AUDIO key to select the desired language.

X. SUBTITLE

Press this key for the first time to display the currently used caption language mode.

For multilingual DVD or super VCD with captions, you can press this key to select the desired language caption.

XI. ANGLE

Press this key for the first time to display the currently played angle. For DVD with multiple angles, you can press this key to select the desired angle.

The availability of the angles and the total number of them depend on different discs. If there is no optional angle information for discs the TV screen will display "Invalid key".

XII. SYSTEM

Press this key for the first time to display the currently used system.

This device provides four systems, namely:NTSC, PAL60, PAL and AUTO. Press this key to switch between video output systems.

XIII. MUTE

Press the MUTE key on the remote controller, the audio output is closed and "MUTE" is displayed on the LCD screen. Press the key once more or press "VOL+" and "VOL-" to cancel the mute state and then audio output is opened.

XIV. ZOOM

1. Press the ZOOM key on the remote controller to zoom the image.

This device provides six zoom modes. Press the key and you can select them in cycle: Zoom 2, Zoom 3, Zoom 4, Zoom 1/2, Zoom 1/3, Zoom 1/4, Zoom: close”.

This key is invalid when the function list of the disc is played.

3. In case of Zoom 2, Zoom 3, Zoom 4, you can use direction keys (← → ↑ ↓) to move pictures. You can zoom in the various parts of the picture as desired.

XV. A-B repeat

1. During normal play, fwd or rev, you can press the A-B repeat key to repeat the segment starting from (A), and the TV screen will display “Repeat A-:”.

2. During normal play, fwd or rev, you can press the A-B repeat key to repeat the segment at the ending point (B), and the TV screen will display “Repeat A-B:”.

The device automatically returns to point A, and starts to replay the selected segment (A-B).

3. Press the key for the third time, and the TV screen will display: “Repeat cancelled”.

Note: For super VCD, VCD and CD, you can only specify segments in a song after change of the song, the “A-B repeat” function is automatically cancelled. For DVD, you can only specify segments within the title/chapter.

XVI. Volume

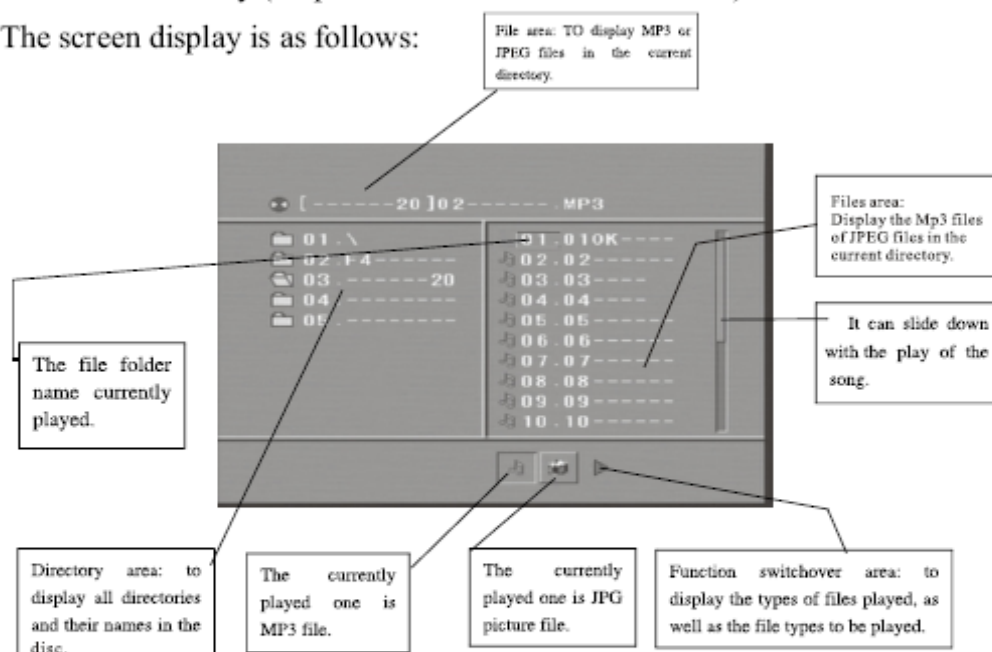
You can turn the VOLUME knob on Unit or press “VOLUME+/VOLUME-” on remote control to adjust the volume, to increase the volume, press “VOLUME+” key or turn the VOLUME knob clockwise. To decrease the volume, press “VOLUME-” key or turn the volume knob anti-clockwise.

NOTE: The volume level only can display on LCD.

PLAYING WMA, MP3/MP4/JPEG

After an MP3/JPEG disc is loaded, the device will automatically search the various directories stored in MP3/JPEG. After searching, it will first enter the first directory of MP3 (for discs storing mixed files, it will enter the first directory for discs of single file type), and play the first song under the directory (suspend the cursor at "01: location").

The screen display is as follows:



You can use the direction keys to enter the directory area to select the desired directory. At the same time, the first song under the directory is played. By using the direction keys, you can enter the file area to select the desired file to be played.

Note:

1. Press the left and right direction keys to shift highlight among directory area, file area and function switchover area.

2. The highlight in the directory area and file area is illustrated in the figure above. It is a transparent rectangle inside the function switchover area.

3. You can move the highlight within the function switchover area by using left and right direction keys, and confirm the implementation function with the selection key. The meanings of “M”, “P” and “G” keys are illustrated in the figure. The letter above the optional key is white while this file does not exist when the display is black; the key for the chosen one (being played) becomes darker in color.

4. You can press digit keys to select a file in the directory.

For example, to play the 15th song in the current directory, you can first press the “10+” key, then press the “5” key, and the 15th song is played.

Note: MP3 discs do not show images, and there is only audio output for them.

5. In picture play or pause, you can use up/down/left/right direction keys to switch the display angles of the picture;

UP: Roll from top to bottom

DOWN: Roll horizontally

LEFT: Roll in the left for 90 degrees

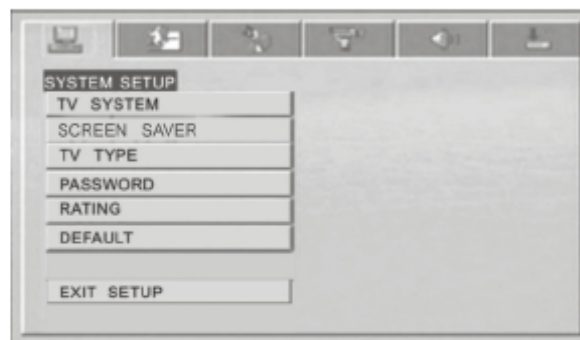
RIGHT: Roll in the right for 90 degrees

FUNCTION SET UP

1. Steps for DVD function setup

1. Press the SETUP key, and the TV screen will display the main function list for setup:

After entering the setup function list, the system will automatically turn into pause state.



2. Press directions keys (↓ ←) to move the cursor (highlight) to the desired group, and then press direction keys (← →) to enter the function list for the item setup;

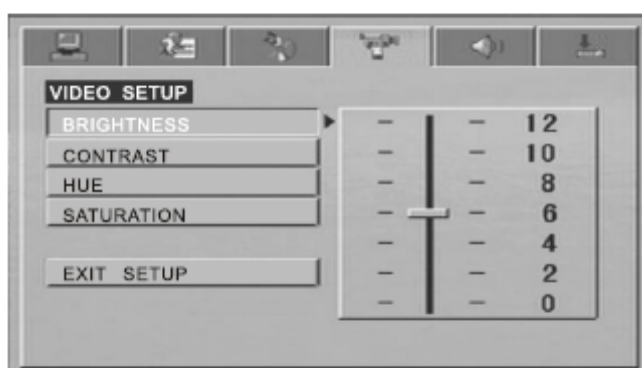
For example, to set up video items, you can press direction keys (←, →) to move the cursor (highlight) to the "Video setup page", and the TV screen will display the video setup page.



