

## Troubleshooting Tips

### Lifestyle® SA-2 & SA-3 Amplifier

Refer to the Lifestyle® SA-2 & SA-3 Amplifier service manuals, part number 271720 for schematics, PCB layouts and parts lists.

#### Preventative Repair Measures

**Note:** Perform the following on all units returned for repair.

Product	Check	Action
SA-2 & SA-3	N/A	There is no preventative maintenance for this product.

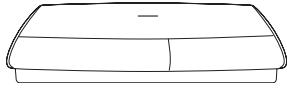
## Troubleshooting Tips

Product	Symptom	Check	Action									
SA-2 & SA-3	No Audio	Remote dipswitch settings	The unit will not turn on if the remote dipswitch settings are incorrect. See pages 2 – 12 of this document for instructions.									
SA-2 & SA-3	No Power	AMP IC's and fuse	Amplifier IC's U150 and U250 may be defective. Check for visible damage or shorts between pins 7&8 and pins 14&15. AC mains fuse F1 may also be open. <table border="1" style="margin: 10px auto;"> <tr> <td>U150,U250</td> <td>170156</td> <td>SA2 Only</td> </tr> <tr> <td>U150, U250</td> <td>275177-001</td> <td>SA3 Only</td> </tr> <tr> <td>F1</td> <td>177311-03150</td> <td>SA2 &amp; SA3</td> </tr> </table>	U150,U250	170156	SA2 Only	U150, U250	275177-001	SA3 Only	F1	177311-03150	SA2 & SA3
U150,U250	170156	SA2 Only										
U150, U250	275177-001	SA3 Only										
F1	177311-03150	SA2 & SA3										
SA-2 & SA-3	No Power	U4	The +5V supply voltage may be shorted to ground through U4 pin 1. Replace IC with part # 303687-001.									
SA-2 & SA-3	No Power	R10	Check for open 220 ohm resistor R10. Part # 181895-2200.									
SA-2 & SA-3	Unit operates at full volume, unable to control volume	C14	Capacitor C14 may be defective. Part # 191470-473.									
SA-2 & SA-3	Amp causes media center display to lock up and read BOSE LIFESTYLE	U9 and D14	Check for -8Vdc at regulator U9. If missing replace U9 (260688-08). D14 (135247-5231) may also be shorted.									
SA-2 & SA-3	Distorted audio / audio fades after a few seconds	U3	Volume control IC U3 (188941-001) may be defective.									
SA-3	No audio, led blinks rapidly	Software	The software may need to be updated, Refer to pages 13 - 15 for procedure.									
SA-3	No Power	Q155 and Q255	To determine if the amp IC's U150 and U250 are defective, check for shorts on Q155 and Q255. If they measure a short, remove the amp IC's and measure again. If the short is still present, replace the transistors in addition to the amp IC's									

### Model AV-18/38/48 media center setup

English

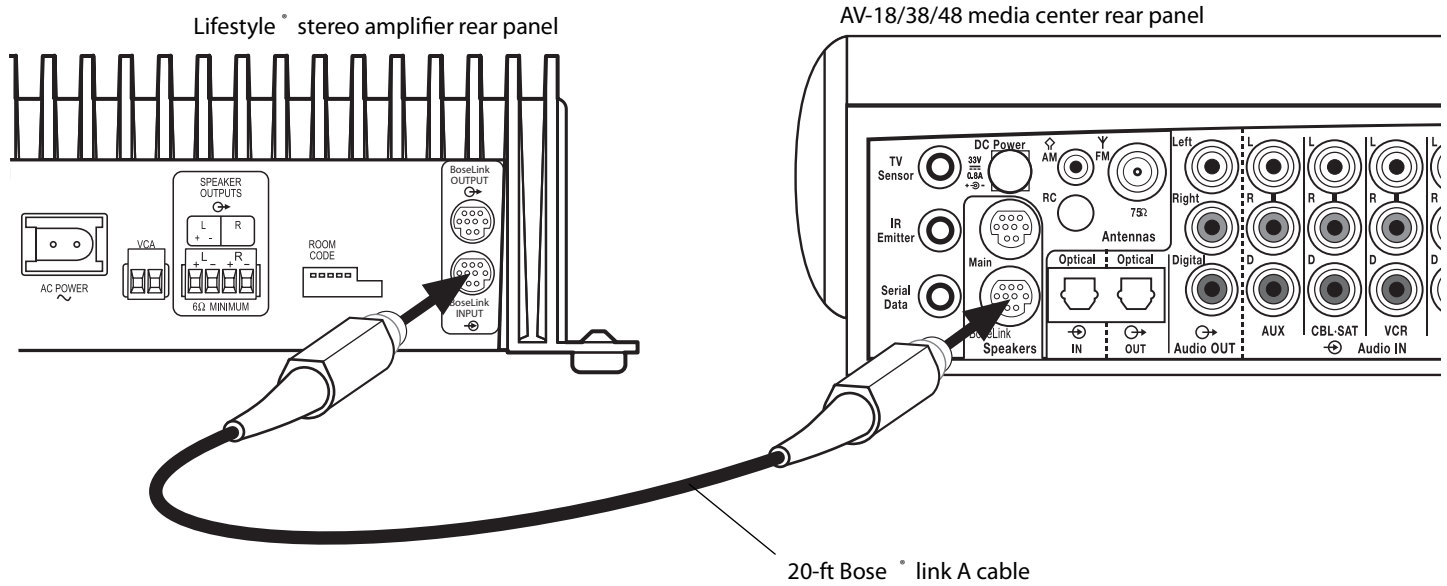
**⚠ CAUTION:** Before making connections, turn the Lifestyle <sup>®</sup> system off and disconnect the media center from the AC (mains) power outlet. **DO NOT** plug the amplifier into an outlet until you have completed all other connections.



