Technics

SX-AX3
SX-AX5
SX-AX7

Vol. 1

ENGLISH FRANÇAIS ESPAÑOL

SQFGA21550

Technics

OWNER'S MANUAL **INSTRUCTIONS D'EMPLOI**
INSTRUCCIONES DE MANEJO

ENGLISH
FRANÇAIS
ESPAÑOL

Vol. 1

Caution

Voltage (except North America)
Be sure the voltage adjuster (located on the rear panel) is in accordance with local voltage in your area before using this unit. Use a screwdriver to set the voltage adjuster to the local voltage.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

BEFORE YOU PLAY, PLEASE READ THE CAUTIONARY COPY APPEARING ON PAGE 16.

IMPORTANT (for UNITED KINGDOM)
THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:

BLUE — NEUTRAL
BROWN — LIVE

As the colours of the wires in the mains lead of this unit may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.

The wire which is coloured BLUE must be connected to the terminal with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal marked with the letter L or coloured RED.

This apparatus was produced to BS 800: 1977.

Attention

Tension (à l'exception de l'Amérique du nord)
Avant de mettre cet appareil sous tension s'assurer que le sélecteur de tension situé sur le panneau arrière est réglé sur la tension locale. Pour régler le sélecteur de tension utiliser un tournevis plat (—).
Avant toute utilisation, prière de lire l'avertissement apparaissant à la page 32.

Precaución

Tensión (excepto América del Norte)
Cerciórese de que el ajustador de tensión, situado en el panel posterior, está ajustado al valor de la tensión de su residencia. Efectúe esta comprobación antes de utilizar el instrumento. Para ajustar la tensión emplee un destornillador para posicionar el ajustador de tensión al valor correspondiente.
Antes de empezar a tocar, lea las precauciones de la página 48.

Thank you for purchasing the Technics AX Series Synthesizer Keyboard.

The AX Series is a new type of instrument, based on the renowned Technics Keyboard, with greatly enhanced synthesizer capabilities. We are sure you will appreciate the ease and excitement of creating your original sounds, whether you are a budding musician or an experienced professional.

In the two volumes of your Owner's Manual you will find the following features explained.

BASIC FUNCTIONS

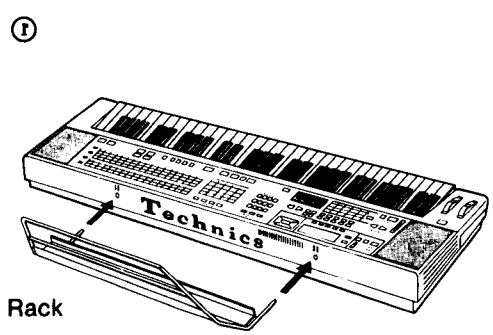
This section comprises an explanation of voices and effects, rhythm and the fundamental workings of the Technics Synthesizer Keyboard. The circled numbers on the separate sheet correspond to the section numbers in this instruction manual.

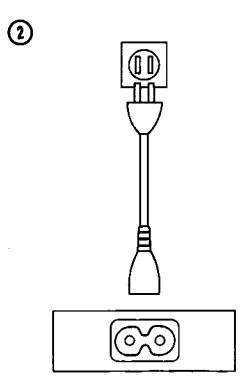
Part I Introduction

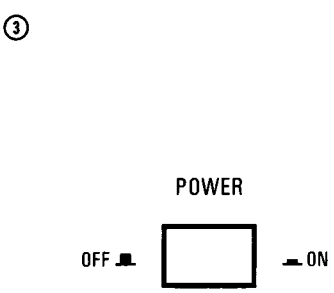
① Playing Your Technics is Easy!

Preparing to play

1. Set up the music rack.
   Insert the music rack in the two holes as shown in the figure.
2. Plug the power cord into an outlet.
3. Turn the **POWER** switch on.

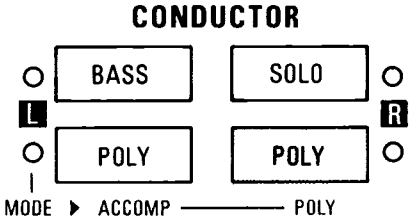




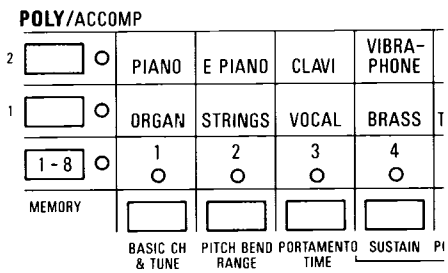


Select a voice and begin playing.

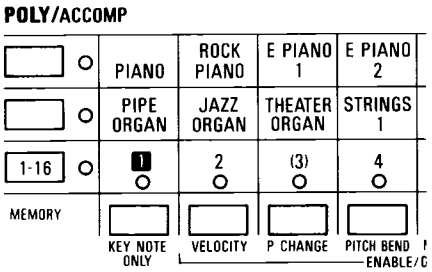
1. Press the [R] **POLY** button in the **CONDUCTOR** section to turn it on.



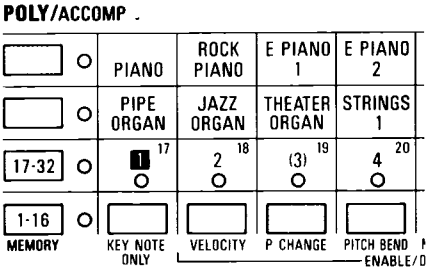
2. Select the **E PIANO** voice in the **POLY/ACCOMP** voice section.



(AX3)



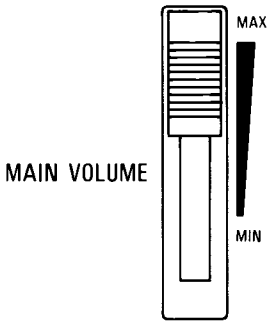
(AX5)



(AX7)

Adjust the volume.

While playing a tune, adjust the **MAIN VOLUME** to an appropriate level.



■ **AX5/AX7**
These models employ Touch Response, whereby the volume increases in proportion to the strength with which the keys are played.

About the keyboard reset

Various recording and storage functions are possible with this instrument. However, if you wish to reset all the stored memories to the factory-preset settings, while pressing the **ALL (ONE FINGER)** button of the **AUTO PLAY CHORD**, press the **POWER** button on.

- If the buttons do not function or no sound is produced, follow this reset procedure.

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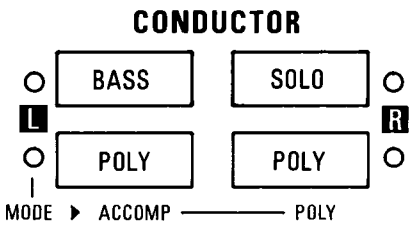
Part II Basic creation of voices and effects

② Conductor



With this Synthesizer Keyboard you can select **POLY**, **SOLO** and **BASS** voice groups. The **CONDUCTOR** buttons allow you to assign specific voices from these groups to the entire keyboard or to the left or right part of a split keyboard.

The eight ways to assign voices to the keyboard are shown here (when the **AUTO PLAY CHORD** is off).

[R]...Right keyboard (when the keyboard is split)
[L]...Left keyboard (when the keyboard is split)

CONDUCTOR settings	Tonal keyboard	Number of notes that sound simultaneously
CONDUCTOR BASS SOLO POLY POLY MODE ▸ ACCOMP — POLY	G2 C3 G3	
BASS SOLO POLY POLY	**POLY**	8 notes
BASS SOLO POLY POLY	**SOLO**	1 note
BASS SOLO POLY POLY Press at the same time.	**POLY + SOLO**	**POLY**: 8 notes **SOLO**: 1 note
BASS SOLO POLY POLY Press at the same time.	[L] **POLY** / [R] **SOLO** Split point	[L] **POLY**: 8 notes [R] **SOLO**: 1 note
BASS SOLO POLY POLY	**BASS**	1 note
BASS SOLO POLY POLY Press at the same time.	[L] **BASS** / [R] **POLY** Split point	[L] **BASS**: 1 note [R] **POLY**: 8 notes
BASS SOLO POLY POLY Press at the same time.	[L] **BASS** / [R] **SOLO** Split point	[L] **BASS**: 1 note [R] **SOLO**: 1 note
BASS SOLO POLY POLY Press at the same time.	[L] **BASS** / [R] **POLY + SOLO** Split point	[L] **BASS**: 1 note [R] **POLY**: 8 notes **SOLO**: 1 note

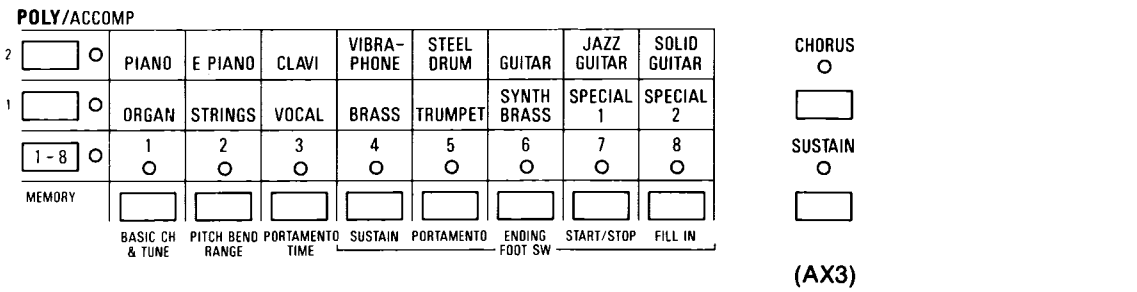
- Eight **POLY** notes can be produced at one time; however, when using the **AUTO PLAY CHORD** or **SEQUENCER** (**ACCOMP**) feature (explained later), only four **POLY** notes are produced at one time.
- Even if the keyboard is not split, if the **AUTO PLAY CHORD** is used, the keyboard splits automatically.
- When a mixed keyboard (**POLY** + **SOLO**) is selected, play the chord with your left hand and the melody with your right hand. If you remove your right hand from the keyboard, the **SOLO** voice will not shift to the left hand so that the melody can be successfully played. (When the interval between the chord and melody is a whole tone or less, the voices will shift to the left hand.)
- Depending on the voice selected, the octave may shift when the keyboard is split.
- The [L] **POLY** button of the **CONDUCTOR** is also used when assigning the voice for the [L] **ACCOMP** section. (Refer to ㉒.)

Key split

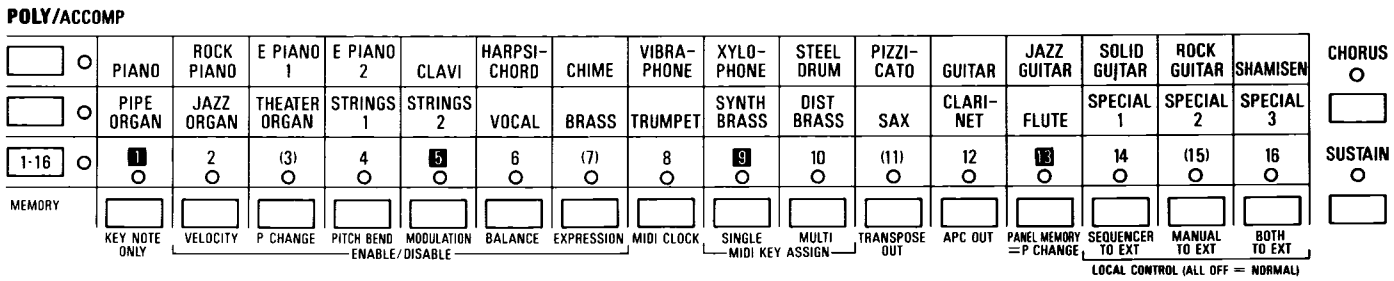
The **KEY SPLIT** button is used to specify the point where the keyboard divides into the [L] part and [R] part.

One of the three indicators (at G2, C3 or G3) is lit to show the split point. With each press of the **KEY SPLIT** button, the indication moves to the next split point as follows: G2 → C3 → G3.

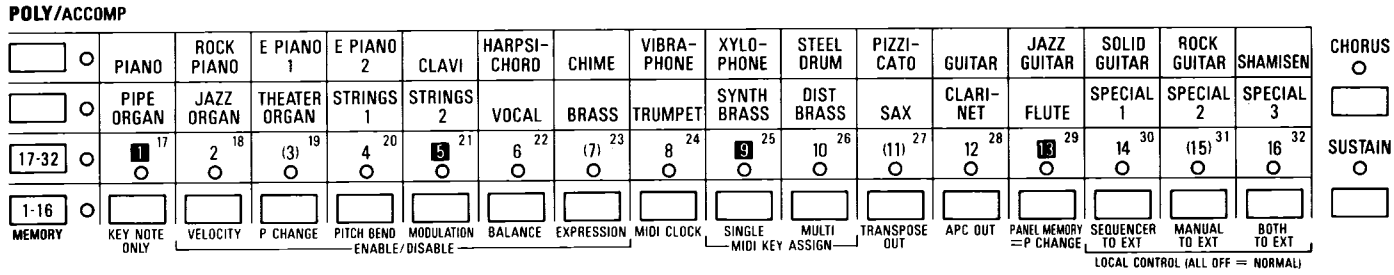
③ Poly/Accomp



(AX3)



(AX5)



(AX7)

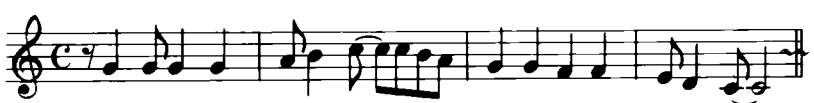
The **POLY** voices are selected by pressing the 2 vertical buttons on the left and the horizontal row of buttons across the bottom (AX3: 8 buttons; AX5/AX7: 16 buttons) of the **POLY/ACCOMP** voice section.

- The **MEMORY** buttons (AX3: **1~8**; AX5: **1~16**; AX7: **1~32**) are for storing preset voices which you have modified. (Refer to ⑯.)
- These buttons are used to select the voice when storing the **COMPOSER** (AX5/AX7) or the **ACCOMP** part of the **SEQUENCER** (explained later).
- On the AX5/AX7, the number of the selected button is shown on the **MUSICAL DISPLAY**.

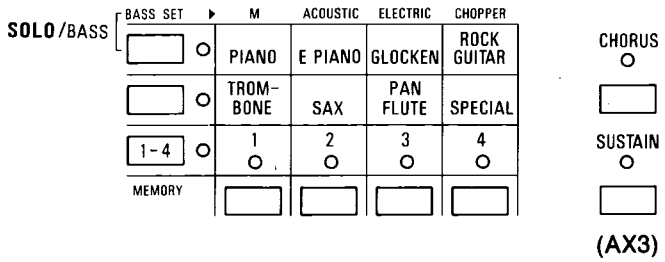
Press the **CHORUS** button on to expand the sound and create a chorus effect.

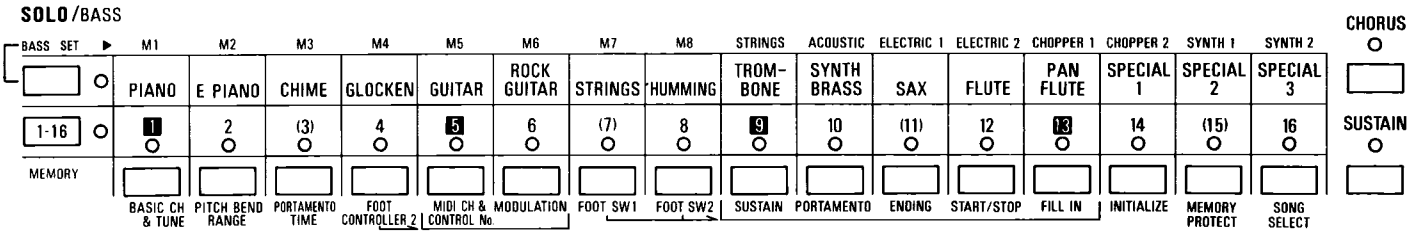
When the **SUSTAIN** button is on, even when the keys are released, the notes fade slowly, giving a sustain effect.

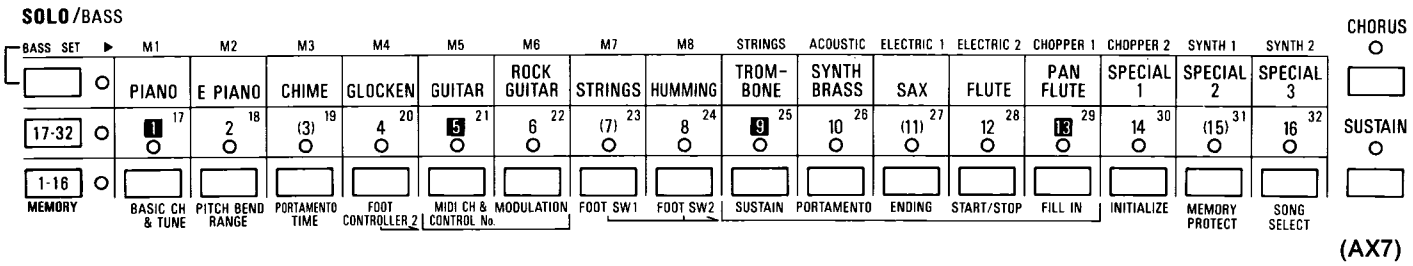
POLY.....STEEL DRUM



④ Solo/Bass







The **SOLO** voices are selected by pressing the vertical buttons on the left (AX3: 2 buttons; AX5/AX7: 1 button) and the horizontal row of buttons across the bottom (AX3: 4 buttons; AX5/AX7: 16 buttons) of the **SOLO/BASS** voice section.

- The **MEMORY** buttons (AX3: **1~4**; AX5: **1~16**; AX7: **1~32**) are for storing preset voices which you have modified. (Refer to ⑯.)
- On the AX5/AX7, the number of the selected button is shown on the **MUSICAL DISPLAY**.

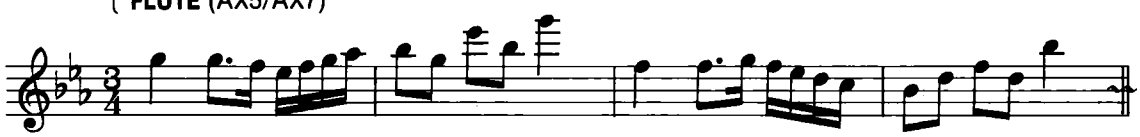
The **CHORUS** and **SUSTAIN** buttons are used to apply chorus and sustain effects to the **SOLO** voices.