3. Press direction keys (↓) to move the cursor (highlight) to the desired item to be set up, press the Enter key for confirmation or direction key (↓) to enter the function setup list;

For example, press direction key (→) to move the cursor (highlight) to BRIGHTNESS, press ENTER for confirmation, and the TV screen displays options for brightness.

Use direction keys (↑ ↓) to move the slide block for brightness setup of video output.



4. Press direction keys to move the cursor (highlight) to EXIT SETUP then press ENTER to exit from the function setup list.

Note:

To set up functions, press the following keys to cancel the function setup state. However, the finished setups are still valid: system, caption, fwd, rev, volume+/-, PBC, title, play, stop, pause, prev/next, slow play, zoom, programming repeat, A-B, angle, sound channel, mute and setup.

II. Description of various setups

(I) System setup

The setup structure is as follows:



◎ TV system

Select according to the color systems of the TV connected.

You can choose "AUTO" for multiple TV systems;

You can choose "NTSC" option for NTSC TV;

You can choose "PAL" option for PAL TV;

You can choose "PAL60" for PAL60 TV;

Initial value setup: PAL system.



◎ Screen saver

Start up the screen saver function. When the device stays in the state of stop open, no disc or static image for about 60 seconds, the screen saver image appears. Screen saver is used for preventing the display from being damaged.

On: to start up screen saver.

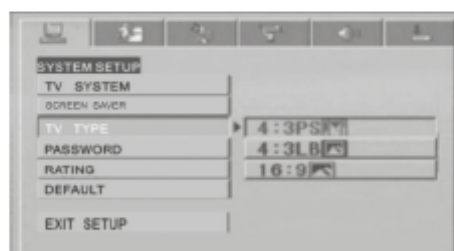
Off: to cancel screen saver.

Initial setup: on



◎ TV TYPE

1. 16:9 (wide screen): choose this option when the device is connected with wide-screen TV sets.
 2. 4:3LB (mailbox): choose this option for TV sets of traditional sizes. When playing wide-screen images, black edges will appear on top and bottom of the TV screen.
 3. 4:3PS (panorama scanning): applicable to TV sets of traditional sizes. When playing wide-screen images, the left and right edges of the image will be removed, so that the image is mapped into the whole screen.
- Initial setup: 16:9 (wide screen).

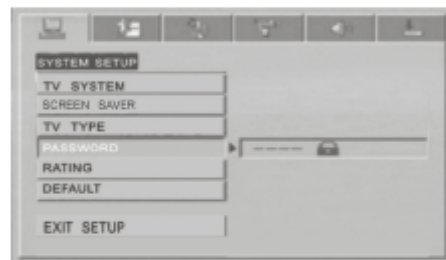


Note:

1. The play effect is related to the picture proportion of the recorded disc some discs cannot be played according to the picture sizes you choose.
2. For discs with only 4:3 mode, the played size can be only 4:3 despite different setup of screen proportion.
3. The picture proportion shall be consistent with the actual TV screen proportion.

© Password

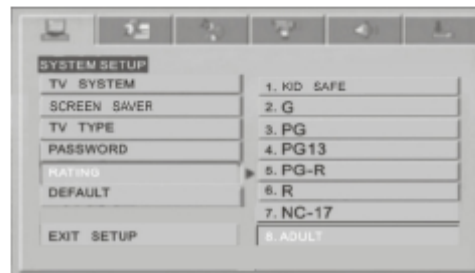
The initial setup of the item is “Password locking”. At the time you cannot select the “Rating” item, and the password cannot be changed. To set up the “Rating” item, you need to press digit keys to input the device's initial password 0000, and then press the Select key for confirmation. To change a password, you have to input the old one first and then input the new one. (Valid passwords shall consist of four digits).



© Rating

To play a disc with locking function, you can choose appropriate levels for age control according to the disc's rating and your actual needs.

- Age control ratings: kid safe,g,pg,pg13,pg-r,rnc-17,adult.



Note:

The rating selection can be done only after the password is decrypted.
It works only when the password is valid.

(II) Language setup

The setup structure is show as below:



© Enter the OSD language setup, press direction keys to select the desired “Picture display language” option, and then press ENTER for confirmation.
Two languages are available: English, Spanish.



© Enter the Audio LANG setup, press direction keys to select your desired “Audio language” option, and then press the ENTER key for confirmation;
Eight languages are available, namely: Russian, English, Japanese, French, Spanish, Portuguese, German and Korean.



© Enter the SUBTITLE LANG setup, press direction keys to select your desired “Caption language”, and then press ENTER for confirmation.

Eight modes are available, namely: Russian, English, Japanese, French, Spanish, Portuguese, German and Korean.



© Enter the MENU LANG setup, press direction keys to select your desired Function list language, and then press ENTER for confirmation.

Eight languages are available, namely: Russian, English, Japanese, French, Spanish, Portuguese, German and Korean.

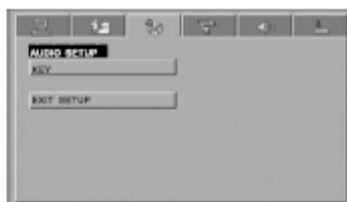


Note:

If the language you choose is not included in the DVD, this device will automatically select the recording language in the disc.

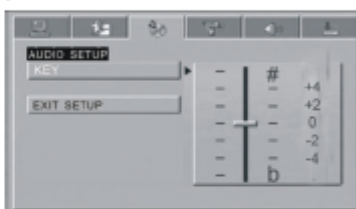
(III) Audio setup

The setup structure is as follows:



◎ Key

Use direction keys (**↑** **↓**) to move the sliding block to adjust the volume.



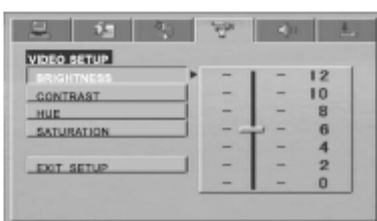
(IV) Video setup

The setup structure is as follows:



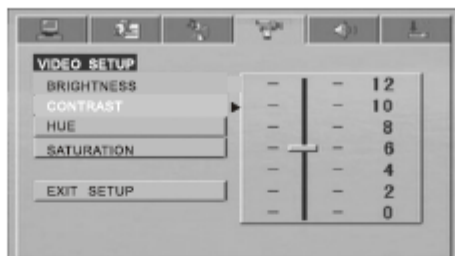
◎ Brightness

Use direction keys (**↑** **↓**) to move the sliding block to set up the brightness for video output.



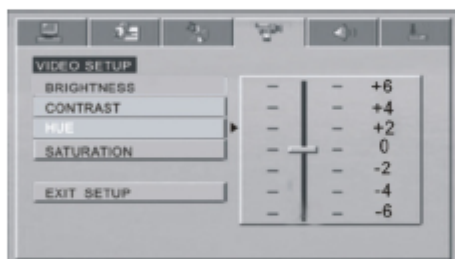
© Contrast

Use direction keys (**↑ ↓**) to move the sliding block to set up the contrast for video output.



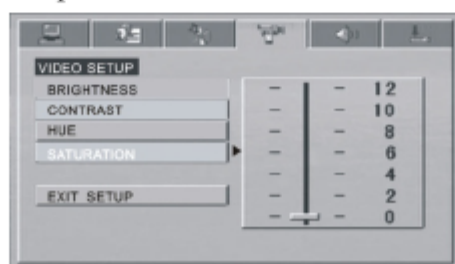
© Hue

Use direction keys (**↑ ↓**) to move the sliding block to set up the hue for video output.



© Saturation

Use direction keys (**↑ ↓**) to move the sliding block to set up the saturation for video output.



(V) Speaker setup

The setup structure is as follows:



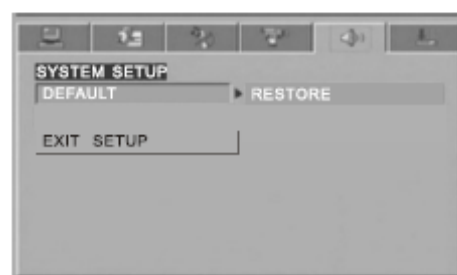
Downmix

- (1) LT/RT: When there is PRO LOGIC Dolby effect in the disc being played, select the option, and the decoding system inside the device can present theater effect.
- (2) Stereo; there are two channels of signals for the left and right sound channels, in case of two channels output, the audio output presents stereo signals.

