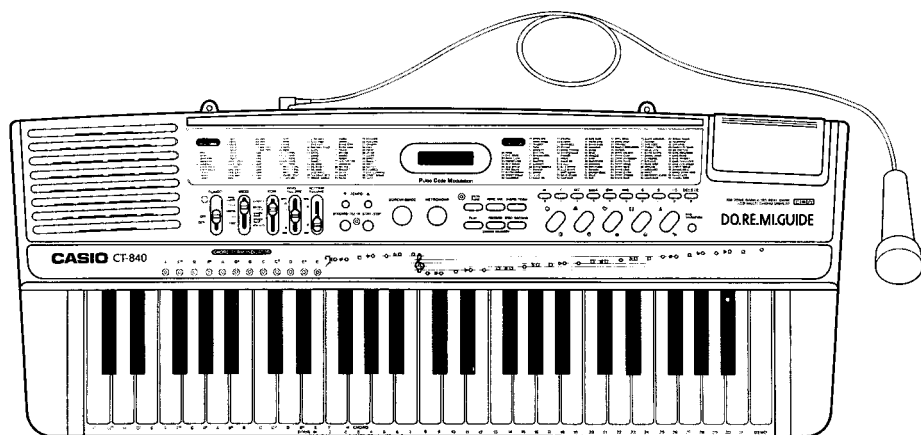


CT-840

ELECTRONIC MUSICAL INSTRUMENT
INSTRUMENTO MUSICAL ELECTRONICO

OPERATION
MANUAL 2

MANUAL DE
OPERACION ... 42



(英西)

CASIO[®]

Main Features

Thank you and congratulations on your purchase of the Casio CT-840. Your new keyboard features 100 preset tones and 100 preprogrammed auto-rhythms, which give you the versatility you expect from a quality electronic keyboard.

To enjoy all of the CT-840's features, be sure to carefully read this manual.

- **DO-RE-MI Guide function** — Press a key and the CT-840 sings out the name of the tone in a human voice. You can even use this function during automatic playback of the demonstration tune and listen to the keyboard sing out each note as it is played.
- **Melody Guide Function** — Follow the dancing lights as you learn to play your favorite tunes.
- **Any Key Play Function** — Press any key in time with the music and play along with the accompaniment.
- **Auto Play Demonstration Tune** — Press a key and a preprogrammed tune plays to demonstrate the features of the keyboard.
- **ROM Pack Capabilities** — Select an optional Casio ROM Pack with the tunes you want to play and plug it in for instant fun.
- **One-Touch CASIO CHORD Accompaniment** — Provide a harmonic pattern with a pre-programmed rhythm that you select.
- **Sound Effect Pads** — Five buttons on the console give you one-touch access to a selection of exciting sound effects and percussions.
- **Mini Microphone** — Plug in the accessory microphone and you can sing along with your tunes through the keyboard's speaker.
- **Chord Memory** — allows you to record the chords being played on the accompaniment keyboard and then play them back. You can also use the step recording method to record chord progressions.
- **Chord guide** — Specify a chord name on the 10-key pad and the LEDs above the keyboard teach you the fingering.

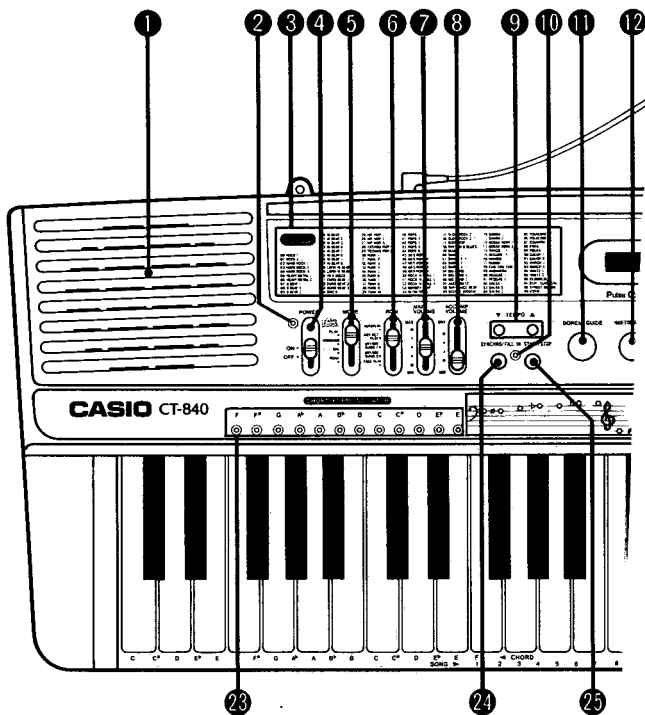
Precaution

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 auto-rhythm pattern may become abnormal. should any of these symptoms occur, replace batteries as soon as possible.

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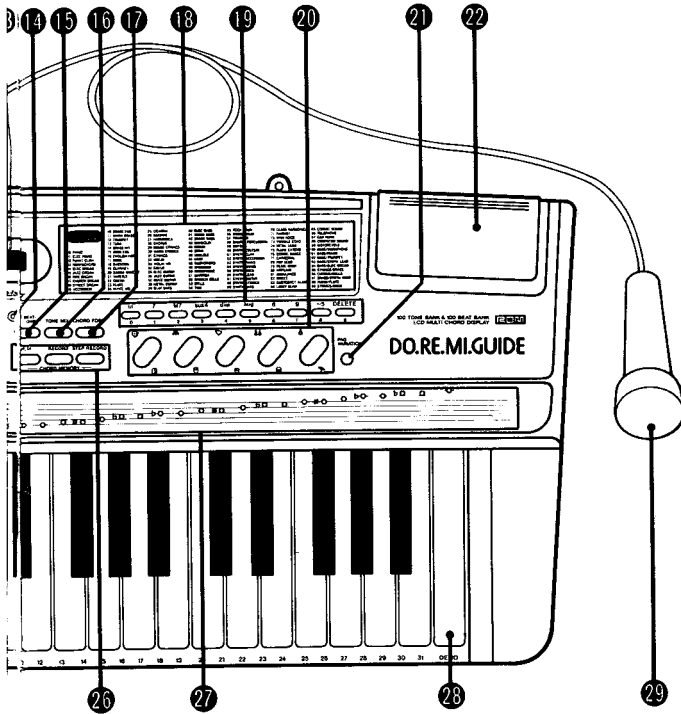
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1. Control Locations



- 1 Built-in speaker
- 2 Power indicator
- 3 100 BEAT BANK list
- 4 Power switch
- 5 MODE selector
- 6 ROM selector
- 7 MAIN VOLUME slider
- 8 ACCOMP VOLUME slider
- 9 TEMPO control buttons
- 10 Tempo indicator
- 11 DOREMI GUIDE button
- 12 METRONOME button
- 13 LCD display
- 14 BEAT/TONE indicator
- 15 BEAT/TONE button
- 16 TONE MIX button
- 17 CHORD FORM button
- 18 100 TONE BANK list
- 19 Numeric buttons (0~9)
- 20 Sound effect pads
- 21 PAD VARIATION button
- 22 ROM pack compartment
- 23 CHORD FORM indicators
- 24 SYNCHRO/FILL-IN button
- 25 START/STOP button
- 26 CHORD MEMORY buttons
- 27 Melody guide indicators
- 28 DEMO key
- 29 Microphone

1. Control Locations



Demonstration Tune

The CT-840 features 5 demonstration tunes.

