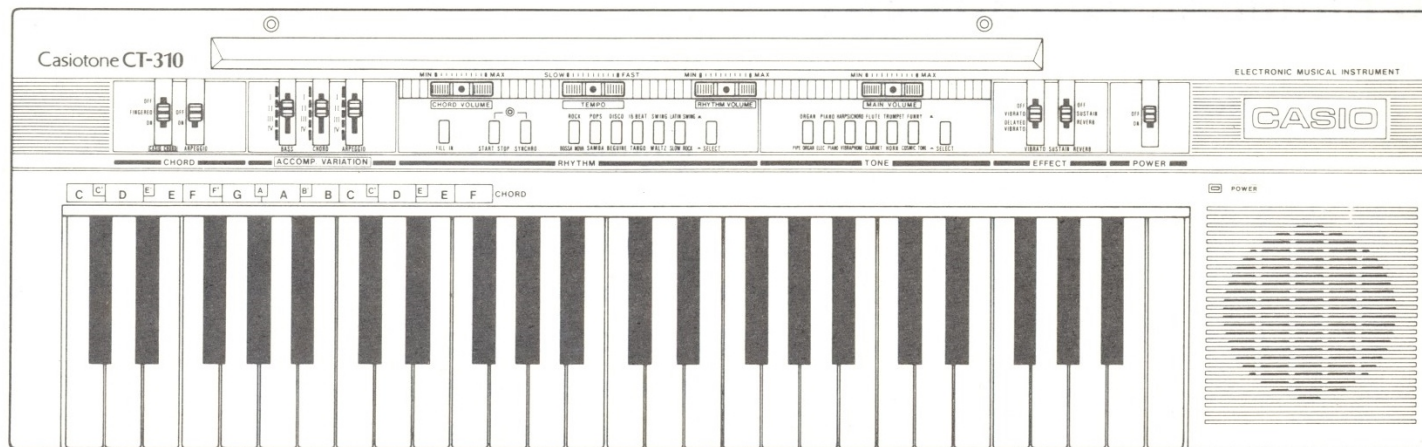


Casiotone 310

Operation Manual.....1

Manual de Operación.... 19



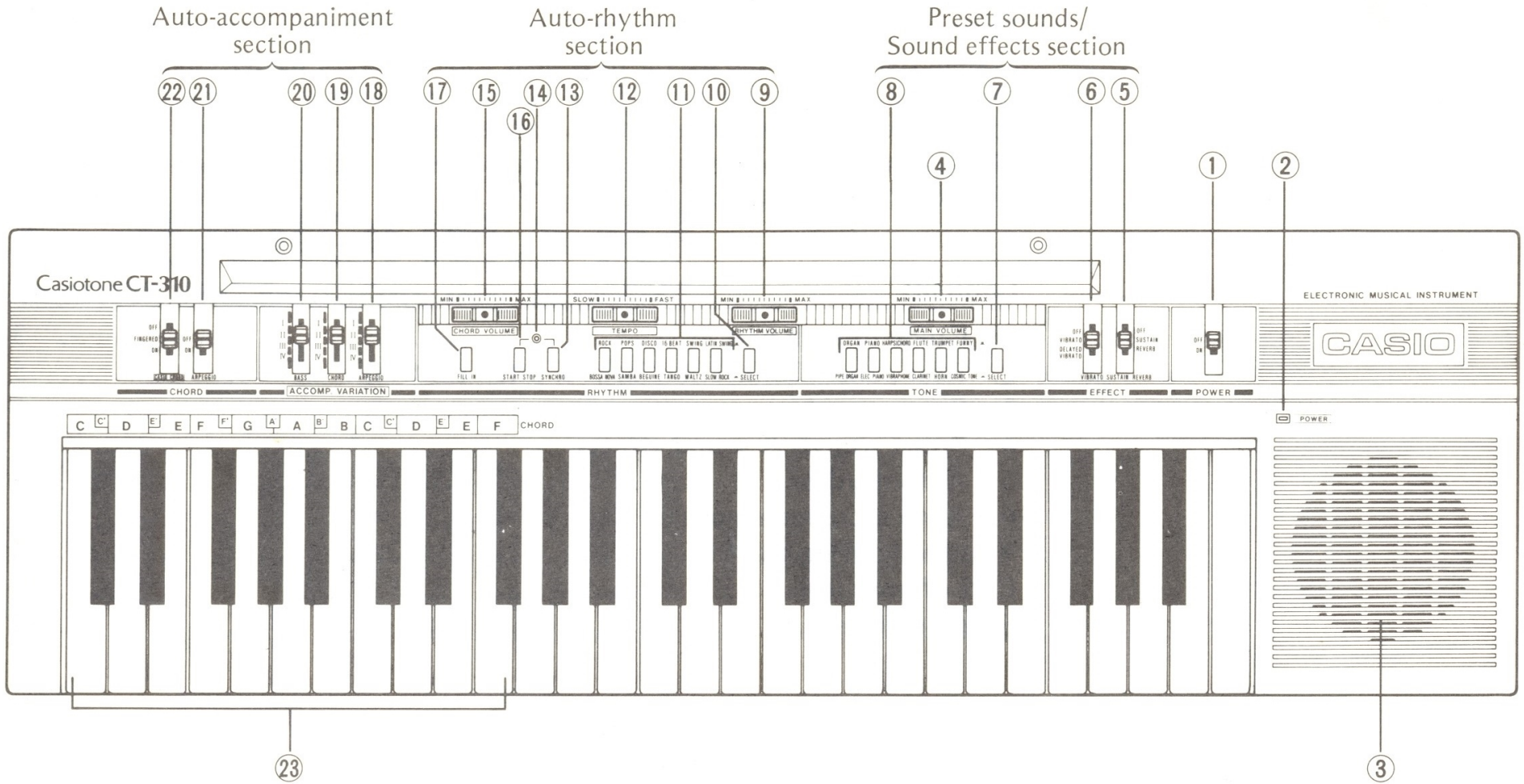
Thank you very much for purchasing the Casiotone 310. We hope it gives you many years of enjoyment. The Casiotone 310 is a valuable and exciting introduction to the world of music, delighting both the player and the listener with its many talents. Its forte is the Accompaniment Variation system that allows the player to choose four different pattern of bass, chord and arpeggio for each of the 12 built-in rhythms. 12 instrumental sounds are also represented on the Casiotone 310.

