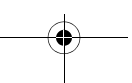
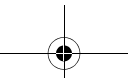




RadioShack[®]
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SSM-60 Stereo Sound Mixer with Tone Controls



Owner's Manual

Please read before using this equipment.



□ Features

Your RadioShack Stereo Sound Mixer is a sophisticated control center, perfect for mixing sound from up to seven audio input sources (such as a microphone, tuners, CD players, turntables, or the audio outputs from VCRs or camcorders). It is ruggedly constructed for home or professional use. Its wide-range volume controls let you adjust sound levels to achieve the right mix for playing through your speaker system or for recording. The mixer's many features give you almost limitless sound combinations. Its features include:

Stereo Line Inputs — let you connect most high-level audio sources such as a CD player, tape deck, tuner, a VCR's or camcorder's audio, and up to two magnetic cartridge turntables.

Low-Noise Tape Out Jack — give you high-quality tape recording.

Slide Volume Controls — give you fingertip control of sound mixing and fading.

Fader Control — lets you quickly and smoothly switch between two playing input sources, such as a turntable and a microphone.

Monitor Control — lets you monitor the line inputs using headphones so you can adjust them before mixing them in.



Multiple Microphone Jacks with Stereo/Mono Switch — let you connect three microphones at the same time, in-

cluding one for a DJ (disc jockey), and select stereo or mono input for each one.

Bass/Treble Boost Controls — let you adjust the bass and treble of the primary microphone (MIC 1) to improve the DJ's sound.

To get the best performance from your stereo sound mixer, please read this manual fully and carefully before you connect it to other audio components.

WARNING: To reduce the risk of fire or shock hazard, do not expose this product to rain or moisture.

	CAUTION RISK OF ELECTRIC SHOCK. DO NOT OPEN.	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.		



This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.



This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.

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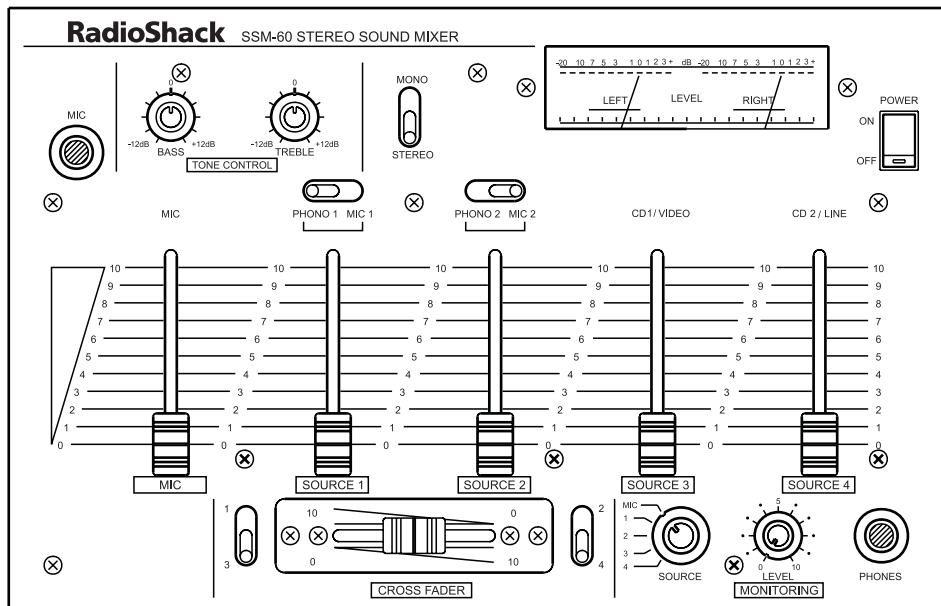
□ Preparation

PRESETTING THE CONTROLS

Warning: A sudden high output from the mixer could damage the audio devices connected to the mixer's output and your hearing, especially if you use headphones.

To avoid accidentally overdriving a channel or prematurely mixing in an audio input, adjust the mixer's controls to these settings before you connect the AC power cord or turn on power.

Control	Setting
POWER ON/OFF	OFF
TONE CONTROL: BASS and TREBLE	0
MONO/STEREO	STEREO
MIC, SOURCE 1, SOURCE 2, SOURCE 3, SOURCE 4	0
CROSS FADER	Center
MONITORING: SOURCE Volume LEVEL	MIC 0



CONNECTING THE OUTPUTS

To avoid sudden and unusable sound outputs from the audio devices, adjust the audio devices' controls to these settings before you connect the mixer's output jacks to the audio devices' input jacks.

Audio Device	Control	Setting
Tape Deck	Power	OFF
Amplifier/Receivers	Power Tone	OFF FLAT

To play the mixer's output signal through your speaker system (for events such as parties, dances, and conferences), connect an audio patch cord (not supplied) from the mixer's **OUTPUT R** and **L** jacks to your receiver/amplifier's left and right auxiliary input jacks.

To record the mixer's output signal, connect an audio patch cord (not supplied) from the mixer's **REC R** and **L** jacks to your tape deck's left and right input jacks.

Note: Your local RadioShack store carries a wide variety of cords and cables.