1. DO-RE-MI
2. Twinkle Twinkle Little Stars
3. Rudolph, The Red-Nosed Reindeer
4. When The Saints Go Marching In
5. Ach du Lieber Augustin

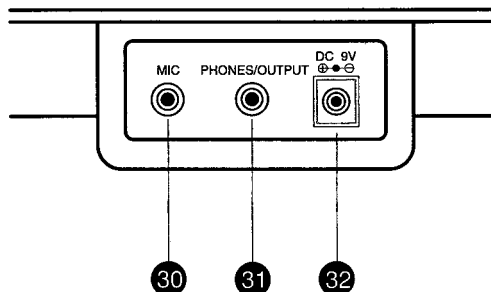
To start demonstration

Set the **MODE selector** ⑤ to the **ROM** position and **ROM selector** ⑥ to **AUTO-PLAY** position, press the **Demo key** ⑳, and listen to the keyboard play.

- The demonstration tune is played in an endless loop. Press the **START/STOP** button ㉕ to stop the tune.

1. Control Locations

Rear panel



- 30 Microphone input jack**
Connect the mini microphone supplied with the unit to sing along with ROM pack auto play, etc.
- 31 Output jack**
For connection of optional headphones, audio amplifier or keyboard amplifier. Connecting headphones automatically cuts speaker output.
- 32 AC adaptor jack**
For connection of optional AC adaptor (AD-5) or car adaptor (CA-5).

2.Choosing a Power Supply

You can power your keyboard with 6 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).

■ Using dry batteries

This unit can be powered by 6 AA size (SUM-3/R6P) manganese dry cell batteries. Make sure that the **POWER switch** is set to **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 2 hours.

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.
- Never try to recharge the batteries that are specified for the power supply of this unit.
- 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 compartment of the unit immediately, taking care to avoid letting the battery fluid come into direct contact with your skin.)

2.Choosing a Power Supply

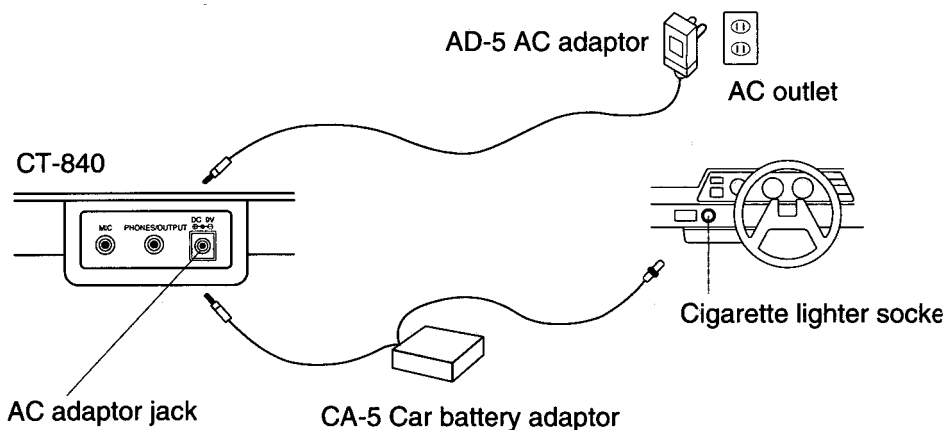
■ Using AC power

An AC adaptor (AD-5, 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-5 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.

- *Car adaptor may not be available in some areas.*



2.Choosing a Power Supply

IMPORTANT

- The adaptor may become warm when it is being used. This is normal and does not indicate any problem.
- Be sure to unplug the adaptor from the power source when you are not using the unit.
- Whenever connecting or disconnecting the adaptor, be sure that the power of the unit is switched off.
- Be sure to unplug the car adaptor from the cigarette lighter socket when you are not using the unit. Leaving the car adaptor plugged in can cause damage or can run down your car's battery.
- Never connect the car adaptor to a 24V DC cigarette lighter (in a bus or truck). Doing so can damage the unit.
- Certain makers of cars may have non-standard cigarette lighter shapes or sizes. Be sure to check the size of your car's cigarette lighter before using the car adaptor.
- Never use a power supply that does not match that specified for the unit. Doing so can damage the adaptor or your unit.

■ Auto power off function

Power is automatically cut off approximately 6 minutes after the last operation of the unit. Power supply can be restored by switching power OFF and then ON again.

3. General Operations

■ Getting started

Follow the steps below to get started.

1. Set the **POWER switch** to **ON**. The power indicator lights.
2. Adjust the volume level using the **MAIN VOLUME slider**.
3. Select one of the 100 preset tones (see "Using Preset Tones", page 11).
4. Now, start playing.

■ Adjusting volume

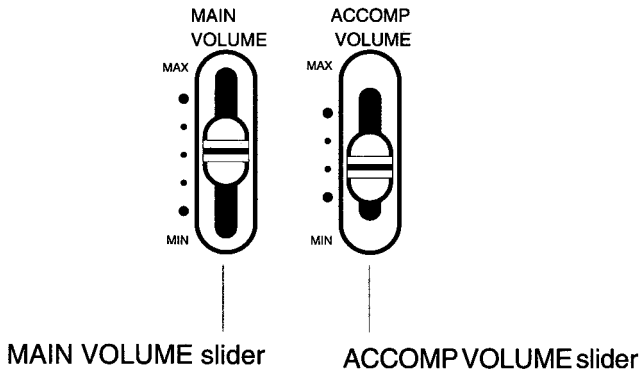
This unit features two volume control sliders.

MAIN VOLUME slider

Adjusts the overall volume of the unit.

ACCOMP VOLUME slider

Adjusts the volume of the rhythm and the accompaniment pattern.



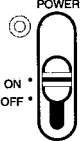

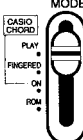

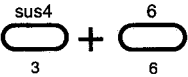

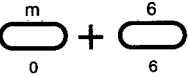
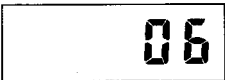
4.Using Preset Tones

■ Selecting a preset tone

There are 100 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 follow the steps in the example below.

Example

To select "PIPE ORGAN" (No. 06) after selecting "JAZZ GUITAR" (No. 36).