Please read through this manual so you can enjoy full abilities of this new electronic musical instrument.

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1 Guide to each part



- ① Power switch
- ② Power indicator lamp
- ③ Built-in speaker
- ④ Main volume control

Preset sounds/Sound effects section

- ⑤ Sustain/reverb. switch
- ⑥ Vibrato switch
- ⑦ Select button
- ⑧ Sound selection buttons

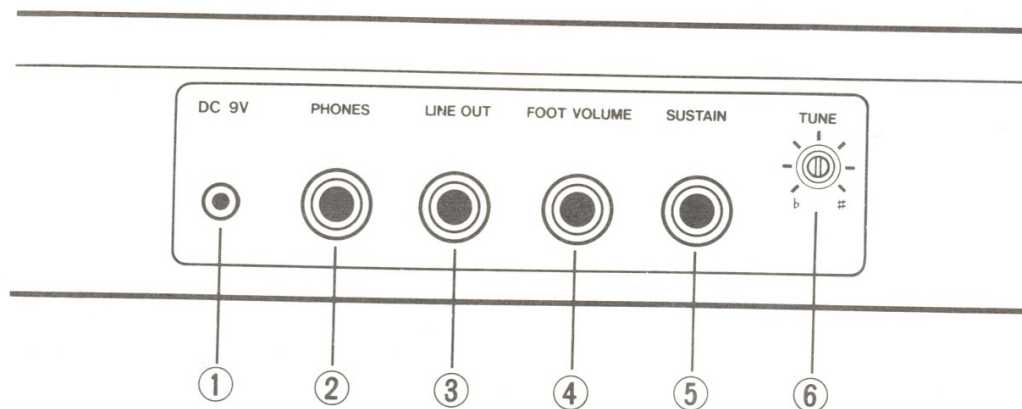
Auto-rhythm section

- ⑨ Rhythm volume control
- ⑩ Select button
- ⑪ Rhythm selection button
- ⑫ Tempo control
- ⑬ Synchro start button
- ⑭ Tempo indicator lamp
- ⑮ Chord volume control
- ⑯ Start/Stop button
- ⑰ Fill-in button

Auto-accompaniment section

- ⑱ Arpeggio variation selector
- ⑲ Chord variation selector
- ⑳ Bass variation selector
- ㉑ Arpeggio switch
- ㉒ Casio Chord switch
- ㉓ Accompaniment keyboard

2 Rear panel (Connection jacks and pitch control)



① AC adaptor jack

Plug in an AC adaptor AD-5 (optional) when home AC outlet is used. Or plug in a car battery adaptor CA-5 (optional) to take power from the cigarette lighter socket of your car.