1. Insert one end of the Bose <sup>®</sup> link A cable into the Bose <sup>®</sup> link output connector on the rear panel of the media center (Figure 5).
2. Insert the other end of the Bose <sup>®</sup> link A cable, into the Bose <sup>®</sup> link input connector on the rear panel of the Lifestyle <sup>®</sup> stereo amplifier.

Figure 5

Lifestyle <sup>®</sup> stereo amplifier to AV-18/38/48 media center connections



### Setting up RC-18S and RC-38S remotes

Your additional remote is shipped from the factory already set up for a second room (room B). To make sure that this remote will work with your home entertainment system, do the following to check the house code setting.

1. Remove the remote control battery cover and locate the microswitches (Figure 6).
2. Make sure that the house code settings (switches 1, 2, 3, and 4) match the house code settings in your main room remote.


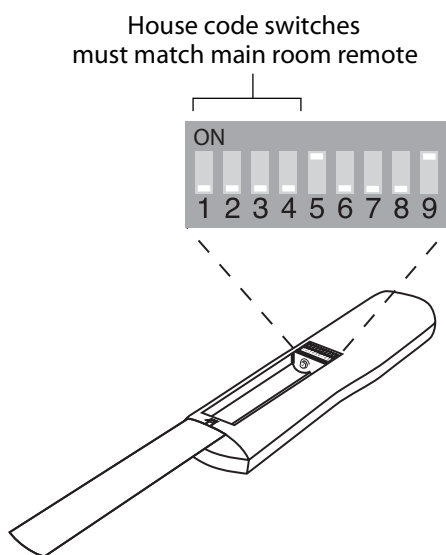
 **Note:** If this remote is to be used beyond a second room, other switch settings will need to be changed. See "Setting Up Additional Rooms For Sound" on page 22.

Figure 6

Remote microswitches



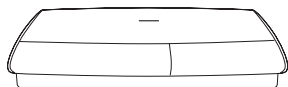
### Check the expansion protocol setting in your system

For the Lifestyle Stereo amplifier to work properly with your home entertainment system, the expansion protocol menu item must be set to Bose link. To verify this:

1. Turn on your Lifestyle DVD home entertainment system and your TV.
2. Press the System button on your main room remote.
3. Select the Audio tab and navigate down to Expansion Protocol.
4. Verify that the setting Bose link is selected. If not, select Bose link now.
5. Press the Exit button on the remote.

### Model AV-28 media center setup

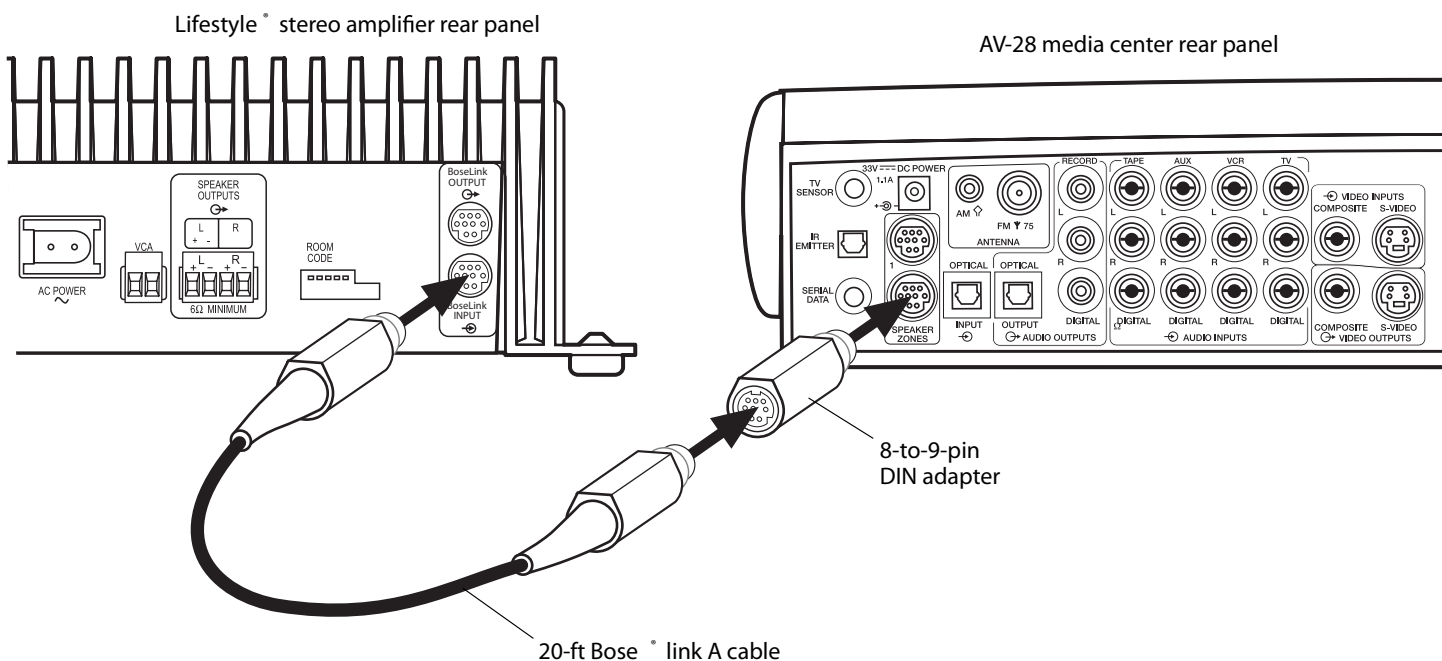
**⚠ CAUTION:** Before making connections, turn the Lifestyle <sup>®</sup> system off and disconnect the media center from the AC (mains) power outlet. **DO NOT** plug the amplifier into an outlet until you have completed all other connections.