<p>1. Set the POWER switch to the ON position. At this time the "PIANO" sound is selected automatically and the display shows the tone number "00".</p>		
<p>2. Set the MODE selector to the PLAY position.</p>		
<p>3. Press Numeric buttons "3" and then "6" to select "JAZZ GUITAR".</p> <ul style="list-style-type: none"> • Play the keyboard to listen to the "JAZZ GUITAR" sound. 		
<p>4. Press Numeric buttons "0" and then "6" to select "PIPE ORGAN".</p> <ul style="list-style-type: none"> • Play the keyboard to listen to the "PIPE ORGAN" sound. 		

Notes

- When the **BEAT/TONE indicator** is lit, you cannot select a preset tone. In this case, press the **BEAT/TONE button** once (the indicator goes out) to select a tone.
- You can also change the selected tone by pressing only one **Numeric button**. Note the following:

Selected tone	→	Press	→	Newly selected tone
No.50		0		No.00
No.00		2		No.02
No.02		5		No.25

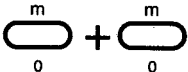



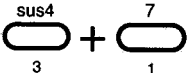
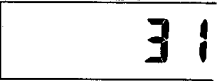


4.Using Preset Tones

■ About keyboard split tones

Some Tone Bank selections split the keyboard and assign two or four sounds to the keyboard. Then, the sound produced depends on what position of the keyboard you play. For example, BASS/PIANO (No.91) puts BASS on the left and PIANO on the right of the keyboard.

■ Mixing a pair of tones

The CT-840 features "TONE MIX" function which lets you "mix" any two of the preset tones. Follow the steps below to mix a pair of tones.

<p>1. Select any of the 100 preset tones. The tone initially selected is used as a base, or "Primary" sound. For example, select the PIANO tone (No.00) as a Primary sound.</p>		
<p>2. Press the TONE MIX button. This activates the TONE MIX function, allowing you to choose a Secondary sound to mix with the Primary sound you just selected.</p>	<p>TONE MIX</p> 	 <ul style="list-style-type: none">• The display shows the tone number of the secondary sound.
<p>3. Select any other of the 100 preset tones. For example, select the STRINGS tone (No.31) as a Secondary sound. Now the PIANO (Primary) sound and STRINGS (Secondary) sound are mixed together. Play the keyboard and learn how the mixed tone sounds.</p>		
<p>4. Press the TONE MIX button again to exit from the TONE MIX function.</p>	<p>TONE MIX</p> 	

4.Using Preset Tones

To select a different secondary sound

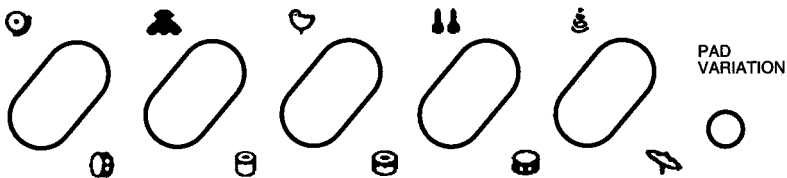
The secondary sound can be changed at any time, as long as the **TONE MIX** function is active. Simply select a different preset tone — the primary sound remains the same.

To select a different primary sound

The primary sound can be changed by first turning the **TONE MIX** function **OFF** (press the **TONE MIX** button so that the display shows the primary tone number), selecting any other preset tone, and finally turning the **TONE MIX** function back **ON**. The secondary tone remains the same in this case.

5.Using Sound Effect Pads

The CT-840 features **5 sound effect 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 VARIATION** button, giving you a total of 10 sound variations.



Notes

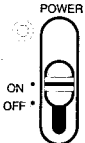
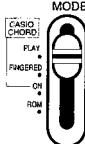



- Auto-rhythm will stop for 1 measure and only the sound effect will sound, if you tap on a sound effect pad while auto-rhythm is being played.
- You can adjust the relative volume of the pad sounds using **ACCOMP VOLUME** slider when the **MODE selector** is not set to **PLAY** position.

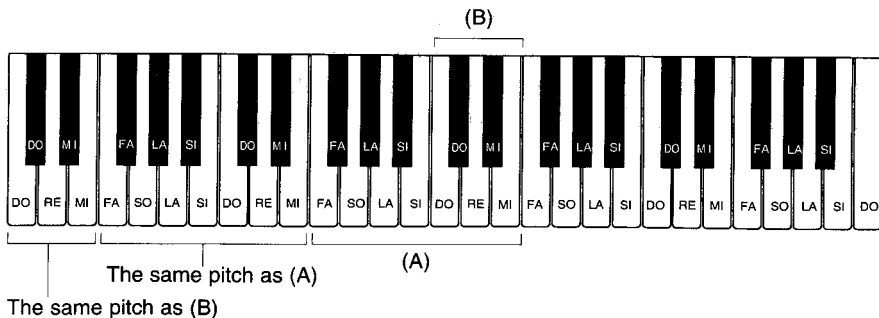
6. Using DO-RE-MI Guide

■ What is “DO-RE-MI Guide”?

The DO-RE-MI Guide uses a synthetic human voice to sing out the tones you play on the keyboard, making it easier to remember the tunes you play.

■ To use the DO-RE-MI Guide

<p>1. Set the POWER switch to ON.</p>	
<p>2. Set the MODE selector to the PLAY position.</p>	
<p>3. Press the DOREMI GUIDE button.</p>	
<p>4. Press a key on the keyboard, and the CT-840 will sing out the tone name, as shown in the illustration below.</p>	
<p>5. To switch off the DO-RE-MI Guide, press the DOREMI GUIDE button again.</p>	

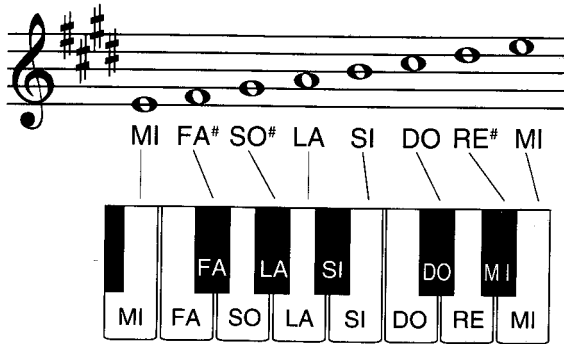


6.Using DO-RE-MI Guide

Notes

- The name of the tone produced by each key on the keyboard is shown on page 14. Note that the CT-840 “sings” the names of the whole notes only, regardless of whether you press a white key or a black key. This is because it would cause problems if the CT-840 had to sing a name such as “SO-sharp”. The pitch that the CT-840 uses to sing the note, however, is sharped or flatted as required.

The following example shows the tones that the CT-840 sings for each keyboard key for a song written in E major.



When you press the black key for G# (which technically is SO#) in this case, the CT-840 sings the tone “LA” (which technically is A), at a pitch of G#.