② Headphone jack

To enjoy playing your Casiotone 310 in privacy, connect headphones CP-2 (optional) to this jack. It can also be used for connecting an FM transmitter TM-1 (optional) in order to transmit sound to an FM receiver.

③ Line out jack

To get more powerful volume from the Casiotone 310, connect it to audio equipment or a keyboard amplifier, etc. and external speakers.

•5•

④ Foot volume jack

By connecting a foot volume control pedal VP-2 (optional) to this jack, free volume change can be made by foot during play.

⑤ Sustain jack

If a sustain pedal SP-1 (optional) is connected, a lingering sustain effect can be obtained while stepping on the pedal, even after the fingers are removed from the keyboard.

⑥ Pitch control knob

With this control knob the pitch can be varied approximately $\pm 1/4$ tone (± 50 cents).

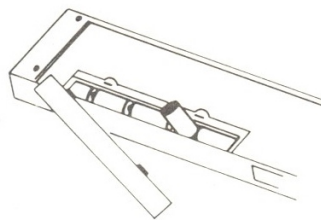
3 Power supply

The Casiotone 310 can be driven on both AC and DC power.

DC power

Dry batteries:

- The Casiotone 310 works on 6 D size (SUM-1) manganese dry batteries.
- Weakened batteries will result in lower volume or poor tonal quality. In this case, insert new batteries.



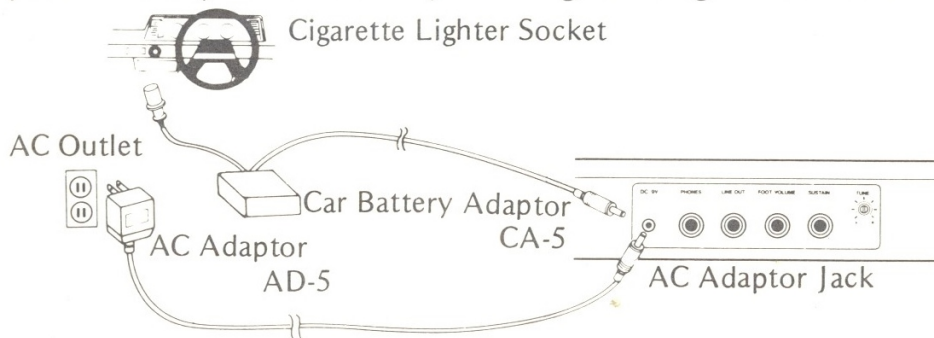
(Battery Replacement)

Open the battery compartment cover on the bottom of the unit and remove dead batteries. Install new ones making sure the + and – terminals are facing correctly.

- * It is advisable to replace all six batteries at the same time for longer battery life.
- * For battery life, refer to the specifications.

Car battery adaptor:

With the optional car battery adaptor CA-5, you can take power from your car battery via a cigarette lighter socket.



AC power

To connect the unit to an AC outlet, the AC adaptor AD-5 (optional) is required.

Use only an adaptor with the same voltage rating (100, 117, 220 or 240V) as your power supply to prevent component damage. Plug the AC adaptor into the AC outlet and the cord into unit. This automatically cuts off battery power supply.

- * When batteries are not used for a long period of time, it is advisable to remove them from the battery compartment. (Battery leakage may occur and damage electrical parts.)

• Auto power-off function

For power economy, an automatic power-off function activates after approximately 10 minutes, if you do not touch the keys. Power will be resumed by switching the Power switch off and then on again.