1. Insert the 8-to-9-pin adapter into the SPEAKER ZONES 2 output connector on the rear panel of the media center (Figure 7).
2. Insert one end of the Bose <sup>®</sup> link A cable into the 8-to-9-pin adapter.
3. Insert the other end of the Bose <sup>®</sup> link A cable, into the Bose <sup>®</sup> link input connector on the rear panel of the Lifestyle <sup>®</sup> stereo amplifier.

Figure 7

Lifestyle <sup>®</sup> stereo amplifier to AV-28 media center connections



### Setting up the RC-28S remote

Your second remote is shipped from the factory already set up for Zone 2. To make sure that this remote will work with your home entertainment system, do the following to check the house code setting.

1. Remove the remote control battery cover and locate the microswitches (Figure 8).
2. Make sure that the house code settings (switches 1, 2, 3, and 4) match the house code settings in your main room remote.
3. Make sure switches 5, 7, and 8 are up, and switches 6 and 9 are down.


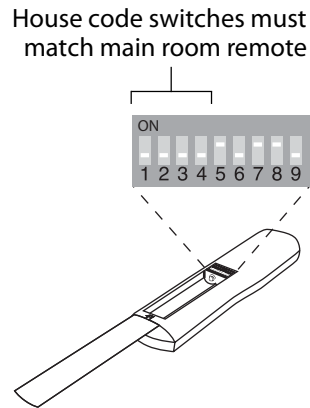
 **Note:** Refer to your Lifestyle <sup>®</sup> system owner's guide for more information on operating your system in more than one room.

Figure 8  
Remote microswitches

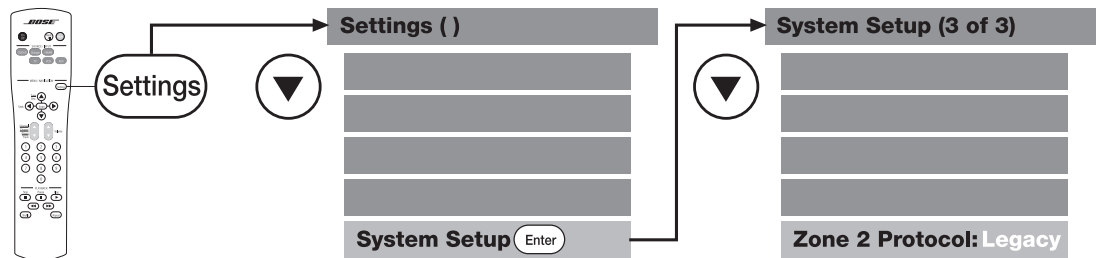


### Setting the Zone 2 Protocol in your home entertainment system

For the Lifestyle <sup>®</sup> stereo amplifier to work properly with a Lifestyle <sup>®</sup> media center, you will need to set the Zone 2 Protocol to Legacy mode (Figure 9).

1. Turn on your Lifestyle <sup>®</sup> DVD system and your TV.
2. Press the Settings button on your main room remote control.
3. Scroll down the menu to System Setup and press the Enter button.
4. Scroll down the menu to the last item, Zone 2 Protocol.
5. Press the right arrow remote button to change the protocol from Normal to Legacy.
6. Turn the system off and on again to ensure that the Zone 2 Protocol is reset to Legacy.