- The DO-RE-MI Guide also switches off automatically whenever you change the preset tone setting.
- Note that the keyboard becomes monophonic (no chords can be played) while the DO-RE-MI Guide is switched on.
- The tone number shown on the liquid crystal display does not change while the DO-RE-MI Guide is switched on.
- You cannot use the TONE MIX function while the DO-RE-MI Guide is switched on.
- The “voice” that sings out the tone for the DO-RE-MI Guide is a digitally sampled human voice produced by a digital sound source. Because of this, the voice may become difficult to hear or slightly distorted in certain ranges. Sometimes you will hear slight distortion or noise in the voice, or the timing may be slightly off. when singing high-range notes, the voice tends to become weak.

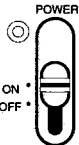


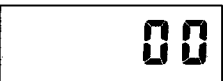
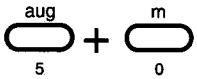
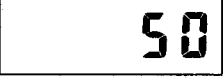
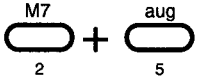

7.Using Auto-rhythms

■ Selecting an auto-rhythm

There are 100 auto-rhythms to choose from. Each rhythm has a 2-digit number. To select an auto-rhythm, find its rhythm number in the 100 PATTERN BEAT BANK list on the keyboard's top panel, and follow the steps in the example below.

Example

To select "HIP HOP 1" (No. 25) after selecting "ROCK'N'ROLL 1" (No. 50).

<p>1. Set the POWER switch to the ON position. At this time "ROCK 1" (No.00) is selected automatically.</p>		
<p>2. Press BEAT/TONE button.</p> <ul style="list-style-type: none"> •The BEAT/TONE indicator is lit. 		
<p>3. Press Numeric button "5" and then "0" to select "ROCK'N'ROLL 1".</p>		
<p>4. Press Numeric button "2" and then "5" to select "HIP HOP 1".</p>		


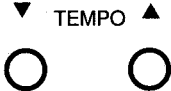
Notes

- When the **BEAT/TONE** indicator is not lit, you cannot select an auto-rhythm. In this case, press the **BEAT/TONE** button (the indicator lights) to select a rhythm.
- You can also change the selected rhythm by pressing only one **Numeric** button. Note the following:

Selected rhythm	→	Press	→	Newly selected rhythm
No.50		0		No.00
No.00		2		No.02
No.02		5		No.25

7.Using Auto-rhythms





■ Playing an auto-rhythm

<p>1. After selecting an auto-rhythm, press START/STOP button to start the rhythm.</p>	<p>START/STOP</p> 
<p>2. Adjust the tempo using the TEMPO control buttons. Each press of ▲ speeds up the tempo, while pressing ▼ slows it down.</p>	<p>▼ TEMPO ▲</p> 

- Tempo of the auto-rhythm can be adjusted between 40 and 256 beats per minute.
- Pressing both **TEMPO control buttons** at the same time sets the tempo to 120 beats per minute.

■ Using the built-in metronome

To assist you in keeping time during your practice sessions, the CT-840 features a built-in metronome.

<p>1. Set the POWER switch to the ON position.</p>	<p>POWER</p> 
<p>2. Set the MODE selector to the PLAY position.</p>	<p>MODE</p> 
<p>3. Press the METRONOME button.</p>	<p>METRONOME</p> 
<p>4. Press the START/STOP button. The metronome starts to sound in 4-beat.</p>	<p>START/STOP</p> 

7.Using Auto-rhythms

Notes

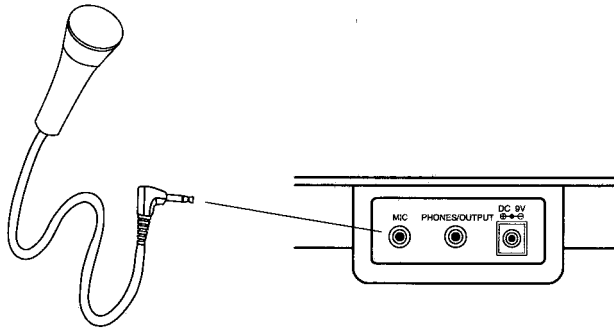
- You cannot use an auto-rhythm and the metronome at the same time.
- The beat setting of the metronome depends on the beat of the selected rhythm. If you want to set the beat to 3, select a 3-beat rhythm (e.g. WALTZ 1, No.94) before procedure 3 in "Using the built-in metronome".
- Tempo of the metronome can be adjusted using the **TEMPO control buttons**.
- If you press the **METRONOME button** while an auto-rhythm is playing, the metronome starts to sound instead of the rhythm.

■ Using FILL-IN rhythm

When **SYNCHRO/FILL-IN button** is pressed during auto-rhythm play, an appropriate fill-in pattern is inserted in the rhythm pattern. If the button is held down, the fill-in pattern is repeated until the end of the measure during which the button is released.

8.Using Microphone

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



Precautions

- 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.

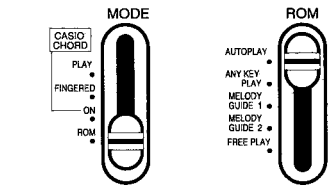
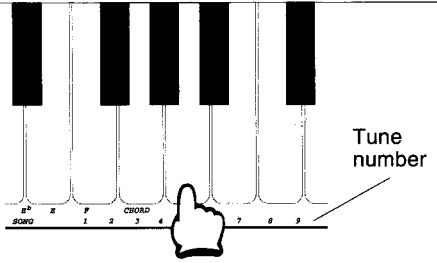
9.Using Melody Guide Function

Casio's advanced Melody Guide function not only provides full feature auto play of tunes, it's a great way to learn about music. This unit features 5 built-in demonstration tunes. The Auto Play, Melody Guide, Any-Key Play and Free Play function can be used with the demonstration tunes or ROM pack* tunes.

* ROM packs are optional. Refer to "Using Optional ROM Pack" on page 25 for details.

■ Listening to "Auto Play" Tunes

To learn the built-in tunes by heart, listen to the Auto-Play tunes first.

<p>1. Set the MODE selector to ROM position, and the ROM selector to AUTO PLAY position. The melody guide indicators above the keyboard flash from left to right, and the unit waits for you to select a tune.</p>	
<p>2. Select one of the tunes by pressing the key on the keyboard that corresponds to the tune you want to play. (Pressing any other key on the keyboard will automatically select the first tune.)</p>	

The built-in tunes are;

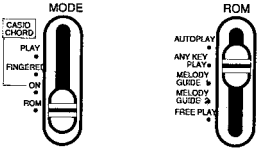
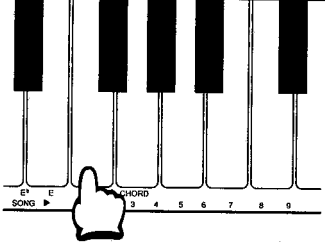
1. DO-RE-MI
2. Twinkle Twinkle Little Stars
3. Rudolph, The Red-Nosed Reindeer
4. When The Saints Go Marching In
5. Ach du Lieber Augustin

- The tune stops automatically when the end of the tune is reached. But if you want to stop along the way, press the **START/STOP button**.
- All the built-in tunes (or ROM pack tunes if an optional ROM pack is loaded in the ROM pack compartment) are played successively when you press the **DEMO key**.
- Auto play starts after one measure of percussive sound counts.

