



MP3 MIXING RECORDER **SoundSketcher**

SH-01



Owner's Manual

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

* Please keep this manual in a safe place for future reference.



WARNING

Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:

Power supply/AC power adaptor

- Only use the voltage specified as correct for the instrument. The required voltage is printed on the name plate of the instrument.
- Use the specified adaptor (PA-3C or an equivalent recommended by Yamaha) only. Using the wrong adaptor can result in damage to the instrument or overheating.
- Check the electric plug periodically and remove any dirt or dust which may have accumulated on it.
- Do not place the AC adaptor cord near heat sources such as heaters or radiators, and do not excessively bend or otherwise damage the cord, place heavy objects on it, or place it in a position where anyone could walk on, trip over, or roll anything over it.

Do not open

- Do not open the instrument or attempt to disassemble the internal parts or modify them in any way. The instrument contains no user-serviceable parts. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified Yamaha service personnel.

Water warning

- Do not expose the instrument to rain, use it near water or in damp or wet conditions, or place containers on it containing liquids which might spill into any openings.
- Never insert or remove an electric plug with wet hands.

Fire Warning

- Do not put burning items, such as candles, on the instrument. A burning item may fall over and cause a fire.

If you notice any abnormality

- If the AC adaptor cord or plug becomes frayed or damaged, or if there is a sudden loss of sound during use of the instrument, or if any unusual smells or smoke should appear to be caused by it, immediately turn off the power switch, disconnect the adaptor plug from the outlet, and have the instrument inspected by qualified Yamaha service personnel.



CAUTION

Always follow the basic precautions listed below to avoid the possibility of physical injury to you or others, or damage to the instrument or other property. These precautions include, but are not limited to, the following:

Power supply/AC power adaptor

- When removing the electric plug from the instrument or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.
- Unplug the AC power adaptor when not using the instrument, or during electrical storms.
- Do not connect the instrument to an electrical outlet using a multiple-connector. Doing so can result in lower sound quality, or possibly cause overheating in the outlet.

Battery

- Always make sure all batteries are inserted in conformity with the +/- polarity markings. Failure to do so might result in overheating, fire, or battery fluid leakage.
- Always replace all batteries at the same time. Do not use new batteries together with old ones. Also, do not mix battery types, such as alkaline batteries with manganese batteries, or batteries from different makers, or different types of batteries from the same maker, since this can cause overheating, fire, or battery fluid leakage.
- Do not dispose batteries in fire.

- Do not attempt to recharge batteries that are not intended to be charged.
- When the batteries run out, or if the instrument is not to be used for a long time, remove the batteries from the instrument to prevent possible leakage of the battery fluid.
- Keep batteries away from children.
- If the batteries do leak, avoid contact with the leaked fluid. If the battery fluid should come in contact with your eyes, mouth, or skin, wash immediately with water and consult a doctor. Battery fluid is corrosive and may possibly cause loss of sight or chemical burns.

Location

- Do not expose the instrument to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration or damage to the internal components.
- Do not use the instrument in the vicinity of a TV, radio, stereo equipment, mobile phone, or other electric devices. Otherwise, the instrument, TV, or radio may generate noise.
- Do not place the instrument in an unstable position where it might accidentally fall over.
- Before moving the instrument, remove all connected adaptor and other cables.

Connections

- Before connecting the instrument to other electronic components, turn off the power for all components. Before turning the power on or off for all components, set all volume levels to minimum. Also, be sure to set the volumes of all components at their minimum levels and gradually raise the volume controls while playing the instrument to set the desired listening level.

Yamaha cannot be held responsible for damage caused by improper use or modifications to the instrument, or data that is lost or destroyed.

Always turn the power off when the instrument is not in use.

When using a power adaptor, even when the power switch is in the "STANDBY" position, electricity is still flowing to the instrument at the minimum level. When you are not using the instrument for a long time, make sure you unplug the AC power adaptor from the wall AC outlet.

Make sure to discard used batteries according to local regulations.

Maintenance

- When cleaning the instrument, use a soft, dry cloth. Do not use paint thinners, solvents, cleaning fluids, or chemical-impregnated wiping cloths.

Handling caution

- Never insert or drop paper, metallic, or other objects into the gaps on the panel or card slot. If this happens, turn off the power immediately and unplug the power cord from the AC outlet. Then have the instrument inspected by qualified Yamaha service personnel.
- Do not place vinyl, plastic or rubber objects on the instrument, since this might discolor the panel.
- Do not rest your weight on, or place heavy objects on the instrument, and do not use excessive force on the buttons, switches or connectors.
- Do not operate the instrument for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss. If you experience any hearing loss or ringing in the ears, consult a physician.

Saving data

Backing up the Memory Card (SmartMedia)

- To protect against data loss through media damage, we recommend that you save your important data to your computer.

Introduction

Thank you for purchasing the Yamaha Sound Sketcher SH-01. The SH-01 utilizes SmartMedia™ memory cards to allow quick and easy recording and playback of audio without the inconvenience of having to select the sound input source (built-in mic, external mic, instrument, CD player, MD player, etc.). To give you greater creative control over the sound you want to create, the SH-01 features mix recording that lets you overdub additional parts, DSP effects, a built-in tuner, repeat playback function, and more. The SH-01 is also equipped with an USB port, which lets you connect the device to a computer.

To get the fullest in both use and life out of your SH-01 we urge you to read this Owner's Manual carefully. After reading the manual, please keep it in a safe place for future reference.

See the accompanying sheet for a list of accessories and distributors.

- Copying of the commercially available music data and/or audio files is strictly prohibited except for your personal use.
- The company names and product names in this Owner's Manual are the trademarks or registered trademarks of their respective companies.
- The screen displays as illustrated in this Owner's Manual are for instructional purposes, and may appear somewhat different from the screens which appear on your instrument.
- SmartMedia is a trademark of the Toshiba Corporation.
- Sound Sketcher is powered by PortalPlayer, Inc.
- PortalPlayer and the PortalPlayer logo are trademarks owned by PortalPlayer, Inc.
- MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson multimedia.

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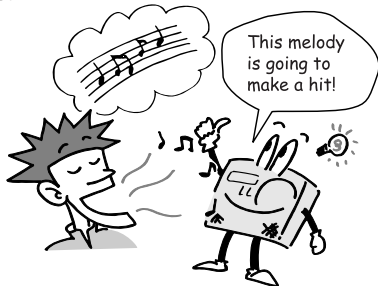
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What Can the SH-01 Do?

Quick and Easy Recording Anywhere

When inspiration hits, the SH-01 supplies you with the ability to capture your ideas quick and easily. Just sing into the unit's built-in microphone and you are recorded in digital stereo.



The SH-01 also lets you connect a guitar or keyboard directly to the unit, making it easy to capture those inspired phrases when the mood hits. The unit is also equipped with accurate metronome and tuner functions to keep your instruments in pitch.



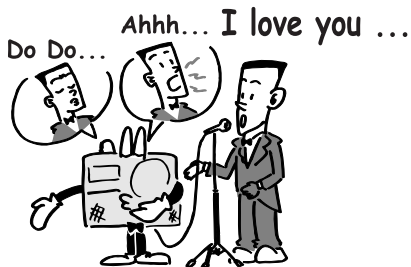
Effects Add a Professional Touch

The SH-01 is equipped with Yamaha's DSP effects like those found in professional sound systems. Adding effects like reverb, chorus, equalization, etc., to your recordings adds a professional touch to your creations and creates the right mood for inspiration.



Use the Mix Recording Function to Add Overdubs

The SH-01's mix recording function lets you create entire arrangements by overdubbing, or adding successively recorded layers, to your original recording. Start with a rhythm guitar part then add a lead part, or create a four part a capella arrangement all by yourself. If you make a mistake, simply press the UNDO button to cancel what you just recorded, then re-record.



Recording from a CD/MD

You can also record audio from a CD, MD, or other sound source. Sing a duet or play along with your favorite artist and use the mix recording function to record the results.

- *Copying of the commercially available music data and/or audio files is strictly prohibited except for your personal use.*

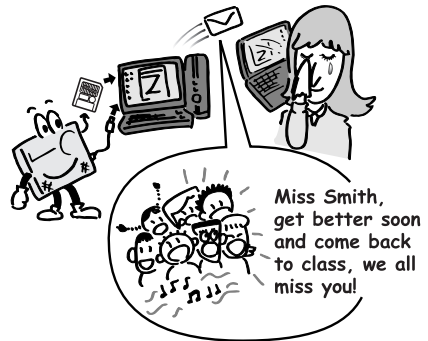


Using with a Computer

Data recorded with the SH-01 is stored in memory cards as MP3 (or WAV) file data.

Since these are standard sound file formats, you can use these files in your computer as well. For example, you can easily attach a sound file that contains a voice letter or some background music, etc., to an e-mail.

You can connect the unit to your computer with a USB cable through its USB port. This lets you reorganize sound files made with the SH-01, use MP3 files you download from web sites for mix recording, and more.



Listen Quietly Alone, or Turn it Up for Your Friends

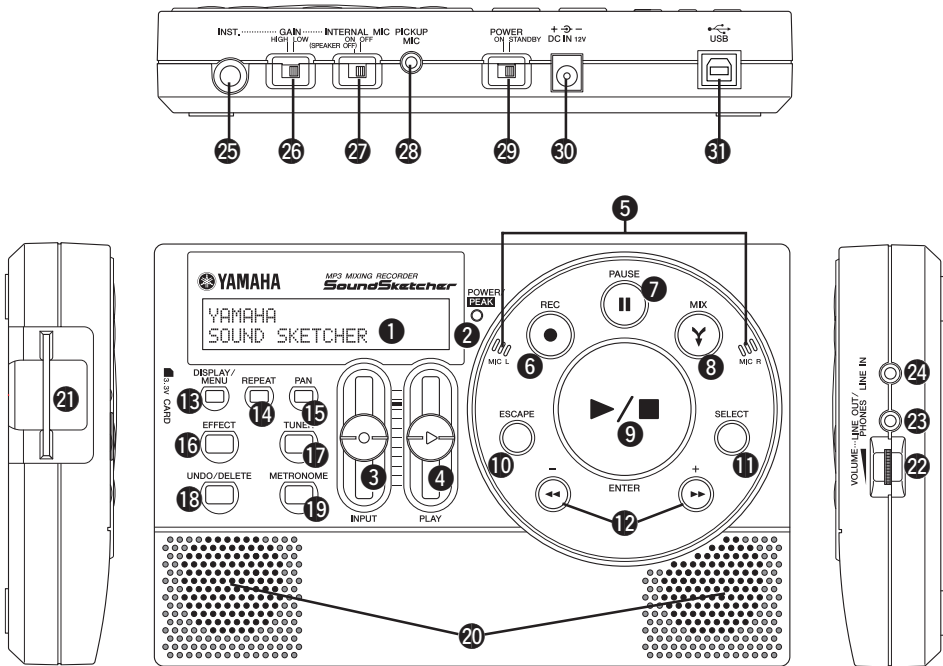
Ordinarily you would use the built-in speakers for audio playback but you can also use a pair of stereo headphones for those times you'd like to listen privately.