Bass

Choose a preset **BASS** voice with the buttons in the topmost row when **BASS** has been selected in the **CONDUCTOR** section.

- Note, however, that when **BASS** is selected for the [L] part and **SOLO** is selected for the [R] part, these buttons are used to select **SOLO** voices.
- **SUSTAIN** functions for the **BASS** part, but **CHORUS** does not.
- The **M** buttons (AX3: **M**; AX5/AX7: **M1~M8**) are for storing preset voices which you have modified. (Refer to ⑯.)

SOLO... { **PAN FLUTE** (AX3) / **FLUTE** (AX5/AX7) }



⑤ Balance

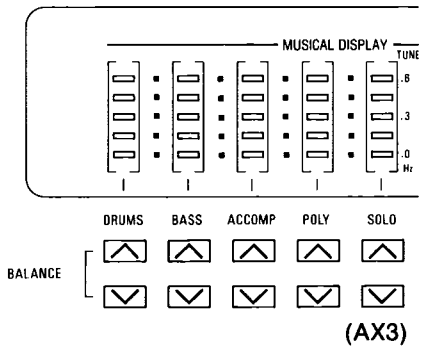
The volumes for the **DRUMS, BASS, ACCOMP, POLY** and **SOLO** parts are adjusted with the respective **BALANCE** buttons.

- Volume will increase when a ⌃ button is pressed and decrease when a ⌄ button is pressed.
  Keep the button pressed to change the volume continuously.

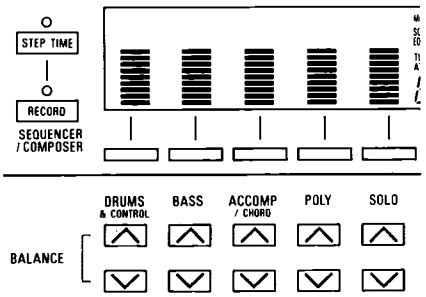
There are 10 volume levels. The volume level of each part is shown on the **MUSICAL DISPLAY**.

■ **AX3**
During a performance, the volume level you have set for a part is shown by the uppermost lit indicator. When the part is played, all the indicators up to the set level are lit.

■ **AX5/AX7**
During a performance, the volume level you have set for a part is indicated by the uppermost displayed bar. The bars beneath this bar indicate how hard or softly the keys are pressed.



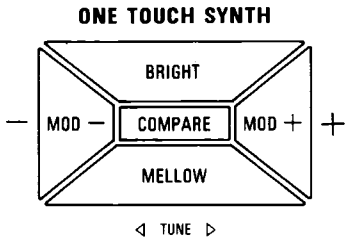
(AX3)



(AX5/AX7)

ENGLISH

⑥ One Touch Synth



With the **ONE TOUCH SYNTH** feature, by merely pressing one button, you can modify the parameters and effects of the currently selected voice.

Change the brightness of the tone with the **BRIGHT** and **MELLOW** buttons.

Change the amount of effect, such as vibrato or tremolo, with the **MOD**− and **MOD**+ buttons.

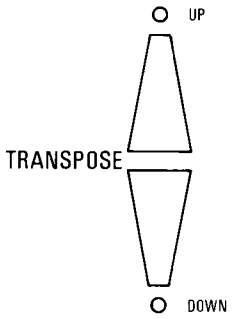
- For more information concerning the relation between **MOD** level and type of effect, refer to the separate booklet.
- At the **MOD** −1 level, both vibrato and tremolo are off.
- Each button has five levels. The amount of effect is indicated on the **MUSICAL DISPLAY**, from −5 to 5.
- If the **COMPARE** button is pressed when the **ONE TOUCH SYNTH** feature is being used, the brightness and effect are temporarily returned to their original settings. At this time the numbers indicated on the **MUSICAL DISPLAY** flash and the other **ONE TOUCH SYNTH** buttons do not function. Press the **COMPARE** button again to continue to use the **ONE TOUCH SYNTH** feature.
- To return a voice to its original preset sound, press the buttons in the **POLY** or **SOLO** section to select the voice again.
- To store the modified sound for later recall, or to modify each individual parameter of a voice, refer to ⑯.

⑦ Transpose

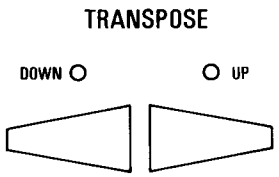
Suppose you learn to play a song—in the key of C, for example—and decide you want to sing it, only to find it's either too high or too low for your voice. Your choice is to either learn the song all over again, in a different key, or to use the **TRANSPOSE** feature.

Adjust the key with the **UP** and **DOWN** buttons.

- If the two buttons are pressed at the same time, the key returns to C.
- When a **TRANSPOSE** button is pressed, the key is shown on the **MUSICAL DISPLAY**.
- When the key is transposed to a lower key, depending on the selected voice, the sound produced by some keys in the lower range may be raised by one octave.



(AX3)



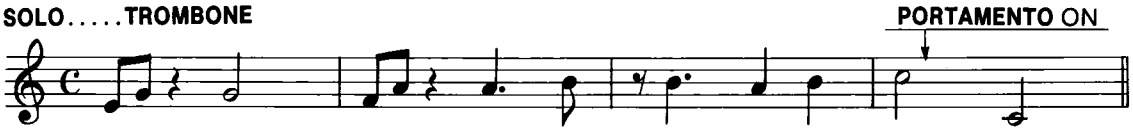
(AX5/AX7)

⑧ Portamento

When the **PORTAMENTO** button is pressed on and two notes are played one after the other, the pitch changes in a continuous glide from the first note to the second.

You can easily produce the slide sound of a trombone or the glissando of a violin with this effect.

- Portamento is applied from the note played immediately before.
- The portamento effect can be used with both **SOLO** and **POLY** voices.
- The duration of the glide can be adjusted with the **PORTAMENTO TIME** button. (Refer to ㉒.)
- The portamento can be turned on and off with an optional foot switch. (Refer to ㉒.)

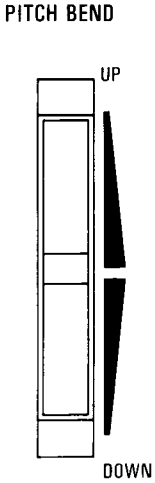


⑨ Pitch Bend

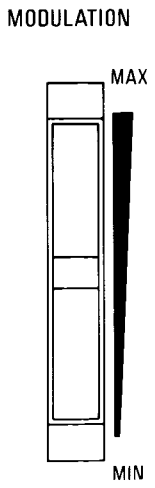
The pitch of the instrument can be continuously changed with the **PITCH BEND** wheel at the left end of the keyboard.

Using this control, you can produce the choking effect of a guitar.

- When you release your hand from the wheel, it returns automatically to the center position and the pitch bend effect is turned off.
- The pitch range of the **PITCH BEND** wheel can be adjusted. (Refer to ㉒.)
- The pitch bend effect does not function for the **AUTO PLAY CHORD** accompaniment pattern.



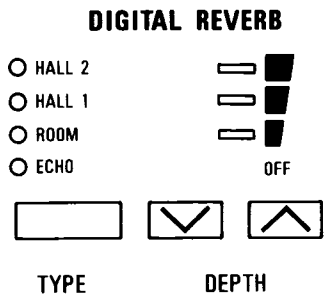
⑩ Modulation



The **MODULATION** wheel, to the left of the keyboard, is used to adjust the depth of modulated effects, such as vibrato and tremolo, from **MIN** to **MAX**.

- The modulation can also be controlled by an optional foot switch. (Refer to ㉒.)
- Even for those voices which have a "preset" effect applied, if the **MODULATION** wheel is moved and turned to **MIN**, the effect will be entirely turned off. To return to the voice's preset effect, use the voice buttons to select the voice again.
- Even when the **MODULATION** wheel is not set to **MIN**, selecting another voice will cause that voice's preset effect to be applied. Activate the **MODULATION** wheel by moving it a little, and then you can use it to adjust to the desired amount of effect.

⑪ Digital Reverb (AX7)



DIGITAL REVERB applies a reverberation effect to the sound. Select from four preset types—**ECHO**, **ROOM**, **HALL 1** and **HALL 2**—with the **TYPE** button.

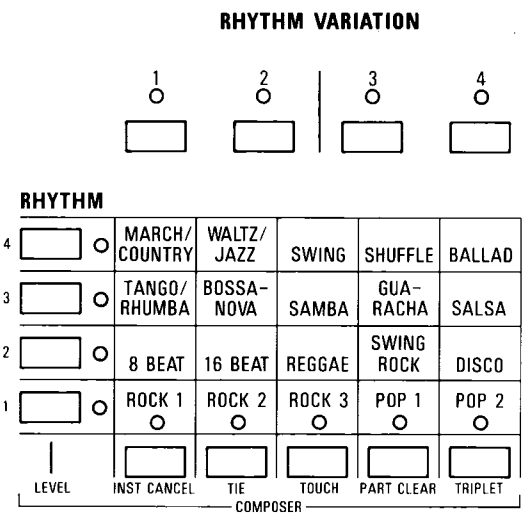
Select from 4 levels of reverberation depth with the ⌃ and ⌄ **DEPTH** buttons.

Part III Playing the rhythm

⑫ Rhythm

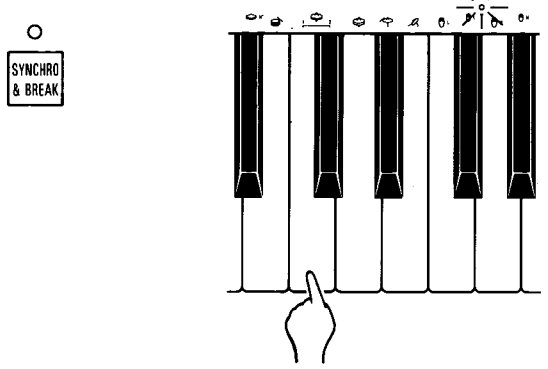
The **RHYTHM** section allows automatic accompaniment with preset rhythm patterns using realistic percussive instrument sounds from a PCM digital sound generator.

Rhythms are selected with the 4 vertical buttons at the left of the **RHYTHM** section and the 5 buttons across the bottom.



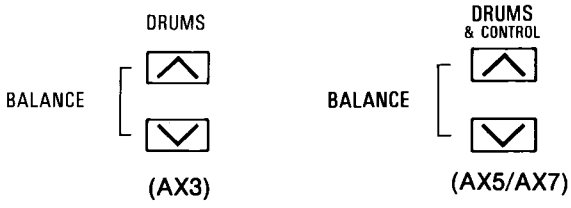
The **START/STOP** button instantly starts and stops the rhythm.

When the **SYNCHRO & BREAK** button is on, the rhythm is started by pressing a key lower than the indicated keyboard split point.



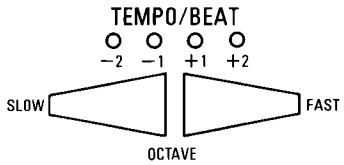
- The **TEMPO/BEAT** indicators light to indicate the beat. This helps you relate the drum rhythms to the music and helps you keep track of "where you are" while playing.
- If you press the **SYNCHRO & BREAK** button on when the rhythm is stopped, the red first-beat indicator flashes with each beat.
- If the **ONE FINGER** or **FINGERED** button of the **AUTO PLAY CHORD** is on, the break function is available. (Refer to ⑭.)

The **DRUMS** buttons in the **BALANCE** section allow you to adjust the loudness of the drums to be in perfect balance with the other voices.



TEMPO/BEAT adjusts how fast or slow the rhythm is played.

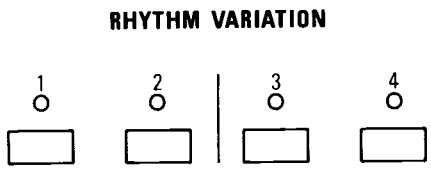
- Keep a button pressed to change the tempo continuously. When both buttons are pressed at the same time, the tempo is set at ♩ =120.
- The tempo is shown on the **MUSICAL DISPLAY**.



Rhythm variation

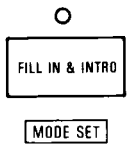
Use the two **RHYTHM VARIATION** buttons **1** or **2**, and **3** or **4** to select the desired rhythm type.

For the **MARCH/COUNTRY**, **WALTZ/JAZZ** and **TANGO/RHUMBA** rhythms, **RHYTHM VARIATION** buttons **3** and **4** produce **COUNTRY**, **JAZZ** and **RHUMBA** rhythms, respectively.



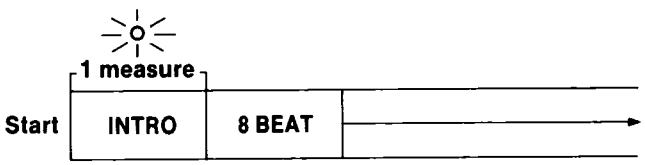
FILL IN & INTRO

This feature lets you use a one-measure drum solo as an introduction to a song, or to connect different sections of a song. Using the **8 BEAT** rhythm, let's see how this works.



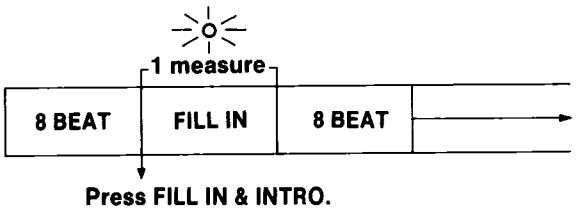
As an intro (introduction):

1. Select **8 BEAT**.
2. Press **FILL IN & INTRO**. The indicator lights up.
3. Start the rhythm (press **START/STOP**). You'll hear the drums start with the intro and continue on to the **8 BEAT**. After the intro, the indicator light goes out.

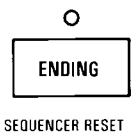


As a fill-in:

1. Select **8 BEAT**.
2. Press **START/STOP** to start the rhythm.
3. Whenever you want the "drummer" to "fill-in", press **FILL IN & INTRO**—the fill-in is immediately played for one measure, after which the **8 BEAT** rhythm resumes.



ENDING



If this button is pressed at the end of a rhythm tune, the ending pattern will sound, and then the rhythm will stop.

- The ending patterns for the bass and chords of the **AUTO PLAY CHORD** (explained later) are also produced by pressing this button.

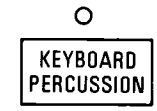
ONE TOUCH PLAY

If this button is pressed, the appropriate voice and effect registration for the rhythm chosen are automatically set. Therefore, immediate play is possible if a rhythm is selected and this button is pressed for several seconds until the panel indication changes.

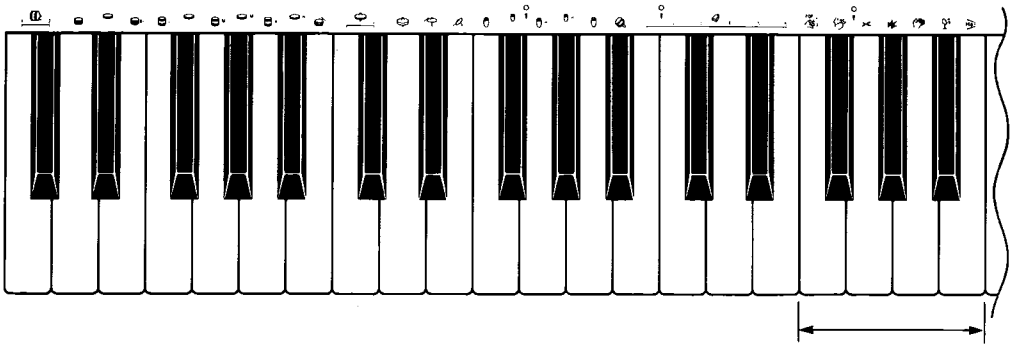
⑬ Keyboard Percussion

Press the **KEYBOARD PERCUSSION** button on to turn your keyboard into a whole band of percussive instruments and other special sounds.

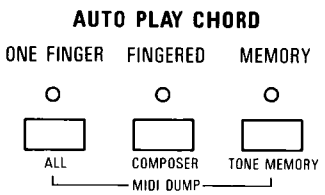
- Up to four instruments can sound at the same time.
- On the AX5/AX7, Touch Response functions for the **KEYBOARD PERCUSSION** sounds.
- When **KEYBOARD PERCUSSION** is turned on, the voices selected by the **CONDUCTOR** are not available. When the keyboard percussion is used, the rhythm (if on) changes to a hi-hat and bass drum sound only. The normal rhythm sound resumes when the **KEYBOARD PERCUSSION** is turned off.
- The volume of the **KEYBOARD PERCUSSION** section is controlled by the **DRUMS** buttons of the **BALANCE** section.



<Percussive keyboard>



⑭ Auto Play Chord



Simply by playing a chord on the keyboard, the **AUTO PLAY CHORD** function automatically plays the chord (**ACCOMP**) and bass (**BASS**) matched to the rhythm.

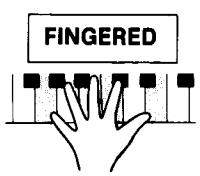
The keyboard is automatically split; the left keyboard is used to determine the chords, and the right keyboard is used to play the melody.

- If **BASS** only was selected by the **CONDUCTOR**, when the keyboard is automatically split the right part produces **POLY** voices.

■ **With rhythm stopped:** The **ACCOMP** and **BASS** of the specified chord sound.
The voices become those selected when storing the **ACCOMP** and **BASS** parts of the **SEQUENCER** (explained later) or the **BASS** voice you selected when **BASS** was specified with the **CONDUCTOR** buttons.
■ **With rhythm started:** The **ACCOMP** and **BASS** of the specified chord become the automatic accompaniment in voices matching the rhythm.

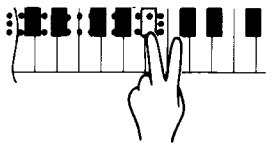
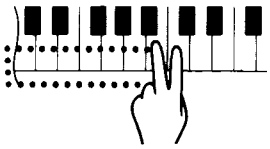
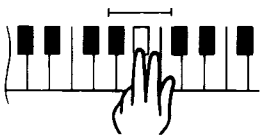
Choose from two modes by pressing either the **ONE FINGER** button or the **FINGERED** button.

When only one key on the left section of the keyboard is pressed, the major chord and bass note of the depressed root note sound as the automatic accompaniment.



When a chord is played on the left keyboard, the chord and its bass note become the automatic accompaniment.

