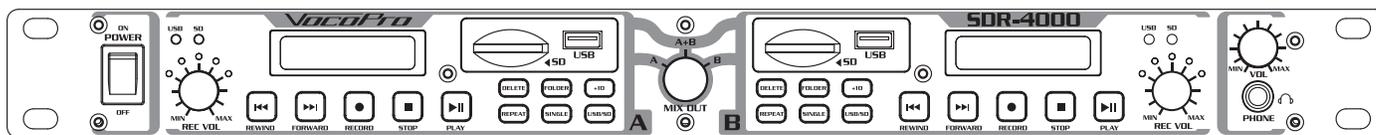


VocoPro[®]

PROFESSIONAL VOCAL SYSTEMS[™]



SDR-4000

Dual Digital USB/SD Recorder

O W N E R ' S M A N U A L

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FCC INFORMATION (U.S.A.)

1. IMPORTANT NOTICE: DO NOT MODIFY THIS

UNIT!: This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Vocopro may void your authority, granted by the FCC, to use this product.

2. IMPORTANT: When connecting this product to accessories and/or another product use only high quality shielded cables. Cable(s) supplied with this product **MUST** be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the U.S.A.

3. NOTE: This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurances that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the owner's manual, may cause interference harmful to the operation of other electronic devices. Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "Off" and "On", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Use power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter(s).

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300-ohm ribbon lead, change the lead-in to coaxial type cable.

If these corrective measures do not produce satisfactory results, please contact your local retailer authorized to distribute Vocopro products. If you can not locate the appropriate retailer, please contact Vocopro, 1728 Curtiss Court, La Verne, CA 91750.

CAUTION

The apparatus is not disconnected from the AC power source so long as it is connected to the wall outlet, even if the apparatus itself is turned off. To fully ensure that the apparatus is indeed fully void of residual power, leave unit disconnected from the AC outlet for at least fifteen seconds.

CAUTION:

READ THIS BEFORE OPERATING YOUR UNIT

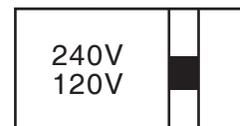
1. To ensure the finest performance, please read this manual carefully. Keep it in a safe place for future reference.
2. Install your unit in a cool, dry, clean place - away from windows, heat sources, and too much vibration, dust, moisture or cold. Avoid sources of hum (transformers, v motors). To prevent fire or electrical shock, do not expose to rain and water.
3. Do not operate the unit upside-down.
4. Never open the cabinet. If a foreign object drops into the set, contact your dealer.
5. Place the unit in a location with adequate air circulation. Do not interfere with its proper ventilation; this will cause the internal temperature to rise and may result in a failure.
6. Do not use force on switches, knobs or cords. When moving the unit, first turn the unit off. Then gently disconnect the power plug and the cords connecting to other equipment. Never pull the cord itself.
7. Do not attempt to clean the unit with chemical solvents: this might damage the finish. Use a clean, dry cloth.
8. Be sure to read the "Troubleshooting" section on common operating errors before concluding that your unit is faulty.
9. This unit consumes a fair amount of power even when the power switch is turned off. We recommend that you unplug the power cord from the wall outlet if the unit is not going to be used for a long time. This will save electricity and help prevent fire hazards. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.
10. To prevent lightning damage, pull out the power cord and remove the antenna cable during an electrical storm.
11. The general digital signals may interfere with other equipment such as tuners or receivers. Move the system farther away from such equipment if interference is observed.

NOTE:

Please check the copyright laws in your country before recording from records, compact discs, radio, etc. Recording of copyrighted material may infringe copyright laws.

Voltage Selector (General Model Only)

Be sure to position the voltage selector to match the voltage of your local power lines before installing the unit.



Listening for a lifetime

Selecting fine audio equipment such as the unit you've just purchased is only the start of your musical enjoyment. Now it's time to consider how you can maximize the fun and excitement your equipment offers. VocoPro and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion and, most importantly, without affecting your sensitive hearing.

Sound can be deceiving. Over time your hearing "comfort level" adapts to a higher volume of sound. So what sounds "normal" can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish a safe level:

- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:

- Set the dial and leave it there.
- Pay attention to the different levels in various recordings.

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

Used wisely, your new sound equipment will provide a lifetime of fun and enjoyment. Since hearing damage from loud noise is often undetectable until it is too late, this manufacturer and the Electronic Industries Association's Consumer Electronics Group recommend you avoid prolonged exposure to excessive noise. This list of sound levels is included for your protection.