You can also connect the unit to an audio system, guitar amplifier, or sound reinforcement system, and let others enjoy in your creative talent.

Whether the volume is loud or soft, the SH-01's digital audio always sounds great.



Nomenclature



1 Display

The display shows data and information needed when operating the SH-01. The display's contrast is adjustable. (→ page 39)

2 POWER/PEAK Lamp

This lamp lights green when the SH-01 power is switched "ON" (when the SH-01 is being operated).

The lamp lights red when the input source level is too high.

When operating the unit with batteries and battery power becomes low, the lamp will flash green.

3 INPUT Volume

Adjusts the volume level of the input source. This control is also used to select characters when naming files. (→ page 32)

4 PLAY Volume

Adjusts the volume level during playback and adjusts the volume level of the original file during mix recording.

This control is also used to select characters when naming files. (→ page 32)

5 Built-in Microphone (MIC L, MIC R)

This is the unit's built-in stereo microphone system.

Use the INTERNAL MIC switch (27) on the rear panel to switch the microphone ON/OFF, and the GAIN switch (26) to switch the gain level. (→ page 14)

6 REC Button (●)

(This button is used to start a new recording.)

Press the button and the unit goes into record standby mode for recording a new file.

7 PAUSE Button (⏸)

Press this button during playback to momentarily stop playback.

8 MIX Button (Y)

(This button is used to record an overdub.) Press this button and the unit goes into mix recording standby mode.

9 ENTER Button (▶/■)

Press this button to Start/Stop both playback and recording functions.
This button is also used to enter the selected menu, and to carry out and set settings.

10 ESCAPE Button

Press this button if you want to cancel the setting and return to the display previous to the one you are currently in.

11 SELECT Button

This button is used to advance through menu or parameter selections when the setting contains multiple items.

12 +/- Buttons (◀◀/▶▶)

These buttons are used to skip to the next or previous file (song). They can be used either during playback or while playback is stopped. Press and hold the buttons to fast-forward or fast-rewind the song.
The buttons are also used to change parameter values or to carry out/cancel the setting.

13 DISPLAY/MENU Button

Press this button to switch from one display mode to the next. (→ page 25)
Press and hold the button to display the system setup menu.

14 REPEAT Button

This button is used to repeat playback of a song (file).
The SH-01 has two types of repeat. Single repeat is used to repeat the current song in its entirety, and AB repeat is used to repeat a defined segment within the song. (→ page 26)

15 PAN Button

This button is used to access the setting to adjust the stereo volume balance. (→ page 21)

16 EFFECT Button

This button is used to access effect settings. (→ page 20)

17 TUNER Button

This button is used to activate the SH-01's built-in tuner mode. (→ page 24)

18 UNDO/DELETE Button

This button is used to cancel the previous operation in which the data in the memory was changed. (→ page 19)
You can also press and hold the button to delete the currently selected file. (→ page 32)

19 METRONOME Button

This button switches the metronome ON/OFF, and sets the metronome tempo or operating mode. (→ page 22)

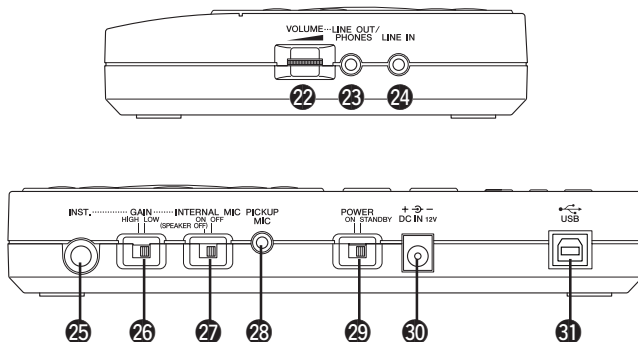
20 Built-in Speakers

These are the unit's built-in stereo speakers.

** The speakers will not sound when the INTERNAL MIC switch 27 is switched ON, or when a plug is plugged into the LINE OUT/PHONES jack 23.*

21 Card Slot (3.3V CARD)

This slot accepts a standard SmartMedia™ memory card, which is used for data storage. (→ page 12)



22 VOLUME

Controls the volume of the SH-01's built-in speakers and the output signal level delivered via the LINE OUT/PHONES jack.

(→ page 14)

23 LINE OUT/PHONES Jack

This miniature stereo jack can be used to connect the output of the SH-01 to an audio system, mixer, etc., or connect a pair of stereo headphones for monitoring.

24 LINE IN Jack

This miniature stereo jack is used to connect a line device such as a CD player, MD player, etc., to the SH-01.

25 INST. Jack

This standard monaural jack can be used to connect an electric instrument such as an electric guitar, or a vocal microphone to the SH-01. The instrument's output level can be adjusted with the GAIN switch 26.

26 GAIN Switch (HIGH/LOW)

Switches the gain of the internal microphone and INST. jack 25.

27 INTERNAL MIC Switch (ON/OFF)

Switches the built-in microphone ON/OFF.

** The internal speakers will not sound when the INTERNAL MIC switch 27 is switched ON, or when a plug is plugged into the LINE OUT/PHONES jack 23.*

28 PICKUP MIC Jack

This miniature monaural jack is used to connect a condenser microphone (DC2V) to the SH-01.

This is a powered jack that delivers a DC 2V to the pickup mic via the connected plug.

This jack allows the direct connection of a Yamaha MC7 Wind Instrument Pickup to the SH-01.

29 POWER Switch (ON/STANDBY)

This is the SH-01's power switch.

30 DC IN (Power Adaptor) Jack

If you use the power adaptor (PA-3C) to power the SH-01, connect it to this jack.

31 USB Port

This port is used to connect the SH-01 directly to a computer. (→ page 16)

Power Supply

The SH-01 can be powered with either the power adaptor (PA-3C) or six 1.5V AA size alkaline batteries (LR6) however, we recommend that the power adaptor be used whenever possible.

When Using the Power Adaptor

- 1 Set the SH-01's power switch to the "STANDBY" position, then plug the DC output cable into the DC IN jack on the unit's rear panel.
- 2 Plug the power adaptor into a convenient wall AC power socket.

* When the power adaptor is used, power is delivered from the power adaptor to the device although the device has batteries installed. To keep batteries from leaking we recommend that they be removed from the unit when the power adaptor is used.

* Make sure you use only the power adaptor specified for use with the voltage in your particular region.

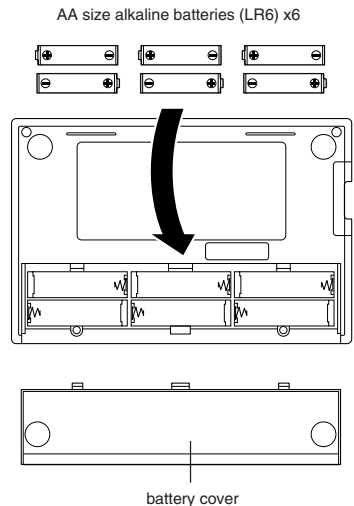
When Using Batteries

- 1 Set the SH-01's power switch to the "STAND BY" position, then remove the battery cover located on the unit's bottom panel.
- 2 Insert the new batteries making sure you follow the polarity markings (+/-) as shown in the illustration.
- 3 Replace the battery cover.

* Make sure that only **AA size alkaline batteries (LR6)** are used in the device. The use of manganese batteries may result an extremely shortened battery life depending upon the type of battery.

* When battery power becomes low, the POWER/PEAK lamp will rapidly flash green. As power runs down more seriously, the "BATTERY LOW" message will appear in the display. When this occurs, replace the batteries with a new set of six batteries as soon as possible.

* Never mix new batteries with old, mix batteries of different types (mix alkaline with manganese, etc.), or mix batteries from different manufacturers.



About the SmartMedia™ Memory Cards

■ Using the SmartMedia Memory Cards

When using the memory cards, please carefully follow the points listed below.

● Memory Card Compatibility

The SH-01 uses 3.3V (3V) SmartMedia memory cards. 5V memory cards can not be used.

● Memory Card Capacity

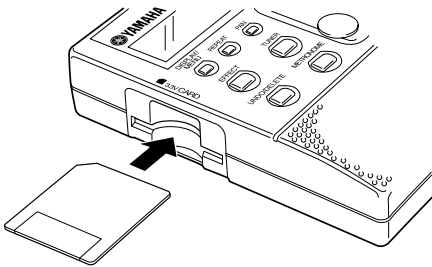
SmartMedia memory cards of any of the five following memory capacities can be used in the SH-01: 16MB/32MB/64MB/128MB. (→ [page 38](#))

● Inserting and Removing the Memory Cards

Inserting the Memory Card

Hold the card with the gold connectors facing down, then carefully insert the card all of the way into the memory card slot.

- * Be careful not to insert the card the wrong way around (upside-down, back-to-front).
- * To prevent possible damage or abnormal operation, make sure that dirt or other foreign objects do not get into the memory card slot.



Removing the Memory Card

After confirming that the SH-01 is not accessing* data in the memory card, grip the edge of the card and pull firmly outward.

- * The SH-01 accesses data from the memory card for operations such as recording, playback, save, load, format, delete, rename, etc. Also, the SH-01 will automatically access the memory card whenever a card is inserted while the power is switched on in order to determine the card's type.
"DO NOT REMOVE CARD" appears in the display when a memory card access operation is in progress.
- * There are some instances where the SH-01 can not recognize the memory card when the card is removed and reinserted. In such an instance, turn the power OFF and ON again (reset).

! Never remove the memory card or switch the SH-01's power off while any memory card-access operation is in progress. Doing so may damage the card itself and/or corrupt data on the card as well as in the SH-01 itself.

Formatting the Memory Card

Not all memory cards can be used as is. Before any memory card is used with the SH-01, it should be formatted (default) by the SH-01.

(→ [page 34](#))

All data in the card is erased when the card is formatted, so make sure that the card you want to format does not contain any important data.

- * Memory cards that are formatted by the SH-01 might not work in any other devices.

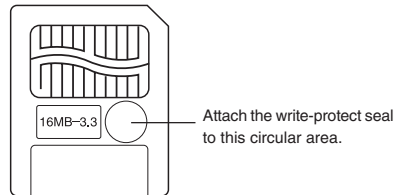
● Memory Card Handling Precautions Handling and Storing Memory Cards

- Data stored in the memory cards can become lost or damaged by static electricity. Before touching a memory card, it is advisable to touch a metal object (doorknob, aluminum window frame, etc.) to discharge your body before handling the card.
- When the memory cards is not to be used for an extended period of time, remove it from the slot and keep it in a clean, dry place. Especially when using battery power, battery life will be shortened.
- Do not expose the memory cards to direct sunlight, high temperatures (inside a car during the daytime, close to a heating appliance, etc.), or excessively low temperatures.
- Do not drop, place heavy objects on, or bend the memory card.
- Avoid touching the memory card's electrical contacts (the gold section on the top surface) or allow metal objects to come into contact with the card's contacts.
- Do not place the memory cards close to anything that has a strong magnetic field (televisions, loudspeakers, etc.).
- Do not attach anything other than the approved labels (memo, etc.) to the memory cards. Make sure labels are securely applied to the proper spaces.

