RAP-1

ELECTRONIC MUSICAL INSTRUMENT
INSTRUMENTO MUSICAL ELECTRONICO
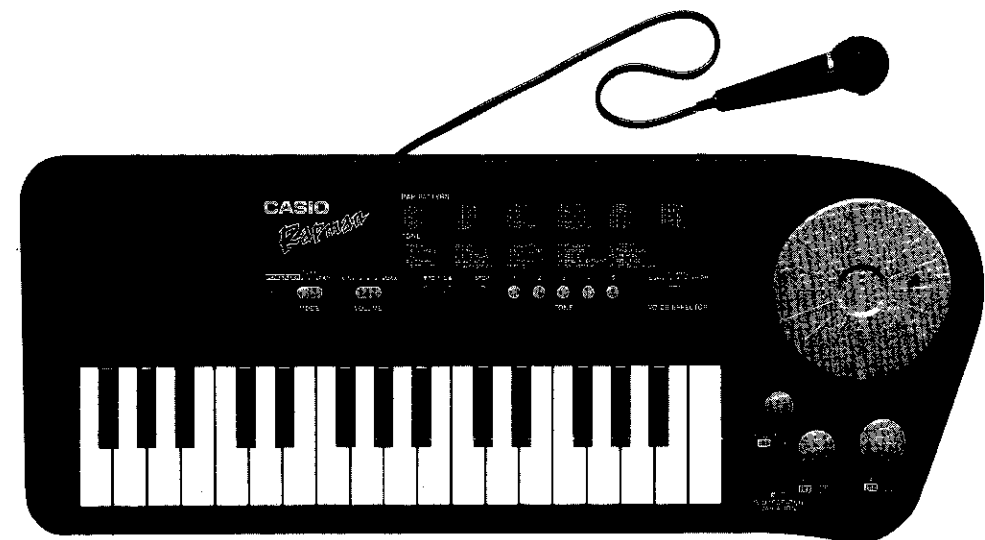
CASIO.

Main Features

Thank you and congratulations on your purchase of the CASIO RAP-1. Your new keyboard features 25 preset tones and 30 preprogrammed "RAP" patterns, which give you the versatility you expect from a quality electronic keyboard.
To enjoy all of the RAP's features, be sure to carefully read this manual.

25 preset Tones — Lets you choose from 25 different sounds including piano, horns, guitar and sound effects.

30 RAP Patterns — Give you a steady beat for rap, rock, house beats and more.

Scratch Disk — Built-in "Scratch Disk" gives you control of up to 4 different scratch sounds by turning it with your hand.

Effects Pads — Three buttons on the console give you one-touch access to a selection of exciting sound effects.