(VI) Default

The setup structure is as follows:

Select the option, and the various function setups resume to the initial state.



(VII) SD/MMC/MS/USB play

1. SD/MMC/MS/card and USB reading function
2. Insert SD or MMC, MS and USB into the corresponding interface of the device, the power of the device will be at the location of ON , at the time, press the switch button “DISC/READER” to read the contents stored in SD/MMC/MS/USB.

Note: This device can play WAV files in SD, MMC, MS or USB only and the WAV files in the subdirectory cannot be played.

Troubleshooting

Before maintenance, please check it against the following table, so as to find the possible reasons. A simple check or adjustment may help you solve the problem. If you have any problems, or you cannot use the methods mentioned in the table to solve the problem, please have it done by professional personnel.

TROUBLESHOOTING

Before requesting service, make the below checks. If you can't fix the unit as described below, or if something not listed here occurs, refer to the enclosed directory to locate an Authorized Service Center convenient to you or contact your dealer.

If an erroneous display or malfunction occurs

Turn off the unit and turn on again to reset.

If the unit cannot be reset in the way above, disconnect the AC cord and remove all the batteries to turn off.

Leave the unit for a while and turn the power back on.

CD	
CD won't play or CD display is incorrect.	Place the CD label facing up. Wait for an hour for condensation to dry and try again.
Certain sections are not played properly.	Clean the CD. Replace the CD if it is scratched, warped, or nonstandard.
Cassette deck	
Recording is not possible.	If the cassette's tabs have removed, cover the holes with adhesive tape.
Poor sound quality.	Clean the heads.
Radio	
A lot of noise of difficult to tune.	Interference may be caused by other equipment or the use of its remote control. Turn the other equipment off or separate this unit from them.
Remote control	
The remote control doesn't work.	Check the batteries are inserted correctly. Replace the batteries if they are worn.
The unit can't be turned on from the remote control.	Turn the unit on from the main unit if you are using batteries to power the unit.

NO.	Depiction	Material	Qty.	NO.	Depiction	Material	Qty.	NO.	Depiction	Material	Qty.
31	面壳(Front Cabinet)	ABS	1	16	AM天线夹(Clip for AM Line)		1	1	圆镜片(Ring Lens)	PVC	1
32	电镀装饰圈(Decoration Circle)	ABS/Plating	1	17	外接输入(Auxin)		1	2.	CD门(CD Door)	ABS	1
33	面镜片(Front Lens)	Acryl	1	18	主板支架A(Main-PCB Bracket-A)	ABS	1	3	门锁扣(Lock Clasp)	ABS	1
34	面装饰板(Decoration Sheet)	ABS/Decoration /Plating	1	19	主板支架B(Main-PCB Bracket-B)	ABS	1	4	CD触动开关(CD Lontact Swith)		1
35	音量钮(Volume Key)	ABS/Plating	1	20	LCD支架(LCD Bracket)	ABS	1	5	CD 架(CD-Bracket)	ABS	1
				21	LCD 背光板(LCD Backlight panel)		1	6	收音板(Radio PCB)		1
				22	LCD显示镜(LCD Display)		1	7	门锁片(Door Locking Piece)	ABS	1
				23	UCB插座(USB-Socket)		1	8	门锁架(Door locking Bracket)	ABS	1
				24	SD/MMC卡座(SD/MMC Socket)		1	9	机芯(Mechanism)		1
				25	耳机插座(Earphone Socket)		1	10	喇叭线夹(Clip for Speaker Line)		1
				26	USB-PCB		1	11	电源开关(Power ON/OFF)		1
				27	开关按钮灯(Lamp Lens for power)	AS	1	12	后壳(Bottom Cabinet)	ABS	1
				28	电镀开关按钮(Power Key)	ABS/Plating	1	13	AV线夹(AV Socket)		1
				29	电镀按钮组(Plating Key Group)	ABS/Plating	1	14	压线片(Pressed Plate)	ABS	1
				30	录音按钮(REC Key)	ABS/Plating	1	15	变压器(Transformer)		1