Protecting Your Data from Accidental Erasure

To protect important data from being accidentally erased, the memory cards can be write-protected by attaching the supplied write-protect seal on the circular area just below the card's contacts.

To save data to a memory card that is write-protected, remove the write-protect seal from the memory card. Never reuse a write-protect seal once it has been removed.



Back Up Your Data

To protect your data from the worst that could happen, we recommend that you back up all of your important data to a computer.

About the Connections



- Before making any connections, make sure that the power on all devices is switched OFF.
- After the devices have been connected, turn down the SH-01's VOLUME as well as the volume of the audio devices (external sound system, etc.) connected to the SH-01. Next, switch on the power of the devices in the following order: SH-01 → sound system. Reverse this order when you are ready to switch the power OFF.

Instrument/Microphone Connections

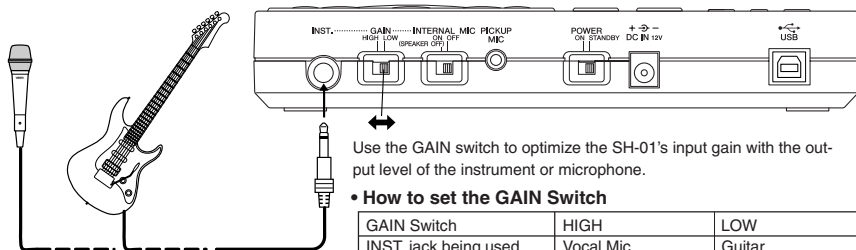
● Connecting an Instrument or Vocal Microphone

You can connect an electric guitar, electric/acoustic guitar, a dynamic type vocal microphone, etc., to the INST. jack (standard monaural) located on the unit's rear panel.

Use the GAIN switch (HIGH/LOW) to adjust the input gain to match the output level of the instrument or microphone.

The INPUT volume control on the top panel is used to adjust the input volume level of the instrument/microphone.

* If the internal microphone is not going to be used, switch the INTERNAL MIC switch to its "OFF" position.



• How to set the GAIN Switch

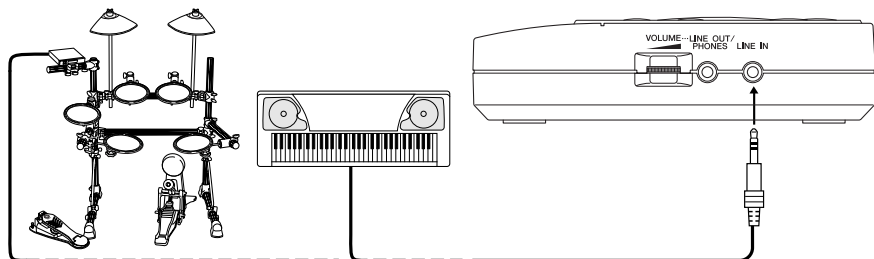
GAIN Switch	HIGH	LOW
INST. jack being used	Vocal Mic	Guitar
Using the built-in mic	Home recording	Recording loud volumes in a studio, etc.

● Connecting a Line Level Instrument

Line level instruments such as a keyboard, synthesizer, electronic drum set, etc., can be connected to the miniature stereo LINE IN jack located on the side panel of the SH-01.

The INPUT volume control on the top panel is used to adjust the input level of the instrument.

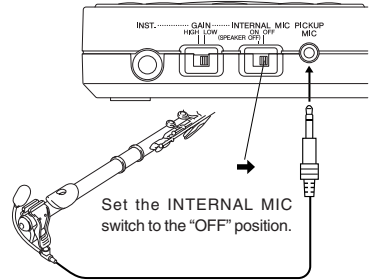
* If the internal microphone is not going to be used, switch the INTERNAL MIC switch to the "OFF" position.



● Connecting a Condenser Microphone

If you have a condenser microphone like the Yamaha MC7 Wind Instrument Pickup, etc., you can connect the microphone to the miniature monaural type PICKUP MIC jack located on the unit's rear panel. Use the INPUT volume control on the top panel to adjust the microphone's input level.

** If the internal microphone is not going to be used, set the INTERNAL MIC switch to its "OFF" position.*



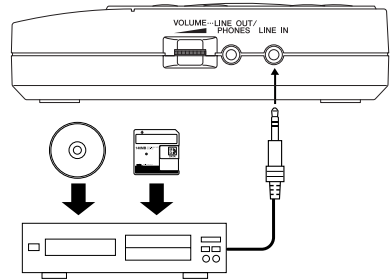
Connecting a CD/MD Player or Other Audio Source

If you want to use an audio device like a CD or MD player as an audio source for the SH-01, connect the output jacks on the CD/MD player to the miniature stereo LINE IN jack located on the side of the SH-01.

When connecting the devices, use a cable with connectors that accommodate the connections found on both devices.

Use the INPUT volume control on the top panel to adjust the input level of the CD/MD player.

** If the internal microphone is not going to be used, set the INTERNAL MIC switch to its "OFF" position.*



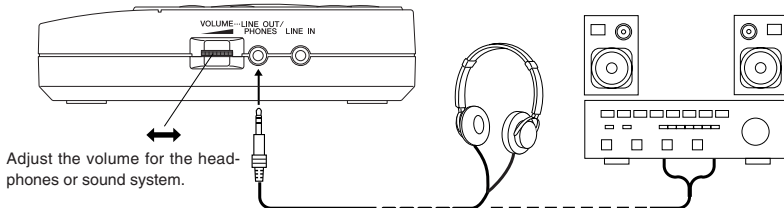
Connecting Headphones/External Sound System

The miniature stereo type LINE OUT/PHONES jack located on the side of the unit is the SH-01's output jack.

This jack can be used to connect the output of the SH-01 to a pair of headphones or an external sound system for convenient monitoring. Use the VOLUME output level control on the side of the SH-01 to adjust the volume produced by the stereo headphones or sound system.

** Use a cable with connectors that accommodate the connections found on both devices.*

** The built-in speakers will not produce sound when the LINE OUT/PHONES jack is in use.*



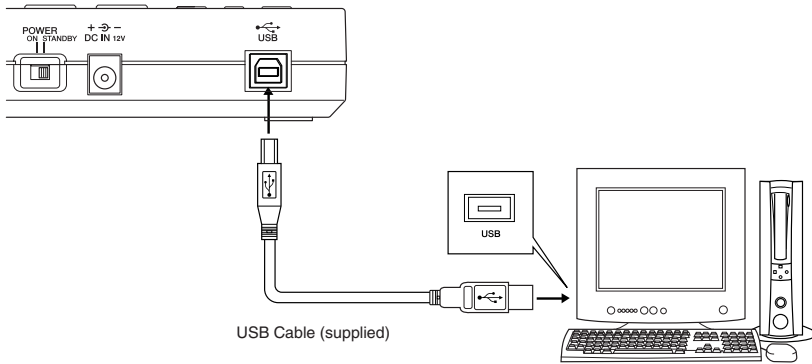
CAUTION : Do not use headphones at a high level volume for an extended period of time. Doing so may cause hearing loss.

Connecting to a Computer

Connecting the SH-01 to a computer running Windows® 98SE or greater, lets you manage sound data files you have created with the SH-01, create sound data files on your computer, or load sound data files you have downloaded off the Internet into the SH-01. This configuration also allows you to set up the SH-01's effects through the computer. (→ [page 36](#))

● Connecting

Use the supplied USB cable to connect the SH-01's USB port to the computer's USB port. After the connection is made, switch on the SH-01's power and open the supplied application.



* Refer to [page 35](#) for more information file and data availability between your computer and the SH-01.

* The supplied application must be installed before connecting (→ [page 36](#))

Using the SH-01

First, try some basic recording and playback.

Record with the Built-In Microphone

Use the SH-01's Built-In Microphone to Record

1 Insert the supplied memory card into the SH-01's memory card slot, then turn the unit's **POWER** switch to the "ON" position.

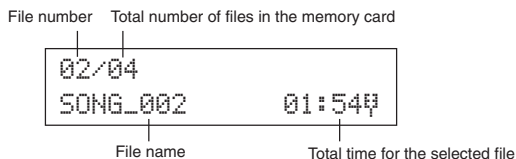
* While the SH-01 is starting up, "YAMAHA SOUND SKETCHER" will appear in the display. Button operation is not possible at this time.

After "YAMAHA SOUND SKETCHER" appears on the display, the following display will appear.



This message indicates that the SH-01 can not recognize any files (.MP3, .WAV) in the memory card. Also, when the internal microphone is switched on, the internal microphone icon appears in the lower right corner of the display. In this step we will use the internal microphone so set the INTERNAL MIC switch to it ON position.

If a file is present that the SH-01 recognizes, the following display (also known as the main display) will appear.



The file number and the total number of all previously recorded files found in the memory card are displayed on the top half of the display, while the file name and its total time are displayed on the bottom half of the display.

* Files are listed in alphabetical order.

* If there is no card in the memory card slot when the **POWER** is switch ON, "NO CARD" will appear on the display. Insert a memory card into the memory card slot.

* If the SH-01 does not recognize the memory card, "UNSUPPORTED CARD" will appear on the display. Follow the procedure described on page 34 in the "Formatting the Memory Card" section and format the memory card.

2 Now let's try and record a song.

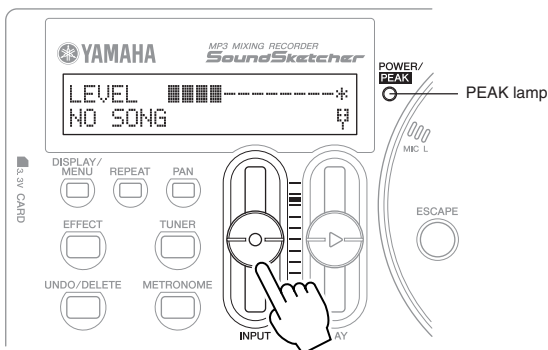
Adjust the record level while singing a few bars of the song.

* The level meter mode (shown below), which can be displayed by pressing the [DISPLAY/MENU] button, is useful in this case.

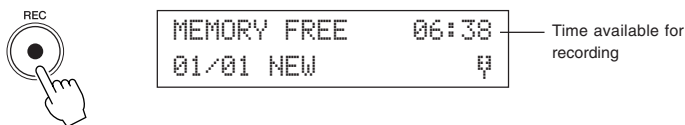


Using the SH-01

Adjust the **INPUT** volume as high as possible so that the **PEAK** lamp does not light red.



- 3** Press the **[REC]** button to enter the Record Standby mode, and check the amount of time available for recording.

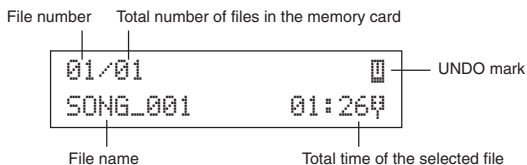


* If there is not enough time available for recording, either select another recording mode (→page 38), delete any unnecessary files (→page 32, 33), or use a memory card that has more available capacity.

- 4** Press the **[▶/■]** button to start recording.
Sing into the built-in microphones.