Figure 9  
Setting Zone 2 Protocol



### Multi-room interface setup

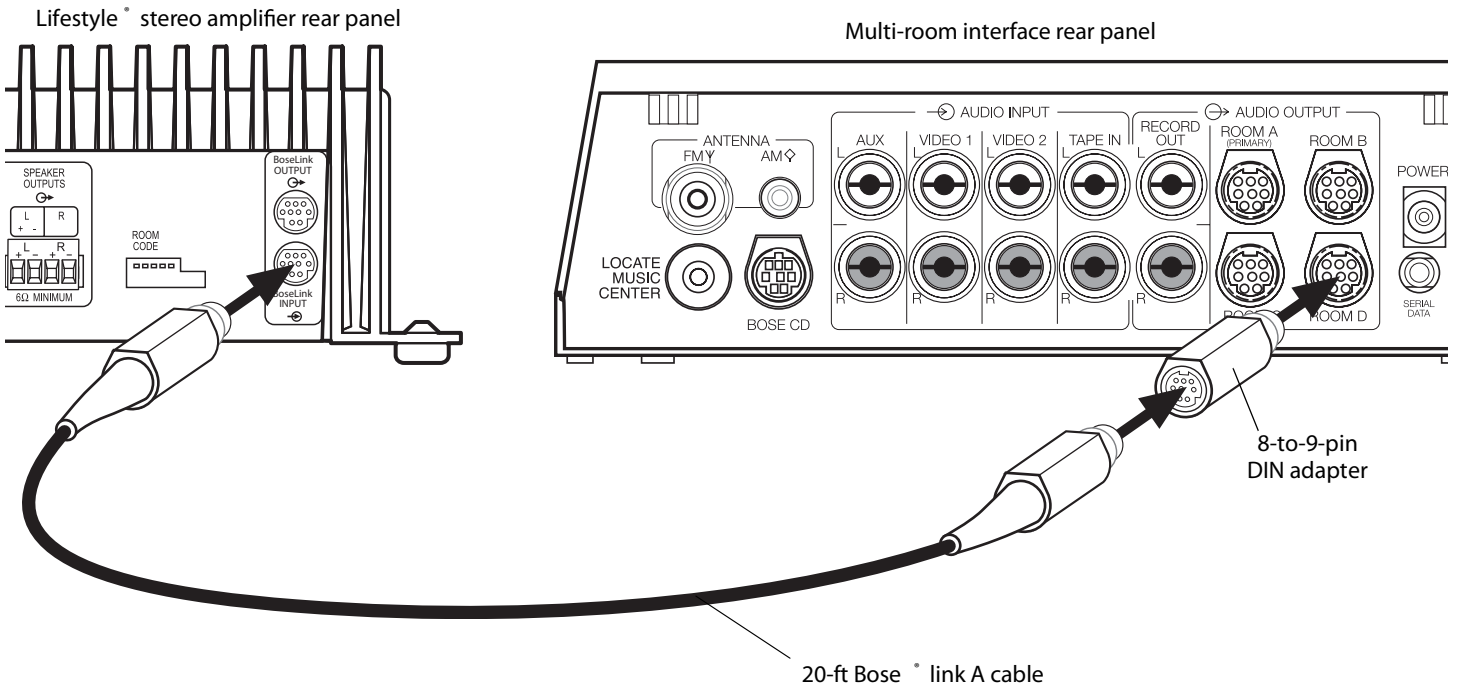
**⚠ CAUTION:** Before making any connections, turn the Lifestyle <sup>®</sup> system off and disconnect the music center from the AC (mains) power outlet. **DO NOT** plug the amplifier into an outlet until you have completed all other connections.



1. Insert the 8-to-9-pin adapter into one of the unused ROOM output connectors (B, C, or D) on the rear of the multi-room interface (Figure 10).
2. Insert one end of the Bose <sup>®</sup> link A cable into the 8-to-9-pin adapter.
3. Insert the other end of the Bose <sup>®</sup> link A cable, into the Bose <sup>®</sup> link input connector on the rear panel of the Lifestyle <sup>®</sup> stereo amplifier.

Figure 10

Lifestyle <sup>®</sup> stereo amplifier to multi-room interface connections





### Setting up the Personal music center

Systems that have a multi-room interface are controlled by the Personal music center which requires no internal switch settings before it allows you to control more than one room of speakers. However, if you purchase a second Personal music center, you must follow the procedure for setting up the Personal music center for the first time.

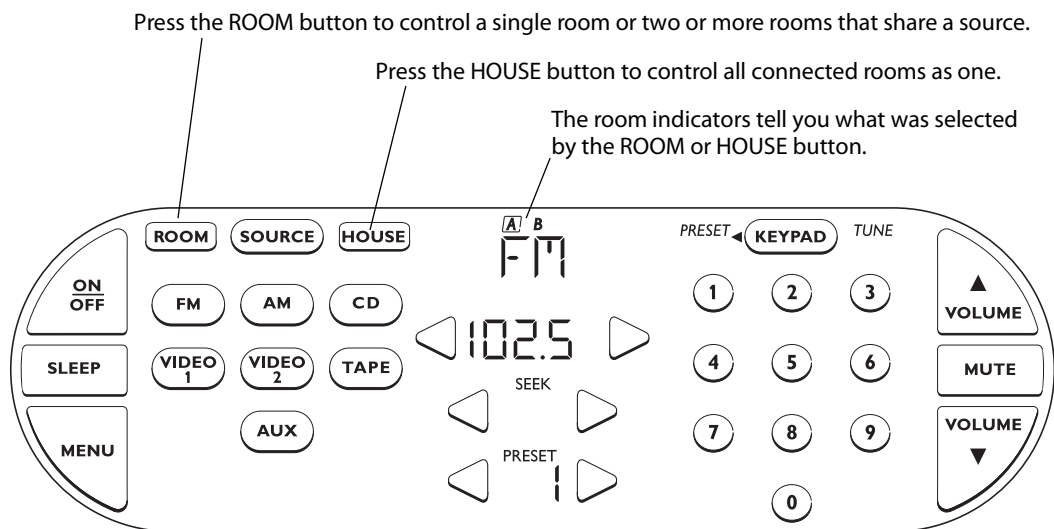
- 🎵 **Note:** Refer to your Lifestyle system owner's guide for more information on operating your system in more than one room.