4

3

2

1

A

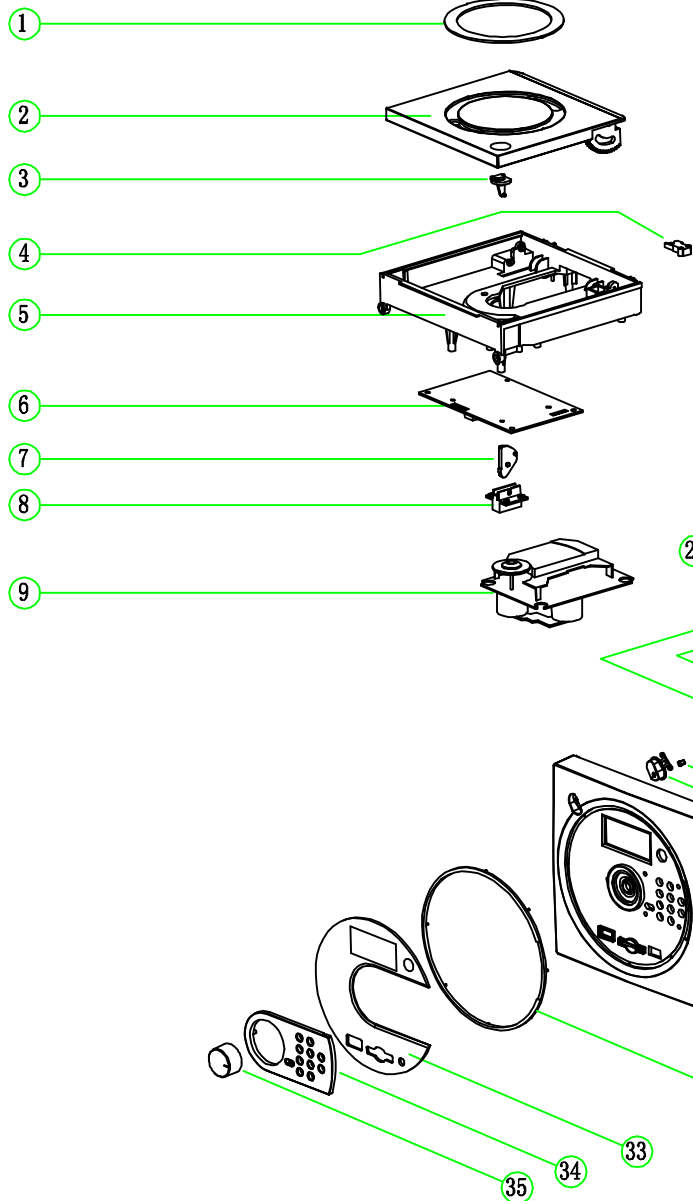
B

C

D

E

F



4

3

2

1

A

B

C

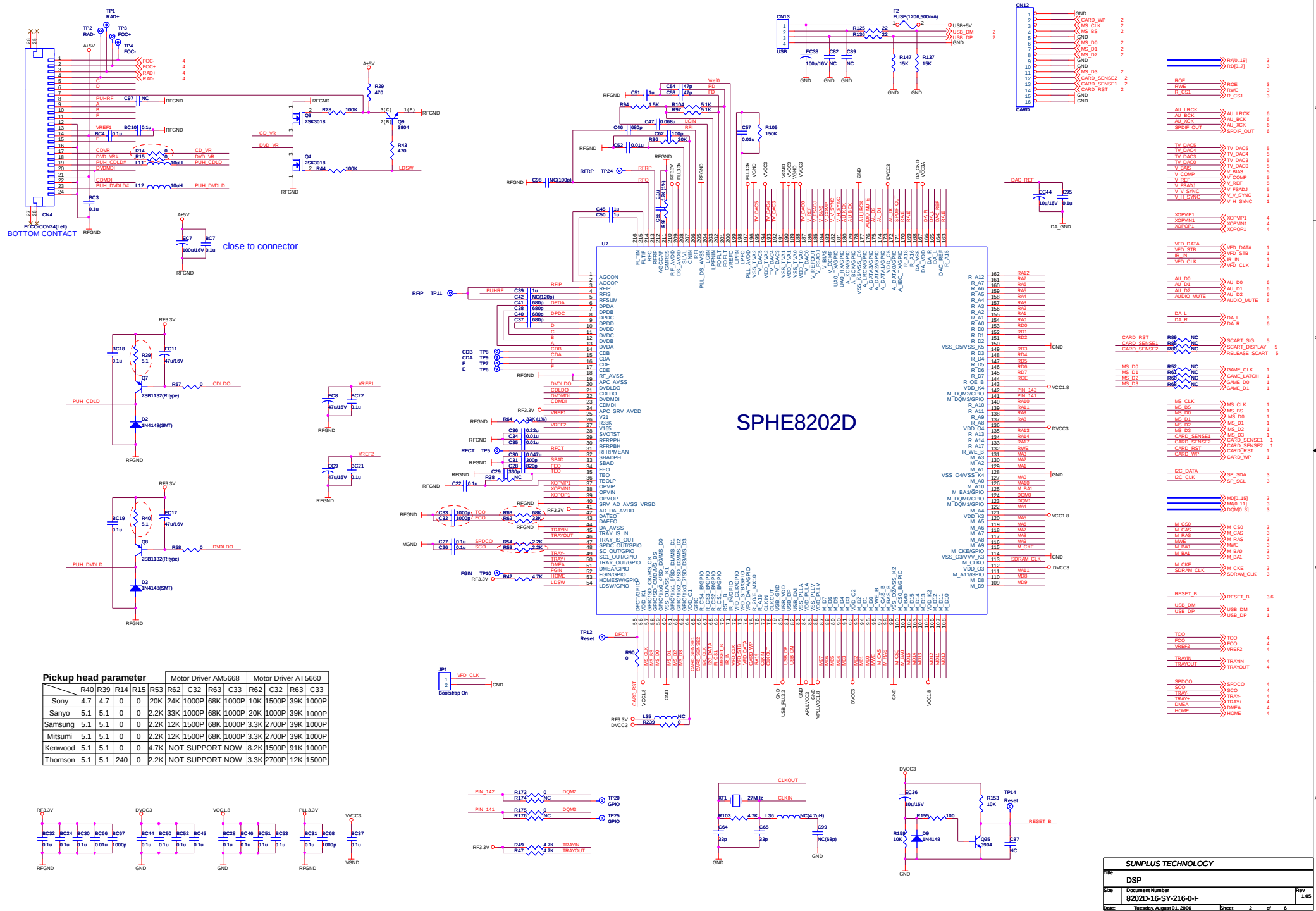
D

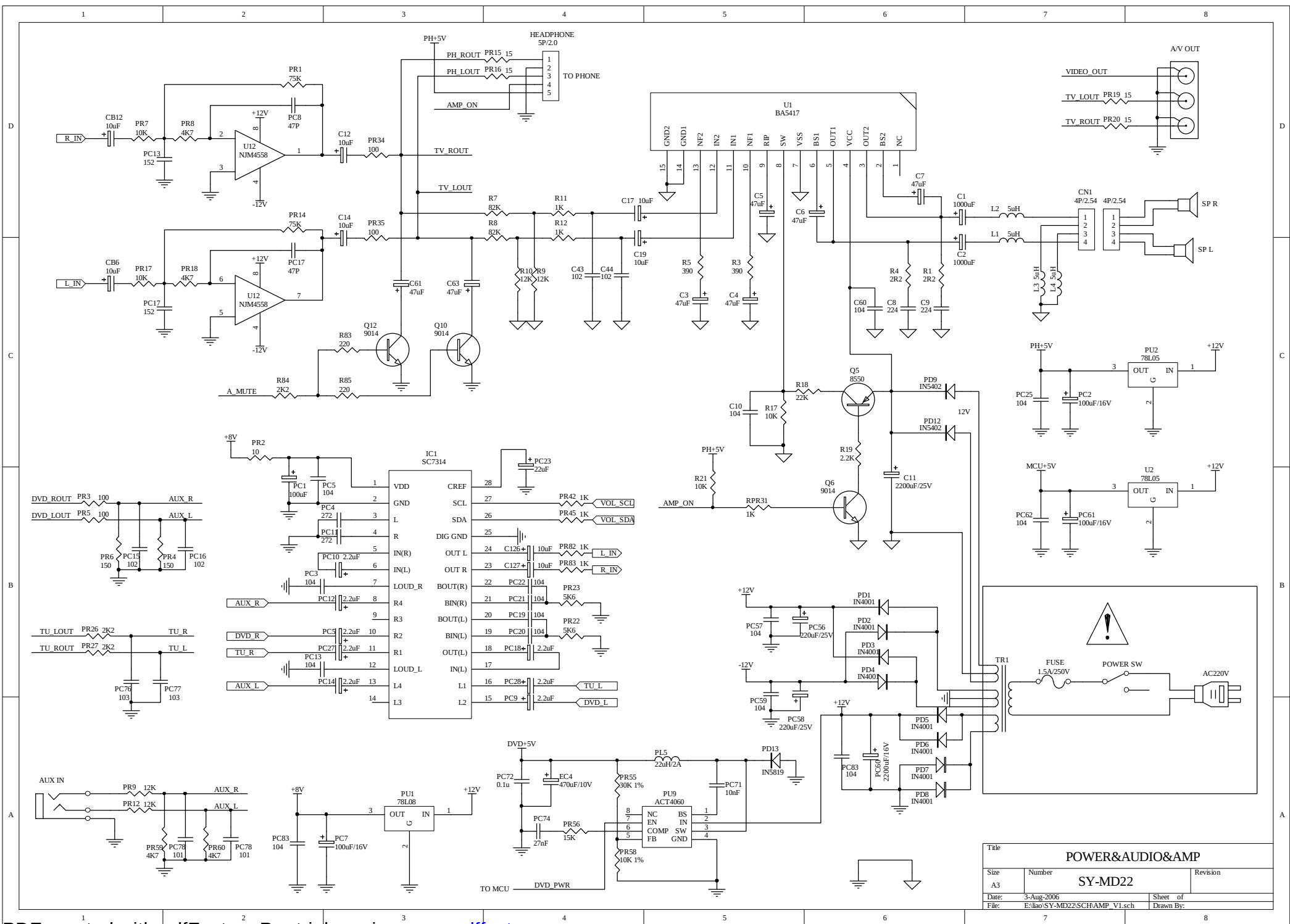
E

F

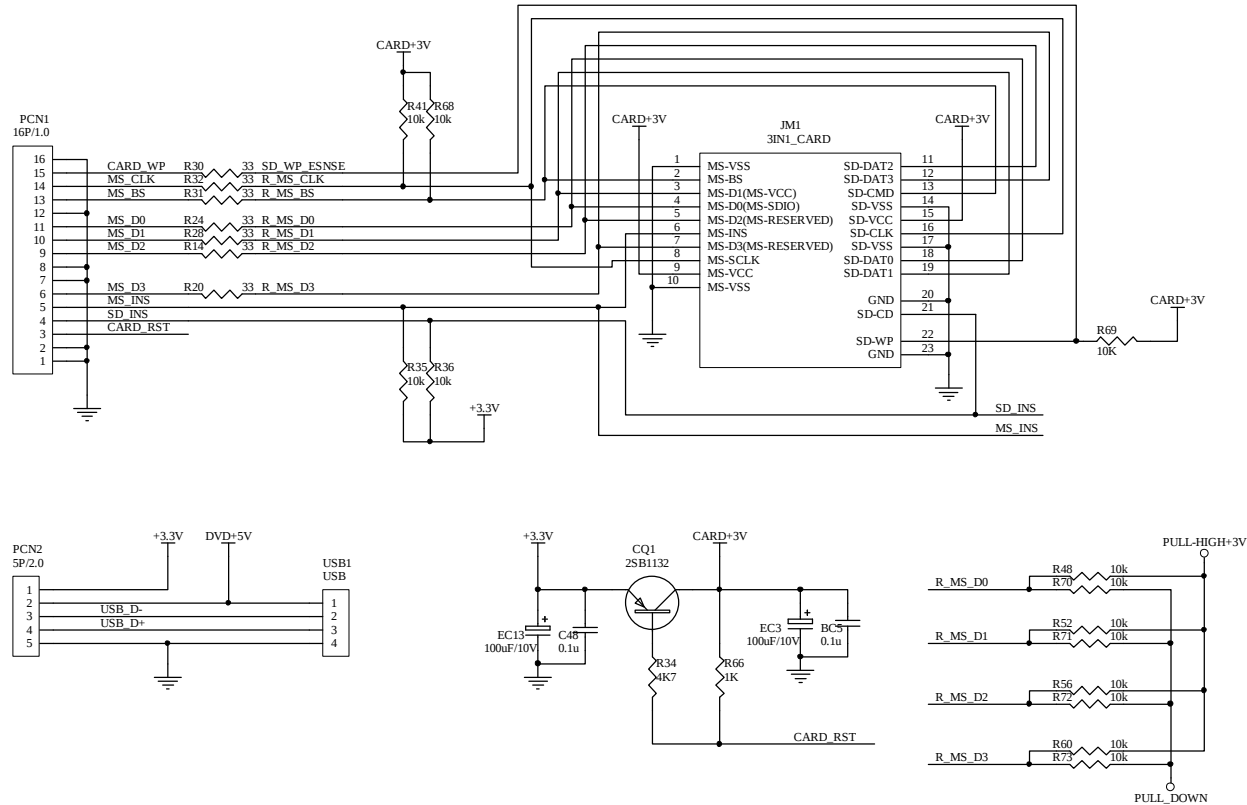
DESIGNED BY:						APPROVED BY:					
SCALE	1:6	EDITION		QUANTITY	1	A4					

APPENDIX

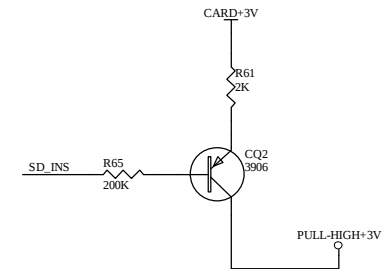




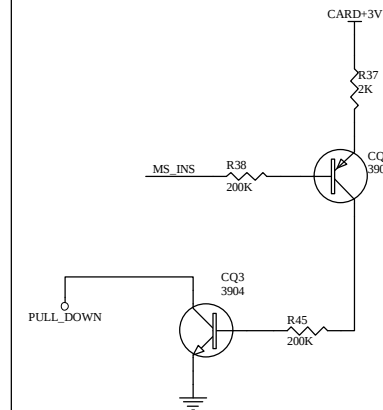
SD&USB PART



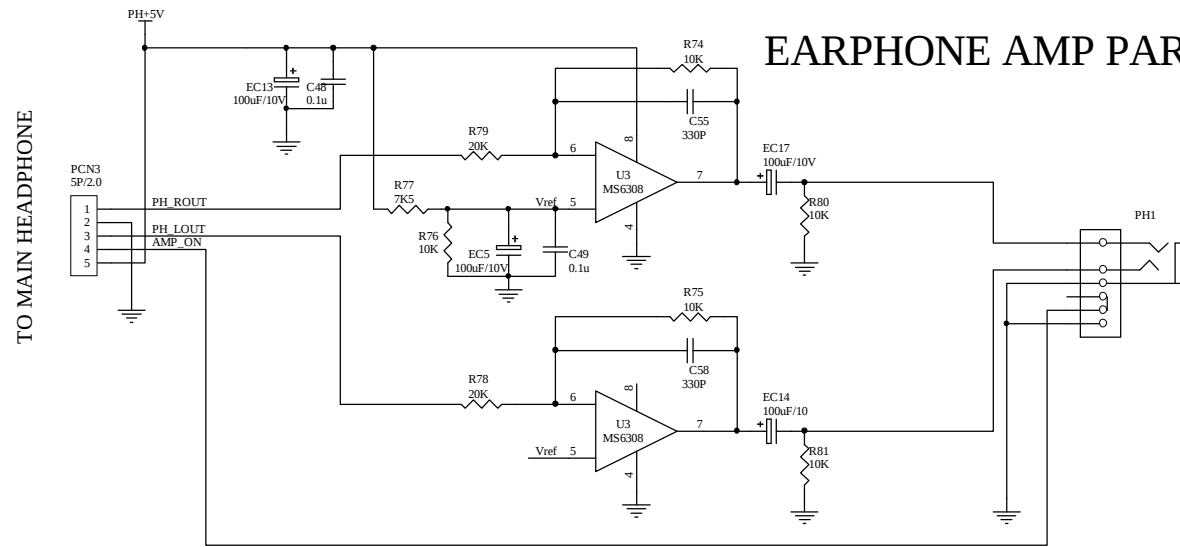
When SD card insert, pull up



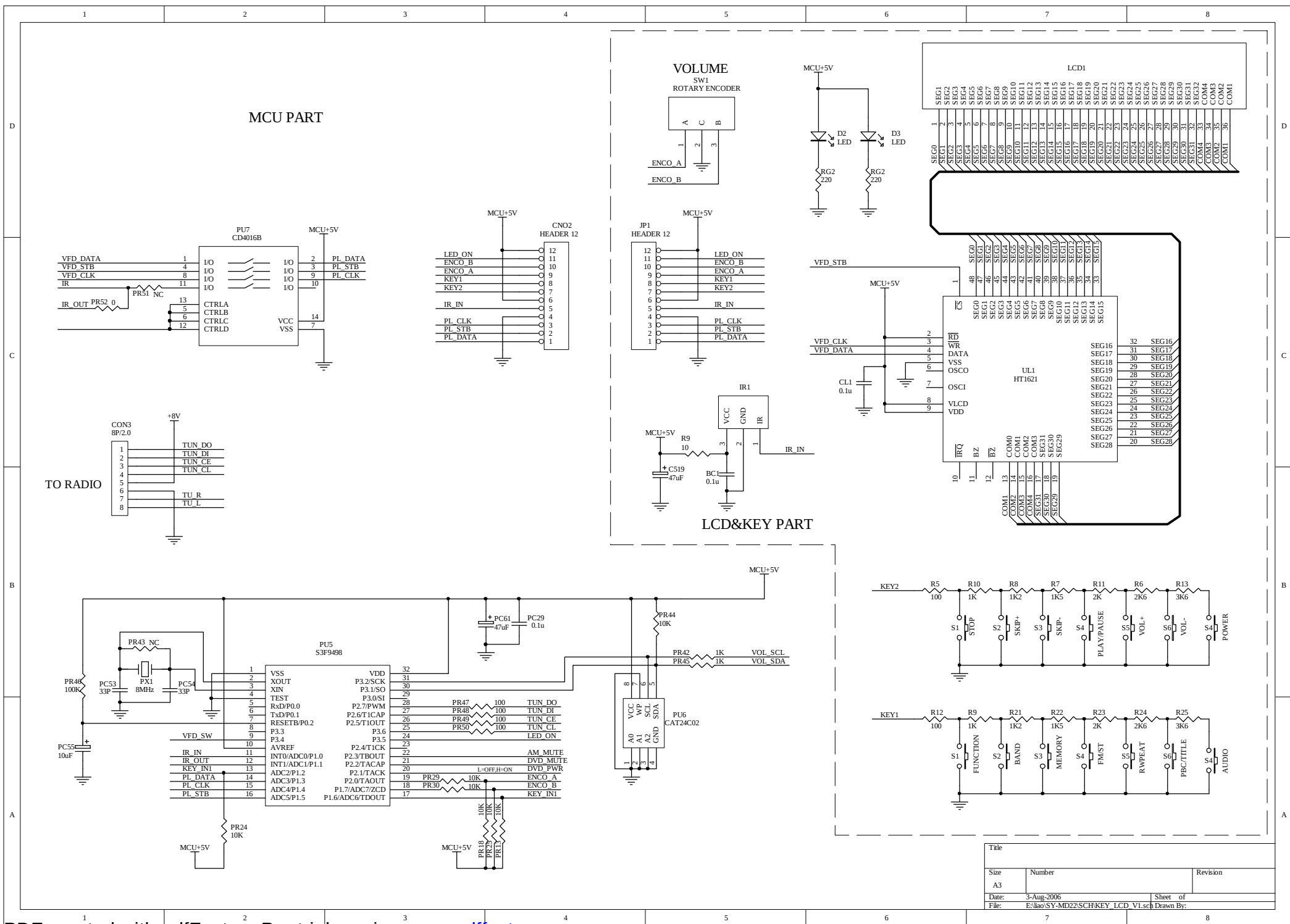
When MS card insert, pull down



EARPHONE AMP PART



Title			
SDUSB&EARPHONE			
Size	Number	Revision	
A3	SY-MD22		
Date:	3-Aug-2006	Sheet of	
File:	E:\lao\SY-MD22\SCHSDUSB_PH_V1.sp	Drawn By:	



B.O.M List

S/No.	PART CODE	PART NAME	SPECIFICATION	QTY	LOCATION
1	115-3MD22V2-01	MD22(5417)MAIN PCB	2 LAYER 166.3*156*1.2(mm)	1	
2	115-1MD22V1-08	MD22AVOUT PCB	SINGLE LAYER 42.5*30*1.2(mm)	1	
3	105-*AM5888S-1	CHIP IC	AM5888S	1	U4
4	105-PHE8202D-1	CHIP IC	SPHE8202D-D	1	U7
5	105-CAT24C02-1	CHIP IC	CAT24C02(24LC02) SO-8	2	U5,PU6
6	105-*NJM4588-1	CHIP IC	NJM4558 SO-8	1	U12
7	105-42S16400-1	CHIP IC	IS42S16400-7T (SDRAM 4*16)	1	U22
8	105-*ACT4060-1	CHIP IC		1	PU9
9	105-*SC7314S-1	CHIP IC	SC7314S SO-28	1	IC1