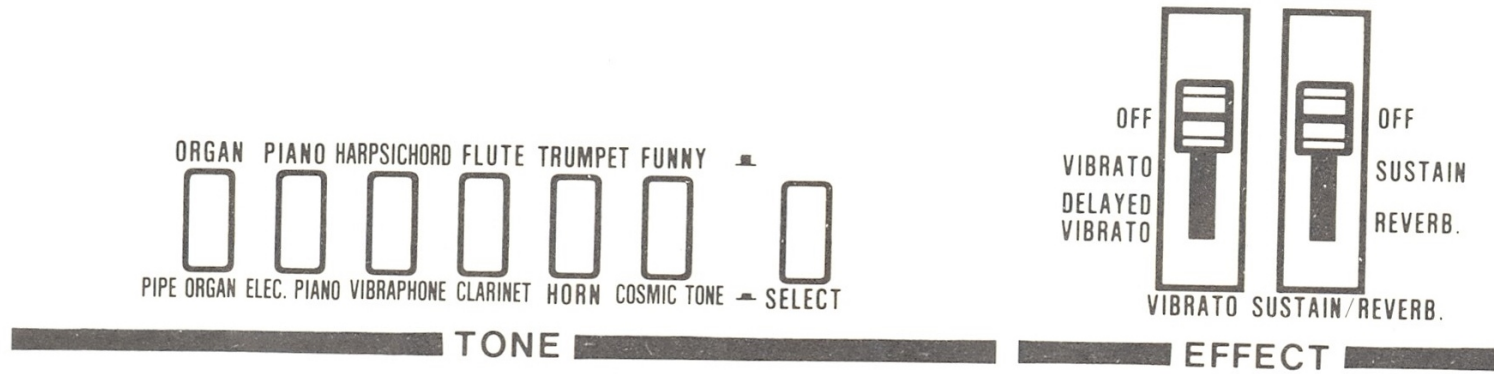
CAUTION

- * WHERE USED FROM THE MAINS THIS UNIT MUST ONLY BE USED WITH A CASIO MAINS ADAPTOR TO PREVENT THE RISK OF DAMAGE.
- * When the adaptor is left connected to an AC outlet, it may warm up, but this is quite normal. Disconnect the adaptor whenever possible, especially if not used for a long time.

The following misuse may lead to battery burst.

1. Use of an AC adaptor other than a genuine Casio adaptor.
2. Insertion of batteries with incorrect polarities (+, -).

4 Preset sounds & sound effects



- **Selecting a preset sound**

Select one of the above twelve sounds by pressing the corresponding button. Sounds written below the buttons are selected when the Select button is pressed.

- **Adding sound effects**

The effects VIBRATO, DELAYED VIBRATO, SUSTAIN, and REVERBERATION can be added by sliding each switch to the corresponding position.

VIBRATO for slight, rapid variations in the pitch of a sound.

DELAYED

VIBRATO for a vibrato effect that starts a moment after pressing the key.

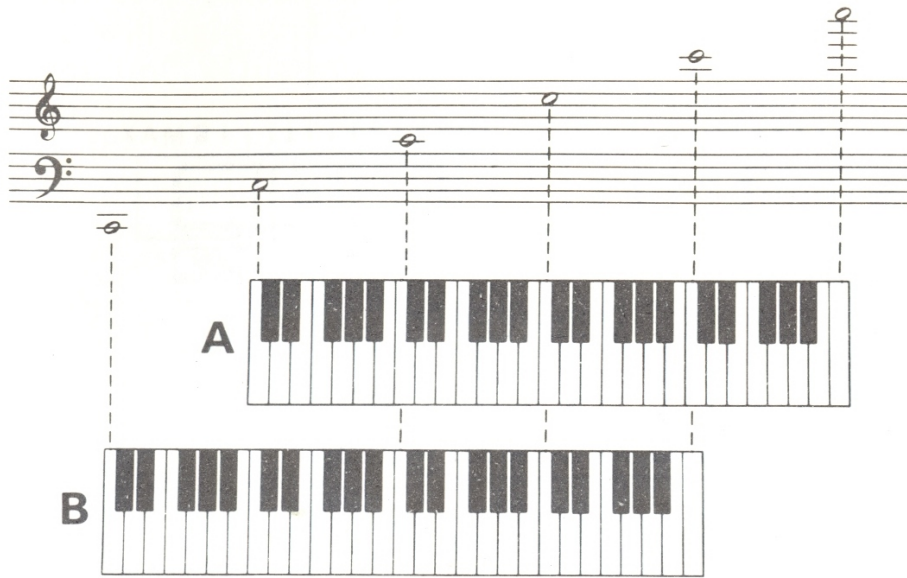
SUSTAIN for a sound that lingers after you remove your fingers from the keyboard.

REVERBERATION .. gives the ambience of a concert hall to the selected sound.

- **Note ranges of the preset sounds**

Note ranges of the 12 preset sounds vary as shown in the next page.