### Selecting other rooms with the Personal music center

The Personal music center allows you to control up to four sets of Bose powered speakers placed in individual rooms. These rooms are referred to as room A, B, C, and D, with room A being the primary room (the one used for a one-room system). If two or more rooms are connected to your system, the Personal music center displays ROOM and HOUSE buttons, and room indicators (A, B, C, and/or D). Figure 11 shows a sample display for a two-room system.

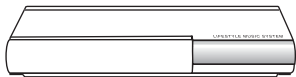
Figure 11

Sample display for a two-room system



### Model 20 music center setup

**CAUTION:** Before making connections, turn the Lifestyle system off and disconnect the music center from the AC (mains) power outlet. **DO NOT** plug the amplifier into an outlet until you have completed all other connections.



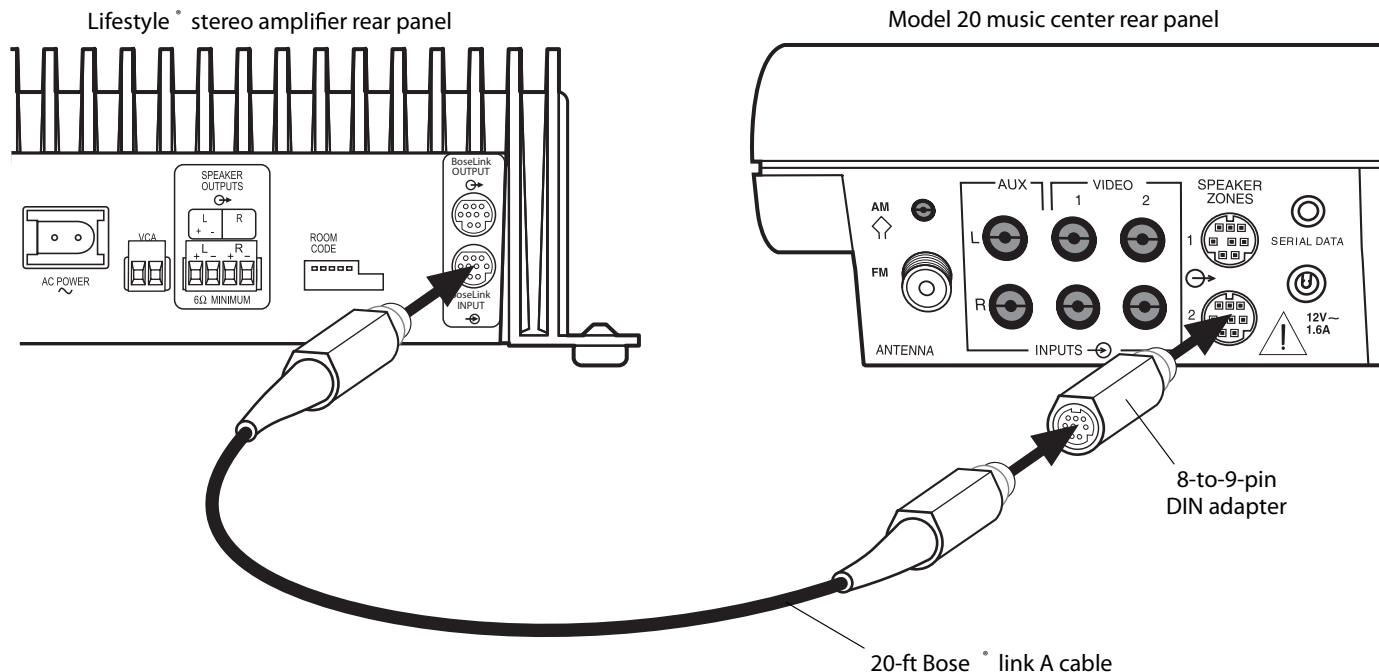
1. Insert the 8-to-9-in DIN adapter into the SPEAKER ZONES 2 output connector on the rear panel of the music center (Figure 12).
2. Insert one end of the Bose link A cable into the 8-to-9-pin adapter.
3. Insert the other end of the Bose link A cable into the Bose link input connector on the rear panel of the Lifestyle stereo amplifier.
4. Set the ROOM CODE switches of the Lifestyle stereo amplifier to room E (switch 7 up, switches 6, 8 and 9 down).



See "Setting up the amplifier room code" on page 24.

Figure 12

Lifestyle stereo amplifier to Model 20 music center connections





### Setting up the RC-20 remote for Zone 2

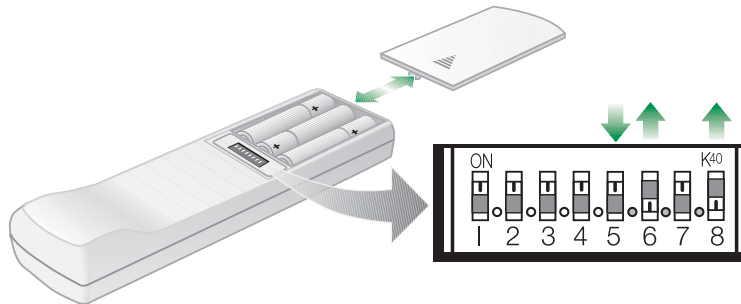
If your system uses a Model 20 music center, you need to set up a second RC-20 remote control to operate the ZONE 2 outputs.

1. Remove the remote control battery cover and locate the miniature switches (Figure 13).
2. Make sure that the house code settings (switches 1, 2, 3, and 4) match those in your first remote.
3. Slide switch 5 down (off), and switches 6 and 8 up (on).