10	101-41000155-0	RESISTOR CHIP	10 OHM 1/10W ±5% 0805	1	PR11
11	101-41020136-0	RESISTOR CHIP	1K2 OHM 1/16W ±1% 0603	1	R93
12	101-41030136-0	RESISTOR CHIP	10K OHM 1/16W ±1% 0603	1	PR58
13	101-43330136-0	RESISTOR CHIP	33K OHM 1/16W ±1% 0603	1	R64
14	101-43030136-0	RESISTOR CHIP	30K OHM 1/16W ±1% 0603	1	PR55
15	101-40000156-0	RESISTOR CHIP	0 OHM 1/16W ±5% 0603	9	R165,R57,R58,R263,R267,PR82,PR83,PR3, PR5
16	101-40100156-0	RESISTOR CHIP	1 OHM 1/16W ±5% 0603	1	R23
17	101-40220156-0	RESISTOR CHIP	2R2 OHM 1/16W ±5% 0603	4	R82,R2,R1,R4
18	101-44700156-0	RESISTOR CHIP	4R7 OHM 1/16W ±5% 0603	2	R39,R40
19	101-41000156-0	RESISTOR CHIP	10 OHM 1/16W ±5% 0603	2	R115,PR52
20	101-41500156-0	RESISTOR CHIP	15 OHM 1/16W ±5% 0603	2	PR19,PR20
21	101-42200156-0	RESISTOR CHIP	22 OHM 1/16W ±5% 0603	2	R270,R273
22	101-43300156-0	RESISTOR CHIP	33 OHM 1/16W ±5% 0603	3	R111,R6,R141
23	101-47500156-0	RESISTOR CHIP	75 OHM 1/16W ±5% 0603	2	R55,R50
24	101-41010156-0	RESISTOR CHIP	100 OHM 1/16W ±5% 0603	4	R155,PR2,PR34,PR35
25	101-41010156-0	RESISTOR CHIP	100 OHM 1/16W ±5% 0603	1	PR32
26	101-41010156-0	RESISTOR CHIP	100 OHM 1/16W ±5% 0603	1	PR39
27	101-43910156-0	RESISTOR CHIP	390 OHM 1/16W ±5% 0603	2	R3,R5
28	101-44710156-0	RESISTOR CHIP	470 OHM 1/16W ±5% 0603	4	R29,R43,R83,R85