* Using too much force to press the **[▶/■]** buttons to start/stop recording may result in recording of the sound made by the button being pressed. Press the buttons gently.

- 5** After you are finished singing, press the **[▶/■]** button to stop recording.
The file you just recorded is automatically given a name, and the display shows that the data is saved in the memory card.



6 Next, try and playback what you just recorded.

First, turn the INTERNAL MIC switch located on the rear panel to its OFF position (speaker output is disabled when this switch is left ON).

Press the [▶/■] button to start playback.

Use the **PLAY** volume and **VOLUME** controls to adjust the volume produced by the built-in speakers.

How does it sound? If you want to try again, simply press the [UNDO/DELETE] button. This carries out the Undo command (cancel) which deletes the data you just recorded from the memory card.

** When the SH-01 is switched OFF, or when the memory card is removed, UNDO is cleared and reset.*

This is the basic manner in which recording and playback is done with the SH-01. However, the SH-01 can do much more than this.

Next, let's try out some of the SH-01's other functions and try doing an overdub.

File Name

When the SH-01 creates a new file for a new recording, the new file is automatically given a file name such as SONG_xxx. The "xxx" represents a three-digit number given to the file name, starting from 001 and increasing in increments of 1 (SONG_002, SONG_003 ...). This number's value will continue to increase by 1 unless the SH-01's factory set operation is carried out (refer to the "Factory Set" section described below).

Factory Set

This operation is used to return the SH-01's internal settings back to their factory defaults.



When the factory set function is carried out, all settings such as those for the recording mode, etc., and the data for the ADD-ON effects are returned to their factory defaults, so please use caution. Also, the file name and number will restart from SONG_001. Data stored in the memory card is safe from this operation and will not be lost when the operation is carried out.

To carry out the factory set operation, hold down both the [DISPLAY/MENU] button and the [EFFECT] button, and switch ON the power. The message "FACTORY SET OK?" appears in the display asking you for confirmation before carrying out the operation. Press the [+] button to carry out the operation. To cancel the factory set operation, press the [-] button.

Recording Mode (record file type, audio quality)

The SH-01 can record data to the memory card in either MP3 or WAV file formats. When the MP3 file format is used, 4 different bit depths are available.

Recording Mode: MP3-64k, MP3-96k, MP3-128k, MP3-192k, WAV

The bit rate refers to the degree of accuracy used when converting data. It's kind of like comparing the 3X-speed mode and normal speed mode on your home video deck. If you compare MP3-64k and MP3-96k files, the MP3-64k file will use up less memory however audio quality will be inferior to the MP3-96k file. The WAV format offers better audio quality than MP3 but it requires a larger amount of memory. The MP3-128k format delivers an excellent balance between audio quality and memory and should be adequate for normal recordings.

However, sound quality will deteriorate slightly with mix recording, so we recommend that MP3-192k when mix recording is to be used continuously. The factory default setting is MP3-192k.

Refer to the "Recording Mode" section (→page 38) for more information on how to set the recording mode.

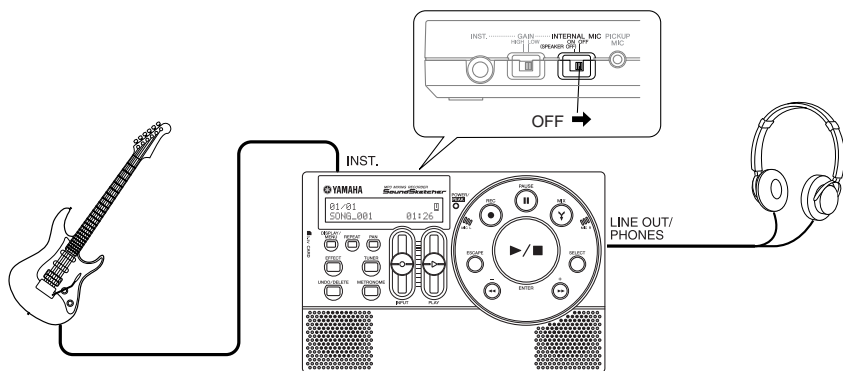
Try Out the Mix Recording Function

The Mix Recording function can be used to overdub a vocal part after recording the guitar part.

* Before you start recording your guitar make sure its in tune. The SH-01 is equipped with a tuner that is described on [page 24](#).

● Recording a Guitar (Make a New Recording)

1 Connect your electric or electric/acoustic guitar to the SH-01's **INST.** jack. If you playing an acoustic guitar, you can either use the built-in microphones or connect a dynamic type microphone to the **INST.** jack to record audio. If the built-in microphones will not be used, switch **INTERNAL MIC** switch to its "OFF" position. Also, connect a pair of headphones to the **LINE OUT/PHONES** jack for monitoring. (→ [page 15](#))



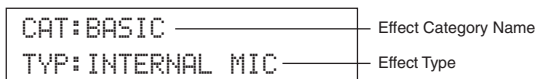
2 Using the step **2** of the same procedures described on [page 17](#) and [18](#)

- Play the guitar, and adjust the input level while monitoring through a pair of headphones.

At this point, preparation for recording the guitar is complete, but let's try adding some of the SH-01's on-board effects to the guitar's sound.

3 Press the **[EFFECT]** button to display the effect settings.

The Effect Category name will appear on the top half of the display and the Effect Type will appear on the bottom half of the display.



Effects are divided into eight categories depending upon their use. Since each category contains eight effects the SH-01 offers a total of 64 effects for use. Refer to the “[Effect Type List](#)” on page 42 for more information on each of the effects.

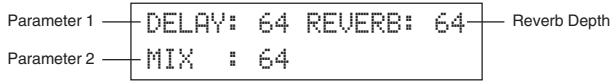
Select an effect category and effect type you would like to use.

Press the [SELECT] button until the item (category name or effect type) you want to set flashes, then use the [-]/[+] buttons to select a category or type.

The effect that is shown in the display is active, so you can play your guitar and audition the effect in real-time.

Also, the depth and amount of the effect being applied to the original sound is adjustable.

Press and hold the [EFFECT] button to show the parameter setting display for the currently selected effect. Just as shown in the following illustration, two parameters can be adjusted for each effect. Also, the reverb depth can be set for every effect. Refer to the “[Effect Type List](#)” on page 42 for more information on each of the effect parameters.



Press the [SELECT] button to flash the item (Parameter 1, Parameter 2, Reverb) you would like to set, and then use the [-]/[+] buttons to set the value.

** Hold the [-] button and press the [+] button to decrease the value by 10. Likewise, hold the [+] button and press the [-] button to increase the value by 10. This method is useful when selecting a file or setting a parameter.*

Parameters 1 and 2 may differ depending upon the effect.

** If “DISTORTION” is selected in the effect category and sound is output through the internal speakers, the unit vibrating may result in noise. We recommend that a pair of headphones or external speakers be used when using the “DISTORTION” setting.*

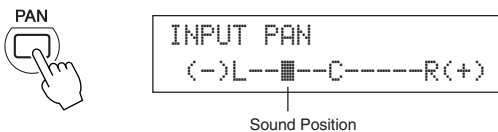
After you have completed making the necessary settings, press the [ENTER] button or [EFFECT] button and return to the main display.

4 You can also set the **pan (the position in the stereo field)** for the input source.

If you want to record two guitars, set the pan of one of the guitars to the right, and the other to the left.

Press the [PAN] button to display the pan setting.

The flashing block (■) indicates the currently set pan position. Use the [-]/[+] buttons to move the position to the left (L) or right (R) then set. C indicates the center of the stereo field.

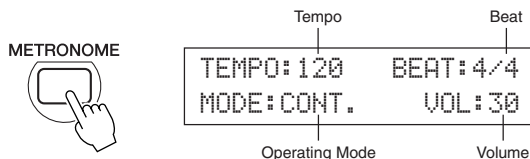


After you are finished setting the pan position, press the [ENTER] button or [PAN] button and return to the main display.

5 The SH-01 is also equipped with a **metronome**. Play your guitar along with the metronome to keep the tempo steady.

Press and hold the **[METRONOME]** button until the metronome setup display shown below appears. The metronome immediately starts and sounds in the manner that it is currently setup. The **[▶/■]** button lamp flashes in sync with the metronome (it flashes red on the first beat of every measure and green on the remaining beats).

Press the **[SELECT]** button and flash the item (Tempo, Beat, Mode, Volume) that you want to set, then use the **[-]/[+]** buttons to set the value or condition.



- **TEMPO** 30 – 250 (in 1-step increments) **[Factory default: 120]**
- **BEAT** 1/4, 2/4, 3/4, 4/4, 6/8 **[Factory default: 4/4]**
- **Operating Mode (MODE)** CONT., PRE. **[Factory default: CONT.]**

This setting determines when the metronome will operate and sound. When set to PRE. (pre-count), the metronome only produces the beat two measures before recording starts to give you the tempo before the song starts.

The metronome will not sound while recording is paused.

		CONT.	PRE.
While Stopped		Sounds	No Sound
New Recording	Pre-count	Sounds	Sounds
	During Recording	Sounds	No Sound

- **Volume (VOL)** 0-80 (1-step increments) **[Factory Default: 30]**

You can set the tempo, beat, and volume to whatever you like, but for this demonstration, let's set the MODE to "CONT."

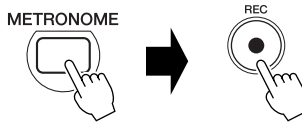
After making your settings, press the **[ENTER]** or **[METRONOME]** button to return to the main display.

** Metronome settings are saved in the unit even when the power is switched OFF. If you want to hear the metronome and you don't need to change any settings, simply press the **[METRONOME]** button to start the metronome.*

** The metronome does not function when Mix Recording.*

6 Let's start recording.

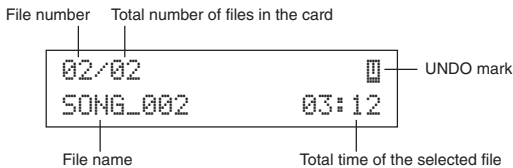
After pressing the **[METRONOME]** button, press the **[REC]** button to enter the record standby mode. (Don't forget to check the amount of time available for recording.)

**7** Press the **[▶/■]** button to start recording. After the metronome's two measure count off, play your guitar and record from the first measure of the song.

If the metronome is activated, recording will not actually start until after the metronome's two-measure count off (from the third measure).

8 When you are finished recording, press the **[▶/■]** button to stop recording.

The file you just recorded is automatically given a name and saved in the memory card.



** If the memory card becomes full while recording, due to a lengthy song or not enough memory in the card to begin with, recording will automatically stop and a file will be created of the data recorded up to that point.*

** If, during the recording process, the SH-01's power is switched off, the memory card is removed, or an error occurs, a file will not be created.*

9 Press the **[▶/■]** button to start playback.

Listen to the recording. If you are not pleased with the results, press the **[UNDO/DELETE]** button to carry out the Undo (cancel) command and try recording again.

**When the SH-01 is switched OFF, or when the memory card is removed, UNDO is cleared and reset.*

OK, are you satisfied with your recording?