Voice Effector Function — Changes the pitch of the sound being input through the microphone.
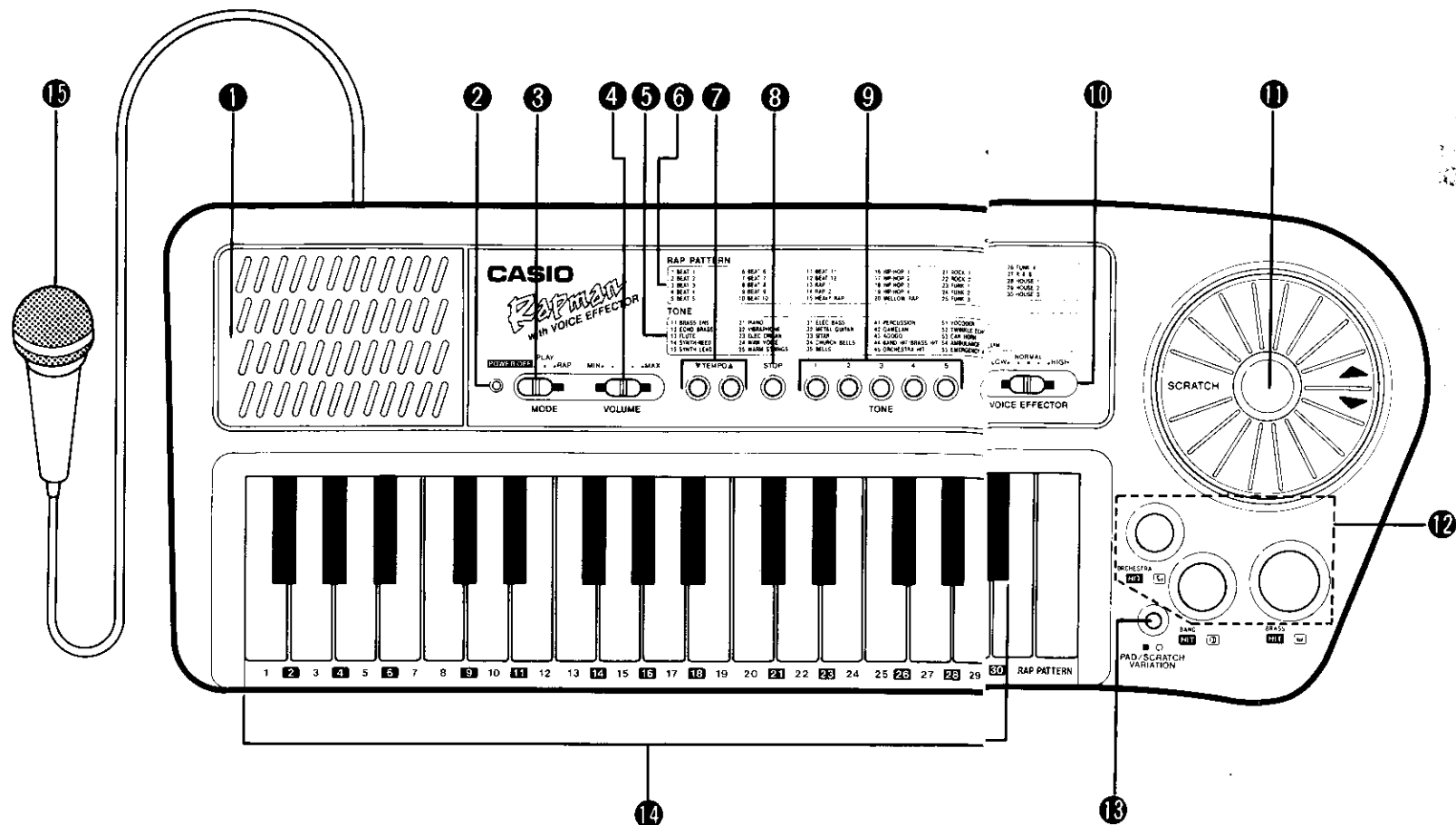
Mini Microphone — Plug in the accessory microphone and you can sing along with your tunes through the keyboard's speaker.

Precaution
The batteries that come with the unit are test batteries. If battery power drops below a certain level, the quality of the tone produced deteriorates, a totally different tone may sound or RAP pattern may become abnormal.
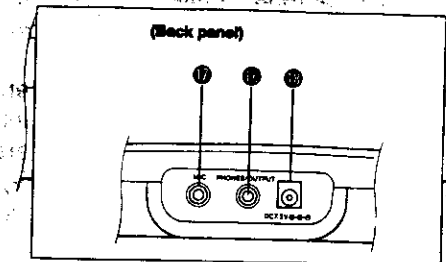Should any of these symptoms occur, replace batteries as soon as possible.

Contents

(Back panel)

(Back panel)

⑯ Output jack
For connection of optional headphones, audio amplifier or keyboard amplifier. Connecting headphones automatically cuts speaker output.

⑰ Microphone input jack
Connect the mini microphone supplied with the unit to sing along with your keyboard performance.

⑱ AC adaptor jack
For connection of optional AC adaptor (AD-1) or car adaptor (CA-1).