🎵 **Note:** Refer to your Lifestyle ° system owner's guide for more information on operating your system in more than one room.

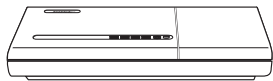
Figure 13

RC-20 remote Zone 2  
switch settings



### Model 5 music center setup

This setup requires a 3-ft audio input adapter cable. Contact your Bose dealer or Bose Customer Service. See the list of locations and phone numbers included in the shipping carton.



**CAUTION:** Before making connections, turn the Lifestyle system off and disconnect the music center from the AC (mains) power outlet. DO NOT plug the amplifier into an outlet until you have completed all other connections.

**CAUTION:** DO NOT connect the audio input cable for the Lifestyle stereo amplifier to the SPEAKERS A or SPEAKERS B outputs. The amplifier is designed to work properly with the fixed output level available from the FIXED OUTPUT connectors.

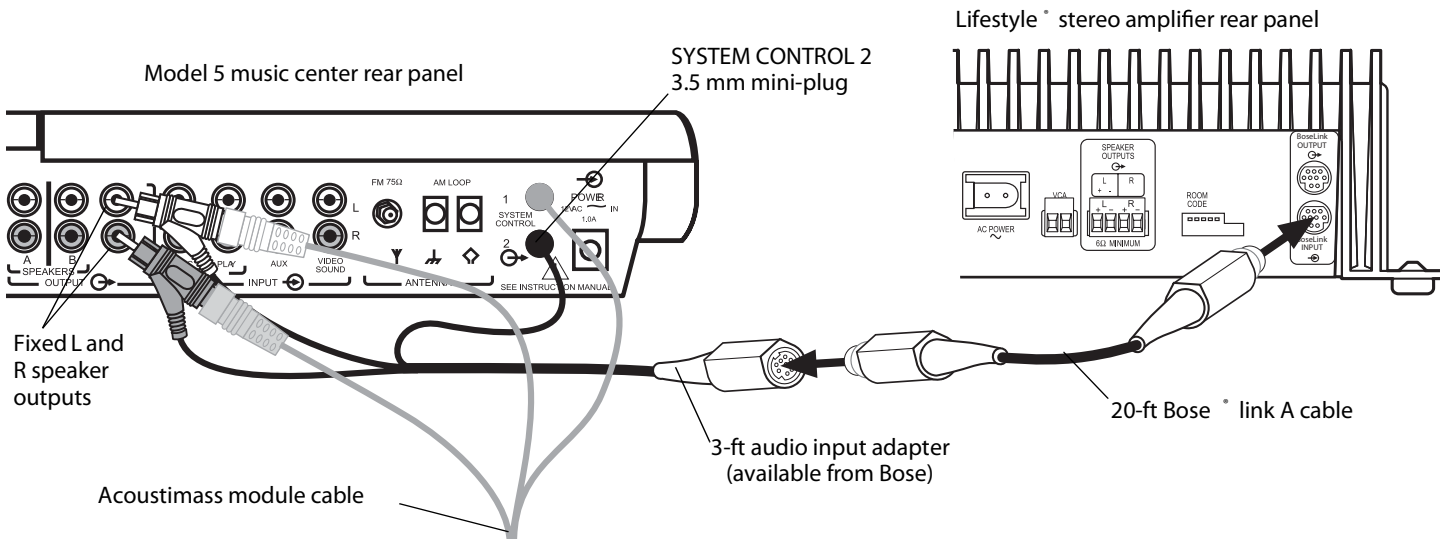
1. Disconnect the Acoustimass cable from the FIXED L and R outputs on the rear panel of the music center (Figure 14).
2. Insert the red RCA piggyback connector of the three-foot audio input adapter cable into the R (right) FIXED OUTPUT connector. Insert the white RCA piggyback connector into the L (left) FIXED OUTPUT connector. Insert the 3.5 mm mini-plug into the SYSTEM CONTROL 2 connector on the rear panel of the music center.
3. Insert the red RCA connector of the Acoustimass module cable into the red piggyback connector and the white RCA connector into the white piggyback connector.
4. Plug one end of the 20-foot audio cable (supplied) into the free end of the three-foot audio input adapter cable. Plug the other end of the 20-foot audio cable into the Bose link input connector on the rear panel of the Lifestyle stereo amplifier.
5. Set the ROOM CODE switches of the Lifestyle stereo amplifier to room E (switch 7 up, switches 6, 8 and 9 down).



See "Setting up the amplifier room code" on page 24.

Figure 14

Lifestyle stereo amplifier to Model 5 music center connections



### Setting up the RC-5 remote

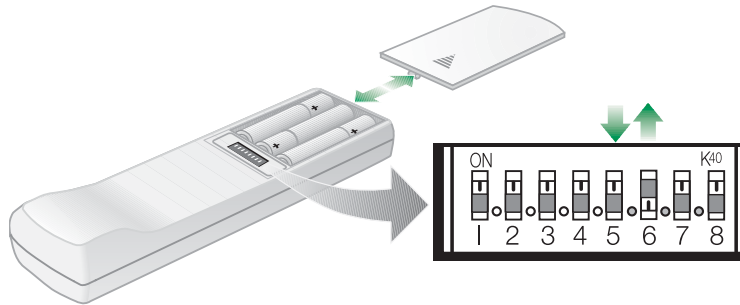
If your system uses a Model 5 music center, you need to set up a second RC-5 remote control to operate your Lifestyle stereo amplifier.