Some common decibel ranges:

Level	Example
30	Quiet library, Soft whispers
40	Living room, Refrigerator, Bedroom away from traffic
50	Light traffic, Normal Conversation
60	Air Conditioner at 20 ft., Sewing machine
70	Vacuum cleaner, Hair dryer, Noisy Restaurant
80	Average city traffic, Garbage disposals, Alarm clock at 2 ft.

The following noises can be dangerous under constant exposure:

Level	Example
90	Subway, Motorcycle, Truck traffic, Lawn Mower
100	Garbage truck, Chainsaw, Pneumatics drill
120	Rock band concert in front of speakers
140	Gunshot blast, Jet plane
180	Rocket launching pad

-Information courtesy of the Deafness Research Foundation

Safety Instructions



CAUTION
RISK OF SHOCK



CAUTION: To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Only refer servicing to qualified service personnel.

Explanation of Graphical Symbols



The lightning flash & arrowhead symbol, within an equilateral triangle, is intended to alert you to the presence of danger.



The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and servicing instructions.

WARNING

To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture.

- 1. Read Instructions** - All the safety and operating instructions should be read before the appliance is operated.
- 2. Retain Instructions** - The safety and operating instructions should be retained for future reference.
- 3. Heed Warnings** - All warnings on the appliance and in the operating instructions should be adhered to.
- 4. Follow Instructions** - All operating and use instructions should be followed.
- 5. Attachments** - Only use attachments/accessories specified or provided by the manufacturer (such as the exclusive supply adapter, battery etc.)
- 6. Water and Moisture** - Do not use this unit near water. For example, near a bathtub or in a wet basement and the like.
- 7. Carts and Stands** - Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart or rack is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
 - 7 A.** An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause an overturn.
- 8. Ventilation** - The appliance should be situated so its location does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation slots.
- 9. Heat** - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- 10. Power Sources** - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
- 11. Grounding or Polarization** - Precautions should be taken so that the grounding or polarization means of an appliance is not defeated. A polarized plug has two blades with one wider than the other. A grounding plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 12. 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 appliance.
- 13. Cleaning** - Unplug this unit from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a dry cloth for cleaning.
- 14. Power lines** - An outdoor antenna should be located away from power lines.
- 15. Nonuse Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
- 16. Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
- 17. Damage Requiring Service** - The appliance should be serviced by qualified service personnel when:
 - A. The power supply cord or plug has been damaged; or
 - B. Objects have fallen into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped, or the enclosure damaged.
- 18. Servicing** - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

Note:
To CATV system installer's (U.S.A.): This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected as close to the point of cable entry as practical.



Welcome

Thank you for purchasing the **SDR-4000** from VocoPro, your ultimate choice in Karaoke entertainment! With years of experience in the music entertainment business, VocoPro is a leading manufacturer of Karaoke equipment, and has been providing patrons of bars, churches, schools, clubs and individual consumers the opportunity to sound like a star with full-scale club models, in-home systems and mobile units. All our products offer solid performance and sound reliability, and to further strengthen our commitment to customer satisfaction, we have customer service and technical support professionals ready to assist you with your needs. We have provided some contact information for you below.

VocoPro

1728 Curtiss Court
La Verne, CA 91750

Toll Free: 800-678-5348

TEL: 909-593-8893

FAX: 909-593-8890

VocoPro Company E-mail Directory

Customer Service & General Information

info@vocopro.com

Tech Support

techsupport@vocopro.com

Remember Our Website

Be sure to visit the VocoPro Website **www.vocopro.com** for the latest information on new products, packages and promos. And while you're there don't forget to check out our Club VocoPro for Karaoke news and events, chat rooms, club directories and even a Service directory!

We look forward to hearing you sound like a PRO, with VocoPro, the singer's ultimate choice.

FOR YOUR RECORDS

Please record the model number and serial number below, for easy reference, in case of loss or theft. These numbers are located on the rear panel of the unit. Space is also provided for other relevant information.

Model Number

Serial Number

Date of Purchase

Place of Purchase

Before Getting Started

Introduction

Thank you for purchasing the SDR-4000 Dual Digital SD/USB Audio Recorder. The SDR-4000 offers convenient real-time digital audio recording to both SD card and USB drive. Its user-friendly operation makes it an ideal recording platform for DJ mixes, band rehearsals, sermons, board meetings, and more. With a full set of playback controls, the SDR-4000 can also function as a dual SD/USB player with separate and mixed audio outputs. Its slim rack-mountable construction will fit neatly into standard rack cases.