Next, use the mix recording function and add a vocal part to your guitar part.

Since the recorded data is saved as a file in the memory card, you can quit recording and switch off the SH-01 without any problem. Settings you made for the metronome, record mode, etc., are all saved in the unit. If you want effect settings saved in the unit when power is switched off, set the Effect Setup setting (→ [page 40](#)) to "BACKUP".

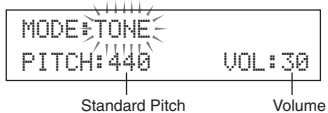
Using the Tuner Function

The SH-01's tuner has two operating modes.

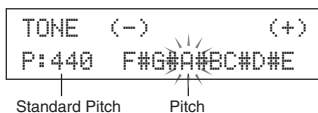
- **Tone Mode** Produces an audible pitch of the note selected from the 12 pitches, A - G#.
- **Tuning Mode** ... Displays the pitch closest to that which you play, and gives visual indications as to whether the pitch is high or low.

● Using the Tone Mode

1. Press and hold the **[TUNER]** button to display the tuner's main display.
Use the **[-]/[+]** buttons so that "TONE" appears on the top half of the display (this selects the tone mode).
An audible tone is produced and its volume can be adjusted using the **VOLUME** control.



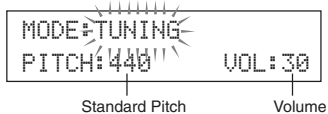
2. If it is necessary, press the **[SELECT]** button to flash the pitch display, then use the **[-]/[+]** button to set the standard pitch (435 - 446, factory default=440)
3. Press the **[SELECT]** button to flash the "VOL" (volume) setting, and use the **[-]/[+]** button to adjust the volume of the audible tone.
4. Press the **[TUNER]** button to display the tone mode setup display, then use the **[-]/[+]** button to flash the pitch you want to hear. The pitch that you select is played.



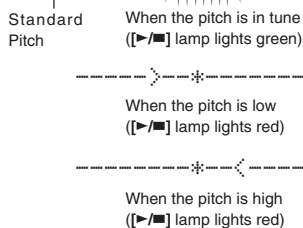
5. Press the **[ENTER]** button or **[TUNER]** button to return to the main display.

● Using the Tuning Mode

1. Press and hold the **[TUNER]** button to display the tuner's main display.
Use the **[-]/[+]** buttons so that "TUNING" appears on the top half of the display (this selects the tuning mode).



2. If it is necessary, press the **[SELECT]** button to flash the pitch display, then use the **[-]/[+]** button to set the standard pitch (435 - 446, factory default=440)
3. Press the **[TUNER]** button to enter the tuning mode display.
4. In the tuner display, the tuner will flash the name of the pitch that is closest to the tone that is received by the unit's built-in microphone, **INST.** jack, or **LINE IN** jack, and indicate whether the pitch is high or low with the display and the lighting the **[▶/■]** button lamps.
** Inaccurate display may occur due to the input signal.*
5. Tune your instrument until the display indicates that the pitch is in tune, as shown in the illustration below.



6. Press the **[ENTER]** button or **[TUNER]** button to return to the main display.

* Tuner settings are saved in the SH-01 even when the power is switched OFF. If you want to use the tuner again with the same settings, simply press the **[TUNER]** button.

● Record the Vocal Part (Mix Recording)

In this step, we will overdub a vocal part onto the already recorded guitar part. But before you record the vocal part, why don't you try rehearsing along with the guitar part.

1 First switch the SH-01's power off, then connect a vocal microphone (dynamic type) to the INST. jack. Next, set the INTERNAL MIC switch to its "OFF" position. (→ page 14)

2 Switch the power ON.

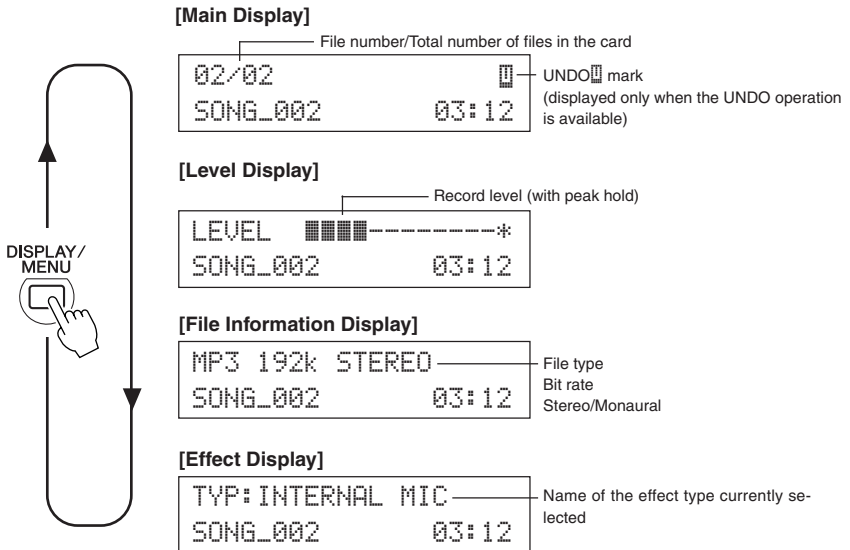
* While the SH-01 is starting up, "YAMAHA SOUND SKETCHER" will appear in the display. Button operation is not possible at this time.

The SH-01 selects the most recently recorded file.

```
02/02
SONG_002      03:12
```

Displaying File Information

If none of the buttons have been pressed after the SH-01's power is switched ON, the main display (**normal display**) shown below will appear. If you press the **[DISPLAY/MENU]** button you can scroll through the different displays, as shown below, to confirm the original file's settings for **level**, **file information**, and **effect settings** before you start mix recording.8)

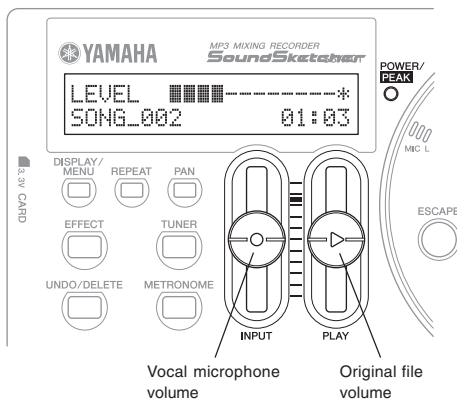


On the bottom half of the display, the file name and total time of the selected file is shown in all displays.

- 3** Adjust the audio balance between the guitar you recorded in the original file, and the vocal that will be mixed with the guitar.

First, press the [▶/■] button to start playback of the original file.

Press the [DISPLAY/MENU] button to enter the level display mode, and singing along with the playback, adjust the volume of the original file (**PLAY** volume) and the volume of the vocal mic (**INPUT** volume). We recommend that a pair of headphones be used for monitoring.



- 4** Of course you can also apply effects to your vocal part. Use the same procedure described in steps **3** and **4** on page 20 and 21 to set.

The settings for recording your vocal part are now complete.

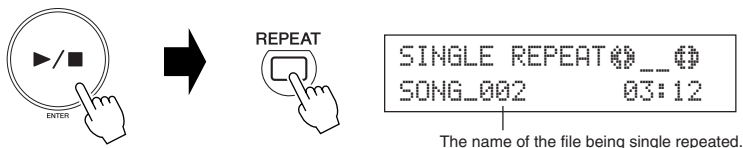
But before mix recording the vocal part, let's rehearse by singing along with the previously recorded guitar part.

- 5** Repeat playback has two modes.

- **Single Repeat** This repeats the playback of a single song in its entirety.
- **AB Repeat** This repeats the playback of the selected segment within the song.

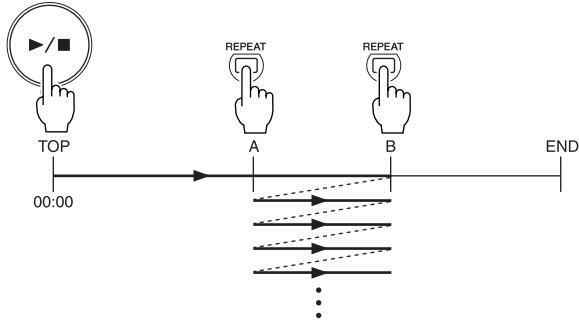
To use the Single Repeat

Press the [▶/■] button to start file playback, then press and hold the [REPEAT] button (Single Repeat setup display). Use the [-]/[+] buttons to cancel the repeat.



To use the AB Repeat

Press the [▶/■] button to start file playback, then press the [REPEAT] button when playback reaches the beginning of the segment you want to repeat. Let the playback continue then press the [REPEAT] button again when playback reaches the end of the segment you want to repeat. Playback will automatically start again from the beginning of the segment and repeat between the two points you just set.



* Press the [-]/[+] buttons or [REPEAT] button during Single Repeat or AB Repeat playback to cancel the repeat and continue with normal playback.

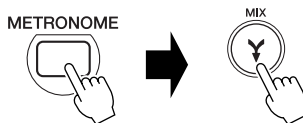
* The Single Repeat or AB Repeat setting is cancelled when playback is stopped.

In addition to repeat playback, here are some other convenient functions.

- [PAUSE] Button Press this button during playback to temporarily stop playback. Press the [PAUSE] button again, or the [▶/■] button to start playback from the same point.
- [◀◀]/[▶▶] Button Press either of these buttons during playback to jump to the next or previous file. You can also press and hold either of the buttons to fast forward or rewind during playback.
- [▶/■] Button After starting playback, playback will continue (as long as the [▶/■] button is not pushed again) through all files, one by one, until the last file is played.

6 After you feel you have practiced your vocal part enough, press the [▶/■] button to stop playback.

Press the [MIX] button to enter the mix recording standby mode (do not forget to check how much available time remains).



* Before starting mix recording, the SH-01 refers to the original recording and calculates how much memory will be needed for the mix recording, if there is not enough capacity remaining in the memory card, the “NOT ENOUGH MEMORY OK?” message will appear in the display. If this is the case, either delete any unneeded files (→ page 32), or move some files to your computer (→ page 37) to make more space available in the memory card before you record.

* If the recording mode is set to “.WAV”, mix recording can not be performed. The message “CAN’T MIX @WAV MODE!” will appear. Change the recording mode to “MP3”. (→ page 38)

7 Press the [▶/■] button to start recording. Sing along with your guitar part.

8 When you reach the end of the song, press the [▶/■] button to stop recording.

* If you press the [▶/■] button to stop recording in the middle of the file, the file will only retain the data up to the point where you pressed the button and original data in the file after that point will be lost. Please be careful.

Also, if the memory card becomes full while recording, recording will automatically stop and the file will only retain data up to that point.

The UNDO function is available in both of these cases so press the [UNDO/DELETE] button and try mix recording again.

* If the SH-01's power is switched off during recording, or the memory card is removed from the memory card slot, or an error occurs, the mix recording function will be deactivated and the original file will remain as it is.

9 Press the [▶/■] button to start playback. How does your recording sound so far?

If you don't like it, press the [UNDO/DELETE] button to carry out the UNDO operation and try recording again.

