

Setting the Wallpaper

JPEG DVD

While watching a DVD or JPEG CD, you can set the image you like as background wallpaper.

Setting the Wallpaper

1 During playback, press **PLAY/PAUSE** button when an image you like appears.



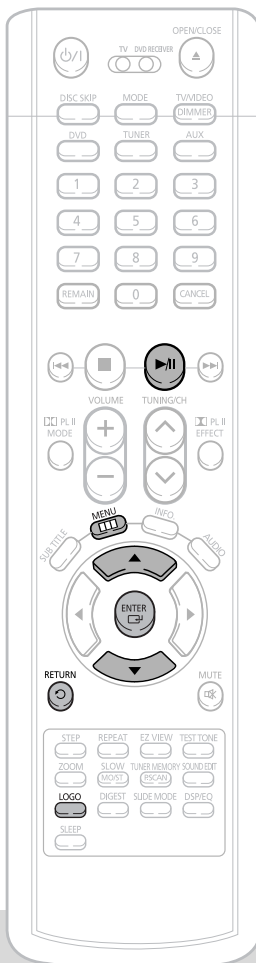
2 Press **LOGO** button.

• "COPY LOGO DATA" will be displayed on the TV screen.



3 The power will turn off and then back on.

- The selected wallpaper will be displayed.
- You can select up to 3 wallpaper settings.



To select one of the 3 wallpaper settings you've made

1 In Stop mode, press **MENU** button.



2 Press **Cursor** button to move to 'Setup' and then press **ENTER** button.



3 Press **Cursor** button to move to 'LOGO' and then press **ENTER** button.



4 Press **▼** to select the desired 'USER', and then press **ENTER**.



5 Press **MENU** button to exit the setup screen.



Select this to set the Samsung Logo image as your wallpaper.



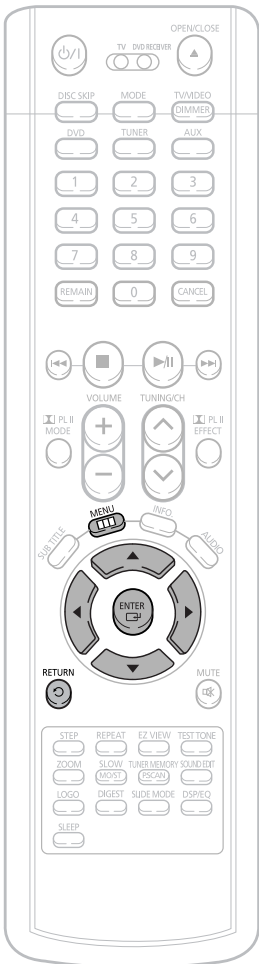
Select this to set the desired image as your wallpaper.

Press **RETURN** button to return to the previous level.

Press **MENU** button to exit the setup screen.

DVD Audio Disc Playback Mode

Some DVD-Audio discs contain DVD-Video as well as DVD-Audio.
To play back the DVD-Video portion of the DVD-Audio disc, set the unit to DVD-Video mode.



1 Press the **MENU** button while the disc tray is open.



3 Press Cursor **▼** button to move to 'DVD TYPE' and then press **ENTER** button.



2 Press Cursor **▼** button to move to 'Setup' and then press **ENTER** button.



4 Press Cursor **▲, ▼** button to move to 'DVD VIDEO' and then press **ENTER** button.



When Selecting DVD Play Mode:

- **DVD VIDEO** : set to play the DVD video contents contained on a DVD audio disc.
- **DVD AUDIO** : set to play the default DVD audio.

• Set steps 1 ~ 4 again if you want to switch to DVD AUDIO Play mode.

Note • DVD Play mode is set to DVD Audio as factory default setting.

DivX (R) registration



• Please use the Registration code to register this player with the DivX (R) video on demand format. To learn more, go to www.divx.com/vod.

Setting the Speaker Mode

Signal outputs and frequency responses from the speakers will automatically be adjusted according to your speaker configuration and whether certain speakers are used or not.

1 In Stop mode, press **MENU** button.



3 In the Speaker Setup, press the **ENTER** button again.



2 Press Cursor **▼** button to move to 'Audio' and then press **ENTER** button.



4 Press Cursor **▲, ▼, ◀, ▶** buttons to move to the desired speaker and then press **ENTER** button.

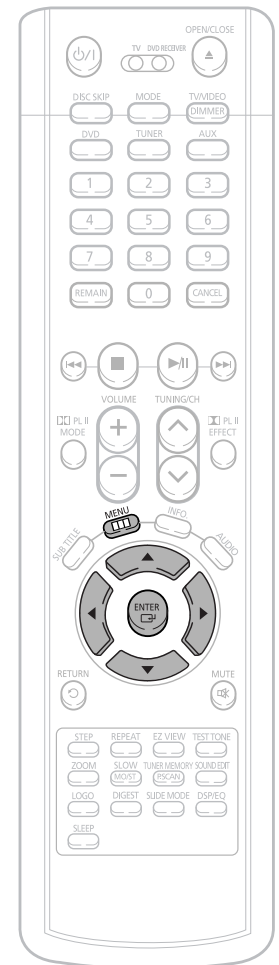


- For C, LS, and RS, each time the button is pressed, the mode switches alternately as follows: SMALL → NONE.
- For L and R, the mode is set to SMALL.

SMALL : Select this when using the speakers.
NONE : Select this when no speakers are connected.