Features

- Records 192kpbs audio files directly to SD card or USB drive via RCA or XLR line in jacks
- Compatible with SD/SDHC cards and USB drives up to 32GB
- Dual recorder design allows for independent recording/playback on each side
- Individual record level controls and record level LEDs for precise level control
- Delete recorded files directly from recorder
- Full-featured playback with single and repeat playback modes
- Individual RCA input/output jacks
- Individual XLR input/output jacks
- Mixed RCA output jacks with toggle switch
- Backlit buttons for use in low-light areas
- ¼" headphone jack with volume control
- Slim 1RU chassis
- 110V-220V compatible

Specifications

- Channels..... 2 (stereo)
- Recording Format..... MP3: 192 Kbps;
- Recording Media..... SD (64 MB-2GB) SDHC (4 GB-32GB) Any supported FAT-USB drive
- USB compatibility..... USB 1.0, 1.1, 2.0 NOT USB
- Sampling Rate..... 44.1kHz/48 kHz 16 BIT
- Dynamic Range..... ≥75dB
- THD+N..... 1%
- Freq Response..... 20Hz – 18KHz
- Input Impedance..... 10K Ω
- Nominal Input Levels..... ≥1.5V
- Output Impedance..... 32~64 OHM STEREO
- Maximum Output..... Line (10K Ω): 0.7V RMS (-3 dBV)
- Power Source..... 500mA DC 5V

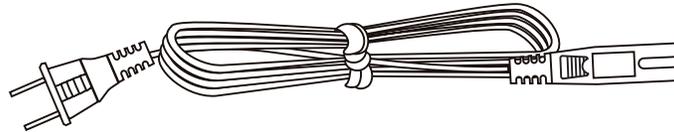
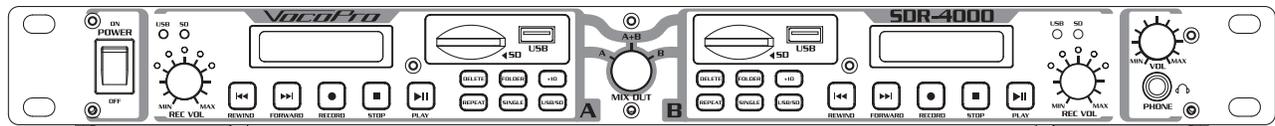
Getting Started

Unpacking

This SDR-4000 has been inspected and tested prior to being shipped. During unpacking, carefully check that you have received all the required components. This is also the time to check the main unit for damage. If any damage is noticed, promptly report this to your shipping carrier. Save the shipping boxes and all packaging materials in case the unit needs to be shipped for service.

Box Contents

SDR-4000 Main Unit
Power Cable



Getting Connected

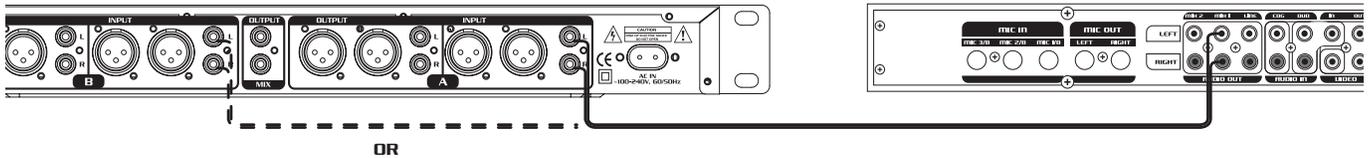
Inputs

The SDR-4000 can record any audio signal from a device with RCA outputs or balanced XLR outputs. Most commonly, users will be running the output from a mixing device. Other connections can include direct output from a computer or mp3 player, and even making a copy from the other side of the SDR-4000. Follow the instructions below for making the connections.

Connecting to a mixing device:

If using RCA:

Connect a paired RCA audio cable from the RCA outputs on your mixing device to the RCA inputs on either side A or B on the SDR-4000.