1. Remove the remote control battery cover and locate the miniature switches (Figure 15).
2. Make sure that the house code settings (switches 1, 2, 3, and 4) match those in your first remote.
3. Slide switch 5 down (off) and 6 up (on).

🎵 **Note:** Refer to your Lifestyle system owner's guide for more information on operating your system in more than one room.

Figure 15

RC-5 remote switch settings



# Bose® Lifestyle® SA-2 & SA-3 Amplifier Software Upgrade

Steps:

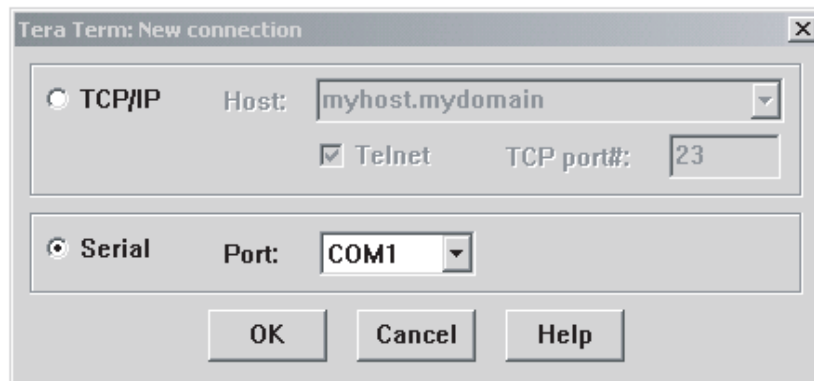
1. Using the schematic shown in FIGURE 1, construct a cable for issuing TAP commands. Obtain the most recent upgrade software at the following link:

[http://intranet.bose.com/tsg/rog\\_support/cell-process/SA2-SA3%20Cell/SA2\\_3%20Prog%20Info.htm](http://intranet.bose.com/tsg/rog_support/cell-process/SA2-SA3%20Cell/SA2_3%20Prog%20Info.htm)

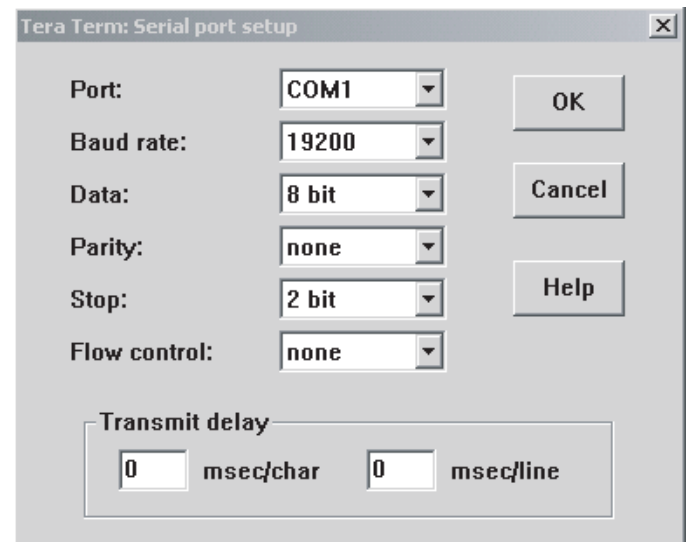
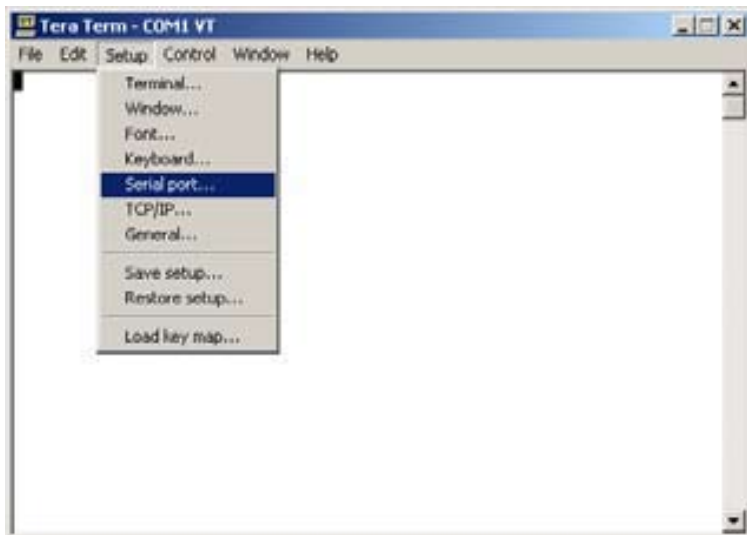
2. Start a terminal emulator program on a PC (e.g: Hyper Terminal, Tera Term Pro). Also found at the link listed above.