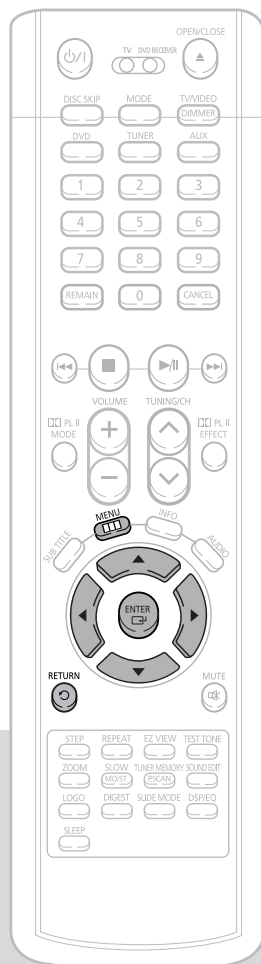
Note

- Depending on PRO LOGIC and STEREO settings, the speaker mode may vary (see page 61).



Setting the Delay Time

If the speakers cannot be placed at equal distances from the listening position, you can adjust the delay time of the audio signals from the center and rear speakers.



1 In Stop mode, press **MENU** button.



2 Press Cursor ∇ button to move to 'Audio' and then press **ENTER** button.



3 Press Cursor ∇ button to move to 'DELAY TIME' and then press **ENTER** button.



4 Press Cursor $\uparrow, \downarrow, \leftarrow, \rightarrow$ buttons to move to the desired speaker and then press **ENTER** button.



5 Press Cursor \leftarrow, \rightarrow to set the Delay time.

- You can set the delay time for C between 00 and 05mSEC and for LS and RS between 00 and 15mSEC.



Setting up the Speaker Delay Time

When 5.1CH Surround Sound is played, you can enjoy the best sound if the distance between you and each speaker is the same. Since the sounds arrive at the listening position at different times depending on the placement of speakers, you can adjust this difference by adding a delay effect to the sound of the Center Speaker and Surround Speakers.

Note

- With \square PL (Dolby Pro Logic II), the delay time may be different for each mode.
- With AC-3 and DTS, the delay time can be set between 00 and 15mSEC.
- The Center channel is only adjustable on 5.1 channel discs.

Setting CENTER SPEAKER

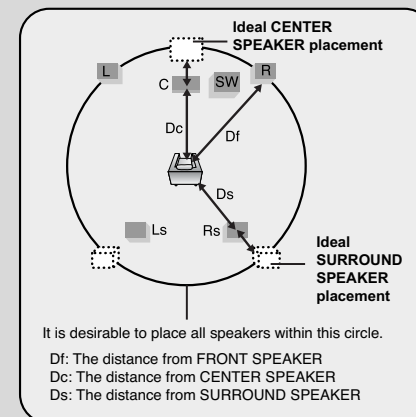
If the distance of D_c is equal to or longer than the distance of D_f in the figure, set the mode as 0ms. Otherwise, change the setting according to the table.

Distance between D_f and D_c	Delay Time
0 inch	0 ms
13.6 inches	1 ms
27.2 inches	2 ms
40.8 inches	3 ms
4.5 feet	4 ms
5.6 feet	5 ms

Setting REAR (SURROUND) SPEAKERS

If the distance of D_f is equal to the distance of D_s in the figure, set the mode as 0ms. Otherwise, change the setting according to the table.

Distance between D_f and D_s	Delay Time
0 inch	0 ms
40.8 inches	3 ms
6.7 feet	6 ms
10.0 feet	9 ms
13.4 feet	12 ms
16.7 feet	15 ms



Setting the Test Tone

Use the Test Tone feature to check the speaker connections.

1 In Stop or no disc mode, press **MENU** button.

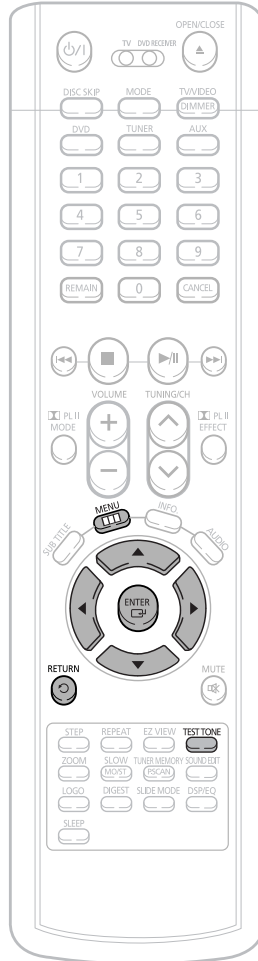


2 Press Cursor **▼** button to move to 'Audio' and then press **ENTER** button.



3 Press Cursor **▼** button to move to 'TEST TONE' and then press **ENTER** button.

- The test tone will be sent to L → C → R → SR → SL → SW in order. If the ENTER button is pressed again at this time, the test tone will stop.



Press **RETURN** button to return to the previous level.

Press **MENU** button to exit the setup screen.

Setting the DRC (Dynamic Range Compression)

EN

You can use this function to enjoy Dolby Digital sound when watching movies at low volume at night.

1 In Stop or no disc mode, press **MENU** button.



2 Press Cursor **▼** button to move to 'Audio' and then press **ENTER** button.



3 Press Cursor **▼** button to move to 'DRC' and then press **ENTER** button.



4 Press Cursor **▲**, **▼** to adjust the 'DRC'.

- When the Cursor **▲** button is pressed, the effect is greater, and when the Cursor **▼** button is pressed, the effect is smaller.



Press **RETURN** button to return to the previous level.

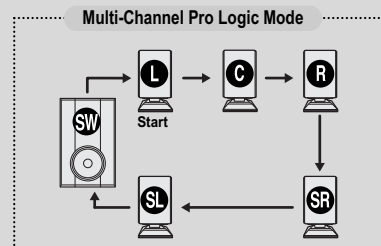
Press **MENU** button to exit the setup screen.

Alternate method: press the **TEST TONE** button on the remote.

L: Front Speaker (L) C: Center Speaker SW: Subwoofer
R: Front Speaker (R) LS: Rear Speaker (L) RS: Rear Speaker (R)

Press **TEST TONE** button.