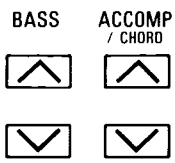
With the **ONE FINGER** mode, when one key is pressed, the major chord sounds. However, minor, seventh and minor seventh chords can also be produced.

minor chord	seventh chord	minor seventh chord
Play the chord key plus a black key to the left of it.	Play the chord key plus a white key to the left of it.	Play the chord key plus one black key and one white key to the left of it (within five notes of the chord key).
Example: Cm 	Example: C7 	Example: Cm7 

- In the **ONE FINGER** mode, the [L] **POLY** button of the **CONDUCTOR** turns off automatically and cannot be selected.

If the **MEMORY** button is pressed on when you are using the **ONE FINGER** or **FINGERED** mode, even if you release the keys, the chord and bass continue to play until you play another chord or stop the rhythm.

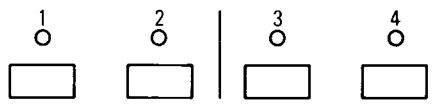
Adjust the **BASS** and **ACCOMP** volumes with their respective **BALANCE** buttons.



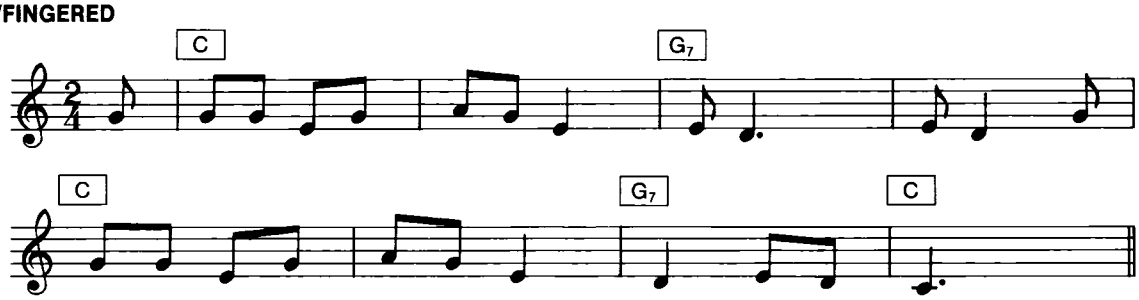
Four different accompanying patterns can be selected with the **RHYTHM VARIATION** buttons.

- The **1** and **3** buttons produce rhythmic patterns, and the **2** and **4** buttons produce melodic patterns.
- For the **MARCH/COUNTRY**, **WALTZ/JAZZ** and **TANGO/ RHUMBA** patterns, **RHYTHM VARIATION** buttons **3** and **4** produce **COUNTRY**, **JAZZ** and **RHUMBA** patterns, respectively.

RHYTHM VARIATION



MARCH/COUNTRY: VARIATION 4
ONE FINGER/FINGERED



■ **Chords that can be determined (FINGERED mode)**
For each note, the following chords can be determined.

C, C7, CM7, Caug, Cm, Cm7, Cdim7, Cm7$^{\flat 5}$, CmM7, C7sus4

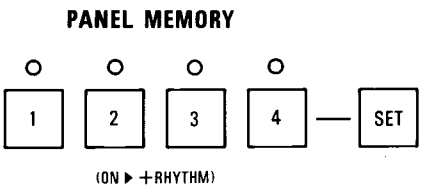
■ **About the break function**
When the **ONE FINGER** or **FINGERED** button is on and the **MEMORY** button is off, by pressing the **SYNCHRO & BREAK** button on, the rhythm sounds as long as the keys on the left keyboard are pressed. If the keys are released, the rhythm will stop. Press the keys again and the rhythm will start from the first beat.

ENGLISH

Part IV Storing the panel settings

⑮ Panel Memory (AX5/AX7)

Up to four combinations of **POLY/ACCOMP** and **SOLO/BASS** voices and **CHORUS** and **SUSTAIN** effects, and also the settings of the **BALANCE** controls, **CONDUCTOR**, **PORTAMENTO** and **DIGITAL REVERB** (AX7) can be stored in the **1~4** buttons of the **PANEL MEMORY**. During a performance, any one of the four stored settings is recalled at the touch of a finger!



1. Set up the voices and effects, etc.

2. With the **SET** button held down, press the **1** button of the **PANEL MEMORY**. When the indicator stops flashing, the current panel settings are stored in the **1** button.

Store different panel settings in the other three **PANEL MEMORY** number buttons by repeating these steps for each button.

To change the contents of a stored button, just set up the voices and effects, and then press **SET** and the desired **PANEL MEMORY** number button. The panel settings which were previously stored in that button are automatically replaced by the new settings.

The selected **PANEL MEMORY** button turns off when you change a setting on the panel.

- The panel settings of stored buttons such as voice **MEMORY** (explained in the following sections) can be stored in the **PANEL MEMORY**, but the memorized contents of these buttons cannot be stored.

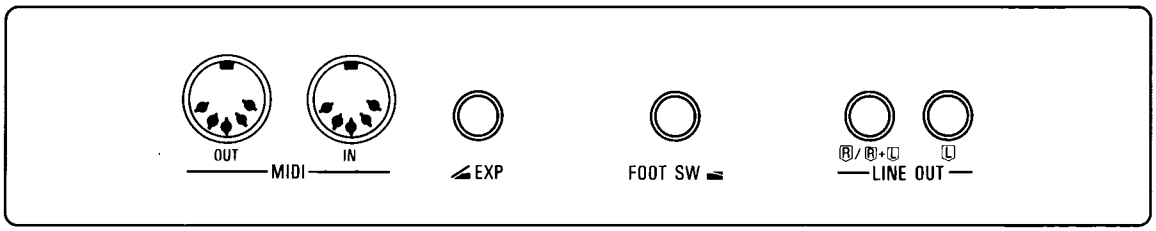
- It is also possible to store the settings of the **RHYTHM** section buttons. (Refer to ㉒.)

Options and connections

This page shows the optional accessories that are available for your Technics Synthesizer Keyboard. These can make your instrument more versatile and fun to play than it already is.

Also indicated are the many possible connections to the rear accessory panel.

■ AX3



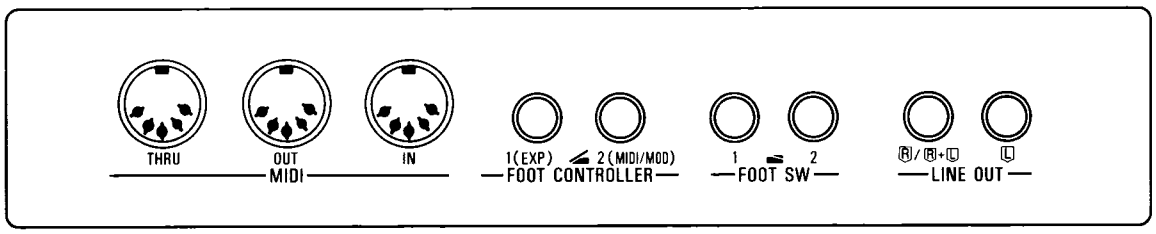
EXP
The SZ-E2 Expression Pedal allows you to control the volume (loudness) of all the keyboard voices, leaving your hands free to play.

FOOT SW
When an SZ-P1 Foot Switch is connected to this terminal, you can choose from among several functions to control by foot. (Refer to ㉒.)

LINE OUT
By plugging into the Technics Keyboard Amp or a high-power amplifier, the sound can be reproduced at high volume. (Use the **R/R+L** terminal when outputting monaural sound.)

PHONES (∩)
For silent practice headphones may be used. When plugged in, the speaker system is automatically switched off, and sound is heard only through the headphones.

■ AX5/AX7



FOOT CONTROLLER
1 (EXP)
The SZ-E2 Expression Pedal allows you to control the volume (loudness) of all the keyboard voices, leaving your hands free to play.

2 (MIDI/MOD)
The SZ-E2 Expression Pedal allows you to control the amount of modulation effect and the MIDI data. (Refer to ㉒ and the separate MIDI manual.)

FOOT SW 1, 2
When an SZ-P1 Foot Switch is connected to this terminal, you can choose from among several functions to control by foot. (Refer to ㉒.)

LINE OUT
By plugging into the Technics Keyboard Amp or a high-power amplifier, the sound can be reproduced at high volume. (Use the **R/R+L** terminal when outputting monaural sound.)

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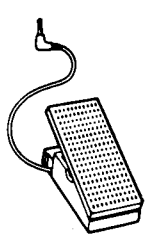
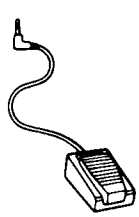
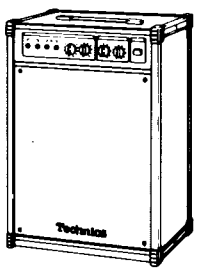


SZ-E2
Expression Pedal
(optional)



SZ-P1
Foot Switch
(optional)



SY-T15
Keyboard Amp
(optional)

SY-P5
Memory Card
(optional)

Cautions for Safest Use of This Unit

Installation location

1. **A well-ventilated place.**
   Take care not to use this unit in a place where it will not receive sufficient ventilation, and not to permit the ventilation holes to be covered by curtains, or any similar materials.

2. **Place away from direct sunlight and excessive heat from heating equipment.**

3. **A place where humidity, vibration and dust are minimized.**

Power source

1. **Be sure the line voltage selector is in accordance with local voltage in your area before connecting the plug to the socket.**

2. **DC power cannot be used.**

Handling the power cord

1. **Never touch the power cord, or its plug, with wet hands.**

2. **Don't pull the power cord.**

Metal items inside the unit may result in electric shock or damage.

Do not permit metal articles to get inside the unit.

Be especially careful with regard to this point if children are near this unit. They should be warned never to try to put anything inside.

If, nevertheless, some such article does get inside, disconnect the power cord plug from the electrical outlet, and contact the store where the unit was purchased.

If water gets into the unit . . .

Disconnect the power cord plug from the electrical outlet, and contact the store where it was purchased.

As a precaution, it is suggested that flower vases and other containers which hold liquids not be placed on the top of this unit.

If operation seems abnormal . . .

Immediately turn off the power, disconnect the power cord plug from the electrical outlet, and contact the store where it was purchased.

Discontinue using the unit at once. Failure to do so may result in additional damage or some other unexpected damage or accident.

A word about the power cord . . .

If the power cord is scarred, is partially cut or broken, or has a bad contact, it may cause a fire or serious electrical shock if used. NEVER use a damaged power cord for any appliance. Moreover, the power cord should never be forcibly bent.

Don't touch the inside parts of this unit.

Some places inside this unit have high voltage potential. Never try to remove the top or back panels of this unit, or to touch inside parts by hand or with tools.

Contact someone who is qualified in order to inspect the inside, or to replace a fuse, if such becomes necessary. Never attempt to do these things yourself.

Maintenance

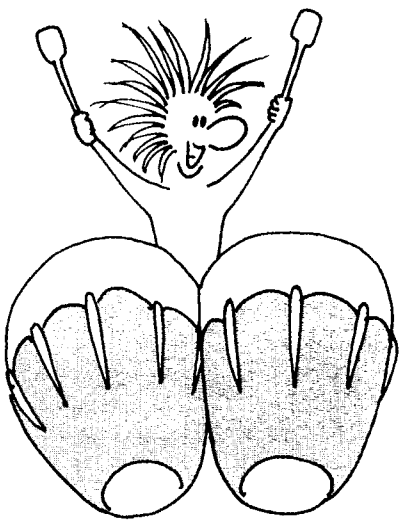
The following suggestions will assist you in keeping the unit in top condition.

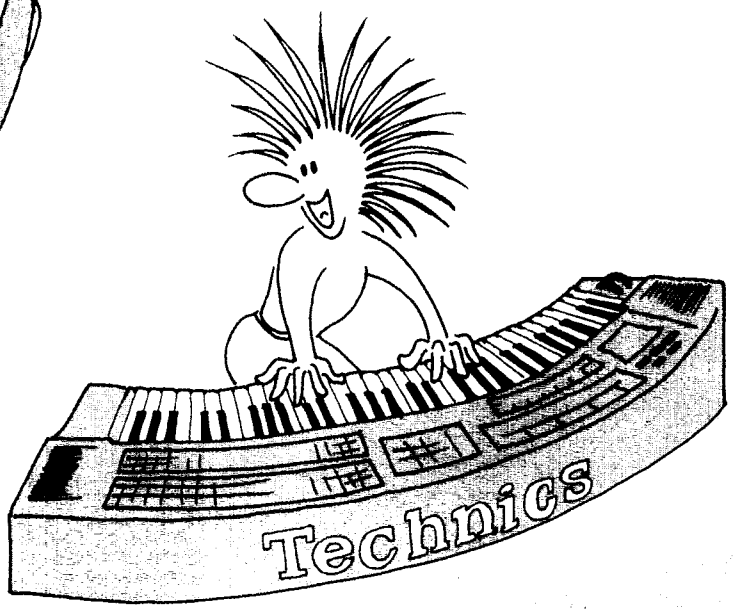
- Be sure to switch the instrument off after use, and do not switch the unit on and off in quick succession, as this places an undue load on the electronic components.

- To keep the luster of the keys and buttons, simply use a clean, damp cloth; polish with a soft, dry cloth. Polish may be used but do not use thinners or petro-chemical-based polishes.

- A wax-based polish may be used on the cabinet, although you will find that rubbing with a soft cloth will suffice.

SERVICE MUST BE CARRIED OUT BY DEALER OR OTHER QUALIFIED PERSON.




Technics

Specifications

			SX-AX3	SX-AX5	SX-AX7
KEYBOARD			61 KEYS	61 KEYS (TOUCH SENSITIVE KEYBOARD)	
CONDUCTOR				L BASS, POLY, R SOLO, POLY	
KEY SPLIT				○ (G2, C3, C4)	
NOTES & EFFECTS	PRESET	POLY/ACCOMP	PIANO, ELECTRIC PIANO, CLAVI, VIBRAPHONE, STEEL DRUM, GUITAR, JAZZ GUITAR, SOLID GUITAR, ORGAN, STRINGS, VOCAL, BRASS, TRUMPET, SYNTH BRASS, SPECIAL 1, 2	PIANO, ROCK PIANO, ELECTRIC PIANO 1, 2, CLAVI, HARPSICHORD, CHIME, VIBRAPHONE, XYLOPHONE, STEEL DRUM, PIZZICATO, GUITAR, JAZZ GUITAR, SOLID GUITAR, ROCK GUITAR, SHAMISEN, PIPE ORGAN, JAZZ ORGAN, THEATER ORGAN, STRINGS 1, 2, VOCAL, BRASS, TRUMPET, SYNTH BRASS, DIST BRASS, SAX, CLARINET, FLUTE, SPECIAL 1, 2, 3	
		SOLO	PIANO, ELECTRIC PIANO, GLOCKEN, ROCK GUITAR, TROMBONE, SAX, PAN FLUTE, SPECIAL	PIANO, ELECTRIC PIANO, CHIME, GLOCKEN, GUITAR, ROCK GUITAR, STRINGS, HUMMING, TROMBONE, SYNTH BRASS, SAX, FLUTE, PAN FLUTE, SPECIAL 1, 2, 3	
		BASS	ACOUSTIC, ELECTRIC, CHOPPER	STRINGS, ACOUSTIC, ELECTRIC 1, 2, CHOPPER 1, 2, SYNTH 1, 2	
	MEMORY	POLY	1~8	1~16	1~32
		SOLO	1~4	1~16	1~32
		BASS	1	1~8	
	SOUND EDIT	PCM ATTACK SOURCE	HAMMER 1, 2, PLUCK, METAL HIT, WOOD HIT, PICK 1, 2, SLAP, CLICK, LOOPING NOISE, BOWED ATTACK, LIPS 1, 2, BREATH, SPECIAL 1, 2 (SELECTOR...⊞ / ⊟ BUTTONS)		
			WITH 5 VARIATIONS EACH	WITH 10 VARIATIONS EACH	
		BODY SOURCE	PIANO, ELECTRIC PIANO, CLAVI, MALLET 1, 2, GUITAR 1, 2, ETHNIC, ORGAN, STRINGS, VOCAL, BRASS 1, 2, REED, FLUTE, SPECIAL (SELECTOR...⊞ / ⊟ BUTTONS)		
			WITH 5 VARIATIONS EACH	WITH 10 VARIATIONS EACH	
		PARAMETER	ATTACK (VARIATION, VOLUME), BODY (VARIATION, VOLUME), HARMONICS/TOTAL, BODY ENVELOPE (ATTACK, DECAY, SUSTAIN, RELEASE), HARMONICS/TOTAL, MODULATION (VARIATION, DEPTH, SPEED, DELAY), TREMOLO/VIBRATO, AUTO BEND, DETUNE, HARMONICS INTERVAL, MIDI VELOCITY SENSITIVITY, TOTAL VOLUME	ATTACK (VARIATION, VOLUME), BODY (VARIATION, VOLUME), HARMONICS/TOTAL, BODY ENVELOPE (ATTACK, DECAY, SUSTAIN, RELEASE), HARMONICS/TOTAL, MODULATION (VARIATION, DEPTH, SPEED, DELAY), TREMOLO/VIBRATO, AUTO BEND, DETUNE, HARMONICS INTERVAL, TOUCH SENSITIVITY, TOTAL VOLUME	
	EFFECT	CHORUS	○ (POLY, ACCOMP, SOLO)		
		SUSTAIN	○ (POLY, ACCOMP, SOLO, BASS)		
		DIGITAL REVERB	———		TYPE (HALL 1, 2, ROOM, ECHO), DEPTH
PORTAMENTO			○		
PITCH BEND WHEEL			○		
MODULATION WHEEL			○		
ONE TOUCH SYNTH			BRIGHT/MELLOW, MOD+/MOD−, COMPARE		
RHYTHM	SELECTOR		MARCH/COUNTRY, WALTZ/JAZZ, SWING, SHUFFLE, BALLAD, TANGO/RHUMBA, BOSSA NOVA, SAMBA, GUARACHA, SALSA, 8 BEAT, 16 BEAT, REGGAE, SWING ROCK, DISCO, ROCK 1, 2, 3, POP 1, 2		
	CONTROLS		ENDING, SYNCHRO & BREAK, START/STOP, FILL IN & INTRO, TEMPO/BEAT		
	RHYTHM VARIATION		1~4		
	KEYBOARD PERCUSSION		29 KEYS	36 KEYS	
AUTO PLAY CHORD			ONE FINGER, FINGERED, MEMORY		
ONE TOUCH PLAY			○		
PANEL MEMORY			———	1~4, SET	
COMPOSER			———	1~8, RECORD, STEP TIME, DRUMS, BASS, ACCOMP, LEVEL (1~4), INST CANCEL, TIE, TOUCH, PART CLEAR, TRIPLET	1~12, RECORD, STEP TIME, DRUMS, BASS, ACCOMP, LEVEL (1~4), INST CANCEL, TIE, TOUCH, PART CLEAR, TRIPLET
SEQUENCER			RECORD, EDIT, STEP RECORD, ACCOMP/CHORD, DRUMS & CONTROL, KEYBOARD... 𝅝 𝅗𝅥 ♩ ♪ 𝅘𝅥𝅯 𝄢 — 𝄋 𝄐 SEQUENCER RESET	RECORD, STEP TIME, DRUMS & CONTROL, BASS, ACCOMP/CHORD, POLY, SOLO, KEYBOARD... 𝅝 𝅗𝅥 ♩ ♪ 𝅘𝅥𝅯 𝄢 — 𝄋 𝄐 SEQUENCER RESET	
MEMORY CARD			———	LOAD, SAVE	
BALANCE			DRUMS, BASS, ACCOMP, POLY, SOLO		
TRANSPOSE			UP, DOWN		
MUSICAL DISPLAY			○	○	
MODE SET	MIDI		KEY NOTE ONLY, ENABLE/DISABLE (VELOCITY, PROGRAM CHANGE, PITCH BEND, MODULATION, BALANCE, EXPRESSION), MIDI CLOCK, MIDI KEY ASSIGN (SINGLE, MULTI), TRANSPOSE OUT, APC OUT, INITIALIZE, LOCAL CONTROL (SEQUENCER TO EXT, MANUAL TO EXT, BOTH TO EXT, ALL OFF=NORMAL), MIDI DUMP (ALL, TONE MEMORY) OCTAVE −2~+2	KEY NOTE ONLY, ENABLE/DISABLE (VELOCITY, P CHANGE, PITCH BEND, MODULATION, BALANCE, EXPRESSION), MIDI CLOCK, MIDI KEY ASSIGN (SINGLE, MULTI), TRANSPOSE OUT, APC OUT, PANEL MEMORY=P CHANGE, LOCAL CONTROL (SEQUENCER TO EXT, MANUAL TO EXT, BOTH TO EXT, ALL OFF=NORMAL), MIDI DUMP (ALL, COMPOSER, TONE MEMORY), OCTAVE −2~+2, SONG SELECT	
	FUNCTIONS		BASIC CH & TUNE, PITCH BEND RANGE, PORTAMENTO TIME, FOOT SW (SUSTAIN, PORTAMENTO, ENDING, START/STOP, FILL IN), SEQUENCER RESET MODE ▶ ACCOMP − POLY	BASIC CH & TUNE, PITCH BEND RANGE, PORTAMENTO TIME, FOOT CONTROLLER 2 (MIDI CH & CONTROL NO., MODULATION), FOOT SW 1, 2 (SUSTAIN, PORTAMENTO, ENDING, START/STOP, FILL IN), INITIALIZE, MEMORY PROTECT, SEQUENCER RESET, MODE ▶ ACCOMP − POLY, ON ▶ + RHYTHM	
OTHERS			MAIN VOLUME, POWER SWITCH	MAIN VOLUME, POWER SWITCH, MEMORY CARD SLOT	
TERMINALS			HEADPHONE JACK, LINE OUT (R/R+L, L), PEDAL IN JACKS (FOOT SWITCH, EXPRESSION), MIDI TERMINALS (IN, OUT), AC CORD INPUT	HEADPHONE JACK, MEMORY CARD SLOT, LINE OUT (R/R+L, L), PEDAL IN JACKS (FOOT SWITCH 1, 2, FOOT CONTROLLER 1, 2), MIDI TERMINALS (IN, OUT THRU), AC CORD INPUT	
OUTPUT			5W × 2	10W × 2	
SPEAKERS			12 cm (4-23/32") × 2	9 cm (3-17/32") × 1, 12 cm (4-23/32") × 1	
POWER REQUIREMENT			55W		
			AC 120V, 60 Hz (NORTH AMERICA)	AC 120/220/240V, 50/60 Hz	
DIMENSIONS (W×H×D)			103.5cm × 13.2cm × 35.6cm (40-3/4" × 5-3/16" × 14-1/32")		
NET WEIGHT			10.5kg (23.1 lbs.)	11.1kg (24.5 lbs.)	11.3kg (24.9 lbs.)
ACCESSORIES			MUSIC RACK, DUST COVER, AC CORD		