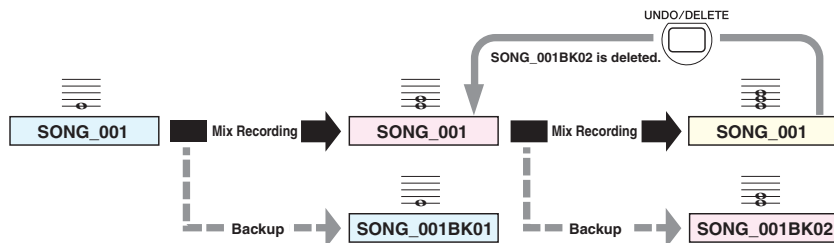
* When the SH-01 is switched OFF, or when the memory card is removed, UNDO is cleared and reset.

Now that you understand how the SH-01 works, use the mix recording function and your imagination to add background chorus parts or other instruments.

Backup Files in the Mix Recording Mode

When using the mix recording mode, a backup file is automatically created of the file prior to mix recording.

As the mix function is repeatedly used, as shown in the illustration below, a backup file is created for the data prior to each mix recording.



The original file name is used for the mix recording file and when the undo function is carried out, the data will be returned to its condition prior to the mix recording operation. (At this time, the most recent backup file is automatically deleted.)

If you want to try taking another take while keeping the current mix recording, rename the backup file and use it to record a separate take with the mix recording function.

Recording from a CD/MD Player, or Other Audio Source

With the SH-01, not only can you record from the microphone or instrument inputs, but from audio sources such as a CD player, MD player, and more.

Copying of the commercially available music data and/or audio files is strictly prohibited except for your personal use.

● Recording from a CD/MD Player

- 1** Connect the SH-01's LINE IN jack to the output jack of a CD player, MD player, or other audio source. (→ [page 15](#))
- 2** Press the [DISPLAY/MENU] button to enter the level meter display mode, and start playback of the CD/MD you want to record.
Use the INPUT volume to adjust the recording level.
- 3** Of course, you can use effects or the pan setting. If you are recording from an audio source such as a CD, MD, etc., we recommend that you use the "AUDIO" setting in the "BASIC" effect category. (→ [page 20 - 21](#), steps **3** - **4**)
- 4** Press the [REC] button to enter the record standby mode (don't forget to check the remaining available recording time).
- 5** Press the [▶/■] button and start playback of the CD/MD to start recording.
- 6** Press the [▶/■] button to stop recording.

Since you can also use the mix record function with the file you just recorded, you can add some other parts to the recording and make your own original MP3 data file to sing along with.

About the Effects

Besides effects such as distortion, which alter the original sound; or those like chorus and delay, which expand the sound; the SH-01 offers effects that can be used to increase the audio quality of the recording. For example, making an acoustic guitar sound more acoustic, or averaging out those "too quiet" and "too loud" passages so the recording has a better overall sound balance.

Effects like those, which are used to correct problems you may encounter while recording, can be found in the "BASIC" effect category.

Also, effects found in the "MASTERING" category are applied to the entire file. Select the desired effect type, then run the mix recording operation to apply the effect to the whole file. For more detail information, see the "Mastering" section described on the [next page](#).

Mastering

This procedure lets you apply effects from the effect's "MASTERING" category to the recorded file. With this you can add effects or adjust the sound quality to the completed song.

1 All input sources (INST. jack, LINE IN jack, PICKUP MIC jack) must be set to OFF or disconnected. Also, set the INTERNAL MIC switch to the "OFF" position.

** The signal from the input source is received during the "mastering" procedure. (INPUT volume and [PAN] button settings are fixed.) To prevent recording of any unnecessary sources, it is better to remove the internal mic and external source inputs from the circuit.*

2 Select a file for mastering.

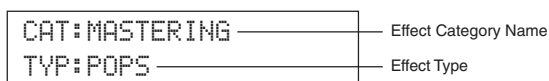
** At this point, if you use the [▶/■] button to start playback, you can select an effect while listening to the playback.*

3 Press the [EFFECT] button to display the effect settings.

Use the [SELECT] button and the [-]/[+] buttons to select the "MASTERING" category.

** Only effects in the "MASTERING" category can be used when mastering.*

Use the [SELECT] button and the [-]/[+] buttons to select an effect type that matches the file you are mastering.



** Please refer to the "Effect Type List" (page 42) for more information on effect types.*

** The parameter setting display that appears holding the [EFFECT] button is used to adjust the depth or amount of the effect. (See page 21)*

4 Press the [▶/■] button to start playback and use the **PLAY** volume to adjust the recording level.

** The INPUT volume setting is ignored.*

5 Press the [MIX] button to prepare for mix recording. (Don't forget to check the amount of time available for recording.)

6 Press the [▶/■] button to start recording (mastering).

** The PLAY volume is active at this time so you can use it to fade in/out.*

7 Press the [▶/■] button to stop recording (mastering).

** Since mastering is also a mix recording function, a backup file is automatically created. (See page 28)*

When a "MASTERING" effect is selected, this effect is added to the original playback sound. When you are finished mastering, change the effect category to anything other than "MASTERING".

File Management


The SH-01 saves recorded data to a memory card as either an MP3 file or WAV file. Since these are all commonly used sound file formats, moving files between a computer and the SH-01 is possible.

File Backup

Create a backup file of the currently selected file.

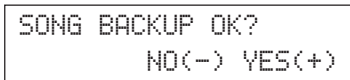
- 1** First, select the file you want to backup.
- 2** Press and hold the [DISPLAY/MENU] button to display the system setup menu ("MENU" will appear on the top half of the display).
- 3** Use the [-]/[+] buttons to display "SONG BACKUP" on the bottom half of the display, then press the [ENTER] button.

** If there is no data present in the memory card, "SONG BACKUP" will not be displayed.*



```
MENU
SONG BACKUP  -/+ , ENT
```

- 4** The following display will appear.



```
SONG BACKUP OK?
NO(-) YES(+)
```

- 5** Press the [+] button to create a backup file in the memory card. Press the [-] button to cancel the backup file operation and return to the system setup menu display.

** You can not backup a file that has been moved from an external device, such as a computer, to the SH-01 (the SH-01's memory card) via a USB cable.*

** When creating the backup file name, BKnn (nn being the number in numerical order given to the file by the system) is added to the end of the original file name. However, when the original file name is more than 9 characters in length, characters at the end of the file name will be cut to allow the addition of BKnn.*

Changing a File Name (Rename)

You can change the names of files in the memory card.

- 1 First, select the file for which you want to change the name.
- 2 Press and hold the [DISPLAY/MENU] button to display the system setup menu ("MENU" appears on the top half of the display).
- 3 Use the [-]/[+] buttons to display "SONG RENAME" on the bottom half of the display, then press the [ENTER] button.

* If there is no data present in the memory card, "SONG RENAME" will not appear on the display.

```
MENU
SONG RENAME  -/+ , ENT
```

- 4 The following display appears.

```
RENAME
SONG_001    -/+ , ENT
```

- 5 Use the [-]/[+] buttons to flash the character you want to change.
- 6 Use the INPUT slider and PLAY slider to select the characters you want to use in the name.
 - INPUT slider : A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 - PLAY slider : space 0 1 2 3 4 5 6 7 8 9 ! # \$ % & () + , - = @ [] ^ _ { }

* Do not use the name "TRACK000" since this is the name of the SH-01's system. (This file is deleted when the power is switch OFF.)
- 7 Repeat steps 5 and 6 above to change the file name. When you are finished, press the [ENTER] button.

Delete an Unneeded File

This operation is used to delete the currently selected audio file (.MP3, .WAV).

- 1 First, select the file you want to delete.
- 2 Press and hold the [UNDO/DELETE] button. The following display appears.

```
DELETE SONG_001
      OK? NO(-) YES(+)
```

- 3 Press the [+] button to delete the selected audio file.
Press the [-] button to cancel the file delete operation and return to the main display.

Delete All Files

This operation is used to delete all audio files (.MP3, .WAV) in the memory card.

! When carried out, this operation will delete all audio data in the memory card. The UNDO operation is NOT available in this operation, so make sure that the data you are deleting is absolutely not needed before carrying out the operation.

1 Press and hold the [DISPLAY/MENU] button to display the system setup menu (“MENU” appears on the top half of the display).

2 Use the [-]/[+] buttons to display “ALL SONG ERASE” on the bottom half of the display, then press the [ENTER] button.

** If there is no data present in the memory card, “ALL SONG ERASE” will not appear.*

```
MENU
ALLSONG ERASE-/+ , ENT
```

3 The following display appears.

```
ALL SONG ERASE OK?
      NO(-) YES(+)
```

4 Press the [+] button and a message (ARE YOU SURE?) will appear, asking you to confirm the file delete operation.

Press the [-] button to cancel the delete all files operation and return to the system setup menu.

```
ARE YOU SURE?
      NO(-) YES(+)
```

5 Press the [+] button to delete all audio files in the memory card.

Press the [-] button to cancel the delete all files operation and return to the system setup menu.

Format the Memory Card

This operation is used to format (default) the memory card.

! When carried out, this operation will delete all audio data in the memory card. The UNDO operation is NOT available in this operation, so make sure that there is no important data in the memory card before carrying out this operation.

- 1 Insert the memory card you want to format into the memory card slot.
- 2 Press and hold the [DISPLAY/MENU] button to display the system setup menu ("MENU" appears on the top half of the display).
- 3 Use the [-]/[+] buttons to display "CARD FORMAT" on the bottom half of the display, then press the [ENTER] button.

```
MENU
CARD FORMAT  -/+ , ENT
```

- 4 The following display appears.

```
FORMAT CARD OK?
                NO(-) YES(+)
```

- 5 Press the [+] button and a message (ARE YOU SURE?) will appear asking you to confirm the format operation.
Press the [-] button to cancel the format operation and return to the system setup menu.

```
ARE YOU SURE?
                NO(-) YES(+)
```

- 6 Press the [+] button to carry out the format operation.
Press the [-] button to cancel the format operation and return to the system setup menu.

The "ABOUT" Display

To display SH-01 information, press and hold the [DISPLAY/MENU] button → use the [-]/[+] buttons to select "ABOUT" at the bottom of the list → press the [ENTER] button. Information is provided in multiple displays so use the [-]/[+] buttons to select a different display.

Converting Files with a Computer

The SH-01 is equipped with a USB port that allows direct connection of the SH-01 to a computer.

You can use the computer to manage sound data files created by the SH-01, or load files into the SH-01 that you have downloaded off the Internet or created with the computer. You can also use the computer to set up the SH-01's effect parameters.

File Compatibility

The following file formats are compatible with the SH-01.

File Format	Playback	New Recording	Mix Recording
MP3	X	X	X
WAV	X	X	★ (see note below)

* Although the file format can not be set for mix recording, the WAV file format can be used for mix recording but when the file is saved, it will be saved as an MP3 file.

Files other than those described above can not be recorded or played back.

What Can the Computer Connection Do?

- **Transfer files from the SH-01 to the computer**

* Files can only be transferred from the SH-01 to the computer, not copied. After the file is transferred to the computer, its original data is erased in the SH-01. Also, during the transfer, a message and confirmation concerning the copyright will appear on the computer.