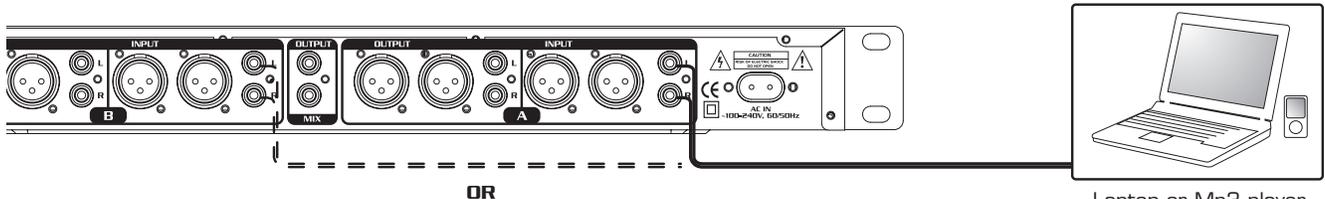
If using XLR:

Connect a pair of XLR-M to XLR-F audio cables from the XLR outputs on your mixing device to the XLR inputs on either side A or B on the SDR-4000.

Connecting directly to a computer or portable audio device:

Using a stereo RCA to 3.5mm audio cable, connect the 3.5mm end to the audio output on your computer or portable audio device, and connect the RCA ends to the inputs on either side A or B on the SDR-4000.

NOTES: If your computer has a different audio output jack, use the appropriate cable. Some computer audio outputs are labeled with a headphone symbol.



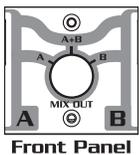
Laptop or Mp3 player

NOTE: Be sure to set the audio volume to a sufficient level.

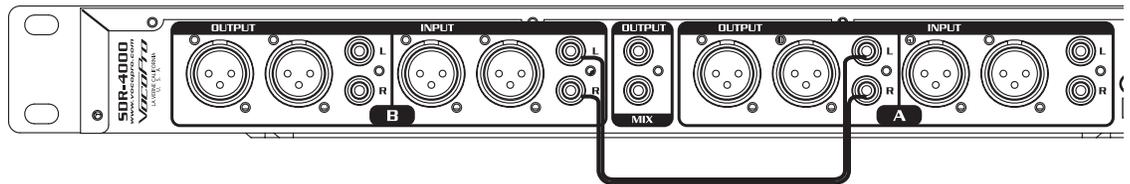
Connecting from side A to side B:

Using a stereo RCA to RCA cable, connect one end to the audio outputs (on the side of your choice). Connect the other end to the other side's audio input jacks.