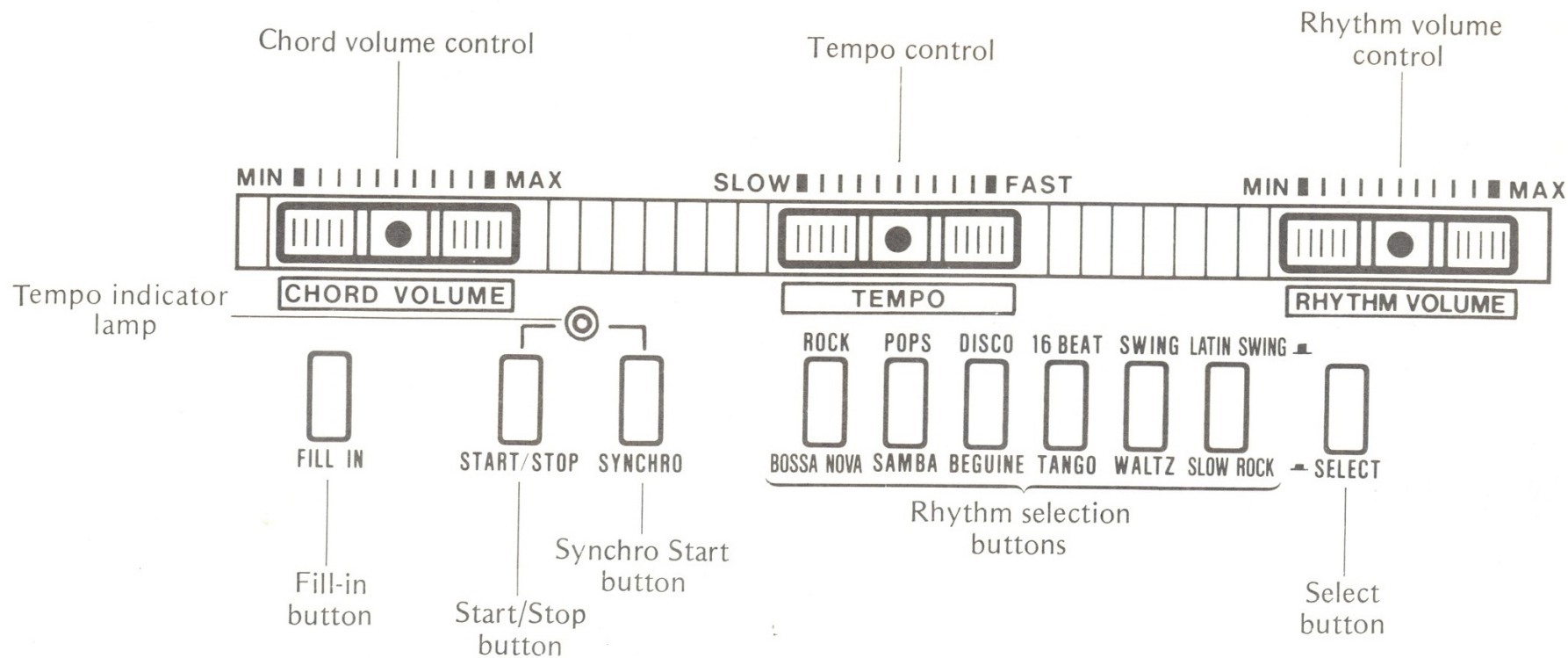
4. Preset sounds & sound effects



Preset sound name	Note range	Continuous or Fade out
organ	A	continuous
piano	B	fade out
harpsichord	A	fade out
flute	A	continuous
trumpet	B	continuous
funny	B	fade out
pipe organ	B	continuous
elec. piano	B	fade out
vibraphone	B	fade out
clarinet	B	continuous
horn	B	continuous
cosmic tone	B	continuous

- * A and B in the note range correspond respectively to those shown in the left musical notation.
- * “Continuous” means a sound which continues as long as the keys are pressed, and “fade out” means a sound which fades out naturally even if the keys remain pressed.