9. Using Melody Guide Function

■ Playing a Melody using “Any Key Play” Function

When Any Key Play is selected, the unit plays a note of the tune, no matter which keyboard key you press. Any Key Play helps you get the feeling of the melody you want to master, before trying to play the correct key using the melody guide function.

1. Set the MODE selector to the ROM position, and the ROM selector to ANY KEY PLAY position.	 <p>The diagram shows two rotary switches. The left switch is labeled 'MODE' and has positions for 'CASIO (CHORD) PLAY', 'FINGERED ON', and 'ROM'. The right switch is labeled 'ROM' and has positions for 'AUTOPLAY', 'ANY KEY PLAY', 'MELODY GUIDE', and 'FREE PLAY'. Both switches are shown with their respective indicators pointing to the 'ROM' and 'ANY KEY PLAY' positions.</p>
2. Select one of the tunes by pressing the key on the keyboard that corresponds to the tune you want to play.	 <p>The diagram shows a section of a keyboard with keys labeled 'E', 'E', 'CHORD', '3', '4', '5', '6', '7', '8', and '9'. A hand is shown pointing to the first 'E' key. Below the keys is a 'SONG' indicator with a right-pointing arrow.</p>
3. Now, start playing the melody on the keyboard.	

A **melody guide indicator** flashes above the key to be played and the unit waits until you press a key on the keyboard. However you need not worry about pressing the correct key. Just concentrate on the timing and tempo. The unit automatically plays the proper note as you press any key on the keyboard.

Note

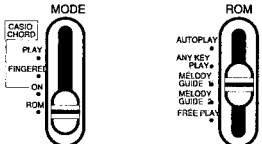


- The melody performance stops automatically when the end of the tune is reached. But if you want to stop along the way, press the **START/STOP button**.

■ Playing a Melody using “Melody Guide” Function

Melody guide helps you learn to play your favorite songs and progress right up to the point where you are able to play songs without assistance.

9.Using Melody Guide Function

There are two types of Melody Guides, and the following explanation is for MELODY GUIDE 1.

1. Set the MODE selector to the ROM position, and the ROM selector to MELODY GUIDE 1 .	
2. Select one of the tunes by pressing the key on the keyboard that corresponds to the tune you want to play.	
3. Now, start playing the melody on the keyboard.	

A melody guide indicator flashes above the key to be played and the unit waits until you press a key on the keyboard. Start playing the melody by pressing the keys indicated by these indicators.

Notes

- The melody performance stops automatically when the end of the tune is reached. But if you want to stop along the way, press the **START/STOP button**.
- Some tunes have introductions and some do not. It is a good idea to become familiar with a song by listening to auto play before attempting melody guide play.
- Press the key indicated by the LED. Keep pressing the key until the LED goes off.
- A blinking LED will indicate the next key to be pressed. Do not press the key until the LED stops blinking.

About Melody Guide 1 and 2...

MELODY GUIDE 1

A melody guide indicator flashes above the key to be played and the unit waits until you press the proper key on the keyboard.

MELODY GUIDE 2

Melody guide indicators flash above the keys to be played sequentially advance according to the melody whether you play the key or not.

9. Using Melody Guide Function

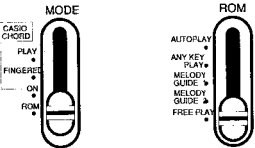
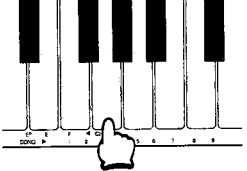

■ Playing a Melody using the Free Play Function

The Free Play function teaches you the right hand melody along with the left hand chords for the tune being played back.

Before you try using the FREE PLAY function, you should first try to master the melody of the tune using MELODY GUIDE 2. You will probably have a hard time trying to use FREE PLAY to practice a tune if you are not yet familiar with the melody.

Note

The chords covered by the Free Play Function are only those that can be played in the FINGERED mode of the Auto-accompaniment function.

1. Set the MODE selector to ROM and the ROM selector to FREE PLAY .	 <p>The diagram shows two rotary selectors. The left one is labeled 'MODE' and has positions for 'CASIO CHORDS', 'PLAY', 'FINGERED', 'ON', and 'ROM'. The right one is labeled 'ROM' and has positions for 'AUTORPLAY', 'ANY KEY', 'PLAY', 'MELODY GUIDE', 'MELODY GUIDE', and 'FREE PLAY'. A hand is shown pointing to the 'FREE PLAY' position on the ROM selector.</p>
2. Select one of the tunes by pressing the key on the keyboard that corresponds to the tune you want to play.	 <p>The diagram shows a section of a keyboard with five keys highlighted in black. A hand is pointing to the second key from the left. Below the keys are labels: 'SONG 1', '2', '3', '4', '5'.</p>
3. Start playing the melody with your right hand and chords with your left.	 <p>The diagram shows a horizontal line representing a keyboard, with a hand positioned above it as if playing.</p>

You may find it difficult to follow the indicators for both the right hand melody and left hand chords at the same time. Because of this, it might be a good ideal to practice the left hand part first. Follow the chord patterns shown by the **CHORD FORM indicators** as they light on the keyboard. Once you are familiar with the left hand part, you can then try playing with both hands.

The tempo of a tune is set automatically when the tune starts to play back. If playback is too fast for you, use the **TEMPO control button** (▼) to slow it down.

Note

- Playback stops automatically when the end of the tune is reached. To interrupt playback at any point along the way, press the **START/STOP button**.

9.Using Melody Guide Function

■ Using the metronome with Melody Guide

You can use the metronome together with any Melody Guide mode (AUTO PLAY, ANY KEY PLAY, MELODY GUIDE, FREE PLAY). When you do, however, note that the accompaniment part is replaced by the metronome sound. To use the metronome with Melody Guide, follow the steps below;

1. Press the **METRONOME button**.
2. Start the tune by pressing the key on the keyboard that corresponds to the tune you want to play.
 - To stop playback completely, press the **METRONOME button** again.
 - To discontinue the metronome (and return to your original accompaniment) press the **START/STOP button** to stop playback, and then restart Melody Guide play (without pressing the **METRONOME button**).

Notes

- When you use the metronome with MELODY GUIDE 1, playback of the tune continues, regardless of whether or not you are able to play the correct notes.
- When you use the metronome with ANY KEY PLAY, a hi-hat sounds along with the rhythm of the melody, and playback of the tune continues, regardless of whether or not you are able to play the correct notes. You can use this to help you master rhythms for melodies that are relatively complex.
- When you use the metronome with ANY KEY PLAY, you cannot play the melody on the keyboard.