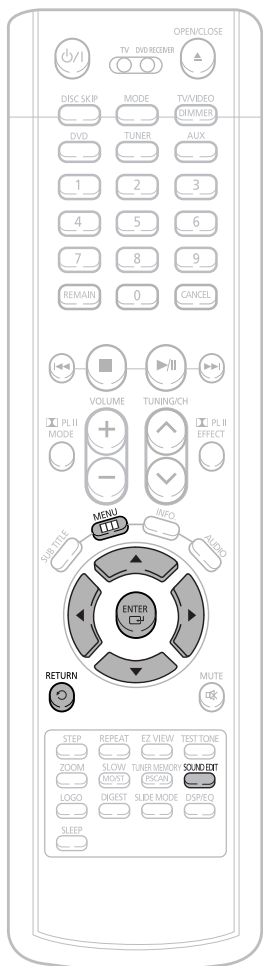
- Test tone will be produced as follows: When playing a DVD or CD, this will work only in Stop mode.
- Use this function to check that each speaker is correctly connected and that there is no problem.



To end the test tone, press **TEST TONE** button again.

Setting the Audio

You can adjust the balance and level for each speaker.



Method 1 When adjusting the audio quality using the setup screen

- 1** In Stop mode, press **MENU** button.
- 2** Press Cursor **▼** button to move to 'Audio' and then press **ENTER** button.
- 3** Press Cursor **▼** button to move to 'SOUND EDIT' and then press **ENTER** button.
- 4** Press Cursor **▲, ▼** buttons to select and adjust the desired item. Press the **◀, ▶** buttons to adjust the settings.

Method 2 When manually adjusting with the SOUND EDIT button

<h3>Adjusting Front Speaker Balance</h3> <ol style="list-style-type: none"> 1 Press SOUND EDIT button and then press Cursor ◀, ▶. 	<h3>Adjusting Rear Speaker Balance</h3> <ol style="list-style-type: none"> 2 Press SOUND EDIT button and then press Cursor ◀, ▶. 	<h3>Adjusting Center Speaker Level</h3> <ol style="list-style-type: none"> 3 Press SOUND EDIT button and then press Cursor ◀, ▶.
<h3>Adjusting Rear Speaker Level</h3> <ol style="list-style-type: none"> 4 Press SOUND EDIT button and then press Cursor ◀, ▶. 	<h3>Adjusting Subwoofer Speaker Level</h3> <ol style="list-style-type: none"> 5 Press SOUND EDIT button and then press Cursor ◀, ▶. 	

- Press **RETURN** button to return to the previous level.
- Press **MENU** button to exit the setup screen.

Note

- The adjustments will appear on the main unit's display, not on your TV screen.

Adjusting Front/Rear Speaker Balance

- You can select between 00 and -06 and OFF.
- The volume decreases as you move closer to -6.

Adjusting Center/Rear/Subwoofer Speaker Level

- The volume level can be adjusted in steps from +6dB to -6dB.
- The sound gets louder as you move closer to +6dB and quieter as you get closer to -6dB.

AV SYNC Setup

Video may look slower than the audio if it is connected to a digital TV. If this occurs, adjust the audio delay time to match the video.

1 Press the **MENU** button.

- Setup menu appears.



2 Press Cursor **▲**, **▼** buttons to move to 'Audio' and then press **ENTER** button.

- 'Audio' menu appears.



3 Press Cursor **▲**, **▼** buttons to move to 'AV-SYNC' and then press **ENTER** button.

- AV-SYNC screen appears.

4 Press Cursor **▲**, **▼** buttons to select the AV-SYNC Delay Time and then press the **ENTER** button.

- You can set the audio delay time between 0 ms and 300 ms. Set it to the optimal status.

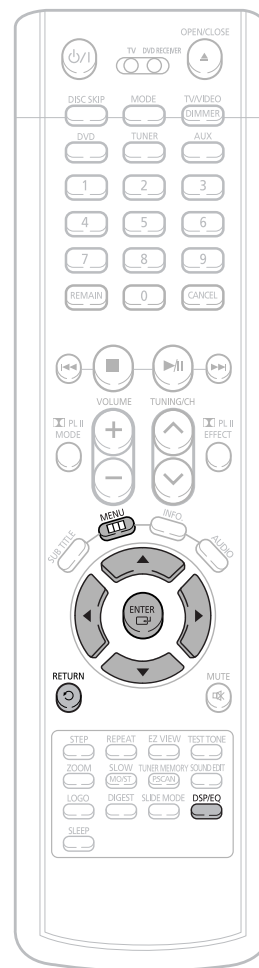


Press **RETURN** button to return to the previous level.

Press **MENU** button to exit the setup screen.

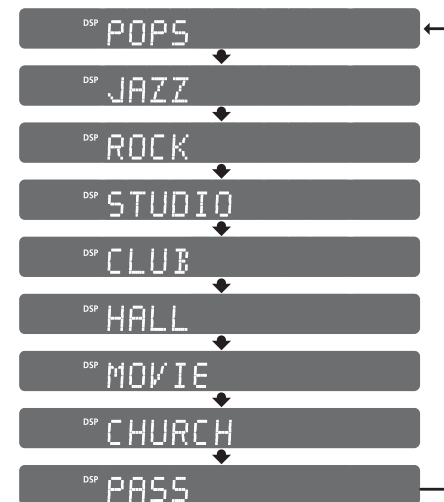
Sound Field (DSP)/EQ Function

DSP(Digital Signal Processor) DSP modes have been designed to simulate different acoustic environments. EQ: You can select ROCK, POP, or CLASSIC to optimize the sound for the genre of music you are playing



Press **DSP/EQ** button.