29	101-46210156-0	RESISTOR CHIP	620 OHM 1/16W ±5% 0603	1	R118
30	101-41020156-0	RESISTOR CHIP	1K OHM 1/16W ±5% 0603	20	R92,R95,R11,R12,RN1A,RN1B,RN1C,RN1D,PR42,PR45,PR47,PR48,PR49,PR50,PR37, PR38,R84,R201,R202 R18
31	101-41520156-0	RESISTOR CHIP	1K5 OHM 1/16W ±5% 0603	1	R94
32	101-42220156-0	RESISTOR CHIP	2K2 OHM 1/16W ±5% 0603	3	R54,R19,R13
33	101-42220156-1	RESISTOR CHIP	3K9 OHM 1/16W ±1% 0603	1	R250
34	101-44720156-0	RESISTOR CHIP	4K7 OHM 1/16W ±5% 0603	9	R42,R47,R49,R103,PR31,PR8,PR18,PR59, PR60,
35	101-45120156-0	RESISTOR CHIP	5K1 OHM 1/16W ±5% 0603	4	R97,R104,PC76,PC77
36	101-45620156-0	RESISTOR CHIP	5K6 OHM 1/16W ±5% 0603	2	PR22,PR23
37	101-48220156-0	RESISTOR CHIP	8K2 OHM 1/16W ±5% 0603	2	R9,R10
38	101-48220156-1	RESISTOR CHIP	8K2 OHM 1/16W ±1% 0603	1	R251
39	101-41030156-0	RESISTOR CHIP	10K OHM 1/16W ±5% 0603	24	R153,R158,R17,PR13,PR24,PR29,PR30,PR28,PR25,PR44,PR56,R46,R51,R59,R67,PR10, R21,PR7,PR17,PR21,PR26,PR27, R14 R15
40	101-41230156-0	RESISTOR CHIP	12K OHM 1/16W ±5% 0603	3	PR9,PR12, PR40
41	101-41230156-1	RESISTOR CHIP	12K OHM 1/16W ±1% 0603	1	R249
42	101-41530156-0	RESISTOR CHIP	15K OHM 1/16W ±5% 0603	2	R271,R272
43	101-42030156-0	RESISTOR CHIP	20K OHM 1/16W ±5% 0603	2	R53,R96