5 Auto-rhythm



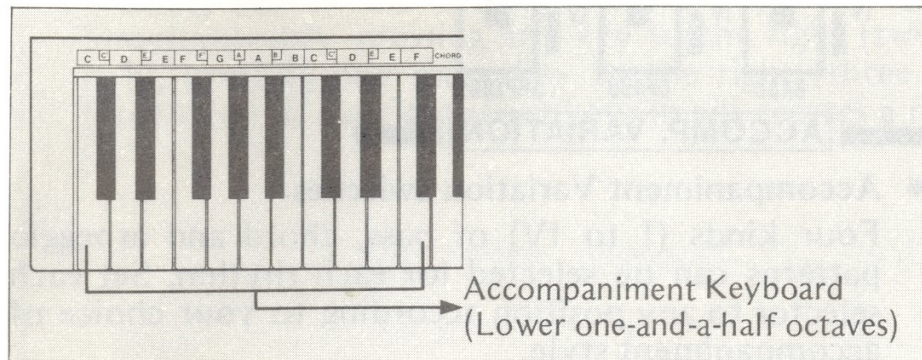
- **Selecting an Auto-rhythm**

Select one of above 12 Auto-rhythms by pressing a Rhythm selection button. When the select button is OFF (■), the rhythm written above the button is selected. When ON (▬), the rhythm written below is selected.

NOTE: Even if several Rhythm selection buttons are pressed at the same time, the rhythms are not combined.

- **Synchro Start Button**

When this button is pressed the tempo indicator lamp will light and Synchro Start will go to a “wait condition”. (One more press will cancel the “wait condition”.) The rhythm will start from the first beat the moment accompaniment keys are pressed lower one-and-a-half octaves).



- **Tempo indicator lamp**

Blinks on the first beat of the rhythm during rhythm play. When you use the Synchro start button, as mentioned, it stays lit and waits for your to play a chord.

- **Start/Stop button**

Each time you want to start or stop the rhythm, press this button.

- **Fill-in button**

If pressed during rhythm play, fill-in will be delivered.

- **Chord volume control**

Adjusts the volume of the Auto-accompaniment (chord, bass, arpeggio).

- **Rhythm volume control**

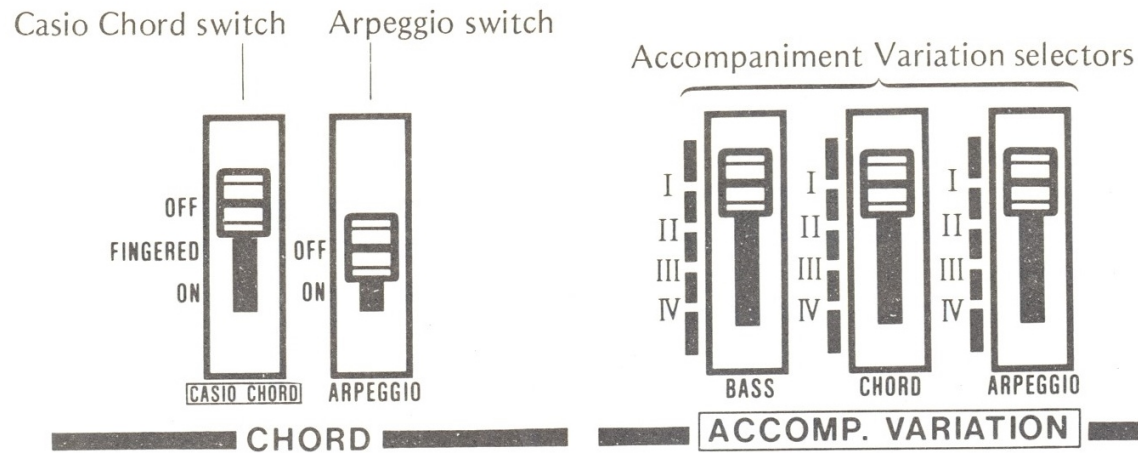
Adjusts the volume of the rhythm.

NOTE: Main volume control adjusts the overall volume, so no accompaniment sound or rhythm sound will be heard if main volume control is at minimum.

- **Tempo control**

Adjusts the rhythm speed.

6 Auto-accompaniment



- **Casio Chord switch**

Turns Auto-accompaniment on and off.

OFF For normal playing without Auto-accompaniment.

FINGERED For Auto-accompaniment by pressing chords.

ON For Auto-accompaniment by the Casio chord system (=one-finger method).
→ page 13.

- **Arpeggio switch**

Adds arpeggio sound to Auto-accompaniment (works only if the Casio chord switch is set to "ON" or "FINGERED").

- **Accompaniment Variation switches**

Four kinds (I to IV) of bass, chord and arpeggio patterns can be selected for each rhythm. Set each selector to any position according to your choice of accompaniment style.

- * These selectors do not function if Auto-accompaniment is not used, i.e. if the Casio Chord switch is set to "OFF".