CONNECTING THE INPUTS

To mix up to seven audio input sources (such as a microphone, tuner, tape deck, CD player, magnetic-cartridge turntable, camcorder, or VCR), connect them to the input jacks, one on the front panel and six on the back of the mixer.

Only four inputs can be mixed at the same time.

Caution: Do not connect an audio source with a high-level output into the low-level **MIC**, **MIC 1**, **MIC 2**, **PHONO 1**, or **PHONO 2** audio input jacks. An audio source's output is high-level if you can raise or lower its volume with its volume control.

1. Connect a microphone (not supplied) with a 1/4-inch plug into **MIC** on the top left corner of the front panel. This is the DJ's microphone.
2. Connect up to two low-level output audio sources (such as two additional stereo microphones, not supplied) with a 1/4 inch plug to **MIC 1** and **MIC 2** on the back of the mixer. These are the performance microphones.
3. Connect up to two low-level output audio sources (such as magnetic-cartridge turntables) to **PHONO 1** and **PHONO 2**.

Notes:

- If you connect magnetic-cartridge turntables, connect their ground wires (usually black or green) to **GND**.
 - You can connect any audio source's low-level output to either **PHONO 1** or **PHONO 2**.
4. Connect up to two high-level output audio sources (such as a tuner, cas-

sette tape deck, CD player, camcorder, or VCR) to **VIDEO/CD 1** and **LINE/CD 2**.

Note: You can connect any high-level output audio source to either **VIDEO/CD 1** and **LINE/CD 2**.

5. Power the mixer using the supplied 18V, 300-mA AC adapter.

Cautions:



You must use a Class 2 power source that supplies 18V AC and delivers at least 300 mA. Its center tip must be set to negative and its plug must fit the mixer's **AC 18V**

jack. The supplied adapter meets these specifications. Using an adapter that does not meet these specifications could damage the mixer or the adapter.

- Always connect the AC adapter to the mixer before you connect it to AC power. When you finish, disconnect the adapter from AC power before you disconnect it from the mixer.

Connect the small end of the supplied AC adapter to **AC 18V** on the back of the mixer and connect the other end to a standard AC outlet.

□ Operation

USING HEADPHONES

To listen in privacy or monitor the audio source inputs so you can locate an exact passage or section before mixing it, plug a pair of stereo headphones (not supplied) with a 1/4-inch plug into **PHONES** on the mixer's lower right front corner. Your local RadioShack store carries a wide selection of headphones.

Listening Safely

To protect your hearing, follow these guidelines when you use headphones.

- Set the volume to the lowest setting before you begin listening. After you begin listening, adjust the volume to a comfortable level.

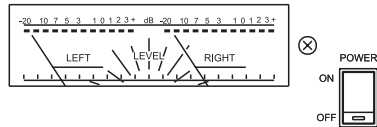
- Do not listen at extremely high volume levels. Extended high-volume listening can lead to permanent hearing loss.
- Once you set the volume, do not increase it. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

Caution: As you begin to mix, be careful not to get into the habit of always increasing volume levels to achieve the proper balance. You can bring high levels down just as easily as you can bring low levels up. Listening at excessive volume levels will soon give you "tired ears" and you will not be as pleased with your finished product later.

USING THE CONTROLS

Turning on the Mixer

1. Set **POWER ON/OFF** to **ON** to turn on the mixer's power. The meters' light turns on.



Note: To avoid a possible popping sound, always turn on the mixer before you turn on the amplifier.

2. Turn on the output amplifier and temporarily set its volume to the minimum setting.
3. To monitor the audio input sources so you can decide when to mix in each input, see "Monitoring the Inputs."

To mix the audio input sources so you can play them through your amplifier system or record them on your tape deck, see "Mixing the Inputs."

Monitoring the Inputs

You can monitor the audio input sources so you can decide when to mix in each input.

Follow these steps to monitor the audio input sources.

1. Set **POWER ON/OFF** to **ON** to turn on the mixer's power. The meters' light turns on.

2. Turn on the output amplifier and temporarily set its volume to the minimum setting.
3. Put on the headphones.
4. Set **MONITORING SOURCE** to the audio input source (**MIC, 1, 2, 3** or **4**) you want to monitor.
5. Set the desired audio input source's volume to its minimum setting, turn it on, and set it to play (or continuously talk into the microphone).
6. Slowly turn **MONITORING LEVEL** until you hear the signal through the headphones at the desired volume level.
7. Repeat Steps 4–6 to select and adjust the volume level of the other audio input sources, one at a time.

Mixing the Inputs

Follow these steps to mix the audio input sources.

1. Set **POWER ON/OFF** to **ON** to turn on the mixer's power. The meters' light turns on.
2. Turn on the output amplifier and temporarily set its volume to the minimum setting.
3. Set the selected audio input source's volume to its minimum setting, turn it on, and set it to play (or continuously talk into the microphone).

4. Set these controls as desired.

Control	Setting	Audio Source
PHONO 1/ MIC 1	PHONO 1	To mix the microphone connected to the PHONO 1 input jack.
	MIC1	To mix the turntable connected to the MIC 1 input jack.
PHONO 2/ MIC 2	PHONO 2	To mix the microphone connected to the PHONO 2 input jack.
	MIC 2	To mix the audio source connected to the MIC 2 input jack.