- "DSP" appears on the display panel.
- Each time the button is pressed, the selection changes as follows:



- Note**
- DSP/EQ function is only available in STEREO mode. Press the **PL II** mode button to show STEREO on the display.
 - This feature works with CDs, MP3-CDs, 2 channel DVD-Audio, DivX and Dolby Digital discs.
 - When playing a DVD disc encoded with two or more channels, multi-channel mode will be selected automatically and DSP/EQ function does not work.

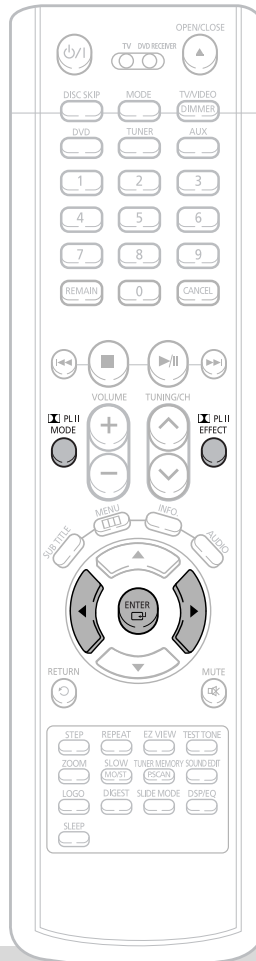
- POP, JAZZ, ROCK:** Depending on the genre of music, you can select POP, JAZZ, and ROCK.
- STUDIO :** Provides a sense of presence as if in a studio.
- CLUB :** Simulates the sound of a dance club with a throbbing bass beat.
- HALL :** Provides a clear vocal as if listening in a concert hall.
- MOVIE:** Provides the feeling of a movie theater.
- CHURCH:** Gives the feel of being in a grand church.
- PASS:** Select this for normal listening.

Dolby Pro Logic II Mode

You can select the desired Dolby Pro Logic II audio mode.

Press **PL II MODE** button.

- Each time the button is pressed, the mode changes as follows.



Note

- When selecting Pro Logic II mode, connect your external device to the AUDIO INPUT jacks (L and R) on the player. If you connect to only one of the inputs (L or R), you cannot listen to surround sound.

PRO LOGIC II

- **MUSIC:** When listening to music, you can experience sound effects as if you are listening to the actual performance.
 - **CINEMA:** Adds realism to the movie soundtrack.
 - **PRO LOGIC:** You will experience a realistic multi-channel effect, as if using five speakers, while using just the front left and right speakers.
 - **MATRIX:** You will hear 5.1 channel surround sound.
- STEREO:** Select this to listen to sound from the front left and right speakers and the subwoofer only.

Dolby Pro Logic II Effect

This function works only in Dolby Pro Logic MUSIC mode.

1 Press **PL II MODE** button to select 'MUSIC' mode.



2 Press **PL II EFFECT** button to select Panorama, then press Cursor **◀**, **▶** buttons to select the desired effect setting.

- You can select either 0 or 1.
- This mode extends the front stereo image to include the surround speakers for an exciting "wraparound" effect with side wall imaging.



3 Press **PL II EFFECT** button to select C-Width, then press Cursor **◀**, **▶** buttons to select the desired effect setting.

- You can select between 0 and 7.
- This sets the width of the center image. The higher the setting, the less sound comes from the center speaker.



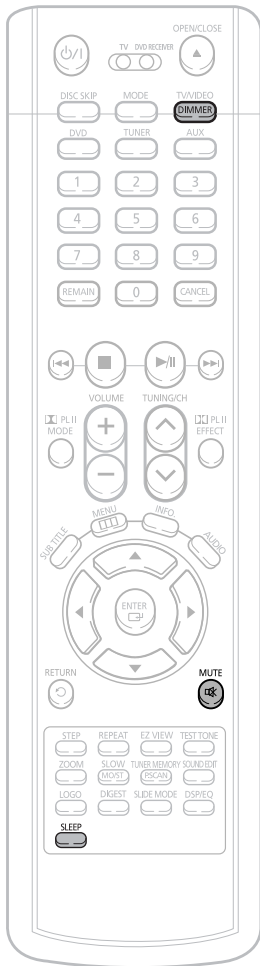
4 Press **PL II EFFECT** button to select Dimension, then press the Cursor **◀**, **▶** buttons to select the desired setting.

- You can select between 0 and 6.
- Incrementally adjusts the sound field (DSP) from the front or rear.



Note

- When playing a DVD disc encoded with two or more channels, multi-channel mode will be selected automatically and **PL II** (Dolby Pro Logic II) button does not work.



Sleep Timer Function

You can set the time that the Home Theater will shut itself off.

Press **SLEEP** button.

- "SLEEP" will be displayed. Each time the button is pressed the preset time changes as follows: 10 → 20 → 30 → 60 → 90 → 120 → 150 → OFF.

To confirm the sleep timer setting, press **SLEEP** button.

- The remaining time before the Home Theater will shut itself off is displayed.
- Pressing the button again changes the sleep time from what you have set earlier.

To cancel the sleep timer, press **SLEEP** button until OFF appears on the display.

Adjusting Display Brightness

You can adjust the brightness of the display on the main unit so it won't interfere with your movie viewing.

Press **DIMMER** button.

- Each time the button is press, the brightness changes as follows: DARK → BRIGHT.

Mute Function

This is useful when answering a doorbell or telephone call.

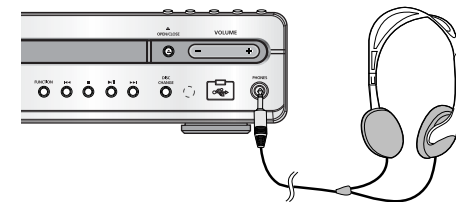
Press **MUTE** button.

- 'MUTE ON' appears in the display.
- To restore the sound, press the button again to select 'MUTE OFF'.

Using Headphones

Use headphones (not supplied) for private listening pleasure.