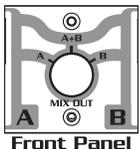
Recording Side A to B



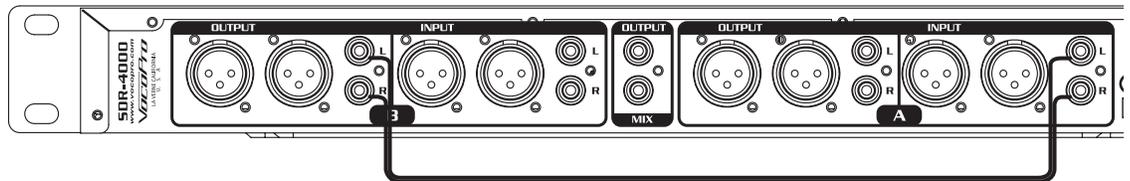
Front Panel



Recording Side B to A

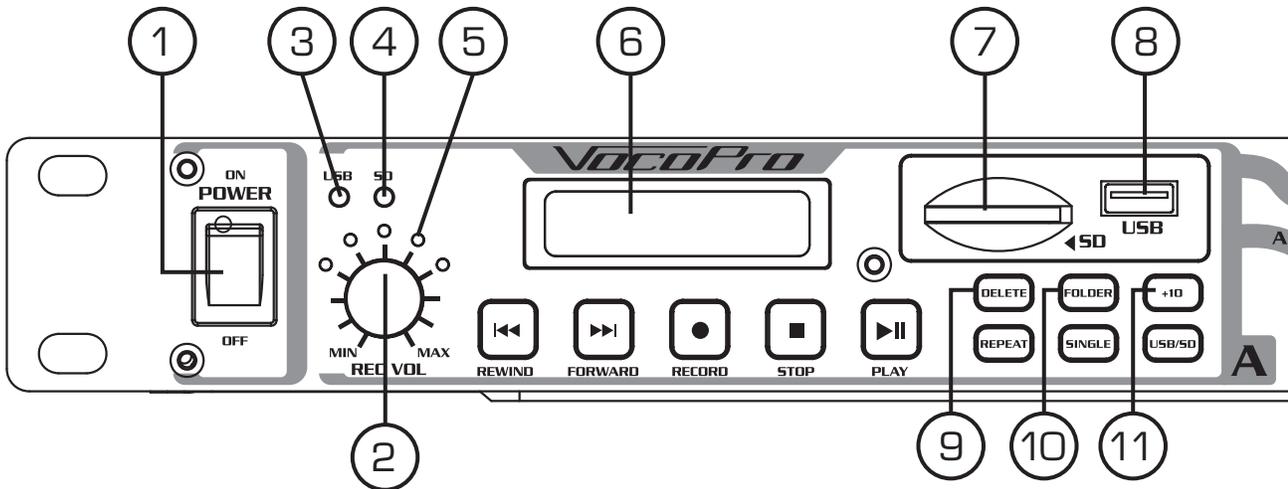


Front Panel



Features

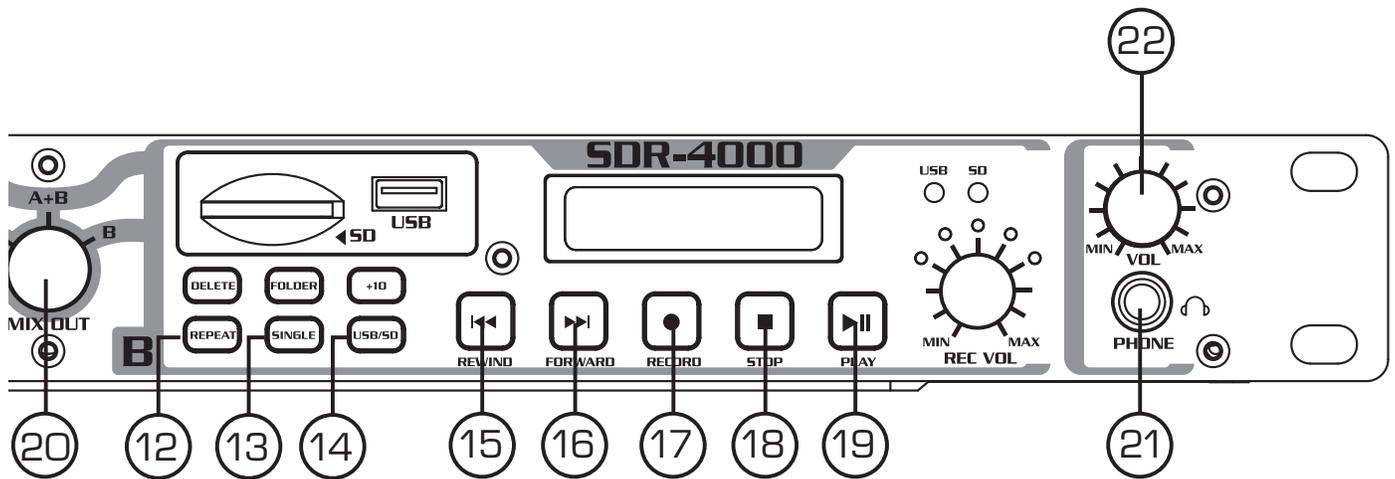
Front Panel:



1. POWER button – Use this button to turn the unit ON/OFF.
2. REC LEVEL knob – Use this knob to increase/decrease the recording level. (see page 16 for instructions on recording)
3. USB LED – Indicates USB is selected for playback/recording.
4. SD LED – Indicates SD is selected for playback/recording.
5. REC LEVEL LEDs - Use these LEDs to monitor and achieve an optimal recording level. (See Operations section for information on setting recording level)
6. LCD display – Displays system information, current operations and settings.
7. SD CARD slot – Insert SD slot for recording and playback.
8. USB port – Insert USB thumb-drive for recording and playback.
9. DELETE button – Use this button to delete a file. (See Operations section for instructions on deleting a file)
10. FOLDER button – Use this button to toggle through different folders. (See Operations section for instructions on browsing folders)
11. +10 button – Use this button to advance 10 tracks at a time.
12. REPEAT button – Use this button to enter a repeat playback mode. (see Operations section for instructions on repeat playback mode)
13. SINGLE button – Use this button to enter single playback mode. (see Operations section for instructions on repeat playback mode)

Features (cont.)