5. Set the corresponding **MIC**, **SOURCE 1**, **SOURCE 2**, **SOURCE 3**, or **SOURCE 4** volume level control to between **8** and **10**.
6. When adding an audio input source, adjust the corresponding volume level control so you get a reading of about **0** on both output level meters.

Note: The output level meters indicate the combined output signal level of:

- All the input sources being mixed.

- Both the left and right stereo channel outputs.

7. Adjust the output amplifier's volume level control to the desired volume.
8. When finished mixing, turn off all the audio input sources.
9. To turn off the mixer, set **POWER ON/OFF** to **OFF**. The meters' light turns off.

Using the Cross Fader

When two channels are playing at the same time, slide **CROSS FADER**:

- to the left to fade in **SOURCE 1** (or **3**) and fade out **SOURCE 2** (or **4**)
- to the center to mix the **SOURCE 2** (or **4**) and **SOURCE 1** (or **3**) levels equally
- to the right to fade in **SOURCE 2** (or **4**) and fade out **SOURCE 1** (or **3**)

Note: This lets you quickly and smoothly change from playing **SOURCE 1** (or **3**) to playing **SOURCE 2** (or **4**).

Using the Tone Controls

You can tailor the microphone's high- and low-frequency sounds processed through the mixer to fit the acoustic surroundings and your personal taste using the **BASS** and **TREBLE TONE CONTROLS**.

To enhance the sounds, rotate **BASS** or **TREBLE** toward **+12dB**. To reduce them, rotate **BASS** or **TREBLE** towards **-12dB**. To resume normal sound, set them to **0**.

Using MONO/STEREO

When you set **MONO/STEREO** to **MONO**, the mixer combines the left and right channels then sends the signals to the **OUTPUT R** and **L** jacks. The combined output signals can be used by a monaural amplifier, such as a PA amplifier.

When you set **MONO/STEREO** to **STEREO**, the mixer keeps the left and right stereo channels separated, then sends the signals to the **OUTPUT R** or **L** jacks. The stereo output signals can be used by a stereo amplifier or tape deck.

□ Troubleshooting

Your mixer should require very little maintenance. If you have problems, refer to this chart for possible solutions. If you cannot solve the problem, contact your local RadioShack store for assistance.

Problem	Solution
Nothing works.	Check the AC power connection. Make sure the AC outlet is "live."
	Check the power connections to the rest of the system (such as the amplifier or receiver).
No signal from an audio input source.	Check the control setting.
	Check the connections between the mixer and the input source.
Hum from PHONO .	Connect the turntable's ground wire (usually black or green) to the GND screw on the back of the mixer.
Hum from other inputs.	Make sure there are no low-level inputs connected to CD 1 or CD 2 .
Feedback "squeals."	Move the microphone further away from the output speakers or use a directional microphone.

□ **Care and Maintenance**

Your RadioShack Stereo Sound Mixer is an example of superior design and craftsmanship. The following suggestions will help you care for your mixer so you can enjoy it for years.



Keep the mixer dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.



Use and store the mixer only in normal temperature environments. Temperature extremes can shorten the life of electronic devices and distort or melt plastic parts.



Keep the mixer away from dust and dirt, which can cause premature wear of parts.



Handle the mixer gently and carefully. Dropping it can damage circuit boards and cases and can cause the mixer to work improperly.



Wipe the mixer with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the mixer.

Modifying or tampering with the mixer's internal components can cause a malfunction and might invalidate its warranty. If your mixer is not performing as it should, take it to your local RadioShack store for assistance.

□ Specifications

Input Sensitivity/Impedance:

MIC (DJ)	3 mV, 600 Ohms
MIC 1, 2	3 mV, 600 Ohms
PHONO 1, 2	3 mV, 50 kohms
CD 1, 2	150 mV, 50 kohms
VIDEO	150 mV, 50 kohms
LINE	150 mV, 50 kohms

Output Level:

MASTER	Rated: 1.5V Maximum: 6V
RECORD	Rated: 0.775V Maximum: 5V

S/N Ratio:

MIC	60 dB
PHONO	70 dB
CD, LINE, VIDEO	75 dB

Distortion:

MIC	0.5% @ 3 mV/1 kHz
PHONO	0.2% @ 3 mV/1 kHz
CD, LINE, VIDEO	0.02% @ 150 mV/1 kHz

Tone Control:

Treble	100 Hz
Bass	10 kHz
Boost/Cut Range	±12 dB

AC Adapter:

Input	120 V AC 60 Hz
Output	18 V AC 300 mA

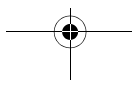
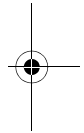
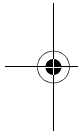
Dimensions (HWD) $1\frac{1}{2} \times 14\frac{3}{8} \times 8$ Inches
(38 × 365 × 203 mm)

Weight 4 lb 6 oz
(2 kg)

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.



Notes



Limited One-Year Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for one (1) year from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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