- **Transfer files from the computer to the SH-01**

* Files can only be transferred from the computer to the SH-01, not copied. After the file is transferred to the SH-01, its original data is erased in the computer. Also, the system does not allow backup of files that are transferred to the SH-01 via the USB cable. Playback and mix recording with these files is possible.

- **Update the SH-01's effect parameter data**

Visit the SH-01 website and you'll find effect parameter data for the SH-01's "ADD-ON" effect category that you can download to your computer. Transfer this data from your computer to the SH-01 to update the effects.

SH-01 effect parameter data downloaded from web site ("ADD-ON" effect category) can be transmitted from a computer to the SH-01 to upgrade the SH-01. See www.mp3rec.com for more information.

What's in the Supplied CD ROM

● Data Filer

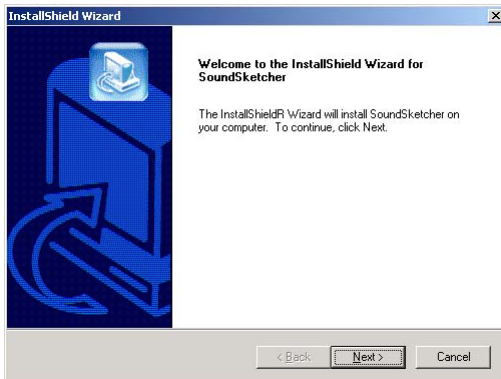
This application lets you transfer files between the SH-01 and your computer. Refer to the [next page](#) on how to use this application.

[System Requirements]

- Computer Personal computer equipped with a USB jack and processor of more than 100MHz from the intel®, Pentium®, or Celeron™ family.
- OS Windows® 98SE/Me/2000/XP
- Memory 16MB or greater
- Hard Disk Space 2MB or greater free
- Display 800 x 600 dots/256 colors or greater

Installing the Software

- 1 Start your computer and launch Windows.
- 2 Set the supplied CD-ROM in the CD-ROM drive.
- 3 From the [Start] menu select [Run] to carry out “F:\Disk1\Setup.exe”. (F will vary depending upon the computer.)
Or click “Setup.exe” in the Disk 1 folder found in the CD-ROM to start.
- 4 The install application starts and the following display appears.



- 5 From this point, please follow in instructions on the display to install the application.

Transferring data with the computer (Data Filer)

The “Data Filer” application included in the supplied CD-ROM allows convenient transfer of files between the SH-01 and a computer.

1 Use a USB cable to connect the SH-01 to your computer. (Refer to page 16)

2 Switch the SH-01’s power ON.

* When the SH-01 is connected to the computer for the first time only, “New hardware detected” will appear on the display then the driver install wizard may start.

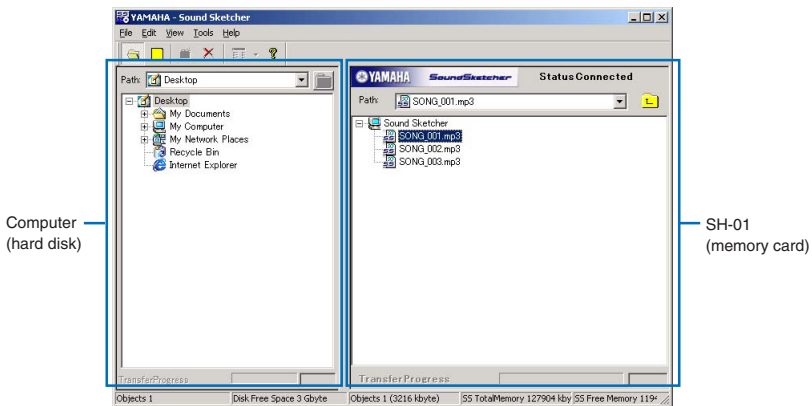
Follow the wizard’s instructions to install the driver.

3 Select “SoundSketcher” from the “Start” menu (Start → Program → SoundSketcher).

4 The data filer starts and the following display will appear.

Files can be transferred by dragging icons between the computer (hard disk) and the SH-01 (memory card) as you would normally do to transfer files in the Windows system.

* You can also drag icons of files downloaded from the Internet to the SH-01’s folder to automatically update the SH-01’s effect parameter data (“ADD-ON” effect category). Please refer to www.mp3rec.com for more information.



Caution! When Transferring Data

- When data is transferred from the computer to the SH-01 or from the SH-01 to the computer, the data will be deleted from its origin.
- Data transferred from the computer to the SH-01 can not be backed up with the SH-01.
- The SH-01 can not properly display Japanese file names (2 byte code characters). Also, mix recording can not be used with files that have Japanese names.

System Setup

The SH-01's system settings are explained below.

Record Mode

Sets the conditions (file type, bit rate) for recording.

** The sampling rate is fixed at 44.1kHz, and audio data is fixed at 16-bit.*

- 1 Press and hold the **[DISPLAY/MENU]** button to display the system setup menu ("MENU" appears on the top half of the display).
- 2 Use the **[-]/[+]** buttons to display "RECORD MODE" on the bottom half of the display, then press the **[ENTER]** button.

```
MENU
RECORD MODE  -/+ , ENT
```

- 3 The record mode setup display appears.

```
RECORD MODE:
MP3-192k     -/+ , ENT
```

- 4 Use the **[-]/[+]** buttons to set the record mode.
The record mode (file type, bit rate) can be set as described below.

MP3-64k, MP3-96k, MP3-128k, MP3-192k, WAV

Record Mode	Available recording time according to memory card size (approximately)			
	16M	32M	64M	128M
MP3-64k	32	64	128	256
MP3-96k	21	42	85	170
MP3-128k	16	32	64	128
MP3-192k	10	21	42	85
WAV	1	3	6	12

unit : min

** MP3 files using a higher bit rate deliver greater audio quality.*

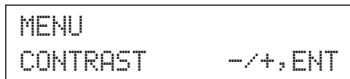
** Compared to MP3 files, WAV files offer greater audio quality however file size is larger (shortening available record time).*

- 5 Press the **[ENTER]** button to appoint the setting and return to the main display.

Adjusting the Contrast

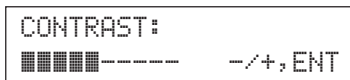
This operation is used to adjust the display's contrast (the difference between dark and light).

- 1** Press and hold the [DISPLAY/MENU] button to display the system setup menu ("MENU" appears on the top half of the display).
- 2** Use the [-]/[+] buttons to display "CONTRAST" on the bottom half of the display, then press the [ENTER] button.



MENU
CONTRAST -/+ , ENT

- 3** The contrast adjustment display appears.



CONTRAST:
■■■■■■----- -/+ , ENT

- 4** Use the [-]/[+] buttons to adjust the contrast.
Contrast can be adjusted in 10 steps and the amount of adjustment is indicated with the block display (■) on the bottom half of the display.
- 5** Press the [ENTER] button to set the setting and return to the main display.

Effect Setup

This operation is used to determine whether parameter changes you make to the effects are saved (**BACKUP**) or not saved (**DEFAULT**).

When set to “**DEFAULT**”, the parameter for each effect returns to its default value the next time you switch the SH-01’s power ON.

- 1 Press and hold the **[DISPLAY/MENU]** button to display the system setup menu (“**MENU**” appears on the top half of the display).
- 2 Use the **[-]/[+]** buttons to display “**EFFECT SETUP**” on the bottom half of the display, then press the **[ENTER]** button.

```
MENU
EFFECT SETUP -/+ , ENT
```

- 3 The effect setup display appears.

```
EFFECT SETUP:
DEFAULT      -/+ , ENT
```

- 4 Use the **[-]/[+]** buttons to select either “**DEFAULT**” or “**BACKUP**”.

```
EFFECT SETUP:
DEFAULT      -/+ , ENT
↑↓
BACKUP
```

- 5 Press the **[ENTER]** button to appoint the setting and return to the main display.

Specifications

Digital Section

Playback File Compatibility: MP3, WAV
Recording File Compatibility: MP3, WAV
Mix Recording File Compatibility: MP3
Sampling Rate: 44.1kHz, 16-bit
MP3 Rate: 64 - 192kbps
Frequency Response: 20Hz - 20kHz
Total Harmonic Distortion: 0.1% @ 1kHz
S/N Ratio: 80dB

Available recording time

New Recording (64MB Card):
Approximately 64 Min. @ MP3-128kbps
Approximately 6 Min. @ WAV

Maximum Number of Files

80 Files
* The use of file formats other than MP3 or WAV, or file names of more than 13 characters, may reduce the maximum number of files that the memory card can store to less than 80.

Input/Output

Built-in Microphone: Stereo Condenser
INST. Jack: Monaural Phone Jack
INST. Jack & Internal Microphone Gain Switch:
HIGH/LOW
PICKUP MIC Jack: Miniature Monaural Jack,
supplies 2V
LINE IN Jack: Miniature Stereo Jack
Built-in Speakers: Stereo, 500mW+500mW
LINE OUT/PHONE Jack: Miniature Stereo Jack
USB Port: SLAVE

Song Control

Playback: Fast Forward, Rewind, Pause, A-B/
Single Repeat
New Recording: Create New Song File, Metronome
Mix Recording: Mix existing song file with input source
Song File: Backup, Delete, Rename

Data Control

Memory Card: 3.3V SmartMedia
USB Port: Song File Upload/Download, Effect File Download
Copyright Protection: Backup Limit, Upload Message Display.

Effects

64 (8 Categories x 8 Types)
Categories: Basic, Delay, Chorus, EFX, Drive, Distortion, Add-On*. Mastering
* Add-On effects can be updated with upload.
* Two parameters and reverb parameters can be set for each of the effects.

Metronome

Tempo: 30-250
Beat: 1 - 4/4, 6/8

Tuner

Mode: Tone Mode/Tuning Mode
Standard Pitch: 435-446Hz

Power Supply

AA size alkaline batteries (LR6) x6 or
Power Adaptor (Yamaha PA-3C)
Battery Life: Approximately 2 hours of MP3 Playback
Approximately 1.5 hours of MP3 Recording
* Both cases are when using headphones.

Dimensions (WxHxD)

200 x 133 x 34 mm

Weight

450 g (only the main unit, w/o batteries)

* Yamaha reserves the right to change specifications and the exterior design without notice.