❶ Built-in speaker
❷ Power indicator
❸ MODE selector
❹ VOLUME control
❺ List of preset tones
❻ List of RAP patterns
❼ TEMPO control buttons
❽ STOP button

❾ TONE select buttons
❿ VOICE EFFECTOR controller
⑪ Scratch disk
⑫ Effects pads
⑬ PAD/SCRATCH VARIATION button
⑭ RAP pattern select keys
⑮ Microphone

You can power your keyboard with 5 AA batteries, standard AC power (with an optional AC adaptor) or by plugging in to the cigarette lighter of a car (with an optional car adaptor).

Installing the Batteries

This unit can be powered by five AA size R6P (SUM-3) manganese dry cell batteries. Make sure that the **MODE selector** is set to POWER OFF position when installing batteries.

1) Open the battery compartment cover on the bottom of the unit.
2) Load new batteries taking care that the plus (+) and minus (-) poles are facing in the correct directions.
- Standard battery life is approximately 8 hours.

Battery compartment cover

Notes:
- Weakened batteries will result in lower volume or poor tonal quality. The power indicator lamp will gradually lose its brightness when battery power weakens. At this time, change batteries or shift to one of the alternate power sources.
- If battery power drops below a certain level, the quality of the tone produced deteriorates, a totally different tone may sound or RAP pattern may become abnormal. Should any of these symptoms occur, replace batteries as soon as possible.
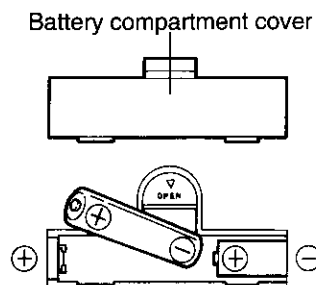
Precautions
Incorrectly using batteries can cause them to leak or burst, and may damage your unit. Note the following precautions:
- Be sure that the plus (+) and minus (-) poles are facing in the correct directions.
- Do not mix battery types.
- Do not mix new batteries with old ones.
- Never leave dead batteries in the battery compartment.
- Remove batteries when not using the unit for extended periods.
- The batteries supplied with the unit are not rechargeable.
- Do not expose batteries to direct heat, let them become shorted or try to take them apart.
(If a battery leaks, clean out the battery compatment of the unit immediately, taking care to avoid letting the battery fluid come into direct contact with your skin.)

Using AC Power

An AC adaptor (AD-1, optional) is required when using household current. Use only a genuine CASIO adaptor with the same voltage rating (100, 117, 220 or 240V) as the power supply in your area to prevent damage to internal components. Be sure to turn the power of the unit off before you connect the adaptor to the unit. Plug the AC adaptor into the AC outlet and the cord into the unit. This will automatically cut off the battery power supply.

Using a car's cigarette lighter

With the car adaptor (CA-1, optional), DC power is supplied from a car battery through the cigarette lighter. Be sure to turn the power of the unit off before you connect the adaptor to the unit.