9.Using Melody Guide Function

Notes on using Melody Guide

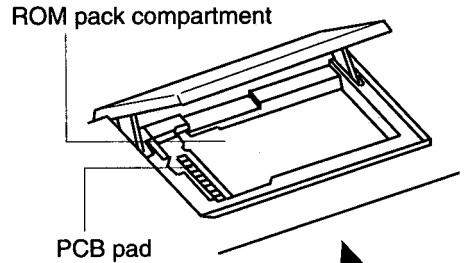
- The tone and tempo of a tune are set automatically when the tune starts to play, but you can change these settings once playback starts. To change the tone setting, use the procedure under “Selecting a preset tone” on page 11, To change the tempo, use the **TEMPO control buttons**.
- The DO-RE-MI Guide automatically switches on whenever playback of built-in demonstration tune named “DO-RE-MI” starts. To play back the other built-in demonstration tunes or ROM pack tunes using the DO-RE-MI Guide, press the **DOREMI GUIDE button** to switch the function on during playback of a tune. To switch on the DO-RE-MI Guide for playback of a tune using Melody Guide, press the **DOREMI GUIDE button** before starting playback with the Melody Guide.
- You can also use TONE MIX while using the Melody Guide. After switching TONE MIX on, start playback of the tune. The primary sound changes to the tone preset for that tune, while the secondary sound remains unchanged. For full details about TONE MIX and about primary and secondary sounds, see “Mixing a pair of tones” on page 12.
- No matter which Melody Guide setting you use, the names of the chords being played appear on the liquid crystal display, and **CHORD FORM indicators** light up for each chord (root note flashes).

10.Using Optional ROM Pack

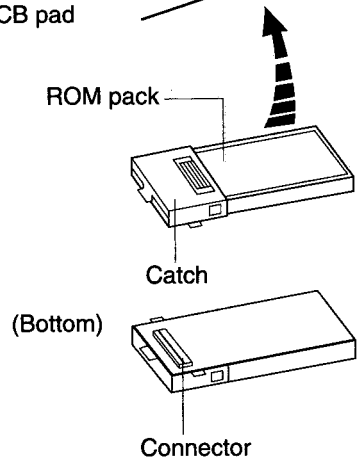
You can listen and practice more tunes using optional ROM packs. If you load a ROM pack into the ROM pack compartment, you can listen and learn the tunes on the ROM pack instead of the built-in tunes. Follow the steps below to load a ROM pack.

■ Loading a ROM pack

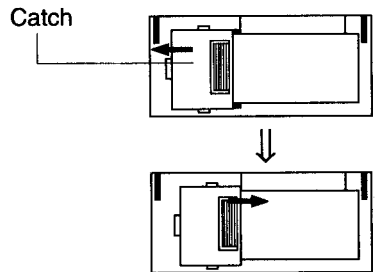
1. Lift up the ROM pack compartment lid on the top panel of the unit.



2. Load the ROM pack into the compartment. Place the ROM pack with its connector facing the PCB pad.



3. Secure the ROM pack by sliding the catch as illustrated.



Cautions

- The internal circuitry of the ROM pack can be damaged by static electricity. Be sure to ground yourself by touching some metallic object, such as a door-knob prior to handling the ROM pack, to discharge any static electricity.
- Take good care of the connector part of the ROM pack and the PCB pad of the unit. They must be free from dust and dirt, so avoid touching them. Use a soft damp cloth to clean them.

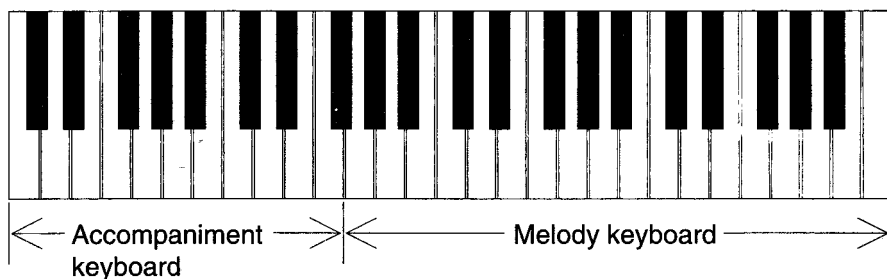
11. Using Auto-accompaniment

This unit features 100 accompaniment patterns that let you add full accompaniments to your performances automatically.

You can select from two types of auto-accompaniment — simplified fingering chord play (CASIO CHORD ON) or standard fingering (FINGERED).

■ About accompaniment keyboard

If the **MODE selector** is set to **ON** or **FINGERED**, the lower 1.5 octave of the keyboard become accompaniment keyboard keys.



■ Playing an accompaniment using Casio Chord system

1. Set the **MODE selector** to **ON** position.
2. select one of the auto-rhythms (refer to “Selecting an auto-rhythm” on page 16).
3. Start the auto-rhythm by pressing the **START/STOP button**.
4. Play on the accompaniment keyboard keys according to the “Casio Chord system”. The moment you press an accompaniment keyboard key, the auto-accompaniment pattern starts to play in the rhythm track.
5. Press **START/STOP button** to stop auto-accompaniment play.

Casio Chord system

The Casio Chord system has been developed so you can play the four main types of chords more easiliy. 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.

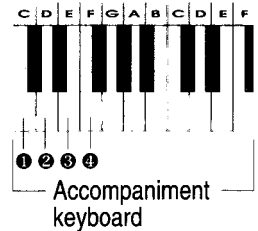
<Examples>

C (C major chord) — press ①.

Cm (C minor chord) — press ①, ② together.

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

Cm7 (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.

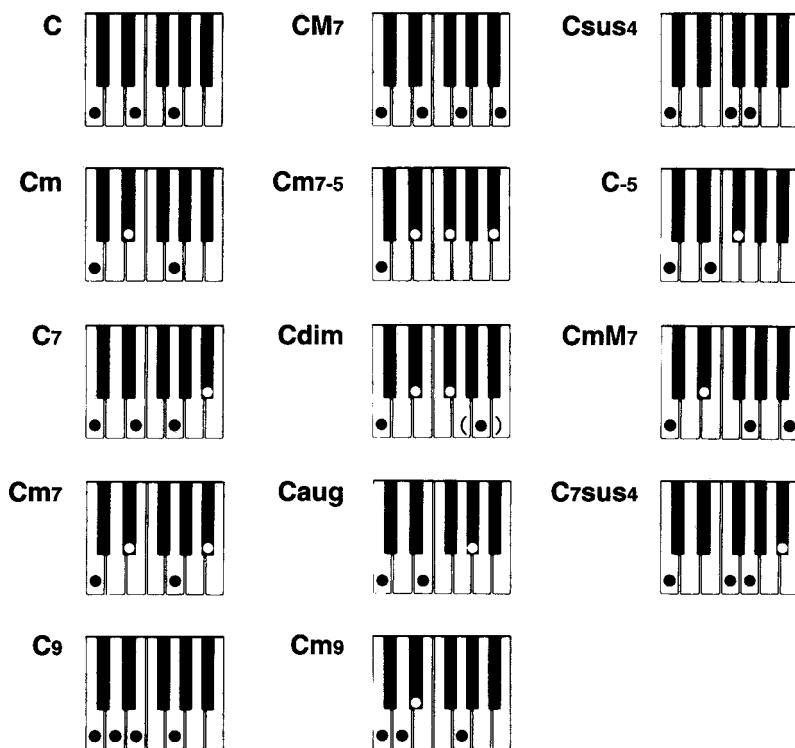
11. Using Auto-accompaniment

■ Playing an accompaniment using standard chord fingering (FINGERED)