PRELIMINARY

Technics

SX-AX3
SX-AX5
SX-AX7

Vol. 2

Technics

OWNER'S MANUAL
INSTRUCCIONES DE MANEJO
INSTRUCTIONS D'EMPLOI

Vol. 2

PRACTICAL APPLICATIONS

It is advised that you be familiar with the functions described up to this point and can set voices, effects and rhythms smoothly before you attempt to use the functions explained in the following sections.

This volume describes the storage functions incorporated in your Technics Synthesizer Keyboard, including how to use the **SOUND EDIT** to create your new sounds also **COMPOSER** for original rhythm pattern creation and recording your performance with the **SEQUENCER**.

APPLICATIONS

Nous vous suggérons d'acquérir une bonne connaissance de ce qui précède et d'avoir une capacité de régler les voix, les effets et les rythmes avant de tenter d'employer les fonctions qui sont expliquées dans les pages qui suivent.

Ce tome traite des fonctions de mémorisation dont est pourvu Synthesizer Keyboard Technics et explique comment manipluer **SOUND EDIT** pour la création de sons tout nouveaux aussi que **COMPOSER** pour les motifs de rythme originals et comment enregistrer vos exécutions dans **SEQUENCER**.

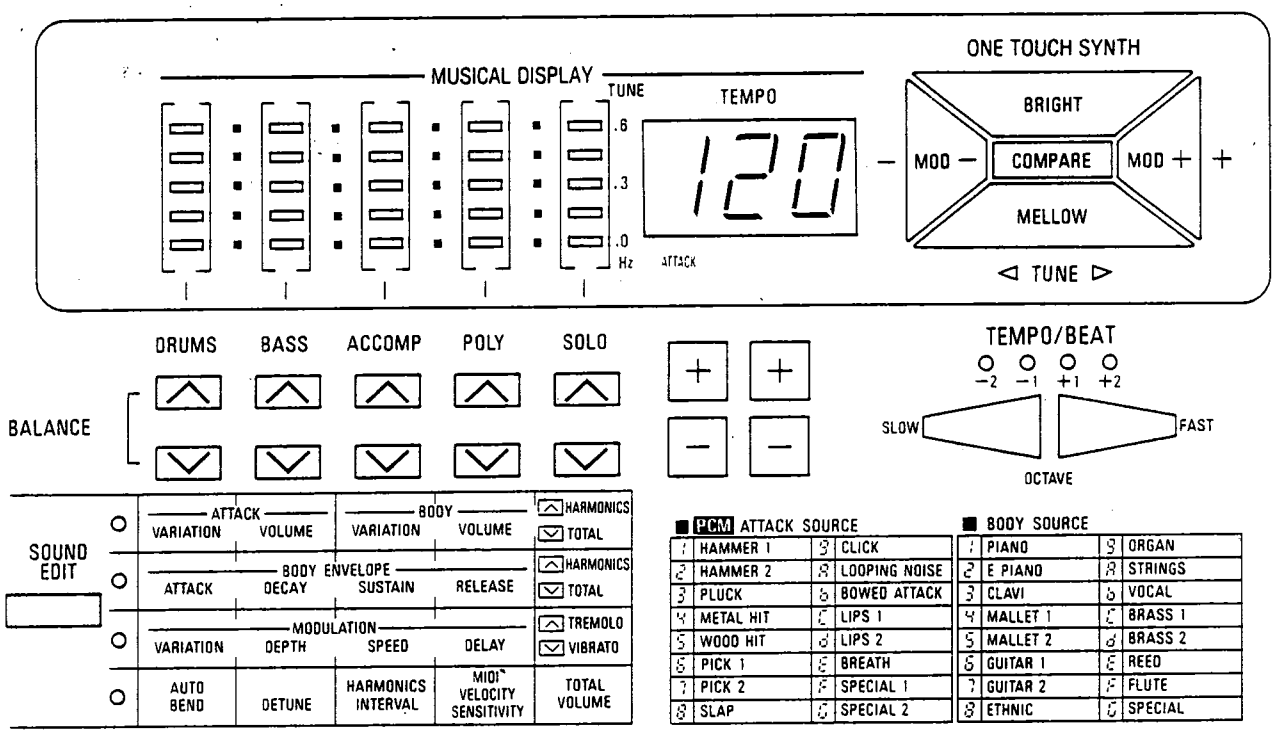
APLICACIONES

Le recomendamos que se familiarice con las funciones descriptas hasta aquí lo suficiente como para fijar con habilidad tonos, efectos y ritmos antes de tratar de utilizar las funciones que se explican en las secciones siguientes.

Esto tomo describe las funciones de almacenamiento incorporadas en el Synthesizer Keyboard Technics, inclusive cómo usar el **SOUND EDIT** para crear tonos nuevos, el **COMPOSER** para patrones originales de ritmo y cómo grabar su interpretación con el **SEQUENCER**.

Part V Synthesizer functions

⑯ Sound Edit



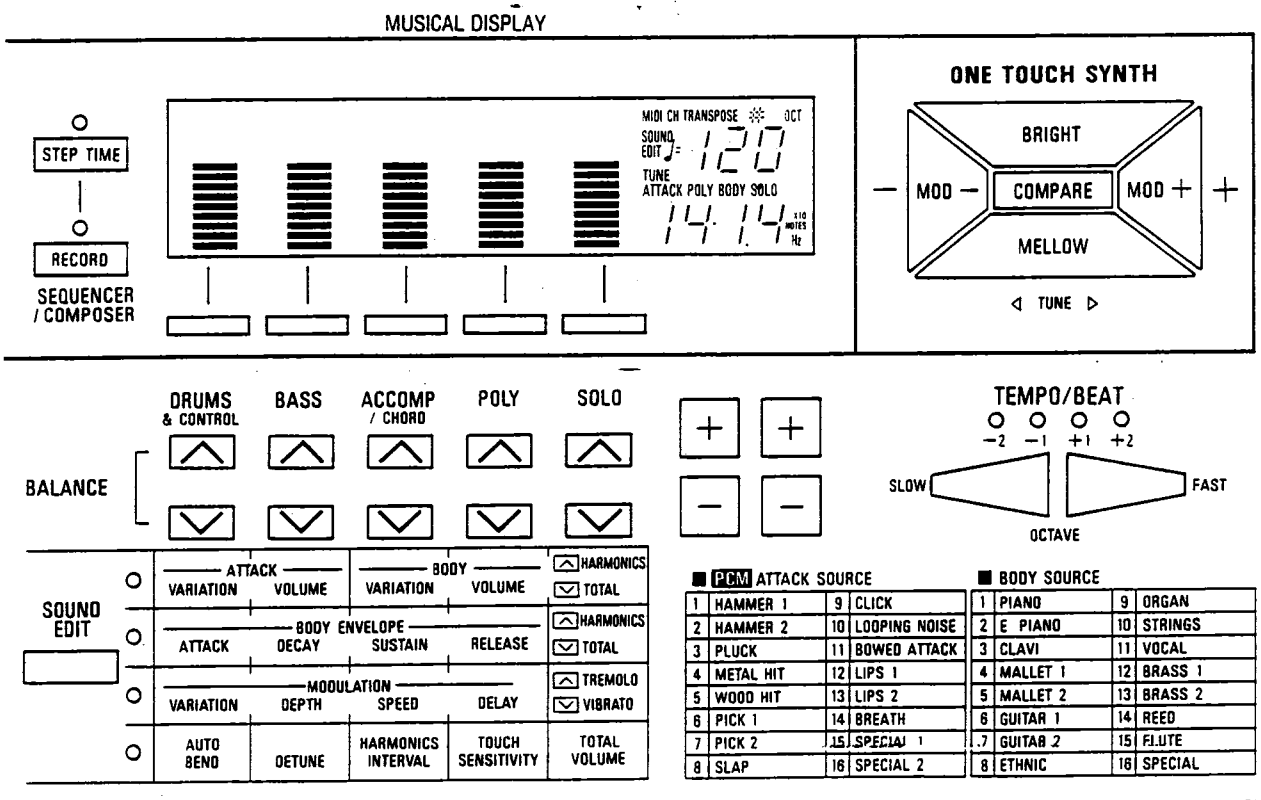
■ PCM ATTACK SOURCE

1	HAMMER 1	9	CLICK
2	HAMMER 2	A	LOOPING NOISE
3	PLUCK	B	BOWED ATTACK
4	METAL HIT	C	LIPS 1
5	WOOD HIT	D	LIPS 2
6	PICK 1	E	BREATH
7	PICK 2	F	SPECIAL 1
8	SLAP	G	SPECIAL 2

■ BODY SOURCE

1	PIANO	9	ORGAN
2	E PIANO	A	STRINGS
3	CLAVI	B	VOCAL
4	MALLET 1	C	BRASS 1
5	MALLET 2	D	BRASS 2
6	GUITAR 1	E	REED
7	GUITAR 2	F	FLUTE
8	ETHNIC	G	SPECIAL

(AX3)



■ PCM ATTACK SOURCE

1	HAMMER 1	9	CLICK
2	HAMMER 2	10	LOOPING NOISE
3	PLUCK	11	BOWED ATTACK
4	METAL HIT	12	LIPS 1
5	WOOD HIT	13	LIPS 2
6	PICK 1	14	BREATH
7	PICK 2	15	SPECIAL 1
8	SLAP	16	SPECIAL 2

■ BODY SOURCE

1	PIANO	9	ORGAN
2	E PIANO	10	STRINGS
3	CLAVI	11	VOCAL
4	MALLET 1	12	BRASS 1
5	MALLET 2	13	BRASS 2
6	GUITAR 1	14	REED
7	GUITAR 2	15	FLUTE
8	ETHNIC	16	SPECIAL

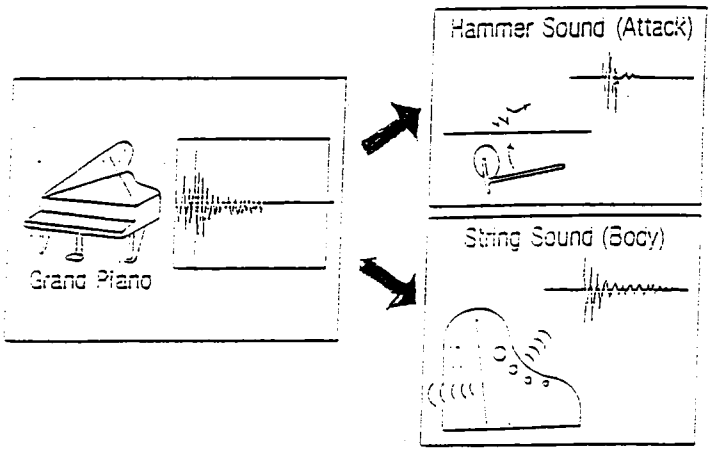
(AX5/AX7)

SOUND EDIT is an easy but versatile synthesizer function by which you use a preset **POLY**, **SOLO** or **BASS** voice as a base, combine waveforms of different sound sources, modify the various parameters of each sound component, and create a totally new sound which can be stored in a **MEMORY** button.

How sounds are synthesized

With this instrument, the sounds of a piano, for example, are made by extracting the elements of acoustic piano sound and synthesizing the two sound source waveforms as shown in the figure.

The two elements of instrument sound can be compared to vowels and consonants of speech which are put together in various combinations to form spoken language.



How SOUND EDIT works

Acoustic instrument sound has been broken down into 16 types of **PCM ATTACK SOURCE** and 16 types of **BODY SOURCE** and stored separately. You then mix the attack and body sources in any desired combination and modify various parameters to create a new sound.

Depending on how the attack source and body source are combined, you can create sounds such as a piano hammer striking a horn, or a violin bow drawn across piano strings.

Each of the 16 PCM attack sources and 16 body sources has 10 variations to choose from, giving you a total of 160 different sounds for each. (On the AX3, there are 5 variations to choose from.)

How to create a new sound

Here is an outline of the easy steps to making a new sound.

I. Select a **POLY**, **SOLO** or **BASS** voice for a base.

II. Enter the **SOUND EDIT** mode.

III. Select a **PCM ATTACK SOURCE** and a **BODY SOURCE**.

IV. Edit the parameters.

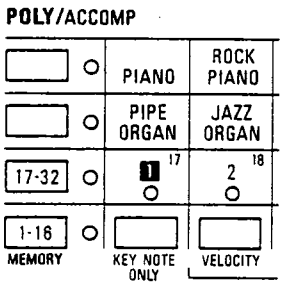
V. Store the new sound in a **MEMORY** button.

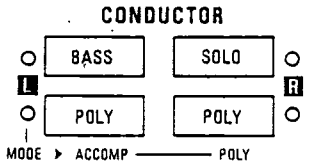
Procedure

I. Select a voice to use as a base for the new sound

1. Decide which voice you are going to use and then press the respective buttons in the **CONDUCTOR** and **POLY**, **SOLO** or **BASS** sections. (For example, select [R] **POLY** from the **CONDUCTOR** and the **PIANO 1** voice in the **POLY/ACCOMP** section.)

- You may also change your **CONDUCTOR** or voice selections after entering the **SOUND EDIT** mode.
- Of course, you may use an organ voice as a base to create a piano voice; but it is easier to use a preset voice which is similar to the one you want to make.





II. Change to the edit mode

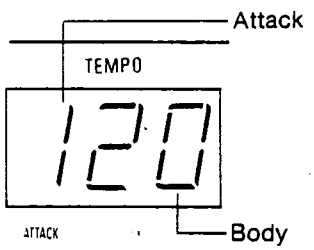
2. Press the **SOUND EDIT** button to enter the edit mode.

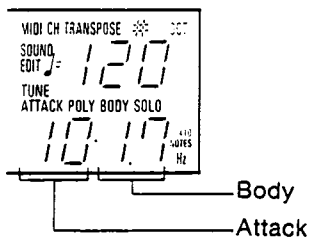
- The Synthesizer Keyboard is in the edit mode when one of the four **SOUND EDIT** indicators button is flashing.