Effect Type List

Effect Category	Feature
Effect Type	Variable Parameters <small>* In addition to the following, "REVERB" parameters are also adjustable (amount of reverb).</small>
BASIC	These are basic settings that are optimized for each particular input.
INTERNAL.MIC	Optimized for use with the internal mic LO Adjusts the low frequency level HI Adjusts the high frequency level
INT.MIC+COMP	Internal mic optimization plus compression LO Adjusts the low frequency level HI Adjusts the high frequency level
VOCAL.MIC	Optimized for use with an external vocal mic (dynamic mic) LO Adjusts the low frequency level HI Adjusts the high frequency level
VOCAL.MIC+COMP	External vocal mic optimization plus compression LO Adjusts the low frequency level HI Adjusts the high frequency level
LINE.GUITAR	Optimized for use with an electric guitar LO Adjusts the low frequency level HI Adjusts the high frequency level
LINE.BASS	Optimized for use with an electric bass LO Adjusts the low frequency level HI Adjusts the high frequency level
LINE+COMP	Electric guitar/bass optimization plus compression LO Adjusts the low frequency level HI Adjusts the high frequency level
AUDIO	Optimized for use with an external audio source (CD, MD, etc.) LO Adjusts the low frequency level HI Adjusts the high frequency level
DELAY	These are delay type effects that add depth to the sound.
DOUBLING	Very short single delay MIX Adjusts the delay volume --
SINGLE.SHORT	Short single delay TIME Adjusts the delay time MIX Adjusts the delay volume
SINGLE.LONG	Long single delay TIME Adjusts the delay time MIX Adjusts the delay volume
MONO.MIX	Monaural delay (w/variable MIX parameter) TIME Adjusts the delay time MIX Adjusts the delay volume
MONO.FB	Monaural delay (w/variable feedback parameter) TIME Adjusts the delay time FBLEV Adjusts the delay's number of repeats
STEREO.MIX	Stereo delay (w/variable MIX parameter) TIME Adjusts the delay time MIX Adjusts the delay volume
STEREO.FB	Stereo delay (w/variable feedback parameter) TIME Adjusts the delay time FBLEV Adjusts the delay's number of repeats
ENSEMBLE	Expansive delay TIME Adjusts the delay time FBLEV Adjusts the delay's number of repeats

Effect Category	Feature
Effect Type	Variable Parameters <small>* In addition to the following, "REVERB" parameters are also adjustable (amount of reverb).</small>
CHORUS	These are chorus type effects that add expansiveness to the sound.
SOFT	Light chorus effect DEPTH Adjusts modulation depth --
MEDIUM	Natural chorus effect SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
HARD	Deep chorus effect SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
PHASER.1	Light phaser effect SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
PHASER.2	Heavy phaser effect SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
FLANGER.1	Light flanger effect SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
FLANGER.2	Heavy flanger effect SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
STEREO SHIFT	Chorus with a slight swell LO Adjusts the low frequency level HI Adjusts the high frequency level
EFX	Some other various effects.
TREMOLO MONO	Mono tremolo SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
TREMOLO STEREO	Stereo tremolo SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
VIBRATO MONO	Mono vibrato SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
VIBRATO STEREO	Stereo vibrato SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
AUTO PAN	Sound moves automatically from left to right SPEED Adjusts motion speed TYPE Selects the motion type
ROTARY SPEAKER	Rotary speaker effect SPEED Adjusts modulation speed TONE Adjusts the tone
AUTOWAH	Automatic wah wah effect SPEED Adjusts modulation speed FREQ Adjusts the tone
ENHANCER	Enhances the high frequencies FREQ Adjusts the frequency that is enhanced DRIVE Adjusts the amount of enhancement

Effect Type List

Effect Category	Feature
Effect Type	Variable Parameters <small>* In addition to the following, "REVERB" parameters are also adjustable (amount of reverb).</small>
DRIVE	Overdrive effects that add distortion
OVER DRIVE	Basic overdrive effect TYPE Selects the distortion type DRIVE Adjusts the intensity of the drive
+SINGLE DELAY	Overdrive with a single delay TIME Adjusts the delay time MIX Adjusts the delay volume
+FEEDBACK DELAY	Overdrive with a feedback delay TIME Adjusts the delay time FBLEV Adjusts the delay's number of repeats
+CHORUS	Overdrive with chorus DEPTH Adjusts modulation depth MIX Adjusts modulation level
+PHASER	Overdrive with phaser SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
+FLANGER	Overdrive with flanger SPEED Adjusts modulation speed FBLEV Adjusts the intensity of modulation
+AUTOWAH	Overdrive with auto wah SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
+TREMOLO	Overdrive with tremolo SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
DISTORTION	Distortion type effects that add distortion
DISTORTION	Basic distortion effect TYPE Selects the distortion type FREQ Adjusts the tone
+SINGLE DELAY	Distortion with a single delay TIME Adjusts the delay time MIX Adjusts the delay volume
+FEEDBACK DELAY	Distortion with a feedback delay TIME Adjusts the delay time FBLEV Adjusts the delay's number of repeats
+CHORUS	Distortion with chorus DEPTH Adjusts modulation depth MIX Adjusts modulation level
+PHASER	Distortion with phaser SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
+FLANGER	Distortion with flanger SPEED Adjusts modulation speed FBLEV Adjusts the intensity of modulation
+AUTOWAH	Distortion with auto wah SPEED Adjusts modulation speed DEPTH Adjusts modulation depth
+TREMOLO	Distortion with tremolo SPEED Adjusts modulation speed DEPTH Adjusts modulation depth

Effect Category	Feature
Effect Type	Variable Parameters
<p style="text-align: right;">* In addition to the following, "REVERB" parameters are also adjustable (amount of reverb).</p>	
ADD-ON	Effects in this category can be updated with data downloaded from the Internet. (See page 37) The special effects included in the factory default's effects drastically alter the sound.
SFX-TELEPHONE	As heard through a telephone receiver COLOR Adjusts tonal brightness DARK Adjusts the amount of muddiness
SFX-RADIO	As heard through a radio COLOR Adjusts tonal brightness DARK Adjusts the amount of muddiness
SFX-ROBOT	A robotic-like sound GATE Adjusts the level at which the input signal is cut to eliminate unwanted noise --
SFX-HELICOPTER	Sounds like a helicopter GATE Adjusts the level at which the input signal is cut to eliminate unwanted noise SPEED Adjusts modulation speed
SFX-INVADER	Sounds like an alien GATE Adjusts the level at which the input signal is cut to eliminate unwanted noise COLOR Adjusts tonal brightness
SFX-SPACEY	Listen for yourself GATE Adjusts the level at which the input signal is cut to eliminate unwanted noise FBLEV Adjusts the delay's number of repeats
SFX-REVERSE	Listen for yourself GATE Adjusts the level at which the input signal is cut to eliminate unwanted noise TIME Adjusts the reverse time
VOICE CANCEL	Reduces the level of the vocal part from the stereo audio input LO Adjusts the low frequency level HI Adjusts the high frequency level
MASTERING	These are effects for mastering. (See page 30)
FLAT	Flat EQ setting (Use this setting when you want to use reverb only) LO Adjusts the low frequency level HI Adjusts the high frequency level
ROCK	EQ settings for rock music LO Adjusts the low frequency level HI Adjusts the high frequency level
POPS	EQ settings for popular music LO Adjusts the low frequency level HI Adjusts the high frequency level
JAZZ	EQ settings for jazz music LO Adjusts the low frequency level HI Adjusts the high frequency level
LOUDNESS	Enhances low frequencies and adds compression LO Adjusts the low frequency level HI Adjusts the high frequency level
SOFT LIMIT	Natural compression LO Adjusts the low frequency level HI Adjusts the high frequency level
HARD LIMIT	Strong compression LO Adjusts the low frequency level HI Adjusts the high frequency level
VOICE CANCEL	Reduces the level of the vocal part from the stereo audio input LO Adjusts the low frequency level HI Adjusts the high frequency level

Error Messages

Message	Definition
NO SONG	The memory card does not contain any files that the SH-01 can recognize.
NO CARD	There is no memory card in the memory card slot.
WRITE PROTECTED	A write protect seal is attached to the memory card.
UNSUPPORTED CARD	The SH-01 can not recognize the memory card. Does the card in the memory card slot have the proper format?
NO FREE MEMORY	There is insufficient memory in the memory card to carry out the recording operation.
FILE LIMIT REACHED	The SH-01's maximum number of files has been reached.
NOT ENOUGH MEMORY OK?	There is not enough memory available to mix record all of the original file (song).
CAN'T MIX @WAV MODE!	The record mode in the system setup menu is set to "WAV". If you want to mix record, set the record mode to "MP3".
ERROR! PLEASE RENAME	The mix recording operation is unavailable for songs that have Japanese file names. Use the rename operation and give the file an English name.
FILE ALREADY EXISTS	(During the rename operation) The same name is already being used.
CAN'T CREATE FILE	In the file name BKnn, created when backing up a file, nn is over 99.
CAN'T BACKUP	The file transferred from the computer can not be backed up.
SYSTEM FATAL ERROR	A system error has occurred. Press any button. Reset the power. * When a system error occurs after recording and the power is reset, a retrieval file name "RECOVER-FILE" is created and the SH-01 will open this retrieval file after startup. (The RECOVER-FILE is created when retrieval is possible.) The file must be renamed before using.

Troubleshooting

If, while using the SH-01, you experience problems such as “no sound”, “abnormal recording”, etc., please refer to the list below before deciding that the unit is malfunctioning.

If, after referring to the list below, you are still experiencing problems, contact the Yamaha dealer from whom you purchased the SH-01.

Problem	Possible Causes
No power	<ul style="list-style-type: none">• Is the power adaptor properly connected? (→ page 11)• Are the batteries properly installed? (→ page 11)• Is battery power low?
Nothing appears on the display	<ul style="list-style-type: none">• Is the contrast properly set? (→ page 39)
No sound	<ul style="list-style-type: none">• Are the VOLUME, INPUT volume, and PLAY volume turned up?• Is a pair of headphones or external speakers properly connected to the SH-01? (→ page 15)• When a plug is inserted into the LINE OUT/PHONES jack, the SH-01’s built-in speakers do not produce sound.• When the INTERNAL MIC switch is set to its “ON” position, the built-in speakers do not produce sound.
The sound is distorted	<ul style="list-style-type: none">• Is the input level too high?<ul style="list-style-type: none">→ If the INST. jack is being used for sound input, set the “GAIN” switch to its “LOW” position.→ Reduce the output level on the instrument, CD player, etc. connected to the SH-01.→ Reduce the INPUT volume level.• Is a distortion type effect such as “DRIVE”, “DISTORTION”, etc., selected? (→ page 20)
The INPUT volume control is inactive, the Pan setting is inactive.	<ul style="list-style-type: none">• When a “MASTERING” effect is selected, the INPUT volume and PAN setting are both ignored.
The SH-01 did not record anything	<ul style="list-style-type: none">• Was the power switched OFF, or was the memory card removed from the memory card slot during mix recording?
UNDO is not available	<ul style="list-style-type: none">• The UNDO function is unavailable during format (→ page 34) and all file delete (→ page 33) operations.• When the power is switched OFF, or when the memory card is removed, UNDO is ignored even if it is available.• If the device is disconnected from the computer, the UNDO operation is ignored.
The file has disappeared	<ul style="list-style-type: none">• Files can only be transferred, not copied, between the SH-01 and the computer. After the file is transferred from one device to the other, data for the original file is deleted.
Available recording time does not increase although files have been deleted.	<ul style="list-style-type: none">• When the file delete operation (→ page 32) is carried out with the [UNDO/DELETE] button, a file is saved for the UNDO command therefore available recording time will not change. After carrying out the file delete operation, switch the SH-01’s power OFF to erase the file being saved for the UNDO command. When the power is switched ON, available recording time should show an increase.