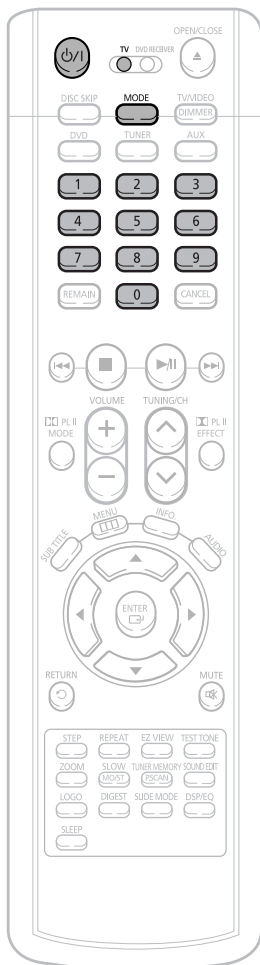
Connect the headphones to the PHONES jack for private listening.



Caution

- To prevent hearing damage, do not increase the volume excessively when using headphones.

Operating a TV with the Remote Control



When operating a TV with the remote control

1 Press the **MODE** button to make the TV indicator on the remote control flash.



2 Press **POWER** button to turn on the TV.

3 Point the remote control toward the TV.

4 While holding down **POWER**, enter the code corresponding to your brand of TV.

- If the code matches the TV's code, the TV will be turned off.
- If there is more than one code listed for your TV in the table, enter one at a time to determine which code works.

Example: For a Samsung TV
While holding down **POWER**, use the number buttons to enter 00, 01, 02, 03, 04, and 05.

5 Point the remote control toward the TV and press **POWER**. If the TV turns off or on, the setting is complete.

- You can use the TV **POWER**, **VOLUME**, **CHANNEL**, and **Numeric** buttons (0~9).

Note


- The remote control may not work on some brands of TVs. Also some operations may not be possible depending on your brand of TV.
- If you do not set the remote control with the code for your brand of TV, the remote control will work on a Samsung TV by default.



TV Brand Code List

No.	Brand	Code	No.	Brand	Code
1	SAMSUNG	00(Initial Value), 01, 02, 03, 04, 05, 73	30	BRANDT	41
2	ANAM	06~11, 59	31	FERGUSON	41
3	DAEWOO	12~18, 20, 21	32	PIONEER	41, 48, 74
4	LG	05, 20, 21, 22, 53	33	TELEAVA	41
5	HITACHI	23, 40, 41, 49	34	FINLUX	05, 42, 47
6	JVC	24, 55	35	FISHER	31
7	SHARP	27, 33, 34, 35, 54	36	AKAI	31
8	SONY	27, 36	37	YOKO	05
9	TOSHIBA	27, 37, 42, 43, 44, 46	38	PHONOLA	05, 45, 47
10	SANYO	27, 30, 31, 32	39	RADIOLA	05, 45
11	mitsubishi	05, 27, 28	40	SCHNEIDER	05
12	MATSUSHITA	09, 26	41	NEWSAN	58
13	TELEFUNKEN	41, 49, 51, 57	42	CONTINENTAL EDISON	49
14	RCA	29, 61	43	SALORA	48
15	PANASONIC	07, 09, 26, 48, 49, 50	44	SELECO	48
16	SABA	40, 41, 47, 48, 49	45	NOKIA	48
17	PHILIPS	05, 45, 47, 64, 65, 66, 67, 68, 69	46	REX	48
18	GRUNDIG	39, 42, 46, 70, 71, 72	47	MIVAR	46
19	ZENITH	38	48	IMPERIAL	46
20	MIVAL	52	49	CGE	46
21	NOBLEX	56	50	BANG & OLUFSEN	47
22	EMERSON	19	51	BRIONVEGA	47
23	MAGNAVOX	25	52	FORMENTI	47
24	LOEWE	05, 60	53	METZ	47
25	THOMSON	40, 41, 49, 62, 63	54	WEGA	47
26	NORDMENDE	40, 41, 49	55	RADIOMARELLI	47
27	LOEWE OPTA	36, 47, 05	56	SINGER	47
28	BLAUPUNKT	39	57	SINUDYNE	47
29	SIEMENS	39			

Before Calling for Service

Refer to the chart below when this unit does not function properly. If the problem you are experiencing is not listed below or if the instruction below does not help, turn off the unit, disconnect the power cord, and contact the nearest authorized dealer or Samsung Electronics Service Center.

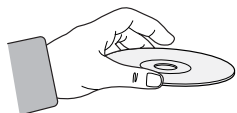
Symptom	Check/Remedy
Disc tray does not open.	<ul style="list-style-type: none"> • Is the power cord plugged securely into the outlet? • Turn off the power and then turn it back on.
Playback does not start.	<ul style="list-style-type: none"> • Check the region number of the DVD. DVD discs purchased from abroad may not be playable. • CD-ROMs and DVD-ROMs cannot be played on this Home Theater. • Make sure that the rating level is correct.
Playback does not start immediately when the Play/Pause button is pressed.	<ul style="list-style-type: none"> • Are you using a deformed disc or a disc with scratches on the surface? • Wipe the disc clean.
Sound is not produced.	<ul style="list-style-type: none"> • No sound is heard during fast playback, slow playback, and step motion playback. • Are the speakers connected properly? Is the speaker setup correctly customized? • Is the disc severely damaged?
Sound can be heard only from a few speakers and not all six.	<ul style="list-style-type: none"> • When listening to a CD or radio, sound is output to the front speakers (L/R) only. Select "PRO LOGIC II" by pressing  (Dolby Pro Logic II) on the remote control to use all six speakers. • Make sure that the DVD disc is 5.1-CH compatible. • If you set C, SL, and SR to NONE in the speaker mode in the audio setup of the setup screen, no sound is heard from the center speaker and the front left and right speakers. Set C, SL, and SR to SMALL.
Picture does not appear, sound is not produced, or the disc tray opens 2 to 5 seconds later.	<ul style="list-style-type: none"> • Was the Home Theater suddenly moved from a cold place to a warm one? When condensation forms inside the player, remove the disc and let the player stand for 1 or 2 hours with the power on. (You can use the player again after condensation disappears.)
Dolby Digital 5.1 CH Surround Sound is not produced.	<ul style="list-style-type: none"> • Is there "Dolby Digital 5.1 CH" mark on the disc? Dolby Digital 5.1 CH Surround Sound is produced only if the disc is recorded with 5.1 channel sound. • Is the audio language correctly set to DOLBY DIGITAL 5.1-CH in the information display?