**Note:** The SA-2 or SA-3 should not be plugged in at this time.

3. Open Tera Term and select “serial” as shown below. Click OK.



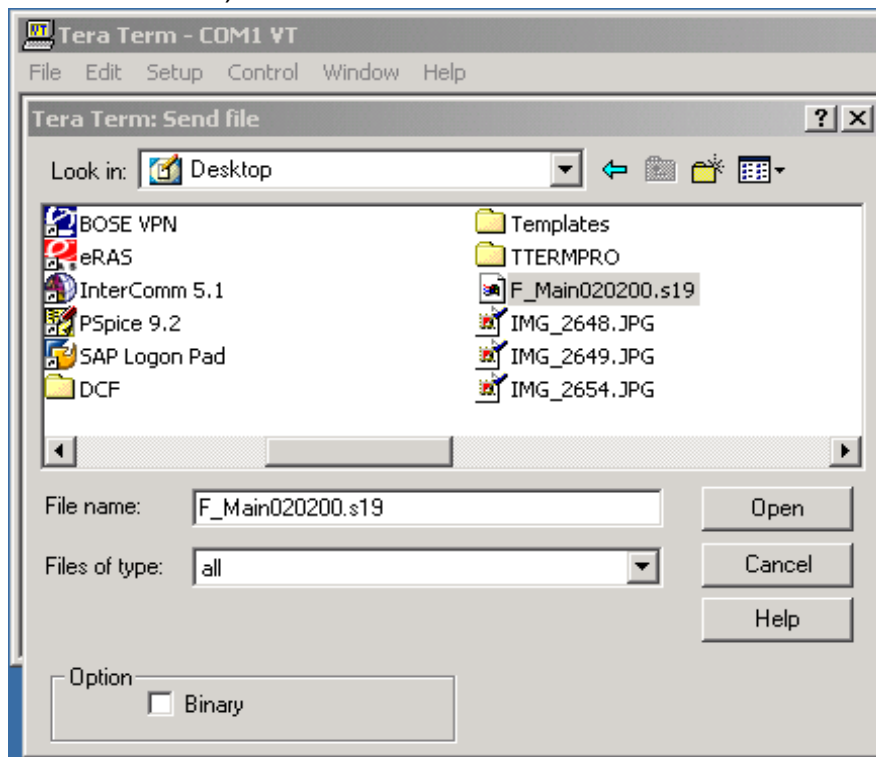
4. Setup the terminal emulator as shown below. Tera Term terminal emulator is shown.



Set Up:  
Baud Rate: 19.2K  
Data: 8 Bit  
Parity: none  
Stop Bit: 2 Bit  
Flow Control: None

# Bose®Lifestyle® SA-2 & SA-3 Amplifier Software Upgrade

5. Connect the TAP cable to the Bose Link connector on the SA-2 or SA-3.
6. Set all switches to high.
7. Plug the unit in. The SA-2 or 3 will go into a Pre Flash Load state: The LED will blink fast, 4 times/second.
8. Within 25 seconds of plugging the unit in press the control key (**CTRL**) and then the **F** key sequentially (may need to do two times) on the keyboard (SA-2 or 3 will go into a Flash Erase Mode - LED either stops blinking or stays on for about 5 seconds) otherwise the system times out from the flash loader (if this happens unplug the unit until the LED is completely out, about 2 minutes, plug back in and continue).
9. At the end of the Flash Erase Mode the SA-2 and 3 goes into a Flash Load State (The LED will start blinking 2.5 times/second). The code has now been erased.
10. To transfer the new code to the unit select File from the top menu, at that pull down menu select Send file (the window seen below will pop up). Find the software that was saved to your desktop in step 1 and double click. (The LED will blink slowly while the file is loading about 1 time/second).



11. Once the file has finished the transfer the SA-2 or 3 will go back to the Flash Load State (The LED will blink 2.5 times/second). At this time move switches 6 & 7 (for both the SA2 and 3) in the down position.
12. Unplug then unit and wait until the LED has completely dimmed. Re-plug the unit in. The unit LED should blink at a normal speed. If this is the case the upgrade is complete, if the LED does not blink normally please try this upgrade again.

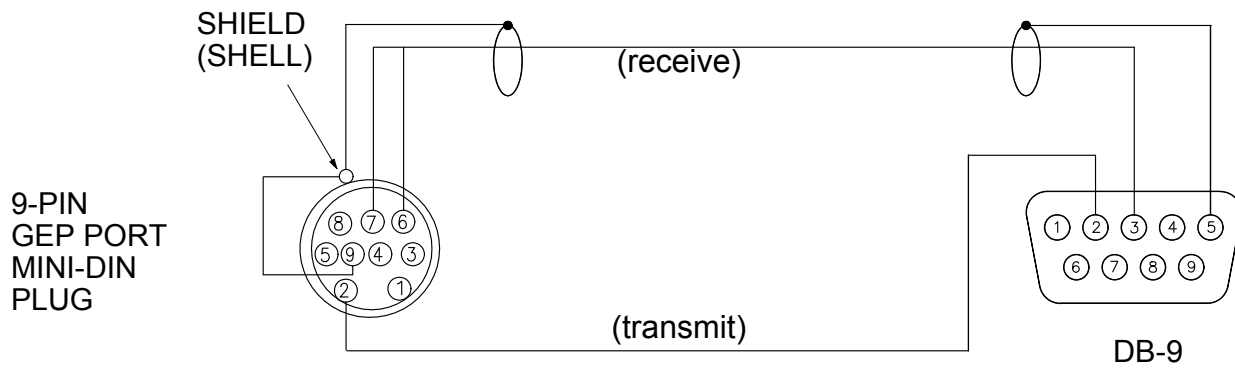


FIGURE 1