AD-1 AC adaptor

AC outlet

RAP-1

AC adaptor jack

Cigarette lighter socket

CA-1 Car battery adaptor
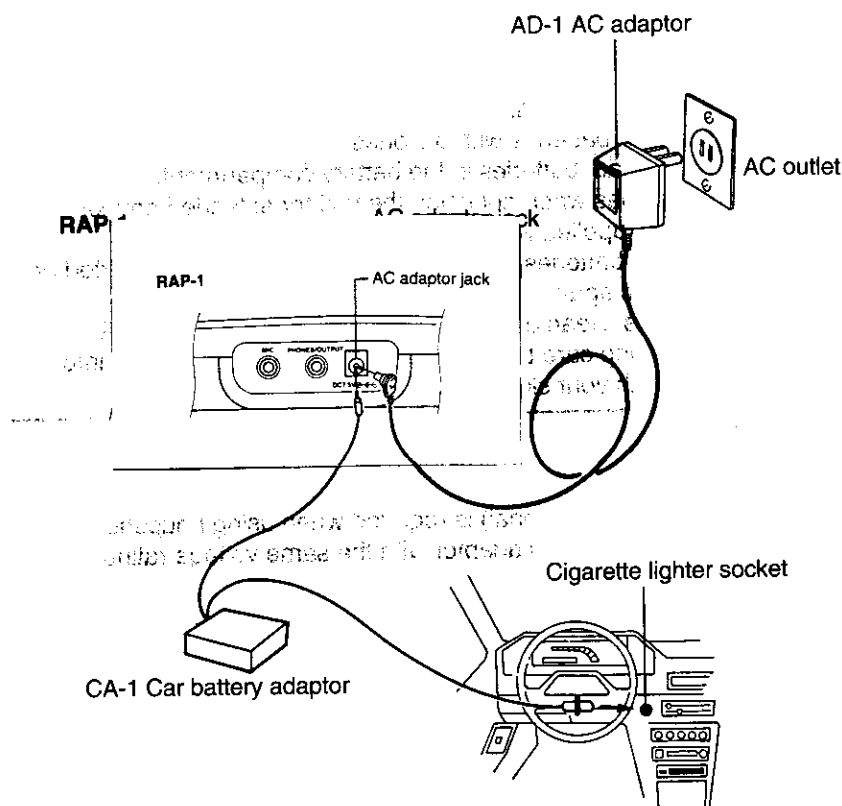
Precautions
• Use only genuine CASIO adaptors to avoid risk of damage.
• The adaptor may become warm when left connected to an AC outlet (or cigarette lighter). This is normal, but the adaptor should be unplugged when not in use.

There are 25 preset tones to choose from. Each tone has a 2-digit number. To select a preset tone, find its preset tone number on the keyboard's top panel, and enter the number using the **TONE select buttons**.
• "BRASS ENS" tone (No. 11) is selected automatically whenever you switch the power of the keyboard ON.
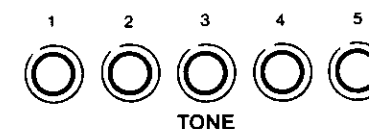
TONE

Example:
To select "**METAL GUITAR**" (No.32) after selecting "**WARM STRINGS**" (No. 25).

1) Set the **MODE selector** to the "PLAY" position. At this time the "BRASS ENS" sound (No. 11) is selected automatically.
2) Press **TONE select button** "2" and then "5" to select "WARM STRINGS".
3) Press **TONE select button** "3" and then "2" to select "METAL GUITAR".

Step	Press	Selected tone
1	POWER OFF • PLAY • RAP / MODE	No. 11 BRASS ENS
2	2 + 5	No. 25 WARM STRINGS
3	3 + 2	No. 32 METAL GUITAR

• You can also change the selected tone by pressing only one **TONE select button**.
Note the following:

| Selected tone ➡	Press ➡	Newly selected tone
No. 25	1	No. 51
No. 51	3	No. 13
No. 13	2	No. 32

Note:
Some preset tones split the keyboard and assign two or four sounds to the keyboard. In this case, the sound produced depends on what position of the keyboard you play.
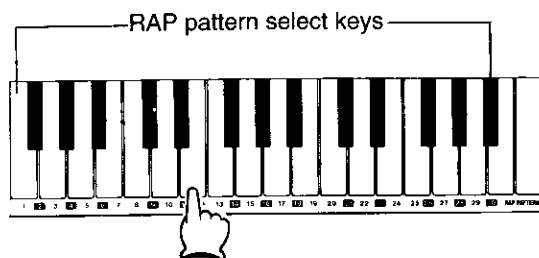
"RAP" patterns back up your melodies with simple beats or full chord progressions. There's 30 different patterns to choose from.

1) Set the **MODE selector** to "RAP".

PLAY
POWER OFF . . . RAP

MODE
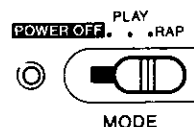
2) Press one of the **RAP pattern select keys**. The RAP pattern labeled below the key immediately starts to play.

—RAP pattern select keys—

• "BEAT 1" RAP pattern (No. 1) is selected automatically when you press a key other than "RAP pattern select keys".