1. Set the **MODE selector** to the **FINGERED** position.
2. select one of the auto-rhythms (refer to "Selecting an auto-rhythm" on page 16).
3. Start the auto-rhythm by pressing the **START/STOP button**.
4. Play chords as usual on the accompaniment keyboard keys, the auto-accompaniment pattern starts to play in the rhythm track.
5. Press the **START/STOP button** again to stop auto-accompaniment play.

Note

This unit is capable of recognizing major, minor, 7th, m7, M7, m7-5, dim, aug, sus4, -5, mM7, 7sus4, 9 and m9 chords. The following shows the fingerings of the recognized chords with a root of C.



11. Using Auto-accompaniment

■ Adjusting the tempo of the auto-accompaniment

You can freely adjust the tempo of the auto-accompaniment using **TEMPO control buttons**. Each press of ▲ speeds up the tempo, while pressing ▼ slows it down.

- Tempo of the auto-accompaniment can be adjusted between 40 and 256 beats per minute.
- Pressing both **TEMPO control buttons** at the same time sets the tempo to 120 beats per minute.

■ Using fill-in pattern during auto-accompaniment

When **SYNCHRO/FILL-IN button** is pressed during auto-accompaniment play, an appropriate fill-in pattern is inserted in the accompaniment pattern. If the button is held down, the fill-in pattern is repeated until the end of the measure during which the button is released.

■ Using synchro-start

You can start the auto-accompaniment exactly simultaneously when you press a key (or keys) on the accompaniment keyboard. To do this, follow the steps below.

1. Set the **MODE selector** to the **FINGERED** or **ON** position.
2. While no auto-accompaniment is playing, press the **SYNCHRO/FILL-IN button**.
 - The tempo indicator flashes to show that the unit is standing by waiting for you to play a note on the accompaniment keyboard (lower 1.5 octave, C through F).
3. Play a chord using the accompaniment keyboard keys. The moment you play a chord, the selected rhythm and accompaniment pattern begin according to the chord you played.

Notes on the auto-accompaniment performance

- You can adjust the relative volume of the auto-accompaniment by using the **ACCOMP VOLUME slider**.
- During auto-accompaniment performance, chord played on the accompaniment keyboard will continue to sound after releasing the keys.

12. Using Chord Form Function

■ About Chord Form function

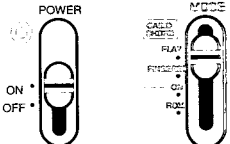


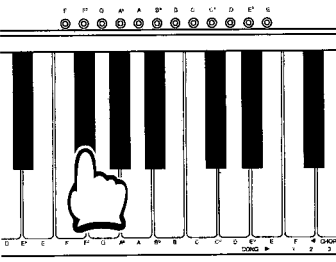
The Chord Form function teaches you the fingerings of chords that you name using the numeric buttons.

Note

The chords covered by the Chord Form function are basically those that can be played in the FINGERED mode of the Auto-accompaniment function.

■ To use the Chord Form function to look up a chord fingering

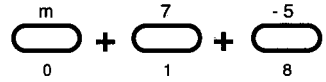
Example: To look up the fingering of the chord F# m7-5.

<p>1. Switch on the power of the keyboard and set the MODE selector to any position <i>other than ROM</i>.</p>	
<p>2. Press the CHORD FORM button.</p> <ul style="list-style-type: none"> At this time the CHORD FORM indicators flash from left to right, indicating that the Chord Form function is standing by for input. While the CHORD FORM indicators are flashing, the numeric buttons become Chord Type buttons. 	<p>CHORD FORM</p> 
<p>3. Press the DELETE button (numeric button 9).</p>	<p>DELETE</p> 
<p>4. Press the key on the accompaniment keyboard to specify the root of the chord you want. In our example chord F#m7-5, we would press the F# key.</p> <ul style="list-style-type: none"> At this time the CHORD FORM indicators light to show the fingering of the chord F# Major, and the liquid crystal display shows the chord name F#. 	<p>F# flashes to indicate root</p> <p>B^b C#</p> 

12. Using Chord Form Function

5. Input the other parameters for the chord. To specify m7-5 for our example chord, press the **Chord Type buttons "m", "7", and then "-5"**.

- Check the liquid crystal display to confirm that it shows "F#m7-5". If this is any problem, start again from step 2, above.



Notes

- Note that the Chord Form functions automatically converts root names as shown below.

Root Name	Converted To
D ^b	C [#]
D [#]	E ^b
G ^b	F [#]
G [#]	A ^b
A [#]	B ^b

This does not change the root itself, but only the root name. For example, D^b and C[#] are played on the keyboard by pressing the same black key, as are D[#] and E^b, etc.

- Whenever you specify 9 (ninth) as a chord type, the liquid crystal display shows (-)9. This is because tunes on optional ROM packs include flat ninths (-9) in addition to ninths.
- Note that chords that fall into the three categories 6, m6, 7-5 cannot be played in the Auto-accompaniment FINGERED mode (page 28).

13. Using Chord Memory

Chord Memory lets you record up to 100 chords of accompaniment in memory. There are two different methods you can use to record chords into memory: real-time recording and step recording.

- **Real-time recording**

Real-time recording works much like a tape recorder, storing chords in memory as they are played.

- **Step recording**

Step recording lets you use the Chord Form function to record chords one-by-one. Besides specifying the chord to be played, you also must specify the length (number of beats) of the chord.

About memory capacity....

The Chord Memory can hold a maximum of 100 chords. If memory becomes full while you are using real-time recording, the message "FL" (FULL) appears on the liquid crystal display and recording automatically stops.

Important!