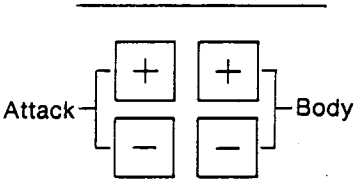
III. Select a PCM ATTACK SOURCE and a BODY SOURCE

3. Use the [+] and [−] buttons to select a **PCM ATTACK SOURCE** and a **BODY SOURCE**, if desired.

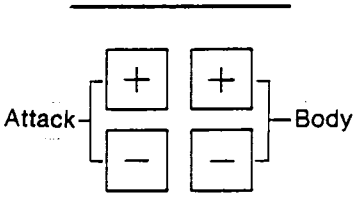
- At this time confirm that the indicators for the **SOLO** button on the **MUSICAL DISPLAY** are all off. If they are all on, press the [▽] button for **SOLO** to turn the indicators off.







(AX3)



(AX5/AX7)

■ PCM ATTACK SOURCE / ■ BODY SOURCE

1	HAMMER 1	9	CLICK	1	PIANO	9	ORGAN
2	HAMMER 2	A	LOOPING NOISE	2	E PIANO	A	STRINGS
3	PLUCK	b	BOWED ATTACK	3	CLAVI	b	VOCAL
4	METAL HIT	C	LIPS 1	4	MALLET 1	C	BRASS 1
5	WOOD HIT	d	LIPS 2	5	MALLET 2	d	BRASS 2
6	PICK 1	E	BREATH	6	GUITAR 1	E	REED
7	PICK 2	F	SPECIAL 1	7	GUITAR 2	F	FLUTE
8	SLAP	G	SPECIAL 2	8	ETHNIC	G	SPECIAL

(AX3)

■ PCM ATTACK SOURCE / ■ BODY SOURCE

1	HAMMER 1	9	CLICK	1	PIANO	9	ORGAN
2	HAMMER 2	10	LOOPING NOISE	2	E PIANO	10	STRINGS
3	PLUCK	11	BOWED ATTACK	3	CLAVI	11	VOCAL
4	METAL HIT	12	LIPS 1	4	MALLET 1	12	BRASS 1
5	WOOD HIT	13	LIPS 2	5	MALLET 2	13	BRASS 2
6	PICK 1	14	BREATH	6	GUITAR 1	14	REED
7	PICK 2	15	SPECIAL 1	7	GUITAR 2	15	FLUTE
8	SLAP	16	SPECIAL 2	8	ETHNIC	16	SPECIAL

(AX5/AX7)

- The numbers or codes of the selected sources are shown on the **MUSICAL DISPLAY**.

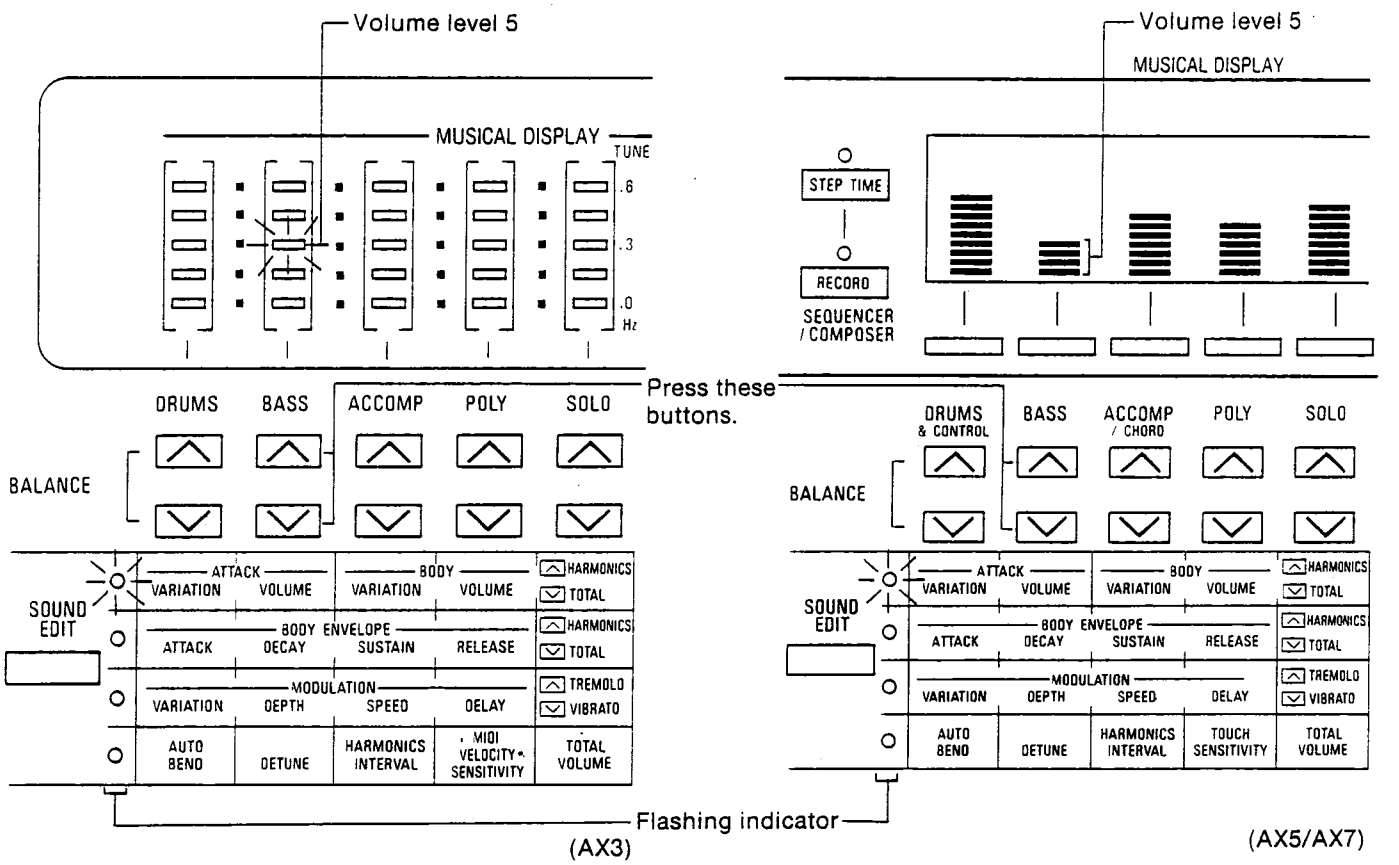
IV. Edit the parameters

Now you can edit the parameters in the row indicated by the flashing **SOUND EDIT** indicator. Each time the **SOUND EDIT** button is pressed, the flashing indicator moves to the next row of parameters.

To change each parameter, use the ▲ and ▼ **BALANCE** buttons directly above it. The level indicator changes in ten steps (off included) as the ▲ and ▼ buttons are pressed.

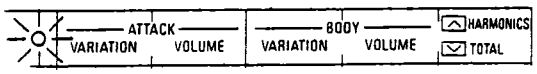
- On the AX3, there are five variations for each **PCM ATTACK SOURCE** and **BODY SOURCE**.
- The ▲ and ▼ buttons for **HARMONICS/TOTAL** are used to select either **HARMONICS** or **TOTAL**; the buttons for **TREMOLO/VIBRATO** work the same way.

The example here shows how to set the **ATTACK VOLUME**.



First row parameters

The **SOUND EDIT** indicator for the first row of parameters is flashing.



4. ATTACK VARIATION
Choose one of the 10 waveform and pitch variations (5 variations on the AX3) for the **PCM ATTACK SOURCE** which you selected in step **3** above.
- Refer to the separate sheet for details on the contents of the variations for each **PCM ATTACK SOURCE** selection.

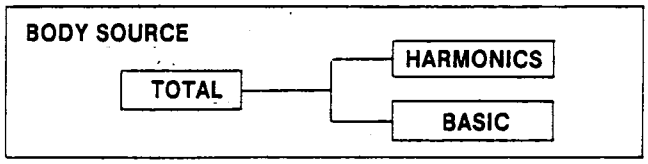
5. ATTACK VOLUME
Set the volume of the selected **PCM ATTACK SOURCE.**
- Select from 10 volume levels.
- When set to the minimum level, the **PCM ATTACK SOURCE** sound is not produced.

6. BODY VARIATION
Choose one of the 10 waveform variations (5 variations on the AX3) for the **BODY SOURCE** which you selected in step **3** above.
- Refer to the separate sheet for details on the contents of the variations for each **BODY SOURCE** selection.

7. BODY VOLUME
Set the volume of the selected **BODY SOURCE.**
- Select from 10 volume levels.
- When set to the minimum level, the **BODY SOURCE** sound is not produced.

8. **TOTAL/HARMONICS**
The **BODY SOURCE** is comprised of the waveform of the low-frequency component (what we shall call the basic component) and the waveform of the high-frequency component (or harmonics). With the Synthesizer Keyboard you can select a basic waveform and a harmonics waveform from different sources, for example, a piano waveform for the basic **BODY SOURCE** and a clavichord waveform for the harmonics **BODY SOURCE.**

- When **HARMONICS** is selected



When you select a **BODY SOURCE** (step III. above) and a **BODY VARIATON** (step IV. 6. above) with the **TOTAL/HARMONICS** indication in the **MUSICAL DISPLAY** off, the same **BODY SOURCE** and **BODY VARIATION** are selected for both the basic and harmonics components.

For example, by selecting **9 ORGAN** as the body source, you are selecting it for both the basic and harmonics components of the body source.

HARMONICS BODY SOURCE
If you wish to use a different body source for the harmonics component, press the ⊿ **HARMONICS** button. Now press the right ⊞ and ⊟ buttons to select the body source. For example, press the ⊞ button twice; the basic body source is still **9 ORGAN**, and the harmonics body source is set to **11 VOCAL.**

- If the ▽ **TOTAL** button is pressed and a different body source is then selected, the same body source is again set for both the basic and harmonics components. Therefore, if you wish to select a different body source for each component, be sure to set the **TOTAL** body source first, and then the **HARMONICS** body source.

HARMONICS BODY VARIATION
If you wish to select a different variation for the harmonics component of the body source, press the ⊿ **HARMONICS** button, and the **HARMONICS/TOTAL** level indicator shows the maximum setting. Now use the **VARIATION** ⊿ and ▽ buttons to select a variation for the harmonics component only.

- If the ▽ **TOTAL** button is pressed and a variation selection is then made, the same variation is again selected for both the basic and harmonics components of the body source. Therefore, to select a different variation for each component, be sure to set the **TOTAL** variation first, and then the **HARMONICS** variation.

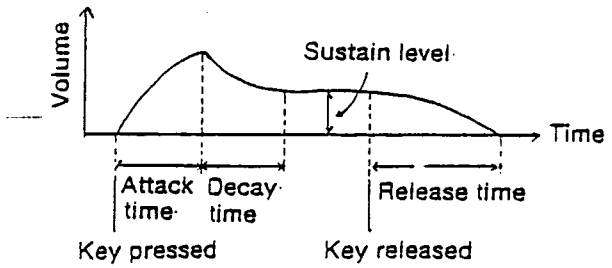
HARMONICS BODY VOLUME
You may use the **VOLUME** ⊿ and ▽ buttons to change the ratio of the harmonics volume to total volume. The higher value of the harmonics component volume, the more prominent it will be, resulting in an overall brighter sound.

Second row parameters

Press the **SOUND EDIT** button so that the indicator for the second row of parameters is flashing.

This row of parameters allows you to set the time and level of each element of the body source envelope. Furthermore, the parameters for the total body source envelope and the harmonics body source envelope are set separately.

■ **Components of the envelope**
"Envelope" is used to express the simulation of a sound from the time a key is pressed on the keyboard until the key is released and the sound dies out.



Note: With the **SOUND EDIT** function, you are not actually creating completely new envelope parameters, but rather modifying the envelope values of the selected base sound. At this time confirm that the **TOTAL/HARMONICS** indication in the **MUSICAL DISPLAY** is off (**TOTAL**).

9. **ATTACK**
"Attack time" is the time elapsed from when a key is pressed on the keyboard to when the sound reaches its highest level. When the attack is set to a low value, the sound reaches its maximum level very quickly. When the attack is set to a higher value, the sound starts up slowly.

10. **DECAY**
"Decay time" is the time elapsed from when the sound reaches its highest level to when the sound decreases to its sustain level. When the decay time is set to a higher value, the sound level decreases slowly.

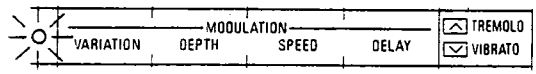
11. **SUSTAIN**
Sustain level is described as the level of sound which is maintained as long as the key remains pressed. When sustain level is set to a high value, the sound level is high. In a piano, or similar instrument in the which sound dies out naturally even when a key remains pressed, the value would be 0.

12. **RELEASE**
Release is the time elapsed from when the key is released to when the sound is no longer audible. When the release time is set to a high value, the sound dies out very slowly.

13. **TOTAL/HARMONICS**
Now press the ⊿ button to select the harmonics body source envelope. Set the attack time, decay time, sustain level and release time for the harmonics envelope only by repeating steps **9~12** above.

Third row parameters

Press the **SOUND EDIT** button so that the indicator for the third row of parameters is flashing.



This row is to adjust the modulation parameters of the vibrato and tremolo effects.

14. VIBRATO
Set the effects of **VIBRATO** when the **VIBRATO/TREMOLO** indication in the **MUSICAL DISPLAY** is off.

15. VARIATION
Select the modulation waveform. When the value is set to 0, the effect is off.
- Refer to the separate sheet for details on the relationship between the set value and the waveform.

16. DEPTH
Set the depth of the effect. The higher the value, the greater the depth.

17. SPEED
Set the speed of the effect. The higher the value, the faster the modulation.

18. DELAY
Delay is the time elapsed from when the key is pressed on the keyboard to when the effect is applied to the sound. The higher the value of the delay time, the longer it takes after the key is pressed before the effect is applied to the sound. When the value is set to 0, the sound is modulated immediately when the key is pressed.

19. TREMOLO
Now press the ⩒ button to select the **TREMOLO** effect. Set the variation, depth, speed and delay for the tremolo effect by repeating steps **15~18** above.

Fourth row parameters

Press the **SOUND EDIT** button so that the indicator for the fourth row of parameters is flashing.

(AX3)

(AX5/AX7)

20. AUTO BEND
Set the type (waveform) of the pitch bend applied when a key is pressed on the keyboard. When the value is set to 0, the pitch bend effect is off.
- Refer to the separate sheet for details on the relationship between the set value and the waveform.

21. DETUNE
The body source sound is comprised of the waveform of the low-frequency component and waveform of the high-frequency component. By shifting the two pitches slightly, the detune effect is obtained.
The higher the set value, the greater the pitch difference. When the value is set to 0, the detune effect is off.

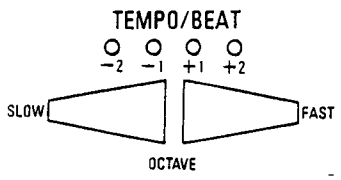
22. HARMONICS INTERVAL
Set the difference between the waveforms of the low-frequency component and high-frequency component of the body source increments.
When the value is set to 3, the difference between the two waveforms is 0.

23. MIDI VELOCITY SENSITIVITY (AX3)
Set the sensitivity to velocity data (keyboard touch response) when receiving MIDI data. When the value is set to zero, the volume does not change in response to the received velocity data.

24. TOUCH SENSITIVITY (AX5/AX7)
Set the range of touch response. When the value is set to zero, touch response is off.
- The sensitivity to velocity data during reception of MIDI data is also set simultaneously.

25. TOTAL VOLUME
Adjust the volume of the voice which you created using the **SOUND EDIT** feature so that it is in balance with the other preset voices.

26. OCTAVE
The **OCTAVE** buttons can be used to set the octave of the tone color within a range of −2~+2.
The octave becomes higher when the right button is pressed, and lower when the left button is pressed.
- The set value appears in the **MUSICAL DISPLAY**.



V. Store in a MEMORY button

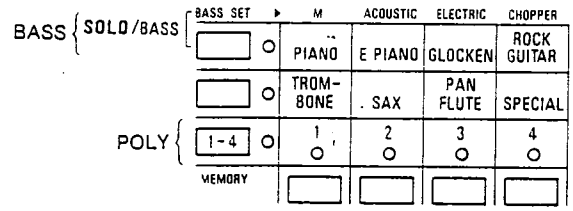
Now you are ready store the voice which you modified using the above procedures in a **MEMORY** button.

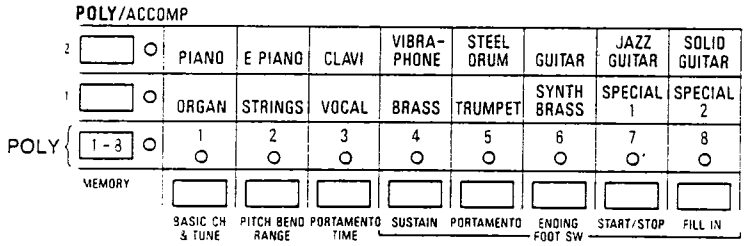
27. While pressing the **MEMORY** button, press the number button in which you wish to store the edited voice (AX3: 1~8; AX5/AX7: 1~16). The **SOUND EDIT** button turns off automatically and the edit procedure is completed.

When storing in the **BASS** voice section, while pressing the topmost **MEMORY** button, press the desired number button (AX3: 1; AX5/AX7: 1~8).