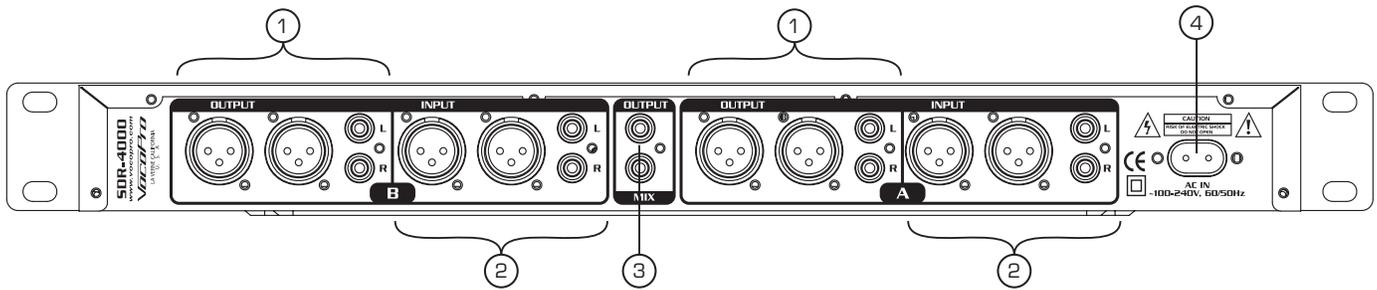
Front Panel:



14. USB/SD button – Use this button to toggle between the USB and SD inputs.
15. PREVIOUS button – Use this button to go to the previous track or scan through the current track.
16. NEXT button – Use this button to go to the next track or scan through the current track.
17. RECORD button – Use this button to enter record mode and start recording. During recording, this button can be used to pause playback. (see Operations section for instructions on recording)
18. STOP button – Use this button to stop recording/playback.
19. PLAY/PAUSE button – Use this button to start and pause playback.
20. A/B OUTPUT switch – Use this switch to toggle side A, side B, and MIXED output to the MAIN OUTPUT jacks. (see Getting Connected section for instruction on selecting output).
21. HEADPHONE jack (1/4") – Connect headphones to this jack. Jack monitors the output set by the A/B output switch.
22. HEADPHONE VOLUME control – Use this control to increase/decrease the volume to connected headphones

Features (cont.)

Rear Panel:



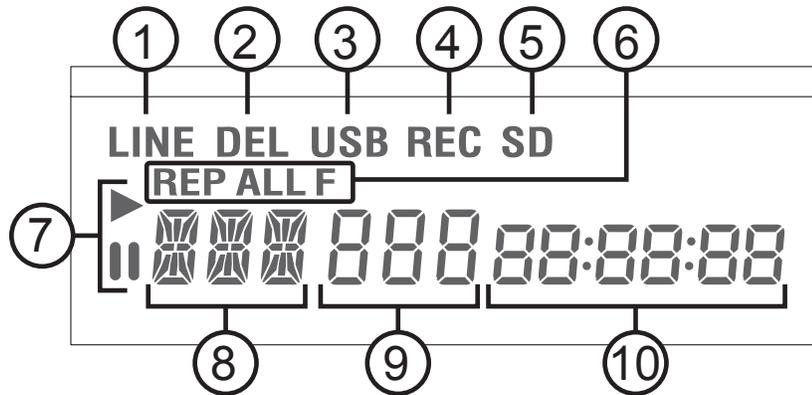
1. RCA IN jacks (unbalanced) – Connect the audio output from your audio source to these jacks using RCA audio cables.

XLR IN jacks (balanced) - Connect the audio output from your audio source to these jacks using XLR-F/XLR-M audio cables.
2. RCA OUT jacks (unbalanced) – Connect the audio output from these jacks to RCA audio inputs on external mixers, amplifiers, or other devices.

XLR OUT jacks (balanced) – Connect the audio output from these jacks to the XLR-M jacks on external mixers, amplifiers, or other devices.
3. MIX OUTPUT jacks – This output is controlled by the A/B output selector knob on the front panel. Switch to A on the knob, and this jack will output audio playing from the A side player. Switch to B on the knob, and this jack will output audio playing from the B side player. Switch to A+B on the knob, and this jack will output mixed audio from both the A and B players. This output can be monitored from the headphone jack.
4. POWER – Connect the supplied power cable.

Features (cont.)