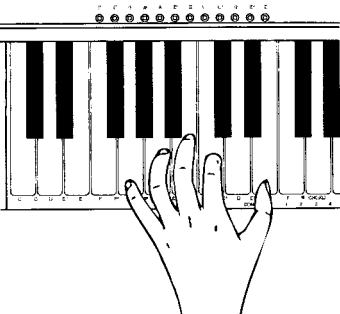

- The Chord Memory does not have a back-up power supply. This means that whenever you switch keyboard power off or whenever the Auto Power Off function operates, Chord Memory contents are either deleted entirely or corrupted (and cannot be played back). You have to reinput data into the Chord Memory whenever you switch power off and then on again.
- If the batteries loaded in the keyboard go dead, data stored in the Chord Memory may be corrupted or lost even if the power of the keyboard is left on. Be sure to use the procedures described on page 7 of this manual to replace batteries whenever they get weak.

13. Using Chord Memory

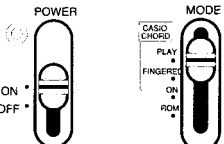

■ To use real-time recording

<p>1. Switch on the power of the keyboard and set the MODE selector to any position <i>other than ROM</i>.</p>	
<p>2. Select the rhythm you want to use during recording (see page 16).</p> <ul style="list-style-type: none"> • Note that the rhythm is not recorded. 	
<p>3. Press the START/STOP button to start the rhythm and use the TEMPO control buttons to adjust the tempo to the speed you want.</p> <ul style="list-style-type: none"> • The tempo is not recorded, and you will be able to adjust it to any level you want when you playback from the Chord Memory. Because of this, it is a good idea to set a rather slow tempo when recording. • After the tempo is at the speed you want, press the START/STOP button again to stop the rhythm play. 	
<p>4. Press the RECORD button.</p> <ul style="list-style-type: none"> • The Tempo indicator flashes, indicating that the Synchron Start function is standing by (page 29). 	

13. Using Chord Memory




<p>5. Play the first chord and the rhythm starts to play automatically. Recording also starts at this point. Continue to play the chords you want in the Auto-accompaniment keyboards.</p> <ul style="list-style-type: none"> • To stop recording at any point, press the START/STOP button. You can then restart recording from the beginning (erasing anything you recorded up to this point) by going back to step 4. 	
<p>6. When your recording is complete, press the START/STOP button to stop.</p>	<p>START/STOP</p> 

■ To use step recording

<p>1. Switch on the power of the keyboard and set the MODE selector to any position <i>other than ROM</i>.</p>	
<p>2. Press the STEP RECORD button.</p> <ul style="list-style-type: none"> • At this time the CHORD FORM indicators flash from left to right. 	<p>STEP RECORD</p> 
<p>3. Use the same procedures described under "To use the Chord Form function to look up a chord fingering" on page 30 to specify a chord*.</p> <ul style="list-style-type: none"> • If you make a mistake while inputting a chord, you can press the DELETE button to delete it and start again. 	<p>(start from procedure 4 on page 30)</p>

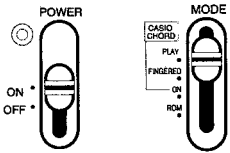

* Instead of using the Chord Form function, you can also specify a chord by fingering it on the keyboard. In this case, you can specify any of the 14 chord types that can be used in the Auto-accompaniment FINGERED mode (page 28).

13. Using Chord Memory

<p>4. Specify the length (number of beats) for the chord by pressing the STEP RECORD button the number of beats you want to specify.</p> <ul style="list-style-type: none">• To specify a chord to be held for three beats, for example, press STEP RECORD button three times. The number of presses (number of beats) appears on the liquid crystal display.• You can decrease the displayed number of beats for the chord you are inputting by pressing the DELETE button. Once the beat display becomes "00," you can delete the chord you are inputting by pressing DELETE again. Note that you can use the DELETE button to delete the chord you are currently inputting only.	<p>STEP RECORD</p> 
<p>5. Repeat steps 3 and 4 to input more chords.</p>	<p>DELETE</p> 
<p>6. After inputting all the chords you want, press the START/STOP button to complete the recording procedure.</p>	<p>START/STOP</p> 

13. Using Chord Memory

■ To play back chords from memory

<p>1. Switch on the power of the keyboard and set the MODE selector to any position <i>other than ROM</i>.</p>	
<p>2. Press the PLAY button.</p> <ul style="list-style-type: none">• Playback stops automatically when the end of the chords stored in memory is reached.• To stop playback part way through, press the START/STOP button.	<p>PLAY</p> 

Notes

- You can change the rhythm setting during playback from the Chord Memory by using the procedures described under “Selecting an auto-rhythm” on page 16.
- Use the **TEMPO control buttons** to adjust playback tempo.

14. Troubleshooting

If your keyboard operates erratically, replace the batteries or shift to one of the alternate power sources mentioned in "Choosing a Power Supply" on page 7. If the keyboard continues to operate erratically, use the following troubleshooting chart to correct the problem.

Trouble	Possible Cause	Remedy
No sound, even if keys are pressed.	1. Headphones connected. 2. Auto power off has activated.	1. Disconnect headphones. 2. Turn the POWER switch off and then on again.
No rhythm. No accompaniment.	ACCOMP volume turned down.	Turn up the ACCOMP volume.
Occasional interference.	Refrigerators, washing machines and similar electric appliances.	Use outlet as far away as possible from appliance thought to be the cause.
No sound when connected to external amplifier.	Défective connection cord.	Replace connection chord.

15. Care of Your Keyboard

- **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 malfunction.

- **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.)

16. Specifications

Model:	CT-840
Number of keys:	49
Polyphony:	8-note (Max)
Preset tones:	100 plus "Do-Re-Mi Guide" sound
Auto-rhythms:	100
Built-in speakers:	12 cm dia. (output = 2.0W)
Built-in pads:	5 sound effect pads with variation button
Melody Guide function:	Auto Play, Melody Guide 1 and 2, Any Key Play, Free Chord
Demonstration tunes:	1. DO-RE-MI 2. Twinkle Twinkle Little Stars 3. Rudolph, The Red-Nosed Reindeer 4. When The Saints Go Marching In 5. Ach du Lieber Augustin CASIO CHORD ON, FINGERED
Auto-accompaniment:	17 types of chords
Chord Form function:	Real-time recording/Step recording
Chord Memory:	Memory capacity: up to 100 chords (max)
Terminals:	Output jack [output impedance: 47 Ω , output voltage: 5.0V(RMS)MAX], AC adaptor jack (DC 9V), Mic. input jack [input impedance = 1K Ω , sensitivity = 10mV]
Power source:	3-way AC/DC power sources; AC: 100, 117, 220 or 240 (\pm 10V), 50/60 Hz, with optional AC adaptor AD-5. DC: 6 AA size (SUM-3/R6P) manganese dry batteries. (Battery life: approx. 2 hours.) Car battery: Requires optional CA-5 car adaptor
Auto power off:	Approximately 6 minutes after the last operation
Power consumption:	7.0W
Dimensions(W x D x H):	832 x 325 x 119 mm (32 3/4" x 12 13/16" x 4 11/16")
Weight:	4.1kg (9.0 lbs) including batteries
Standard accessories:	Mini microphone, dust cover, score stand and test batteries

• *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.

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