Symptom	Check/Remedy
<ul style="list-style-type: none"> • Disc is rotating but no picture is produced. • Picture quality is poor and picture is shaking. 	<ul style="list-style-type: none"> • Is the TV power on? • Are the video cables connected properly? • Is the disc dirty or damaged? • A poorly manufactured disc may not be playable.
The remote control does not work.	<ul style="list-style-type: none"> • Is the remote control being operated within its operation range of angle and distance? • Are the batteries exhausted?
Audio language and subtitles do not work.	<ul style="list-style-type: none"> • Audio language and subtitles will not work for DVDs not containing them. And depending on the disc, they may work differently.
Menu screen does not appear even when the menu function is selected.	<ul style="list-style-type: none"> • Are you using a disc that does not contain menus?
Aspect ratio cannot be changed.	<ul style="list-style-type: none"> • You can play 16:9 DVDs in 16:9 WIDE mode, 4:3 LETTER BOX mode, or 4:3 PAN SCAN mode, but 4:3 DVDs can be seen in 4:3 ratio only. Refer to the DVD disc jacket and then select the appropriate function.
Can't receive radio broadcast.	<ul style="list-style-type: none"> • Is the antenna connected properly? • If the antenna's input signal is weak, install an external FM antenna in an area with good reception.
<ul style="list-style-type: none"> • The main unit is not working. (Example: The power goes out or strange noise is heard.) • The Home Theater is not working normally. 	<ul style="list-style-type: none"> • Turn off the power and hold the  button on the main unit for longer than 5 seconds. <p>Using the RESET function will erase all stored settings. Do not use this unless necessary.</p>
The password for rating level has been forgotten.	<ul style="list-style-type: none"> • While "NO DISC" message appears on the display of main unit, hold the main unit's  button for longer than 5 seconds. "INITIALIZE" appears on the display and all settings will return to the default values. • Press the POWER button. <p>Using the RESET function will erase all stored settings. Do not use this unless necessary.</p>

Cautions on Handling and Storing Discs

Small scratches on the disc may reduce sound and picture quality or cause skipping. Be especially careful not to scratch discs when handling them.

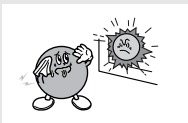
Handling discs



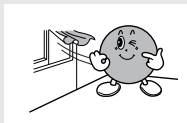
Do not touch the playback side of the disc. Hold the disc by the edges so that fingerprints will not get on the surface.
Do not stick paper or tape on the disc.

Disc Storage

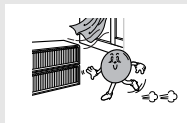
Do not keep in direct sunlight



Keep in a cool ventilated area



Keep in a clean Protection jacket. Store vertically.



Caution

- Do not allow the discs to become contaminated with dirt.
- Do not load cracked or scratched discs.

Handling and Storing Discs



When you get fingerprints or dirt on the disc, clean it with a mild detergent diluted in water and wipe with a soft cloth.

- When cleaning, wipe gently from the inside to the outside of the disc.

Note

- Condensation may form if warm air comes into contact with cold parts inside the player. When condensation forms inside the player, the player may not operate correctly. If this occurs, remove the disc and let the player stand for 1 or 2 hours with the power on.

Language Code List

Enter the appropriate code number for the initial settings "Disc Audio", "Disc Subtitle" and/or "Disc Menu" (See page 43).

Code	Language	Code	Language	Code	Language	Code	Language
1027	Afar	1181	Frisian	1334	Latvian, Lettish	1506	Slovenian
1028	Abkhazian	1183	Irish	1345	Malagasy	1507	Samoan
1032	Afrikaans	1186	Scots Gaelic	1347	Maori	1508	Shona
1039	Amharic	1194	Galician	1349	Macedonian	1509	Somali
1044	Arabic	1196	Guarani	1350	Malayalam	1511	Albanian
1045	Assamese	1203	Gujarati	1352	Mongolian	1512	Serbian
1051	Aymara	1209	Hausa	1353	Moldavian	1513	Siswati
1052	Azerbaijani	1217	Hindi	1356	Marathi	1514	Sesotho
1053	Bashkir	1226	Croatian	1357	Malay	1515	Sundanese
1057	Byelorussian	1229	Hungarian	1358	Maltese	1516	Swedish
1059	Bulgarian	1233	Armenian	1363	Burmese	1517	Swahili
1060	Bihari	1235	Interlingua	1365	Nauru	1521	Tamil
1069	Bislama	1239	Interlingue	1369	Nepali	1525	Tegulu
1066	Bengali; Bangla	1245	Inupiak	1376	Dutch	1527	Tajik
1067	Tibetan	1248	Indonesian	1379	Norwegian	1528	Thai
1070	Breton	1253	Icelandic	1393	Occitan	1529	Tigrinya
1079	Catalan	1254	Italian	1403	(Afan) Oromo	1531	Turkmen
1093	Corsican	1257	Hebrew	1408	Oriya	1532	Tagalog
1097	Czech	1261	Japanese	1417	Punjabi	1534	Setswana
1103	Welsh	1269	Yiddish	1428	Polish	1535	Tonga
1105	Danish	1283	Javanese	1435	Pashto, Pushto	1538	Turkish
1109	German	1287	Georgian	1436	Portuguese	1539	Tsonga
1130	Bhutani	1297	Kazakh	1463	Quechua	1540	Tatar
1142	Greek	1298	Greenlandic	1481	Rhaeto-Romance	1543	Twi
1144	English	1299	Cambodian	1482	Kirundi	1557	Ukrainian
1145	Esperanto	1300	Kannada	1483	Romanian	1564	Urdu
1149	Spanish	1301	Korean	1489	Russian	1572	Uzbek
1150	Estonian	1305	Kashmiri	1491	Kinyarwanda	1581	Vietnamese
1151	Basque	1307	Kurdish	1495	Sanskrit	1587	Volapuk
1157	Persian	1311	Kirghiz	1498	Sindhi	1613	Wolof
1165	Finnish	1313	Latin	1501	Sangro	1632	Xhosa
1166	Fiji	1326	Lingala	1502	Serbo-Croatian	1665	Yoruba
1171	Faeroese	1327	Laothian	1503	Singhalese	1684	Chinese
1174	French	1332	Lithuanian	1505	Slovak	1697	Zulu