S/NO.	PART CODE	PART NAME	SPECIFICATION	UNIT	LOCATION
44	101-42030156-1	RESISTOR CHIP	20K OHM 1/16W ±1% 0603	1	R248
45	101-42430156-0	RESISTOR CHIP	24K OHM 1/16W ±5% 0603	1	R62
46	101-47530156-0	RESISTOR CHIP	47K OHM 1/16W ±5% 0603	2	PR1,PR14
47	101-46830156-0	RESISTOR CHIP	68K OHM 1/16W ±5% 0603	1	R63
48	101-48230156-0	RESISTOR CHIP	82K OHM 1/16W ±5% 0603	2	R7,R8
49	101-41040156-0	RESISTOR CHIP	100K OHM 1/16W ±5% 0603	3	R28,R44,PR46,
50	101-41540156-0	RESISTOR CHIP	150K OHM 1/16W ±5% 0603	3	R22,R27,R105
51	101-44740156-0	RESISTOR CHIP	470K OHM 1/16W ±5% 0603	3	R25,R33
52	102-61006204-0	CAPACITOR CHIP	10pF ±2% 50V 0603	2	C24,C83
53	102-62706204-0	CAPACITOR CHIP	27pF ±2% 50V 0603	2	PC53,PC54
54	102-63306204-0	CAPACITOR CHIP	33pF ±5% 50V 0603	2	C64,C65
55	102-64706204-0	CAPACITOR CHIP	47pF ±5% 50V 0603	4	C20,C21,C53,C54
56	102-61016304-0	CAPACITOR CHIP	100pF ±10% 50V 0603	18	BC36,C23,C25,C62,PC78,PC79,C43,C44, PC75,PC87,PC88,PC89,PC26,PC29,PC30, PC31,PC8,PC17
57	102-63016304-0	CAPACITOR CHIP	300pF ±10% 50V 0603	1	C31
58	102-63316304-0	CAPACITOR CHIP	330pF ±10% 50V 0603	1	C29
59	102-66816304-0	CAPACITOR CHIP	680pF ±10% 50V 0603	5	C37,C38,C40,C41,C46
60	102-68216304-0	CAPACITOR CHIP	820pF ±10% 50V 0603	1	C28
61	102-61026404-0	CAPACITOR CHIP	1000pF ±20% 50V 0603	2	C32,C33
62	102-61526404-0	CAPACITOR CHIP	1500pF ±20% 50V 0603	2	PC13,PC24
63	102-62226404-0	CAPACITOR CHIP	2200pF ±20% 50V 0603	1	PC74
64	102-62726404-0	CAPACITOR CHIP	2700pF ±10% 50V 0603	2	PC4,PC11
65	102-64726404-0	CAPACITOR CHIP	4700pF ±20% 50V 0603	2	C16,C18
66	102-61036504-0	CAPACITOR CHIP	0.01uF ±20% 50V 0603	5	C34,C35,C52,C57,PC71
67	102-64736504-0	CAPACITOR CHIP	0.047uF ±20% 50V 0603	1	C30
68	102-66836504-0	CAPACITOR CHIP	0.068uF ±20% 50V 0603	1	C47
69	102-61046504-0	CAPACITOR CHIP	0.1uF +80/-20% 50V 0603	45	C13,C22,C26,C27,C56,C60,C70,C71,C73,C103,BC2,BC3,BC6,BC10, BC15,BC17,BC18,BC19,BC24,BC28,BC29,BC30,BC34,BC39,BC40, BC41,BC44,BC45,BC46,BC61,BC64,C10,PC62,PC86,PC72,PC25, PC57, PC59,PC5,PC3,PC19,PC20,PC21,PC22,PC83
70	102-61546504-0	CAPACITOR CHIP	0.15uF +80/-20% 50V 0603	2	C8,C9
71	102-62246504-0	CAPACITOR CHIP	0.22uF +80/-20% 50V 0603	1	C36
72	102-61056504-0	CAPACITOR CHIP	1uF +80/-20% 50V 0603	4	C39,C45,C50,C51
73	102-62256504-0	CAPACITOR CHIP	2.2uF +80/-20% 50V 0603	2	PR15,PR16
74	111-10102000*	INDUCTOR CHIP	1uH ±10% 0603	1	L18
75	111-11002000*	INDUCTOR CHIP	10uH ±10% 0603	4	L11,L12,L21
76	111-1????	FUSE CHIP	FB600 100MHz 0603	2	L10,L19
77	103-MBT39043-3	TRANSISTOR CHIP	MMBT3904 ,HFE=100-300,BCE, SOT-23,NPN	4	Q9, Q6 , Q10,Q12
78	103-S8550003-4	TRANSISTOR CHIP	S8550 (0.8A),HFE=120-200, BCE,SOT-23, PNP	2	Q7,Q8
79	103-2SK30181-5	TRANSISTOR CHIP	2SK3018 SOT-23	2	Q3,Q4
80	112-7240500R-1	SOCKET	24PIN /0.5MM	1	CN4
81	105-*CD4016B-1	I.C	CD4016B , DIP-14	1	PU7
82	105-*S3F9498-1	I.C	S3F9498 SDIP-32 (MCU)	1	
83	105-AM27C040-0	I.C	AM27C040(MX29LV040-70) DIP-32 (Flash)	1	U14
84	105-***BA5417-0	I.C	BA5417 HSIP-15 (AMP-IC)	1	U1
85	105-***78L08-0	I.C	78L08 TO-92B (IC)	1	PU1
86	105-***78L05-0	I.C	78L05 TO-92B (IC)	2	PU2,U2
87	102-11046504-0	CERAMIC CAP.	0.1uF/50V +80-20%	1	PC82
88	102-21052411-0	CERAMIC CAP.	1UF/10V +80/-20% (5X11MM)	2	PC27,PC28

S/NO.	PART CODE	PART NAME	SPECIFICATION	UNIT	LOCATION
89	102-22252411-0	CERAMIC CAP.	2.2UF/10V +80/-20% (5X11MM)	8	PC12,PC14,CB6,CB12,PC10,PC18,C126,C127
90	102-24752411-0	CERAMIC CAP.	4.7UF/10V +80/-20% (5X11MM)	2	C17,C19
91	102-21062411-0	CERAMIC CAP.	10UF/10V +80/-20% (5X11MM)	7	EC1,PC6,PC9,EC36,PC55,C12,C14
92	102-22262411-0	CERAMIC CAP.	22UF/10V +80/-20% (5X11MM)	3	PC23,
93	102-24762411-0	CERAMIC CAP.	47UF/10V +80/-20% (5X11MM)	5	EC8,EC9,EC11,EC12,C59
94	102-24764411-0	CERAMIC CAP.	47UF/25V +80/-20% (5X11MM)	4	C3,C4,C6,C7
95	102-21072411-0	CERAMIC CAP.	100UF/10V +80/-20% (5X11MM)	8	EC7,EC16,EC25,PC61.PC1,PC2,C61,C63
96	102-21073411-0	CERAMIC CAP.	100UF/16V +80/-20% (5X11MM)	1	PC7
97	102-21074411-0	CERAMIC CAP.	100UF/25V +80/-20% (6X11MM)	1	C5,
98	102-22272411-0	CERAMIC CAP.	220UF/10V +80/-20% (6.5X11MM)	3	EC6,EC10,EC15
99	102-24772411-0	CERAMIC CAP.	470UF/10V +80/-20% (6.5X11MM)	1	EC4
100	102-24773411-0	CERAMIC CAP.	470UF/16V +80/-20% (8X11MM)	2	PC56,PC58
101	102-21083411-0	CERAMIC CAP.	1000UF/16V +80/-20% (10X20MM)	2	C1,C2
102	102-21084411-0	CERAMIC CAP.	2200UF/25V +80/-20% (13X20MM)	1	PC60
103	102-22284411-0	CERAMIC CAP.	4700UF/25V +80/-20% (16X26MM)	1	C11
104	111-2220300-*	INDUCTOR	22uH /2A Φ=9.0mm ,5mm	1	PL5
105		DIODE	5.1V/0.5W	2	ZD1,SD2
106	104-1IN41480-1	DIODE	IN4148	1	D9
107	104-1IN40010-1	DIODE	IN4001	4	PD1,PD2,PD3,PD4
108	104-1IN53910-1	DIODE	IN5391	7	PD5,PD6,PD7,PD8,PD14,PD15,PD16
109	104-1IN54020-1	DIODE	IN5402	2	PD9,12
110	104-1IN58190-1	DIODE	IN5819	1	PD13
111	103-2N390403-1	TRANSISTOR	2N3904 ,HFE=100-300, EBC, TO-92B	1	Q25
112	103-C9015003-2	TRANSISTOR	C9015 ,HFE=120-200, EBC, TO-92B	1	Q11
113	103-SS855003-2	TRANSISTOR	SS8550 (1.5A),HFE=120-200, EBC, TO-92B	3	Q29,Q30,Q5
114	106-3*8MHz	OSCILLATOR	8MHZ 2PIN 3.5X5X11MM ±20ppm	1	PX1
115	106-3*27MHz	OSCILLATOR	27MHZ 2PIN 3.5X5X11MM ±20ppm	1	XT1
116	112-???	IC SOCKET	32Pin/1.78 DIP32	1	PU5
117	112-703254	CONNECTOR	3P/2.54mm	3	J3,J4,J7
118	112-704254	CONNECTOR	4P/2.54mm	1	CN1
119	112-70220	CONNECTOR	2P/2.0mm	2	CN5,CN101
120	112-70520	CONNECTOR	5P/2.0mm	1	LINEOUT
121	112-70620	CONNECTOR	6P/2.0mm	1	CN3
122	112-70820	CONNECTOR	8P/2.0mm	1	CON3
123	112-71320	CONNECTOR	13P/2.0mm	1	CON2
124	112-71610	SOCKET	16Pin/1.0mm	1	J5
125	112-20ST212B-0	PHONE SOCKET	ST-212 Φ=3.5 DIP	1	J2
126	112-	AV BOARD ASS'Y	3P	1	AV OUT
127	112-	WIRE CLIP	AM	1	AM ANT
128		WIRE HARNESS	0.5mm L=15mm (5mm)	10	L1,L2,L3,L4,L801,L802,L803,L804,L805 ,F102
		WIRE HARNESS	0.5mm L=20mm (15mm)	1	F101
129	284	HEAT SINK	MD22	1	U1(BA5417)
130	112-	WIRE CLIP	2 位*2	1	
131	120-	SCREW	PM 3*8 TAP-TITE	3	PCB,U1(BA5417)
132					
133	108-05200130-4		24# 5P/2.0mm, L=160mm	1	HEADPHONE & SD,PCN3
134	108-04250260-3	SPEAKER WIRE	1007#20 4P /2.54mm L=110mm	1	
135	108-05200330-4		22# 5P/2.0mm,L=200mm,—	1	
135	?????				