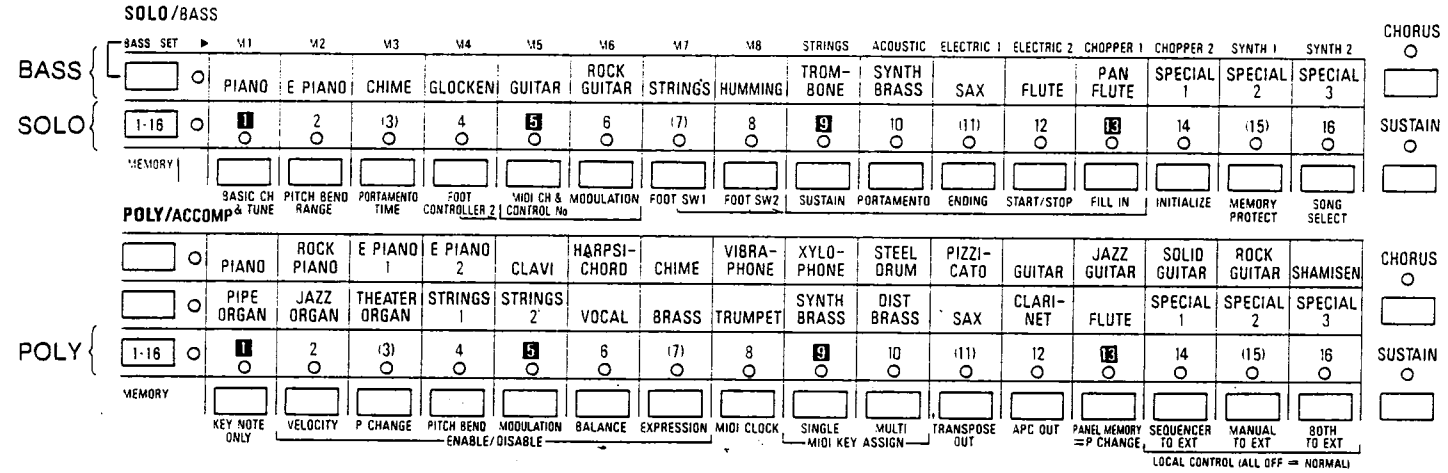
■ **Memory buttons per part**

Part	AX3	AX5	AX7
SOLO	4	16	32
POLY/ACCOMP	8	16	32
BASS	1	8	8

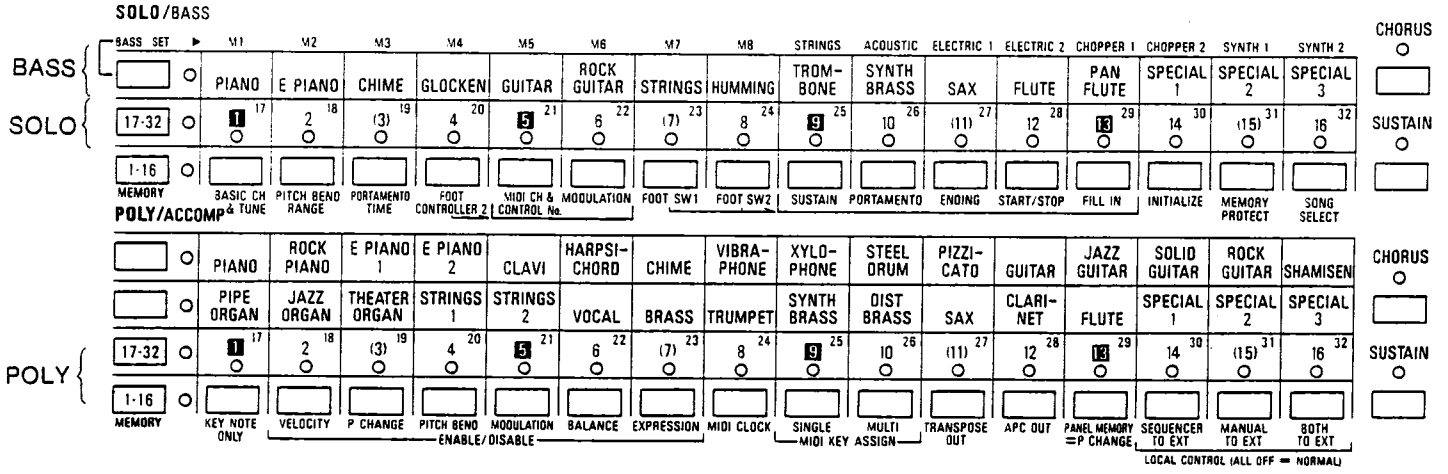




(AX3)



(AX5)



(AX7)

- You can store the edited voice in a **MEMORY** button of a voice group other than that from which the preset voice was selected. For example, you could select the **PAN FLUTE** voice from the **SOLO** voice group, modify it and then store it in a **MEMORY** button in the **POLY** voice group. The voice takes on the characteristics of a **POLY** voice.

- For voices stored in the **MEMORY** buttons in the **SOLO** or **BASS** section, the tremolo effect does not function even if tremolo parameters were set.

⑰ One Touch Synth

In addition to creating new sounds by modifying each individual parameter using the buttons in the **SOUND EDIT** section, an even easier way of modifying and storing voices is to use the **ONE TOUCH SYNTH** feature.

Here are the simple steps to **ONE TOUCH SYNTH** editing:

I. Select a **POLY**, **SOLO** or **BASS** voice for a base.

▼

II. Enter the **SOUND EDIT** mode.

▼

III. Select a **PCM ATTACK SOURCE** and a **BODY SOURCE**.

▼

IV. Modify the voice and effects with the **ONE TOUCH SYNTH** button.

▼

V. Store the new sound in a **MEMORY** button.

Procedure

I. Select a voice to use as a base for the new sound

1. Decide which voice you are going to use and then press the respective buttons in the **CONDUCTOR** and **POLY**, **SOLO** or **BASS** sections.

II. Change to the edit mode

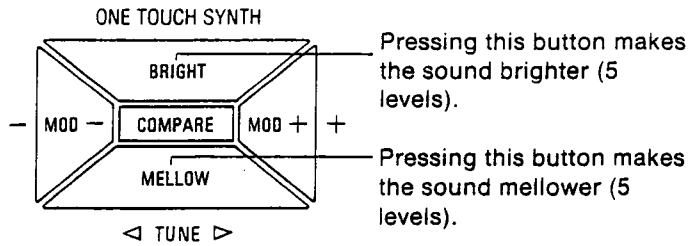
2. Press the **SOUND EDIT** button to enter the edit mode.

III. Select a PCM ATTACK SOURCE and a BODY SOURCE

3. Use the ⊞ and ⊟ buttons to select a **PCM ATTACK SOURCE** and a **BODY SOURCE**, if desired.

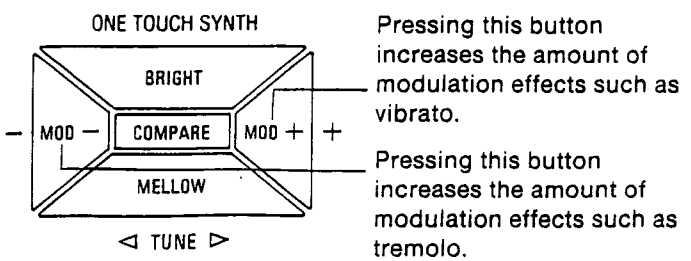
IV. Modify the sound with the ONE TOUCH SYNTH button

4. Adjust the brightness of the sound with the **BRIGHT** and **MELLOW** buttons.



- Pressing the **BRIGHT** and **MELLOW** buttons to modify the sound causes some of the first row and second row parameters of the **SOUND EDIT** to change.

5. Adjust the amount of effect with the **MOD+** and **MOD−** buttons.



- Pressing the **MOD+** and **MOD−** buttons to modify the sound causes some of the third row and fourth row parameters of the **SOUND EDIT** to change.

About the COMPARE button
The **COMPARE** button allows you to compare the voice you are editing to the original voice you selected.

While you are in the process of editing (steps **4** and **5**), press the **COMPARE** button once to turn it on and you can hear the preset voice you selected in step **1**. Note that when you select the **COMPARE** mode, the **MUSICAL DISPLAY** flashes and the **SOUND EDIT** and **ONE TOUCH SYNTH** buttons do not function.

Press the **COMPARE** button again to turn it off and continue editing.

V. Store in a MEMORY button

Store the edited voice in a **MEMORY** button.

6. While pressing the **MEMORY** button, press the number button in which you wish to store the edited voice. The **SOUND EDIT** button turns off automatically and the edit procedure is completed.

To erase the stored contents of all the voice **MEMORY** buttons, while pressing the **TONE MEMORY** (**MEMORY**) button of the **AUTO PLAY CHORD**, press the **POWER** button on.

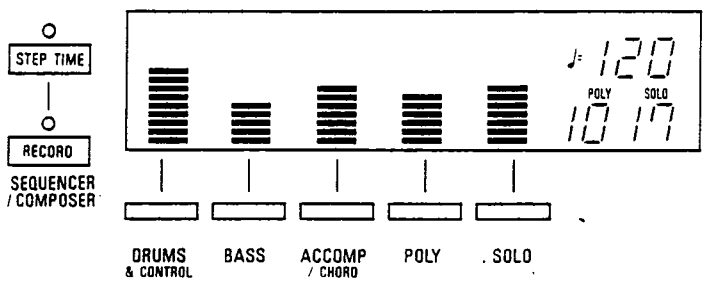
Part VI Storing the rhythm

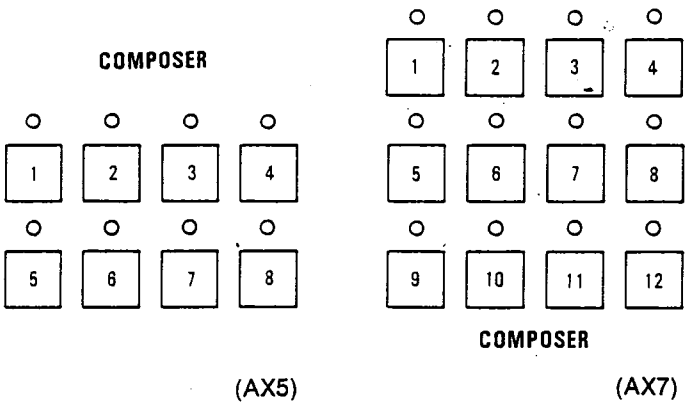
⑱ Composer (AX5/AX7)

With the **COMPOSER** you create original rhythms, or you can edit preset rhythms as desired. On the AX7, you then store up to 12 of your creations in buttons **1~12** for instant recall. On the AX5, buttons **1~8** are available for storing up to 8 original rhythms.

Choose from two methods when creating new patterns. Use the metronome to record your rhythms in real-time, or use the step method to divide the measure into a maximum of 16 parts and store notes one at a time.

The rhythm is made up of three separate parts—**DRUMS**, **BASS** and **ACCOMP**—each of which can be independently stored, played back and edited.





(AX5) (AX7)

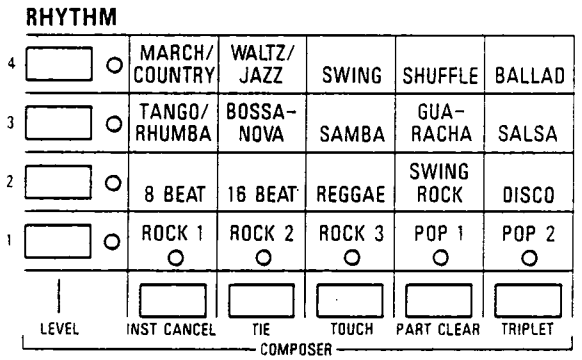
Here is what the parts of the **COMPOSER** do:

RECORD: Press this button to turn it on. While its indicator is flashing, the **COMPOSER** is in the recording mode.

STEP TIME: When storing with this button on, up to 16 beats per measure can be stored one step at a time.

COMPOSER 1~12 (AX7), **1~8** (AX5): Your original rhythm creations are stored in these buttons.

DRUMS, BASS, ACCOMP: Select the part to store, edit or play back with these buttons.



INST CANCEL: This button is used to clear a specific instrument from the **DRUMS** part, or to delete a specified note from the **ACCOMP** or **BASS** part.

TIE: Press this button to make a continuous sound (tie) when storing a rhythm using the **STEP TIME** button.

PART CLEAR: An entire part or all three parts can be deleted at one time with this button.

TRIPLET: Use when storing triplets.

■ **About rhythm accents**

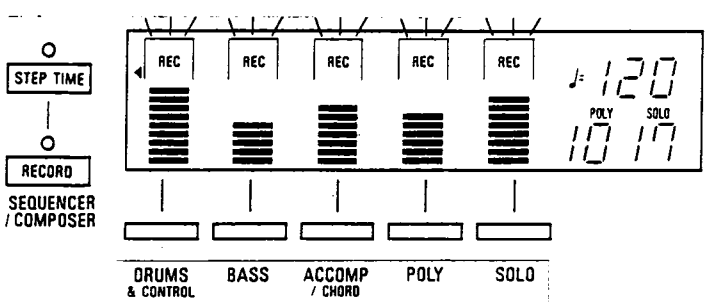
- When the **TOUCH** button is on, the Touch Response of the keyboard is active and the rhythm is stored with accents and soft notes, just as it is played.
- If the **TOUCH** button is turned off, **LEVEL** indicator **3** lights and the rhythm is stored with uniform stresses. An accent can be added to a note by playing a key with **LEVEL** button **4** held down. If the key is played with **LEVEL** button **2** held down, the sound is soft. Button **1** produces an even softer sound.

Storing in real-time

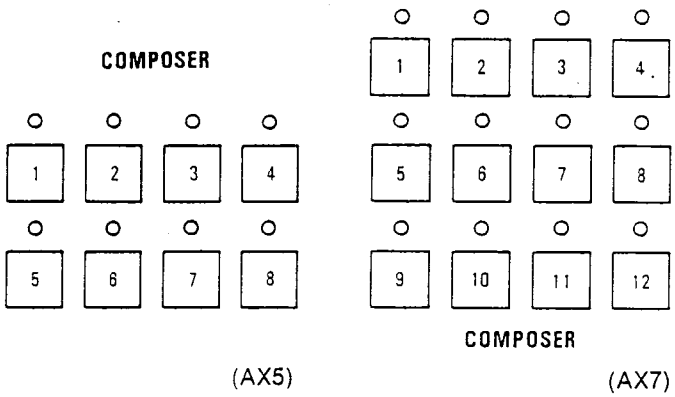
A repeating two-measure pattern is stored by playing in real-time on the keyboard.

I. Preparing to store the rhythm pattern

1. Press the **RECORD** button. The indicator flashes.



2. Press the **COMPOSER** number button in which you wish to store the rhythm pattern (AX7: **1~12**; AX5: **1~8**). The indicator flashes slowly.



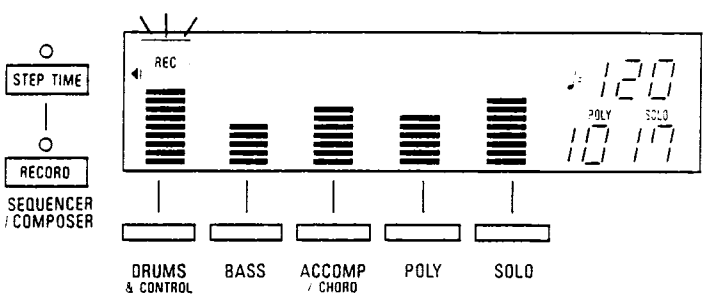
3. Press the **PART CLEAR** button to delete any rhythm pattern previously stored in the selected **COMPOSER** button.
- At this time, 4/4 time is automatically specified, **TRIPLET** is canceled, and the **TOUCH** button turns on.

4. Press the **TRIPLET** button on if you wish to form a triplet pattern.

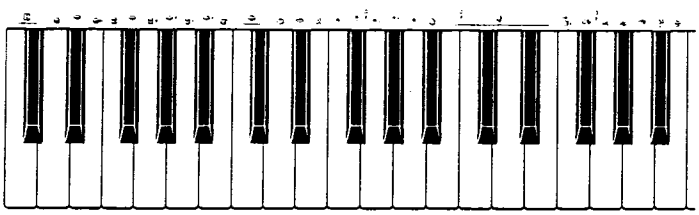
5. **Specify the time.**
The **POLY** buttons **1~4** are used to specify the time, from 1/4 to 4/4. For example, you can specify 3/4 time by pressing the **3** button.
- To set an irregular time, for example 3/3 + 2/3, set the time for the first measure with the **POLY** buttons **1~4**, then set the time for the second measure with the **SOLO** buttons **1~4**.

II. Storing the DRUMS part

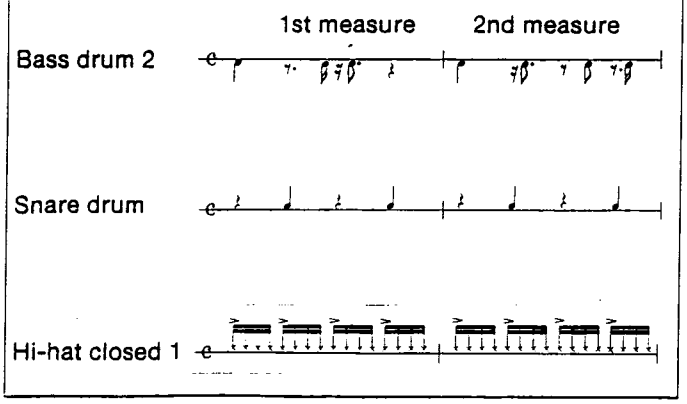
1. Press the **DRUMS** button to turn it on. The ⌐ indicator for the **DRUMS** part flashes, and the keyboard changes to the percussive keyboard.
- If the **PART CLEAR** button is pressed at this time, anything stored in the **DRUMS** part is deleted.



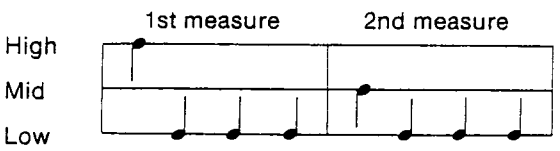
2. Play the desired percussive keys on the keyboard in time with the metronome for two measures.
- If the **STEP TIME** button is pressed at this time, the metronome sound is turned off and you can store the **DRUMS** part using the step method (refer to "Storing with the step method").



Store the following example:



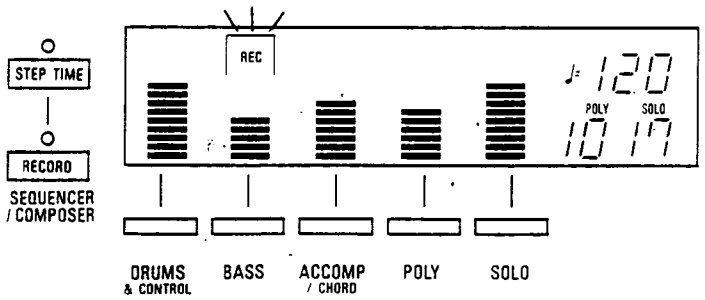
- Stresses can be added to the rhythm using the **TOUCH** button or the **LEVEL** buttons.
- You can easily distinguish between the first and second measures of the rhythm. The metronome has three tones—high, mid, low—which sound as shown below. In addition, a **1** or **2** is shown in the **MUSICAL DISPLAY** to indicate the measure.
- The metronome sound is not stored in the **COMPOSER** button.