GENERAL	Power Consumption	110W		
	Weight	11lbs		
	Dimensions (W x H x D)	17 x 2.8 x 17 inches		
	Operating Temperature Range	41°F ~ 95°F		
	Operating Humidity Range	10% ~ 75%		
WIRELESS REAR RECEIVER	Power Consumption	60W		
	Power output	134W x 2(3Ω)		
	Weight	2.42 lbs		
	Dimensions (W x H x D)	2.55 x 9.25 x 6.29 inches		
FM TUNER	Usable Sensitivity	10dB		
	S/N Ratio	60dB		
	Distortion	0.5%		
AM TUNER	Usable Sensitivity	54dB		
	S/N Ratio	40dB		
	Distortion	2%		
VIDEO OUTPUT	Composite Video	1.0Vp-p(75Ω load)		
	S-VIDEO	Luminance Signal: 1.0Vp-p(75Ω load)		
		Color Signal: 0.286Vp-p(75Ω load)		
	Component Video	Y:1.0Vp-p(75Ω load)		
Pr:0.70Vp-p(75Ω load) Pb:0.70Vp-p(75Ω load)				
AMPLIFIER	Front speaker output	134W x 2(3Ω)		
	Center speaker output	134W(3Ω)		
	Subwoofer speaker output	130W(3Ω)		
	Frequency range	20Hz~20KHz		
	S/N Ratio	75dB		
	Channel separation	50dB		
	Input sensitivity	(AUX)400mV		
SPEAKER	Speaker system	5.1ch speaker system		
		Front/Center/Rear speaker	Subwoofer speaker	
	Impedance	3Ω x 5	3Ω	
	Frequency range	130Hz~20KHz/125Hz~20KHz	35Hz~200Hz	
	Output sound pressure level	84dB/W/M	84dB/W/M	
	Rated input	134W	130W	
	Maximum input	268W	260W	
	Dimensions (W x H x D)	Front/Rear	3.6 x 5.3 x 3.9 inches	7.1 x 12.6 x 15.7 inches
		Center	7.9 x 4.2 x 3.9 inches	
	Weights	Front/Rear	1.36 lbs	11.46 lbs
Center		1.69 lbs		

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(*90 Days Parts and Labor for Commercial Use)

This limited warranty begins on the original date of purchase, and is valid only on products purchased and used in the United States. To receive warranty service, the purchaser must contact SAMSUNG for problem determination and service procedures. Warranty service can only be performed by a SAMSUNG authorized service center. The original dated bill of sale must be presented upon request as proof of purchase to SAMSUNG or SAMSUNG's authorized service center. Transportation of the product to and from the service center is the responsibility of the purchaser.

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To obtain warranty hardware service, please contact SAMSUNG at:

SAMSUNG CUSTOMER CARE CENTER
400 Valley Road, Suite 201, Mt. Arlington, NJ 07856
1-800-SAMSUNG (1-800-726-7864) and www.samsung.com

Module

Model Name : SWA-4000

Model Code : SWA-4000/XAA



SERVICE Manual

Wireless Receiver Module

CONTENTS

1. Precaution
2. Product Specification



SAW-4000

Refer to the service manual in the GSPN (see the rear cover) for the more information.



GSPN (Global Service Partner Network)

Area	Web Site
North America	service.samsungportal.com
Latin America	latin.samsungportal.com
CIS	cis.samsungportal.com
Europe	europe.samsungportal.com
China	china.samsungportal.com
Asia	asia.samsungportal.com
Mideast & Africa	mea.samsungportal.com

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Printed in Korea

1. Precaution

Follow these safety, servicing and ESD precautions to prevent damage and protect against potential hazards such as electrical shock and X-rays.

1-1 Safety Precautions

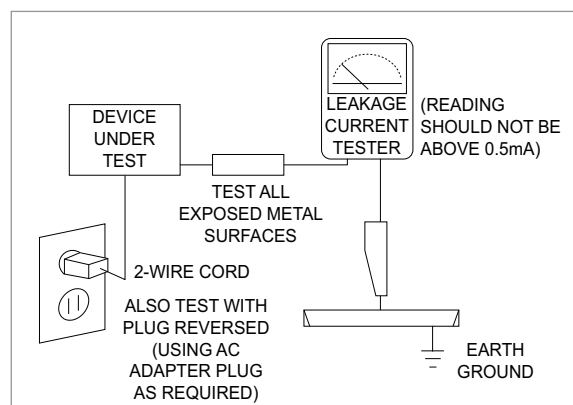
1. Be sure that all of the built-in protective devices are replaced.
2. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including control knobs and compartment covers.
3. Make sure that there are no cabinet openings through which people--particularly children--might insert fingers and contact dangerous voltages. Such openings include the spacing between the picture tube and the cabinet mask, excessively wide cabinet ventilation slots, and improperly fitted back covers.
4. Design Alteration Warning:
Never alter or add to the mechanical or electrical design of the unit.
Example: Do not add auxiliary audio or video connectors. Such alterations might create a safety hazard.
Also, any design changes or additions will void the manufacturer's warranty.