- * The sounds of bass, chord and arpeggio vary according to which one of the 12 Auto-rhythms and which type of Accompaniment Variation is selected.

- * Set all three switches to position I for a typical accompaniment style corresponding to each rhythm.

- **Chord volume control**

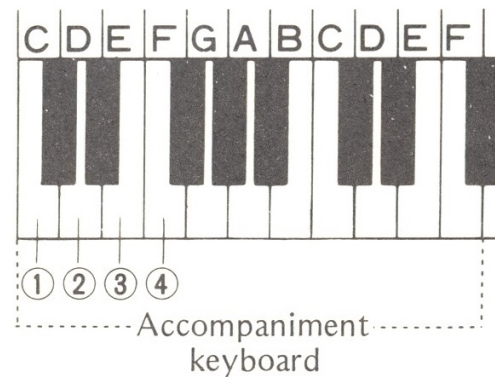
Adjusts the volume of the accompaniment (chord, bass, arpeggio).

〔1〕 Auto-accompaniment by the Casio Chord System (One-finger method)

Casio Chord System

The Casio chord system has been developed so you can play the four main types of chords more easily. Playing of the chords is simplified as shown below:

Pressing one of the accompaniment keyboard keys produces a major chord corresponding to that note. Simultaneously pressing any key to the right (two keys at the same time) results in a minor chord. Similarly, pressing one more key to the right (three keys in all) produces a seventh chord, and pressing the fourth key to the right (four keys in all) creates a minor seventh chord.

**(Example)**

C (C major chord) — Press ① .

C_m (C minor chord) — Press ① , ② together.

C₇ (C seventh chord) — Press ① , ② , ③ together.

C_{m7} (C minor seventh chord) — Press ① , ② , ③ , ④ together.

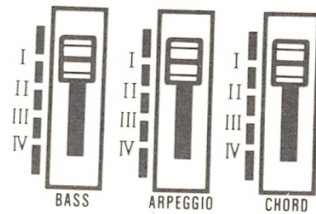
* Not only ② , ③ and ④ , but any black or white keys can be used as long as they are to the right of ① .

6. Auto-accompaniment

- ① Set the Casio Chord switch to "ON".



- ② Set the Accompaniment Variation selectors (BASS, CHORD, ARPEGGIO) to suitable positions.



- ③ Set the Arpeggio switch to "ON".

* Omit if you don't need an arpeggio sound.



- ④ Select one of the Auto-rhythms and press the Synchro Start button.

* The indicator above the Synchro Start button lights up, meaning that the Casiotone 310 is waiting for you to play.

- ⑤ Play on the Auto-accompaniment keyboard keys according to the Casio Chord system.

* Adjust the tempo, chord volume, and rhythm volume by using the respective control.

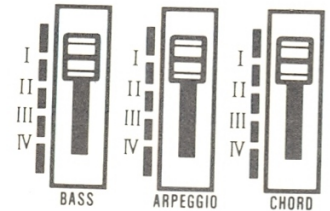
•13•

[2] Auto-accompaniment by playing chords (for advanced players)

- ① Set the Casio Chord switch to "FINGERED".



- ② Set the Accompaniment Variation selectors (BASS, CHORD, ARPEGGIO) to suitable positions.



- ③ Set the Arpeggio switch to "ON".

* Omit if you do not need an arpeggio sound.



- ④ Select one of the Auto-rhythms and press the Synchro Start button.

* The indicator above the Synchro Start button lights up, meaning that the Casiotone 310 is waiting for you to play.

- ⑤ Play a chord on the Auto-accompaniment keyboard keys.

* Adjust the tempo, chord volume, and rhythm volume by using the respective control.