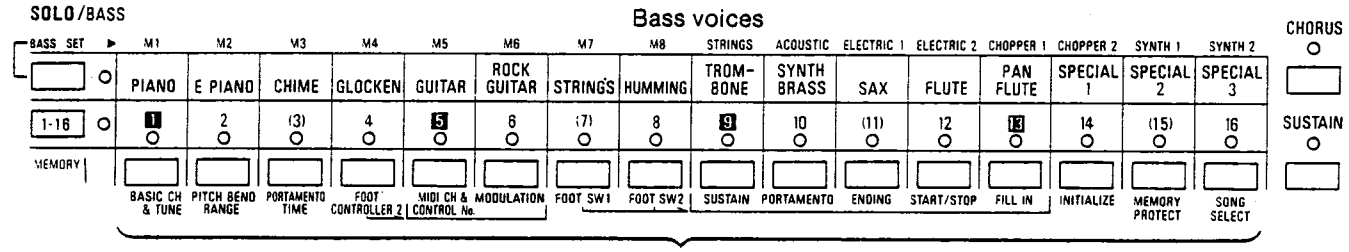
- If a percussive key is pressed while the **INST CANCEL** button is pressed, that instrument's sound is canceled from both measures of the rhythm.
- You can store up to four instrument sounds on one beat.
- The smallest note unit that can be stored is a sixteenth note. When the timing of a played note is not clear, it will be corrected to the nearest sixteenth note and stored.

III. Storing the BASS part

1. Press the **BASS** button to turn it on. The ⌐ indicator for the **BASS** part flashes.
- If the **PART CLEAR** button is pressed at this time, anything stored in the **BASS** part is deleted.



2. Select the **BASS** voice with the buttons in the **SOLO/BASS** section.

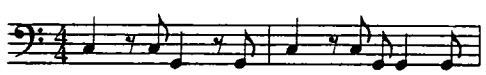


Select the **BASS** voice with these buttons.

3. Play two measures of the **BASS** pattern on the keyboard.
- The **BASS** pattern can be played on the entire keyboard, regardless of the indicated split point.
- You can press the **STEP TIME** button instead to store the **BASS** part step by step (refer to "Storing with the step method").

Here is what you play:

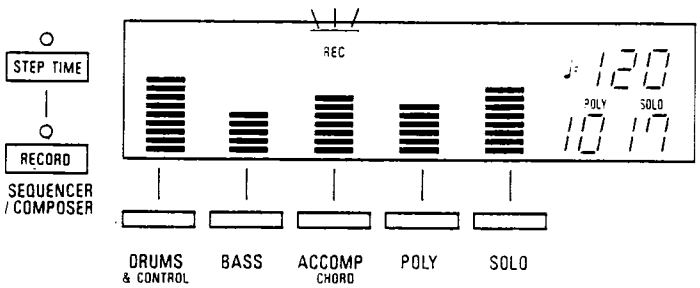
BASS part



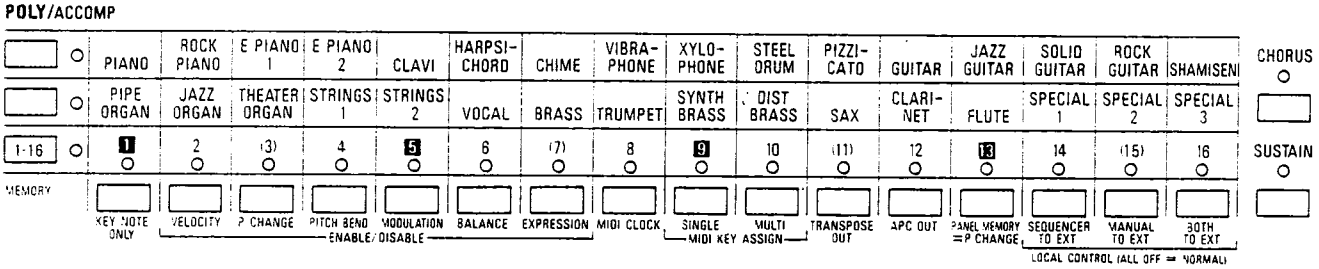
- Play the **BASS** pattern for two measures to store it. Then, as the two-measure pattern is repeated, you can play the keyboard to add to or replace notes in the pattern. The complete version of the **BASS** pattern is the one that is stored.
- If the **INST CANCEL** button is pressed, the sound for the **BASS** part is deleted for as long as the button is pressed.
- You can add stresses to the rhythm using the **TOUCH** button or **LEVEL** buttons.

IV. Storing the ACCOMP part

1. Press the **ACCOMP** button to turn it on. The ⌐¬ indicator for the **ACCOMP** part flashes.
- If the **PART CLEAR** button is pressed at this time, anything stored in the **ACCOMP** part is deleted.



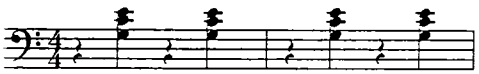
2. Select the **ACCOMP** voice with the buttons in the **POLY/ACCOMP** section.



3. Play two measures of the **ACCOMP** pattern on the keyboard.
- Up to three notes can sound at the same time.
- You can press the **STEP TIME** button instead to store the **ACCOMP** part step by step (refer to "Storing with the step method").

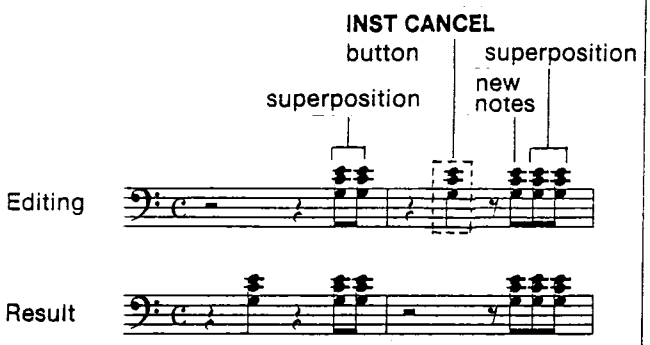
Here is what you play:

ACCOMP part



- Play the **ACCOMP** pattern for two measures to store it. Then, as the two-measure pattern is repeated, you can play the keyboard to add notes to or replace chords in the pattern. The complete version of the **ACCOMP** pattern is the one that is stored.
- If the **INST CANCEL** button is pressed, the sound for the **ACCOMP** part will be erased for as long as the button is pressed.
- You can add stresses to the rhythm using the **TOUCH** button or **LEVEL** buttons.
- The minimum note unit that can be stored for the **BASS** and **ACCOMP** parts is a sixteenth note.

Let's add to the **ACCOMP** pattern stored so far.



V. Finish storing the rhythm

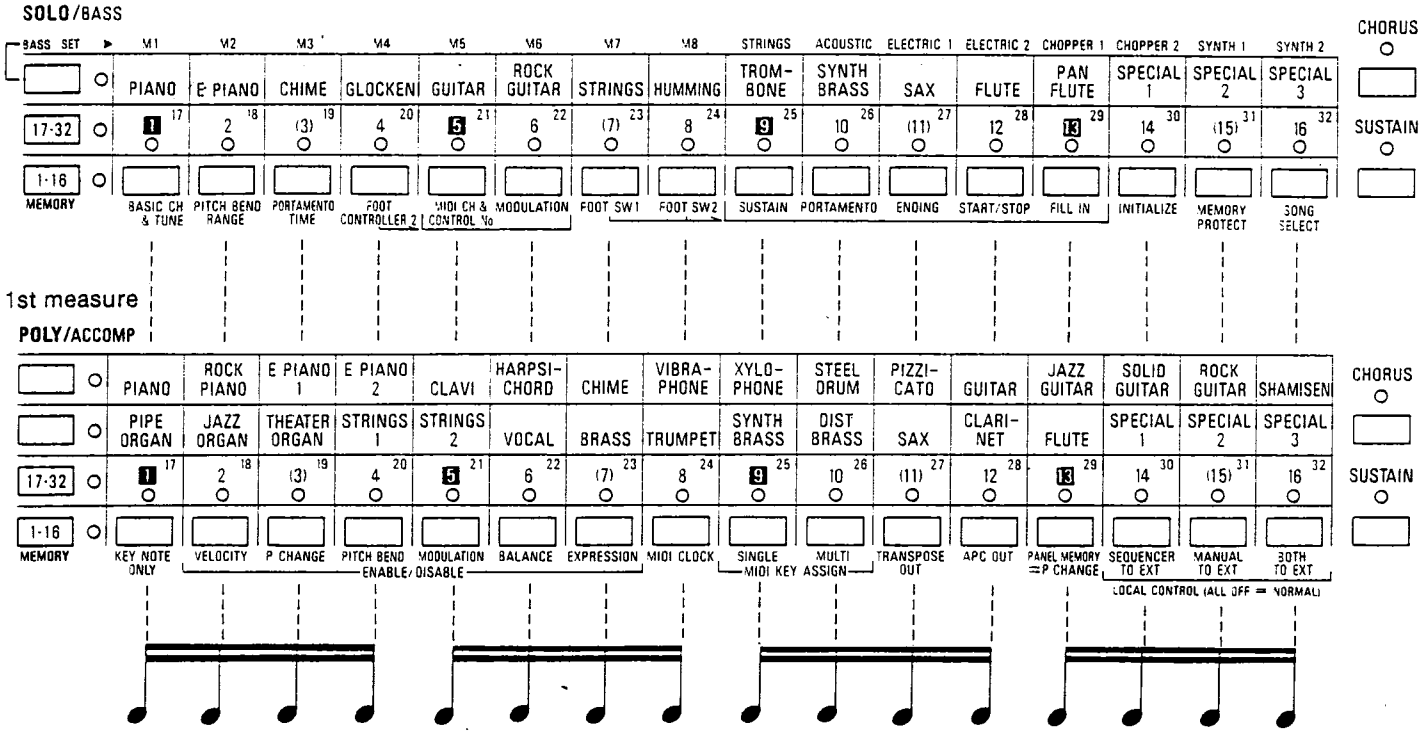
When all the parts to the pattern have been stored as desired, press the **RECORD** button to turn it off.

Storing with the step method

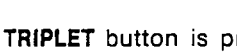
When storing the three parts of the rhythm in real-time, the **STEP TIME** button can be pressed at any time to select step-by-step input.

The rhythm pattern is stored using the **1~16** buttons in the **POLY** and **SOLO** voice sections.

2nd measure

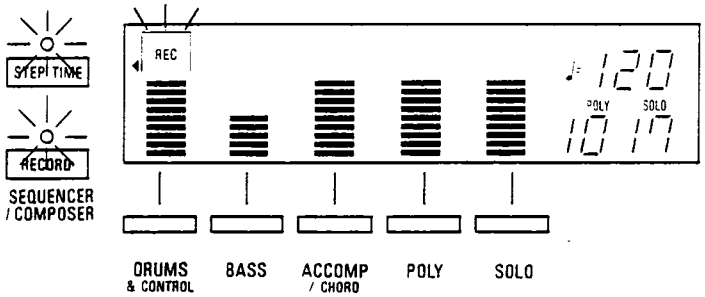


1st measure

When the **TRIPLET** button is pressed on,  becomes  .

I. Store the DRUMS part

1. Set up the **COMPOSER** to store the **DRUMS** part. Press the **STEP TIME** button to turn it on.



■ **First measure**

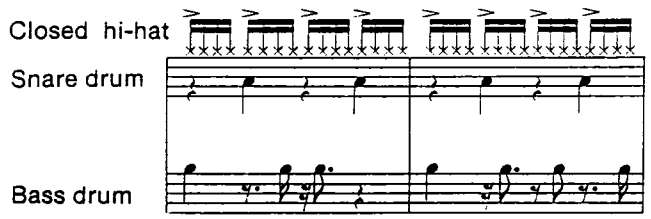
2. While pressing the desired instrument key on the keyboard, press the appropriate buttons **1~16** in the **POLY** voice section to make the rhythm pattern you want for that sound.
   - The instrument sounds only on the beats of the number buttons which were pressed.

3. Add other instruments to the first measure by pressing other instrument keys and **POLY** buttons **1~16**.

■ **Second measure**

4. While pressing the desired instrument key on the keyboard, press the appropriate buttons **1~16** in the **SOLO** voice section to make the rhythm pattern you want for that sound.

Store the following rhythm pattern.



■ **Bass drum part**

First measure (POLY buttons 1~16)

While pressing the bass drum key on the keyboard, press **POLY** buttons **1**, **8** and **10**.

Second measure (SOLO buttons 1~16)

While pressing the bass drum key, press **SOLO** buttons **1**, **6**, **11** and **16**.

■ **Closed hi-hat, snare drum parts**

Store them in the same way as the bass part: While pressing instrument key on the keyboard, press the appropriate numbered buttons in the **POLY** and **SOLO** sections.

- Add stresses to the rhythm using the **TOUCH** button or the **LEVEL** buttons.

II. Store the BASS and ACCOMP parts

1. Set up the **COMPOSER** to store the **BASS** or **ACCOMP** part. Press the **STEP TIME** button to turn it on.

■ **Storing the first measure**

2. While pressing a key on the keyboard, press the appropriate buttons **1~16** in the **POLY** voice section to make the pattern you want for that note.

3. **Storing tied notes**

- Notes of the same pitch are stored as tied notes only for steps specified with the **TIE** button. When storing a tie between two notes, press the step button for only the first of the two notes while holding down the **TIE** button. You can specify a tie from the end of the first measure to the beginning of the second measure, and from the ending of the second measure to the beginning of the following first measure.

■ **Storing the second measure**

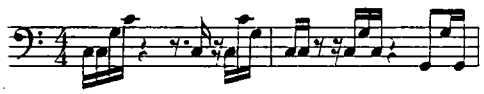
4. Store the notes and steps with **SOLO** buttons **1~16**, as you did for the first measure.

- When the **TOUCH** button is on, the intensity is stored at the strength when the keyboard key is pressed. (When off, the **LEVEL** 3 indicator illuminates, and input can be at a fixed strength.)

- Voices for the **BASS** and **ACCOMP** parts cannot be specified when the **STEP TIME** button is turned on. If you wish to change the voice, first press the **STEP TIME** button to turn it off and then make your selection.

- When a button from **1~16** corresponding to the note of the timing you want to cancel is pressed while pressing the **INST CANCEL** button, that note only can be cancelled.

Store the following **BASS** pattern.



First measure (POLY buttons 1~16)

1. While pressing the C key, press the **POLY** voice buttons **1, 2, 12** and **14**.
2. While pressing the G key, press the **POLY** buttons **3** and **16**.
3. While pressing the C key (one octave higher than preceding C), press the **POLY** buttons **4** and **15**.

Second measure (SOLO buttons 1~16)

4. While pressing the C key, press the **SOLO** voice buttons **1, 2, 6** and **8**.
5. While pressing the lower G key (4 degree lower than preceding C), press the **SOLO** buttons **13, 14** and **16**.
6. While pressing the G key (one octave higher than preceding G), press the **SOLO** buttons **7** and **15**.
7. While pressing the **TIE** button, press the **SOLO** buttons **13**.

Editing a preset rhythm pattern

The editing feature of the **COMPOSER** allows you to modify any of the preset rhythms or your original rhythms, and then store the new pattern in a **COMPOSER** button.

- The **BASS** and **ACCOMP** patterns are the same as the accompaniment patterns that are produced when you use the **AUTO PLAY CHORD**.

1. Select one of the rhythms from the **PRESET RHYTHM** section or a **COMPOSER** number button which has a stored rhythm.

2. Press the **RECORD** button.

3. Press one of the **COMPOSER** buttons (AX5: **1~8**; AX7: **1~12**) in which to store the new rhythm pattern.

4. Press the button for the part you wish to edit first (**DRUMS**, **BASS** or **ACCOMP**).

- Press the **PART CLEAR** button ONLY if you wish to delete all of the pattern for the selected part and store a new pattern from the beginning.

5. Store the new part or modify the existing part as desired.

6. Repeat steps **4** and **5** if you wish to modify other parts of the rhythm pattern.

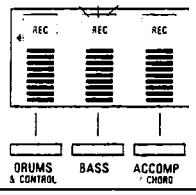
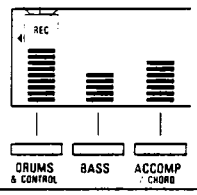
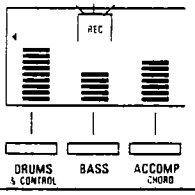
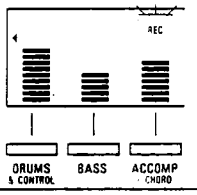
7. When you have completed making the modifications, press the **RECORD** button to turn it off.

Notes regarding modification of preset rhythm patterns

- The minimum note unit for the preset patterns is smaller than that for patterns you store in the **COMPOSER**. Therefore, preset rhythms which are stored in the **COMPOSER** buttons may have a somewhat different nuance.
- If the **RECORD** button is turned on and then a **COMPOSER** button is pressed, the stored contents of the pressed **COMPOSER** button are erased and replaced by the **PRESET RHYTHM** or **COMPOSER** rhythm that was in effect when the **COMPOSER** button was pressed.

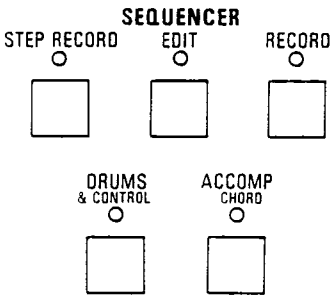
To erase all the stored contents of the **COMPOSER** buttons, while pressing the **COMPOSER (FINGERED)** button of the **AUTO PLAY CHORD**, press the **POWER** button on.

Summary of COMPOSER functions

	Preparing the **COMPOSER** for storage.	Before storing each part...	Storing each part			Finish storing
			DRUMS	**BASS**	**ACCOMP**	
Procedure (Real-time method)	1. Press the **RECORD** button. 2. Press a **COMPOSER** number button.	•Spacify the timing (if desired). •Specify **TRIPLET** (if desired).	1. Press the **DRUMS** button. 2. Play the percussive keys for two measures. (Use the **TOUCH** button or **LEVEL** buttons for accents.)	1. Press the **BASS** button. 2. Select a **BASS** voice from the **SOLO/BASS** voice section. 3. Play two measures of the **BASS** pattern. (Use the **TOUCH** button or **LEVEL** buttons for accents.)	1. Press the **ACCOMP** button. 2. Select an **ACCOMP** voice from the **POLY/ACCOMP** voice section. 3. Play two measures of the **ACCOMP** pattern. (Use the **TOUCH** button or **LEVEL** buttons for accents.)	Press the **RECORD** button.
			Turn on the **STEP TIME** button to store any part with the step method.			
MUSICAL DISPLAY						
If you press the **PART CLEAR** button...	The contents of all the parts are erased.		The **DRUMS** part is erased.	The **BASS** part is erased.	The **ACCOMP** part is erased.	
If you press the **INST CLEAR** button...			To clear an instrument's sound, press its key while holding down **INST CANCEL**.	The sound of the part will be erased for as long as **INST CANCEL** is kept pressed.		