5. Leakage Current Hot Check (Fig. 1-1):

Warning: Do not use an isolation transformer during this test. Use a leakage-current tester or a metering system that complies with American National Standards Institute (ANSI C101.1, Leakage Current for Appliances), and Underwriters Laboratories (UL Publication UL1410, 59.7).

With the unit completely reassembled, plug the AC line cord directly into a 120V AC outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, etc.) and all exposed metal parts. Examples:

Handle brackets, metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the powerplug prongs in the AC outlet and repeat.

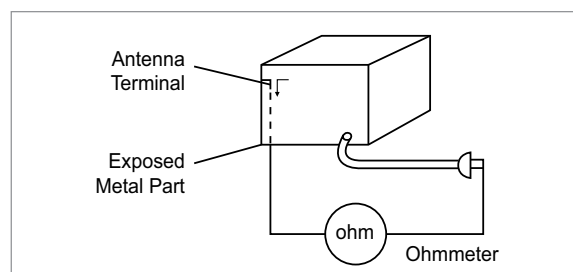


<Fig. 1-1 AC Leakage Test>

6. Insulation Resistance Cold Check:



(1) With the unit's AC plug disconnected from the AC source, connect an electrical jumper across the two AC prongs. (2) Set the power switch to ON. (3) Measure the resistance between the shorted AC plug and any exposed metallic parts.

Example: Screwheads, antenna, control shafts or handle brackets.



<Fig. 1-2 Insulation Resistance Test>

If any of the exposed metallic parts has a return path to the chassis, the measured resistance should be between 1 and 5.2 megohms. If there is no return path, the measured resistance should be "infinite." If the resistance is outside these limits, a shock hazard might exist. See Fig. 1-2

7. Components, parts and wiring that appear to have overheated or that are otherwise damaged should be replaced with parts that meet the original specifications. Always determine the cause of damage or overheating, and correct any potential hazards
8. Observe the original lead dress, especially near the following areas: Antenna wiring, sharp edges, and especially the AC and high voltage power supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that no wires or components touch thermally hot parts.
9. Product Safety Notice:
Some electrical and mechanical parts have special safety-related characteristics which might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original--even if the replacement is rated for higher voltage, wattage, etc.
10. Components that are critical for safety are indicated in the circuit diagram by shading,  or . Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications. A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

1-2 Servicing Precautions

1. Servicing precautions are printed on the cabinet. Follow them.
2. Always unplug the unit's AC power cord from the AC power source before attempting to: (a) Remove or reinstall any component or assembly, (b) Disconnect an electrical plug or connector, (c) Connect a test component in parallel with an electrolytic capacitor.
3. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring may be clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
4. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the portion around the serviced part has not been damaged.
5. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).
6. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500V) to the blades of the AC plug.

The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.
7. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.
8. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.



First read the "Safety Precautions" section of this manual. If some unforeseen circumstance creates a conflict between the servicing and safety precautions, always follow the safety precautions.

1-3 Precautions for Electrostatically Sensitive Devices (ESDs)

1. Some semiconductor (“solid state”) devices are easily damaged by static electricity. Such components are called Electrostatically Sensitive Devices (ESDs). Examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.
2. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. (Be sure to remove it prior to applying power--this is an electric shock precaution.)
3. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of electrostatic charge.
4. Do not use freon-propelled chemicals. These can generate electrical charges that damage ESDs.
5. Use only a grounded-tip soldering iron when soldering or unsoldering ESDs.
6. Use only an anti-static solder removal device. Many solder removal devices are not rated as “anti-static” (these can accumulate sufficient electrical charge to damage ESDs).
7. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
8. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.
9. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting a foot from a carpeted floor can generate enough static electricity to damage an ESD.

2. Product Specification

2-1 Product Feature

■ Better Quality

- 16 bit / 24 kHz Stereo Audio
- 75dB → 85dB
- Uncompressed Signal



■ Noise Free

- Different Frequency band from Bluetooth device, Microwave oven, 2.4 GHz cordless phone



■ Better Time Delay

- Dolby Spec is under 20ms
- Improved delay form 19ms → 15ms



■ Anntena Diversity


- With 2 antenna system → better signal environment

2-2 Specifications

■ Basic Specification



Model Name	SAW-4000
Power Consumption	40W
Weight	2.9 lbs
Dimensions (W x H x D)	3.0 x 6.9 x 14.0 inches
Operating Temperature Range	+5°C ~ +35°C
Operating Humidity Range	10% ~ 75%
Output	Refer to the Owner's Manual of Samsung Home Theater.
Frequency range	20Hz~20KHz
S/N Ratio	75dB

2-3 Specifications Analysis

Model Name	Samsung SWA-4000	Panasonic SH-FX65	LG RWSS125
Photo			
Total Power	330W	250W	250W
# of channel	2	2	2
Distance	at least 10m	?	100ft
Antenna	Not necessary	Not necessary	Necessary
Frequency	5.8GHz	2.4 GHz	2.4 GHz
ETC	TV Matching Black & Hi-glossy	Silver	Silver

2-4 Accessories

2-4-1 Supplied Accessories

Accessories	Item	Item code	Remark
	Tx Card		Samsung Service center
	Speaker Cable - 2EA	AH81-02137A	

The Federal Communications Commission Radio Frequency Interference Statement includes the following warning:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution : Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

IMPORTANT NOTE:

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth in an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Canadian Department of Communications Radio Interference Regulations

This digital apparatus (Wireless Internet Radio) does not exceed the Class B limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.