LCD Window:

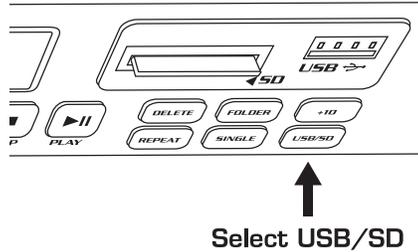
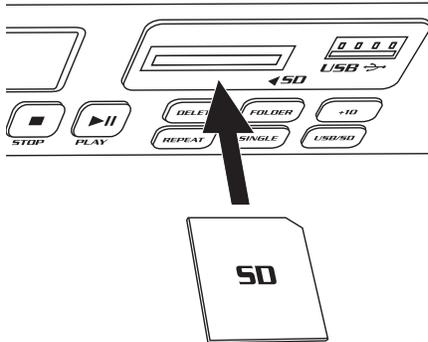


1. LINE – Indicates the SDR-4000 is set to record from the line in jacks.
2. DEL – Flashes in conjunction with “FILE” when deleting a file.
3. USB – Indicates that a USB device is selected for playback/recording
4. REC – Indicates record mode has been initiated or is in progress
5. SD - Indicates that SD card is inserted for playback for recording.
6. REP /ALL /F – Indicates repeat mode:
 - REP – repeat one
 - REP ALL – repeat all tracks on the SD/USB
 - REP F – repeat all tracks within a folder
7. PLAY/PAUSE – Indicates when playback is in progress or paused.
8. FOLDER – This section displays the total number of folders or current folder number.
9. FILE - This section displays the total number of files or current file number. Status messages include: READY, FILE, RECEND, FILE.
10. TRACK TIMER – Displays the track time during recording or playback in hours:minutes:seconds format.

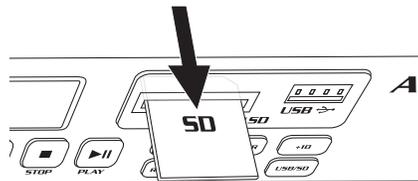
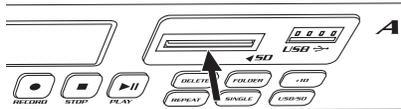
Operations

Inserting an SD Card

1. Ensure that the lock tab on the SD card is not set to LOCK.
2. Insert the SD card right side up, and push it in until it clicks.
3. Use the USB/SD button to select SD.

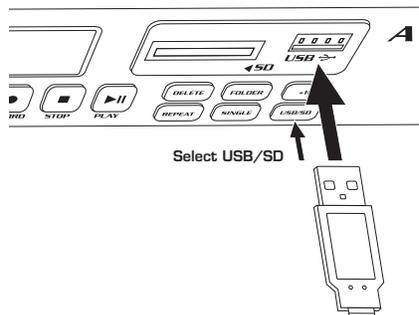


4. Remove an SD card by pushing the card forward until it clicks and pushes out.
NOTE: The SDR-4000 cannot accept cards larger than 32GB.



Inserting a USB Drive

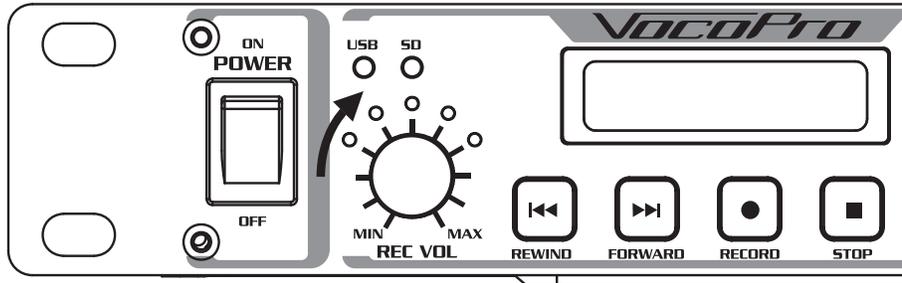
1. Insert the USB drive or USB cable into the USB slot.
2. Use the USB/SD button to select USB.



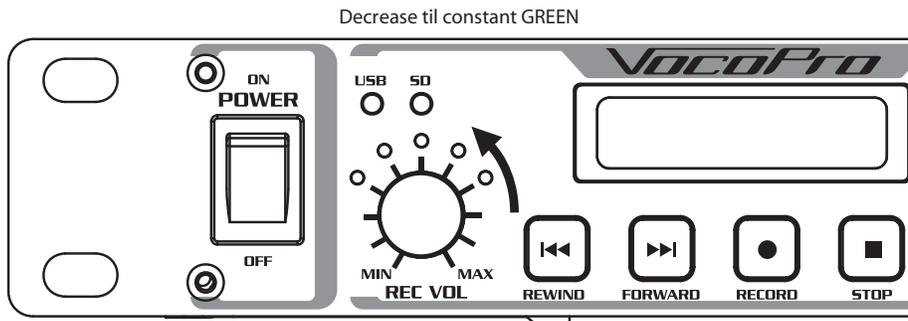
Operations (cont.)