Troubleshooting chart

Symptom	Possible cause	Remedy
Sound does not come out of the speaker even when pressing the keyboard keys.	<ol style="list-style-type: none"> 1. Power switch is off. 2. Main Volume Control is too low. 3. Headphone is connected. 4. Auto Power-off has activated. 	<ol style="list-style-type: none"> 1. Turn the Power switch on. 2. Turn up the Main Volume Control. 3. Disconnect the headphone. 4. Turn the power switch off and then on again.
No rhythm emerges.	<ol style="list-style-type: none"> 1. Main Volume Control is too low. 2. Rhythm Volume Control is too low. 	<ol style="list-style-type: none"> 1. Turn up the Main Volume Control. 2. Turn up the Rhythm Volume Control.
No Accompaniment sound emerges.	<ol style="list-style-type: none"> 1. Main Volume Control is too low. 2. Chord Volume Control is too low. 	<ol style="list-style-type: none"> 1. Turn up the Main Volume Control. 2. Turn up the Chord Volume Control.
Rhythm synchro start does not function.	<ul style="list-style-type: none"> • Keys other than accompaniment keys have been pressed (lower 1.5 octaves). 	<ul style="list-style-type: none"> • Start on the accompaniment keyboard.
Noise is present.	<ul style="list-style-type: none"> • Noise from electric appliances such as a refrigerator or washing machine. 	<ul style="list-style-type: none"> • Use an outlet which is located at a distance from the appliance causing the noise.
Radio or television interference.	<ul style="list-style-type: none"> • When there is a strong broadcast in the area. 	<ul style="list-style-type: none"> • Try changing the location of the instrument.

Troubleshooting chart

Symptom	Possible cause	Remedy
Distortion when volume is increased.	<ul style="list-style-type: none">• Since the built-in speaker is small, when the sound range is low or the volume is extremely high, complete reproduction is sometimes difficult.	<ul style="list-style-type: none">• Turn the volume down or connect to an external speaker.
Sound is not produced when an external amplifier is connected.	<ol style="list-style-type: none">1. The Volume Control on the Casiotone is too low.2. The connection cord is bad.	<ol style="list-style-type: none">1. Turn up the Volume Control.2. Replace the connection cord.

Care of your unit

1 Avoid heat, humidity or direct sunlight.

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

2 Take care not to drop the unit and avoid strong shocks.

A strong shock may cause trouble. When carrying or transporting the unit, protect the keyboard and switches with soft materials.

3 Keep the unit free of liquids, dust, particles etc.

Do not allow bits and pieces to get between the keys, especially metallic objects such as hairpins, sewing needles or coins. Also, do not wet the unit.

4 Never attempt to modify any parts of the unit.

The unit is a precision piece, made up of electronic parts. Any modification of, or tampering with, inner parts may cause trouble or accidents.

5 Do not use a lacquer thinner or similar chemicals.

Clean the keyboard with soft cloth dampened with a mild detergent. (Soak the cloth in a detergent and squeeze until almost dry.)

6 In case of malfunction.

When the unit does not work properly, check whether switches, connections, etc. are set correctly as indicated in the troubleshooting chart on page 14 of this manual. If the unit still doesn't work, please contact the original retailer or nearby dealer. Never attempt to repair it yourself. It may result in serious damage of components.

Specifications

Model:	Casiotone 310
Number of keys:	49 keys
Chords:	8-note polyphonic
Preset sounds:	12 sounds; organ, pipe organ, piano, elec. piano, harpsichord, vibraphone, flute, clarinet, trumpet, horn, funny, cosmic tone.
Sound effects:	vibrato, delayed vibrato, sustain, reverberation.
Built-in rhythms:	12 rhythms; rock, pops, disco, 16 beat, swing, latin swing, bossa nova, samba, beguine, tango, waltz, slow rock. * Start/Stop button, Synchro Start button, Tempo control, Chord volume control, Rhythm volume control, Tempo indicator lamp, Fill-in button.
Auto-accompaniment:	Casio Chord switch, Arpeggio switch, Bass variation selector, Chord variation selector, Arpeggio variation selector.
Pitch control:	$\pm 1/4$ tone (± 50 cents)
Built-in speaker:	12 cm (4 $3/4$ ") dia. x 1 (output = 2.8 W)
Output jack:	Output impedance = 2.5 k Ω Output voltage = 1 V max.
Power source:	3-way AC/DC power source; *AC: 100, 117, 220 or 240 V (± 10 V), 50/60Hz, with AC adaptor AD-5 (option). *DC: 6 D-size manganese dry batteries Battery life: About 15 hours with high performance manganese dry batteries (SUM-1) *Car battery: Power taken via Car battery adaptor CA-5 (option).

Power consumption:	8.5 W
Dimensions:	84 (H) x 867 (W) x 272 (D) mm (3 ⁵ / ₁₆ " (H) x 10 ¹¹ / ₁₆ " (W) x 34 ¹ / ₈ " (D))
Weight:	5.8 kgs (12.8 lbs)
Accessories:	6 D-size manganese dry batteries, dust cover, music stand

** Design and specifications may be 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 computer with respect to the receiver
- move the computer away from the receiver
- plug the computer into a different outlet so that computer 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.