3) Adjust the tempo using the **TEMPO control buttons**. Each press of ▲ speeds up the tempo, while pressing ▼ slows it down.
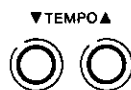
▼TEMPO▲

• You can set the tempo level to one of 26 steps.

4) Play along with the selected RAP pattern.

5) Press the **STOP button** to stop the RAP pattern.

STOP

Note:
When playing a RAP pattern, the keyboard performance becomes monophonic.

The RAP-1 features 3 Effects pads that let you add unique fill-ins and accents to your performance. Preset sound effects can be triggered by simply tapping the pads with your finger(s). The sound can be switched to percussion sounds by pressing the **PAD/SCRATCH VARIATION button**, giving you a total of 6 sound variations.
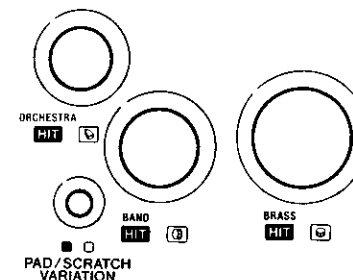
ORCHESTRA
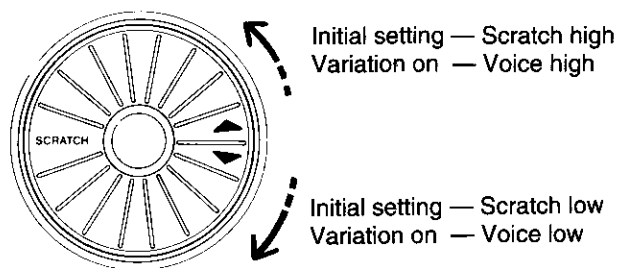HIT

BAND
HIT

BRASS
HIT

PAD/SCRATCH
VARIATION

RAP pattern break function
RAP pattern will stop for 1 measure and only the sound effect will sound, if you tap on an effect pad while RAP pattern is being played.

The RAP-1 features "Scratch Disk" that lets you add "scratch" type sound effects to your performance. Preset sound effects can be triggered by turning the **Scratch Disk** clockwise or counterclockwise with your hand.

Initial setting — Scratch high
Variation on — Voice high

Initial setting — Scratch low
Variation on — Voice low

- The sound can be switched to voice sounds by pressing the **PAD/SCRATCH VARIATION button**, giving you a total of 4 sound variations.
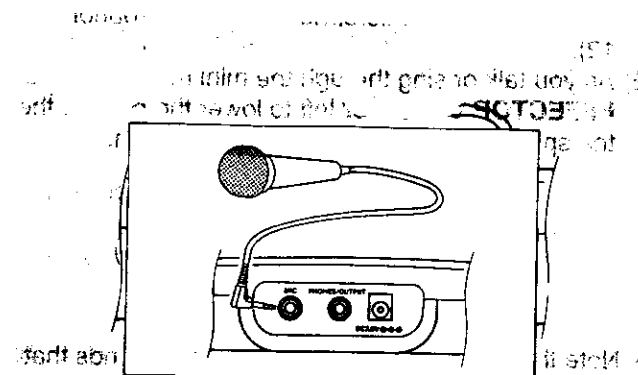
PAD/SCRATCH
VARIATION

RAP pattern break function

RAP pattern will stop for 1 measure and only the sound effect will sound, if you turn the **Scratch Disk** while RAP pattern is being played.

Connect the supplied mini microphone to the microphone input jack, located on the rear panel of the unit.

- To avoid howling caused by feedback, be sure to keep the mini microphone away from the built-in speaker.
- Use the unit's volume control to adjust the volume of the mini microphone.
- Do not unplug the microphone by pulling on the cord.
- Do not bend or twist the microphone cord excessively.
- Do not subject the microphone to strong impact.
- Be sure that the volume setting of the keyboard is turned down whenever you plug in or unplug the microphone.

The Voice Effector function gives you control over the sound input through the keyboard's mini microphone.