S/NO.	PART CODE	PART NAME	SPECIFICATION	UNIT	LOCATION
136	115-1MD25V1-07	MD25LCD&KEY PCB	SINGLE LAYER 81.2*132.4*1.6(mm)	1	
137	115-3MD22V1-10	HT1621 PCB	2 LAYER 31*13*0.6(mm)	1	
138	101-40000156-0	RESISTOR CHIP	0 OHM ±5% 0603	1	R718
139	101-41000156-0	RESISTOR CHIP	10 OHM ±5% 0603	2	R704,R706
140	101-41010156-0	RESISTOR CHIP	100 OHM ±5% 0603	3	R701,R702,R703
141	101-41020156-0	RESISTOR CHIP	1K OHM ±5% 0603	3	R709,R712,R721
142	101-41220156-0	RESISTOR CHIP	1K2 OHM ±5% 0603	2	R710,R713
143	101-41520156-0	RESISTOR CHIP	1K5 OHM ±5% 0603	2	R711,R714
144	101-42020156-0	RESISTOR CHIP	2K OHM ±5% 0603	2	R705,R715
145	101-42620156-0	RESISTOR CHIP	2K6 OHM ±5% 0603	2	R707,R716
146	101-43620156-0	RESISTOR CHIP	3K6 OHM ±5% 0603	2	R708,R717
147	101-41030156-0	RESISTOR CHIP	10K OHM ±5% 0603	1	R720
148	101-41020256-0	RESISTOR CHIP	1K OHM ±5% 0805	1	R719
149	102-61046504-0	CAPACITOR CHIP	0.1UF +80/-20% 50V 0603	1	C702
150	103-S8550003-4	TRANSISTOR CHIP	S8550 ,HFE=120-200, BCE, SOT-23 PNP	1	Q702
151	102-21072411-0	ELECTROLYSIS	100UF/10V +80/-20% (5.0*7.5MM)		C701
152	110-	LED	2X3mm	2	D2,D3
153	110-	LED	2X3mm	1	D1
154	103-S8050002-1	TRANSISTOR CHIP	S8050 (1.5A) ,HFE=120-200, EBC, TO-92B	1	Q701
155	116-2**CM60124	LCD DISPLAY	36Pin/1.5mm	1	LCD
156	136-AT138B01-0		AT138B	1	IR1
157	109-		5PIN 15MM	1	VR1
158	109-	TOUCH SWITCH	6X6X8mm	12	
159	105-HT1621B-*	I.C	HT1621B (LCD, IC)	1	IC1
160	134-	LCD HOLDER	M22-800-01 ABS	1	
161		BACK LIGHT PANEL	SY-M22CD	1	
162	120-	SCREW	PWB 3*4.5 W7	2	LCD, PCB
163	108-13200120-3		13P/2.0mm, L=120mm	1	LCD, CN701,CON2
164	131-		10xW0xH7mm	1	
165			15.5*12*0.4mm	1	
166	115-3MD22V2-06	MD22SD-USB-PH PCB	2 LAYER 79.5*40*1(mm)	1	
167	105-TDA1308-1	IC CHIP	TDA1308 SO-8	1	U3
168	101-40000154-0	RESISTOR CHIP	0 OHM ±5% 0805	1	L6
169	101-43300156-0	RESISTOR CHIP	33 OHM ±5% 0603	6	R14,R20,R24,R26,R31,R32
170	101-41020156-0	RESISTOR CHIP	1 K OHM ±5% 0603	1	R66,
171	101-42020156-0	RESISTOR CHIP	2 K OHM ±5% 0603	2	R37,R61
172	101-44720156-0	RESISTOR CHIP	4K7 OHM ±5% 0603	1	R34
173	101-47520156-0	RESISTOR CHIP	7K5 OHM ±5% 0603	1	R77
174	101-41030156-0	RESISTOR CHIP	10K OHM ±5% 0603	15	R35,R36,R41,R48,R68,R69,R70,R71,R72,R73,R74,R75,R76,R80,R81
175	101-42030156-0	RESISTOR CHIP	20K OHM ±5% 0603	2	R78,R79
176	101-43030156-0	RESISTOR CHIP	30K OHM ±5% 0603	3	R52,R56,R60
177	101-42040156-0	RESISTOR CHIP	200K OHM ±5% 0603	3	R38,R45,R65
178	102-63316304-0	CAPACITOR CHIP	331PF +/-10% 50V 0603	2	C55,C58
179	102-61046504-0	CAPACITOR CHIP	0.1UF +80/-20% 50V 0603	5	BC4,BC1,BC5,C48,C49
180	111-11002000*	INDUCTOR CHIP	10uH ±10% 0805	1	L5
181	103-MBT39043-3	TRANSISTOR CHIP	MMBT3904 ,HFE=100-200,BCE, SOT-23,NPN	1	CQ3
182	103-S8550003-4	TRANSISTOR CHIP	S8550 ,HFE=120-200, BCE, SOT-23 PNP	3	CQ1,CQ2,CQ4
183	112-		ZW3IN1SDCA	1	JM1

S/NO.	PART CODE	PART NAME	SPECIFICATION	UNIT	LOCATION
184	102-24762411-0	ELECTROLYSIS	47UF/10V +80/-20% (5.0*5.0MM)	3	EC2,EC3,EC5
185	102-21072411-0	ELECTROLYSIS	100UF/10V +80/-20% (5.0*5.0MM)	3	EC13,EC14,EC17
186	112-	CONNECTING SOCKET	16Pin/1.0mm	1	PCN1
187	112-	HEAD PHONE SOCKET	ST-212-050-D Φ=3.5 DIP	1	PH1
188	112-4SB0400*-1	USB SOCKET	USB, 4PIN, (USB-0400)	1	USB1
189	112-4**B0400*-1	SOCKET	5PIN/2.0	1	PCN3