Adjusting the Recording Level

1. Start your source signal plugged into the input of the SDR-4000.
2. With the source signal playing, increase the REC LEVEL KNOB until the yellow REC LED starts to blink.



3. Slightly reduce the record level until the REC CLIP LED is a constant green (no YELLOW). You now have an optimal recording level.



192kbps 1 min = 4.3mb
 8gb = 1860 min or 31 hours

Operations (cont.)

Recording

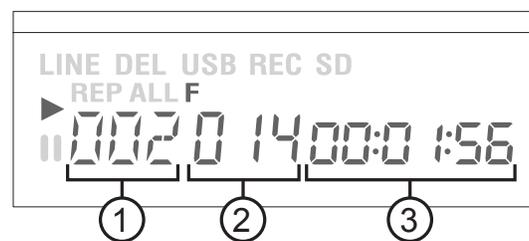
1. Insert an SD card or USB drive to be recorded to.
2. Press the USB/SD button to select the device.
3. Connect your source device to the IN jacks on the rear panel.
4. Set the recording level (see Adjusting the Recording Level)
5. Press the RECORD button. When the display reads READY, it is ready to record.
6. Press the RECORD button a second time to start recording.
7. Press STOP to stop the recording, or press RECORD a third time to PAUSE the recording.



Navigating Files and Folders

The LCD window displays folder/file information. The left three digits indicate the folder number (or REC for record folder). The right three digits indicate the files number. When a USB drive or SD card is first inserted, total folders and files will be displayed.

1. To navigate folders press the FOLDER button. Each time FOLDER is pressed, it will enter the next folder. When the last folder is reached it will cycle back to folder 001. i.e. FOLDER 001, 002, 003, 004, 005, REC, 001, etc.



Record Folder

The SDR-4000 stores all recorded files in a folder called RECORD. When a new SD card/USB drive is inserted, this folder will be created automatically during the first recording process. All recorded files will be located in the following folder: ROOT/RECORD/LINE_IN

Recorded Files

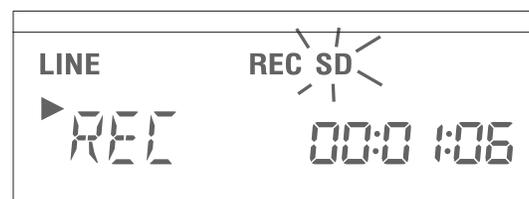
The files are named using the following naming convention: FILE_001.MP3

Once the file is recorded, it can be renamed.

All recorded files are recorded in 44Khz Stereo 192Kbps MP3 format.

NOTE: Files are played back in alpha-numerical order.

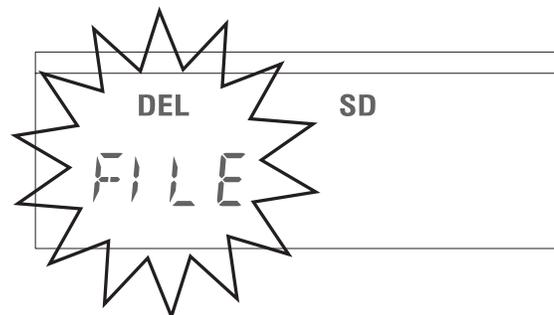
Renaming a may affect the order of playback.



Deleting Files

Files can be deleted directly from an SD card or USB drive.

1. Navigate to the file you want to delete. If you are sure it is the correct file, push play listen and confirm that it is the file you want to delete.
2. Press the DELETE button. The word FILE will begin to blink in the display.
3. Press DELETE a second time to confirm and delete the file.



Troubleshooting

Files are being recorded but there is no sound.

Check your input devices and connections. (see Operations section)

Check the recording level (see Operations section)

Recording level is either too high or low.

Re-adjust the recording level (see Operations section)

Check the playback level of your source device.

Sound is distorted.

Check the incoming signal from the source device. If this is a mixer, check the outputs and make sure they are not too high.

Check the recording level (see Operations section)

No audio output from the SDR-4000.

Check the output connections on the back of the SDR-4000 and connected devices. (see Operations section)

Check to make sure the output toggle is set correctly. (see Operations section)

Files are not recording to SD card/USB drive.

Check SD card and USB drive on computer to make sure it is working properly.

Notes