1) Connect the mini microphone to the microphone input jack (see page 12).
2) As you talk or sing through the mini microphone, slide the **VOICE EFFECTOR controller** left to lower the pitch of the sound output from the speaker, or slide right to raise the pitch.

LOW• •NORMAL• •HIGH
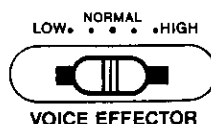
VOICE EFFECTOR

• Note that Voice Effector settings affect sounds that are input through the mini microphone only.

• **Avoid heat, humidity or direct sunlight.**
  Do not overexpose the unit to direct sunlight, or place near an air conditioner, or in any extremely hot place.

• **Take care not to drop the unit and avoid strong impact.**
  Strong impact may cause malfunctions. When carrying or transporting the unit, protect the keyboard and switches with soft cloth or other material.

• **Keep the unit free of liquids, dust, etc.**
  Do not allow foreign matter to get between the keys, especially metallic objects such as hairpins, sewing needles or coins. Also, do not let the unit get wet.

• **Never attempt to modify any parts of the unit.**
  The unit is a precision instrument, made of electronic parts. Any modification of, or tampering with inner parts may cause malfunciton.

• **Do not use lacquer thinner or similar chemicals for cleaning.**
  Clean the keyboard with a soft cloth dampened in a weak solution of water and a neutral detergent. (Soak the cloth in the solution and squeeze until it is almost dry.)

(10) Specifications

Model: RAP-1

Number of keys: 32 (mini), 2.5 octave

Polyphony: 3-note

Preset tones: 25; BRASS ENS, ECHO BRASS, FLUTE, SYNTH-REED, SYNTH-LEAD, PIANO, VIBRAPHONE, ELEC ORGAN, WAW VOICE, WARM STRINGS, ELEC BASS, METAL GUITAR, SITAR, CHURCH BELLS, BELLS, PERCUSSION, GAMELAN, AGOGO, BAND HIT/BRASS HIT, ORCHESTRA HIT, VOCODER, TWINKLE ECHO, CAR HORN, AMBULANCE, EMERGENCY ALARM

RAP patterns: 30; BEAT 1-12, RAP 1-2, HEAVY RAP, HIP-HOP 1-4, MELLOW RAP, ROCK 1-2, FUNK 1-4, R&B, HOUSE 1-3

Built-in speaker: 8 cm dia. (output = 1.0W)

Built-in effects pads:
Initial condition — brass hit, band hit, orchestra hit
Variation on — bass drum, snare drum, cowbell

Built-in Scratch Disk:
Initial condition — scratch sound low (clockwise)/
high (counterclockwise)
Variation on — voice sound low (clockwise)/
high (counterclockwise)

Terminals: Output jack (output impedance: 100 Ω, output voltage: 1.0V (RMS) MAX),
AC adaptor jack (DC 7.5V),
Mic. input jack (input impedance=50KΩ, sensitivity=20mV)

Power source: 3-way AC/DC power sources;
AC: 100, 117, 220 or 240 ($\pm$ 10V), 50/60 Hz, with optional AC adaptor AD-1.
DC: 5 AA size R6P (SUM-3) manganese dry batteries
Battery life: approx. 8 hours
Car battery: Requires optional CA-1 car adaptor

Power consumption: 2.4 W

Dimensions (W x D x H) : 513 x 204 x 61 mm
($20^3/_{16}$" x $8^1/_{16}$" x $2^3/_8$")

Weight: 1.1 kg (2.4 lbs) (including batteries)

Standard accessory: Mini microphone

Design and specifications are subject to change without notice.

GUIDELINES LAID DOWN BY FCC RULES FOR USE OF THE UNIT IN THE U.S.A. (not applicable to other areas).

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

. . . . reorient the receiving antenna
. . . . relocate the equipment with respect to the receiver
. . . . move the equipment away from the receiver
. . . . plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems".
This booklet is available from the US Government Printing Office, Washington D.C., 20402, Stock No.004-000-00345-4.