Part VII Storing the performance

⑲ Sequencer (AX3)



The **SEQUENCER** stores a whole performance of chord progressions, rhythm changes, **FILL IN & INTRO**, **ENDING**, etc., for completely automatic playback whenever you desire.

Here are the controls you use with the **SEQUENCER**:

RECORD: Press this button to turn it on. When its indicator is flashing, the **SEQUENCER** is in the recording mode.

EDIT: Allows you to edit a tune which is already stored.

STEP RECORD: When this button is pressed on and its indicator is flashing, the **SEQUENCER** can be stored step by step (step method).

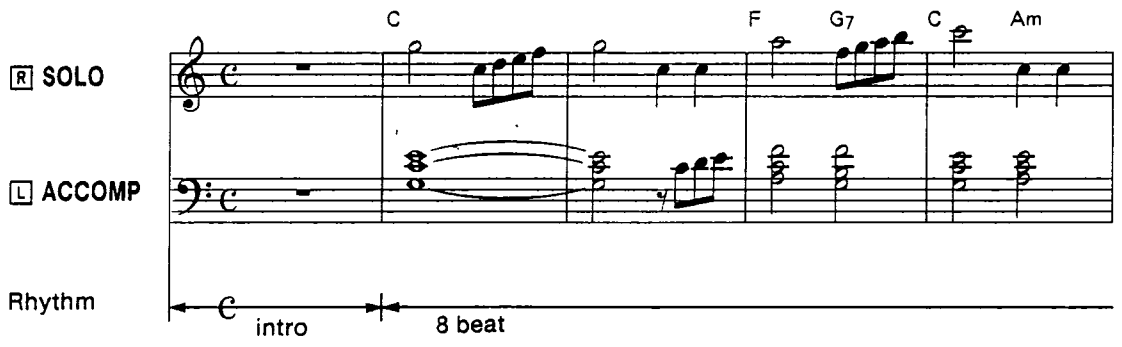
ACCOMP/CHORD: Store the **ACCOMP** part when this button is on. Select from the **POLY/ACCOMP** voices to store in the **ACCOMP** part.

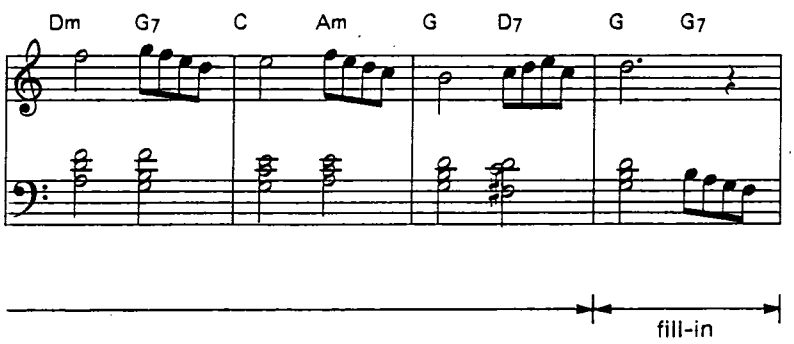
DRUMS & CONTROL: Use to store the **KEYBOARD PERCUSSION** and the rhythm changes.

- All panel settings and changes other than **TRANSPOSE**, **MAIN VOLUME**, **TEMPO**, **ONE TOUCH PLAY** and **SEQUENCER** are also stored in this part.

Storing in real-time

Let's store the ACCOMP and DRUMS for the following tune.





■ **Preparing to play**

1. Set the voices, effects, rhythm, etc. before starting to play.
   [R] **SOLO** .....**SYNTH LEAD 3**
   [L] **ACCOMP** .....**POP ORGAN 2**
   RHYTHM .....**8 BEAT**
   RHYTHM VARIATION **2**
   FINGERED.....on **MEMORY**.....on

■ **Store your performance**

2. Press the **RECORD** button. The indicator flashes.
3. Press the **DRUMS & CONTROL** button.
4. Store the **DRUMS** part.
   a) Turn on the **FILL IN & INTRO** button.
   b) Press the **START/STOP** button to start the rhythm.
   c) Play 8 measures (including the intro), and then press the **FILL IN & INTRO** button.
   d) Press **START/STOP** to stop the rhythm.
5. Press the **ACCOMP/CHORD** button. At this time, confirm that the indicator for the **DRUMS & CONTROL** part is still lit.
6. Press the **START/STOP** button to begin playback of the stored **DRUMS** part.
7. Play the **ACCOMP** part in time with the rhythm. (There will then be automatic accompaniment of **AUTO PLAY CHORD's BASS** and **ACCOMP**.)
8. When you have finished playing, press the **RECORD** button to turn it off.

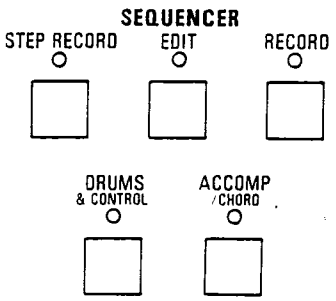
■ **Storage capacity**

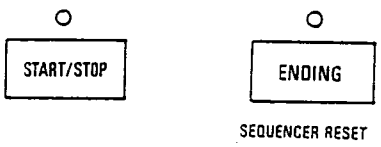
ACCOMP/CHORD: 750 notes
DRUMS & CONTROL: 220 notes

- The cycle of one key being pressed and released is counted as one note.
- Data such as changes in voice, etc. can be stored for each part, but the storage capacity decreases accordingly.
- The number shown on the **MUSICAL DISPLAY** is 1/10 of the remaining storage capacity.

ATTACK

Automatic performance of the stored sequence





1. Press the **SEQUENCER** button for the part you wish to have played automatically.
   - Confirm that the indicator for the part you want played is lit. If the indicator for the other part is lit, the automatic performance may not be correct.
2. Press the **START/STOP** button to begin the automatic performance.
   - If **START/STOP** is pressed while the **ENDING** button is held down, the sequence will be repeated. (Repeat continues until play is stopped.)
3. Let's try playing the solo and accompaniment parts of the score in combination with the rhythm and the **AUTO PLAY CHORD's BASS** and **ACCOMP** patterns.

   When the **SEQUENCER RESET** button is pressed while the play is in the stop mode (the sequencer's **PART** button is illuminated and the **START/STOP** button is off), the stored performance and the panel status will return to the original status.

Editing a stored sequence

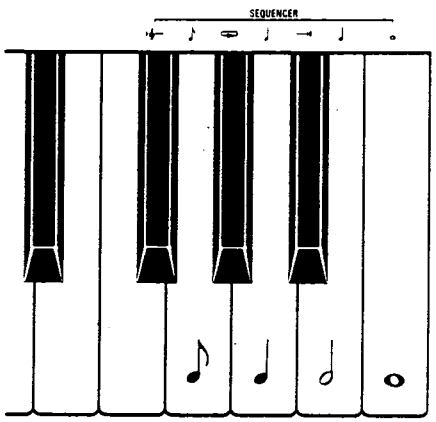
You can alter a performance stored in real-time, starting the edit at any point and continuing to the end.

1. If you wish to edit one part of the **SEQUENCER** while listening to the other part, turn on the **SEQUENCER** button for the other part so you can hear it played back.
2. Press the **EDIT** button on. Its indicator flashes.
3. Press the **SEQUENCER** button on for the part you wish to modify. The indicator for the part flashes slowly.
4. Press the **START/STOP** button. Playback of the part to be edited begins along with the other part.
5. Listen until the playback reaches the point you wish to change. As long as you do not play the keyboard or make changes in the effect, voice or rhythm sections the part will remain unchanged in the **SEQUENCER**. The edit portion begins when you start to play the keyboard or make changes in the effects, voices or rhythm, and at this time until the end of the performance, the indicator for the part flashes slowly.
   - If you begin to edit but do not continue to play the keyboard to the end of the playback, the unplayed portion of that part following the edit point will be blank. Once the edit begins, you must continue to play to the end of the performance, also making any desired changes in voice, effect and rhythm.
6. When edit is completed, press the **EDIT** button to turn it off.

Storing with the step method

The parts can also be stored using the **STEP RECORD** function of the **SEQUENCER**.

In addition to the **SEQUENCER** buttons, the seven rightmost keys of the keyboard are used for storing with the step method.



Note keys

𝅝 : Press to store a whole note.
𝅗𝅥 : Press to store a half note.
♩ : Press to store a quarter note.
♪ : Press to store an eighth note.

Reset key

𝄋— : Press to begin storing from the beginning.

End key

—𝄀 : Press after all of the sequence has been stored (if automatic repeat playback is not desired).

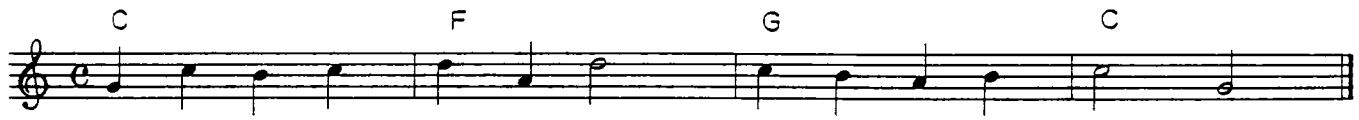
Repeat key

⮌ : Press to complete storage and specify automatic repeat playback of the stored sequence.

ACCOMP/CHORD

Chord progressions and changes in voice, effect and rhythm can all be stored in the **ACCOMP/CHORD** part.

Store the following example:

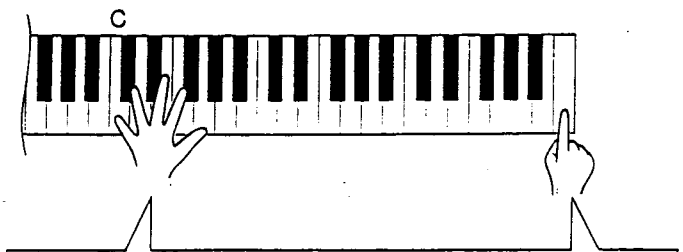


1. Press the **STEP RECORD** button. Its indicator flashes.

2. Press the **ACCOMP/CHORD** button. Its indicator flashes slowly.
- If the **AUTO PLAY CHORD** function was not activated, the mode now changes automatically to the **FINGERED** mode of the **AUTO PLAY CHORD**.

3. Store one measure of a C chord.

Specify the chord Specify the note unit



While holding down a C chord on the left part of the keyboard, press the 𝅝 key, extreme right key of the seven edit keys, to specify a whole note (one measure of C chord).

- A "beep" will sound to indicate that the chord has been stored.
- If, while holding down a C chord, the 𝅝 key is pressed two times, the C chord will be stored for two measures.

4. Store one measure of an F chord.
While holding down an F chord on the left part of the keyboard, press the 𝅝 key, extreme right key of the seven edit keys, to specify a whole note (one measure of F chord).

5. In the same way, store one measure of a G chord and one measure of a C chord.

6. Press the —𝄀 key to end storage.
- If you want the sequence to be repeated automatically, instead of the —𝄀 key, press the ⮌ key. (In the case of a 3-beat rhythm, if an intro is used or if the number of measures is an odd number, the timing will be off.)
- To insert an ending pattern, press the **ENDING** button instead of the —𝄀 key.

- To store the sequence again (redo) from the beginning, press the reset key 𝄋— and begin storing again from step 3.

Automatic performance of the stored chord sequence

1. Press the **ACCOMP/CHORD** button on.

2. Select a rhythm and press the **START/STOP** button to start the rhythm. The stored chord sequence is automatically played back.

- If the **START/STOP** button is pressed during automatic performance, the playback of the rhythm and chord stops, and at the same time, the chord returns to the beginning of the sequence.
  When the **START/STOP** button is pressed again, the chord playback starts from the beginning of the sequence.

Storing voices, effects and rhythm

Besides chord progressions, any changes in voice, effect and rhythm can also be stored in the **ACCOMP/CHORD** part.

■ **Before playing, set the registration.**
Before starting the storage procedure, (that is, before pressing the **STEP RECORD** button), set the beginning registration. If an introduction is desired, press the **FILL IN & INTRO** button on.

■ **Storing an intro**
Press the **FILL IN & INTRO** button on first. Next press the **STEP RECORD** button on and then select the part. At the beginning of the song, store a space (one measure) for the intro, either with or without chords.

- If a stored song with an intro section is played back without an intro, or if a stored song without an intro section is played back with an intro, the timing of the measures will be off during a repeat performance of the sequence.

■ **Storing voice, effects and rhythm**
Before storing a chord, set up the voice, effects and rhythm you want to store. This stores the selected voice, effects and rhythm at the beginning of the next measure. Storage continues until a different voice, effect or rhythm is specified.

■ **For FILL IN storage:**
After pressing the **FILL IN & INTRO** button on, press a note unit key and the fill-in will be stored.
After pressing the **FILL IN & INTRO** button on, if a note unit key is pressed while a chord is played, the chord and the fill-in will be stored together.

■ **For ending storage:**
To store an ending pattern, press the **ENDING** button at the end of the tune. (The **STEP RECORD** button turns off.) If the **ENDING** button is pressed while the last chord of the song is being played, the ending pattern is added to the last chord.

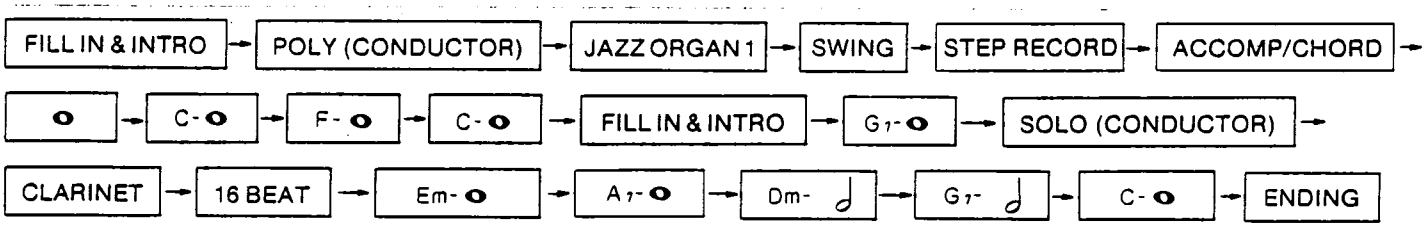
- When the tune is repeated, the last voice and rhythm of the tune continue through to the beginning of the repeat play. In order to specify the first voice of the second sequence, store the desired voice after the last chord is stored.

- Storing voice, effects and rhythm is counted as one note.

Store the following sequence:

Chord		C	F	C	G7	Em	A7	Dm G7	C	
FILL IN & INTRO, ENDING	**INTRO**				**FILL IN**					**ENDING**
Voice		**POLY: JAZZ ORGAN 1**				**SOLO: CLARINET**				
RHYTHM		**SWING**				**16 BEAT**				

Store the sequence as shown below.



DRUMS & CONTROL

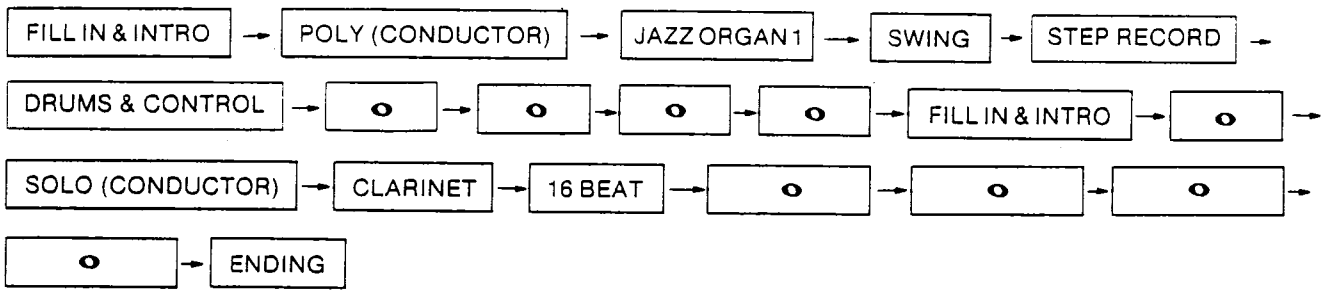
Changes in the voice, effect and rhythm can be stored in the **DRUMS & CONTROL** part.

The way to store is the same as when storing the **ACCOMP/CHORD** part, except that instead of pressing both a chord key and a note unit key, just a note unit key is pressed. (Chords cannot be stored in the **DRUMS & CONTROL** part.)

Store the following:

Note unit		o	o	o	o	o	o	o	o	
FILL IN & INTRO, ENDING	**INTRO**				**FILL IN**					**ENDING**
Voice		**POLY: JAZZ ORGAN 1**				**SOLO: CLARINET**				
RHYTHM		**SWING**				**16 BEAT**				

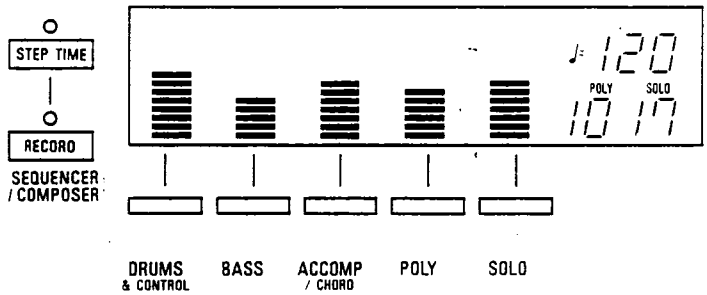
Store the sequence as shown below.



⑳ Sequencer (AX5/AX7)

The **SEQUENCER** stores your entire performance—melody and accompaniment, voice and effect changes, even changes in the rhythm—for completely automatic playback whenever you desire.

The performance can be stored in five separate parts: **SOLO**, **POLY**, **ACCOMP/CHORD**, **BASS** and **DRUMS & CONTROL**.

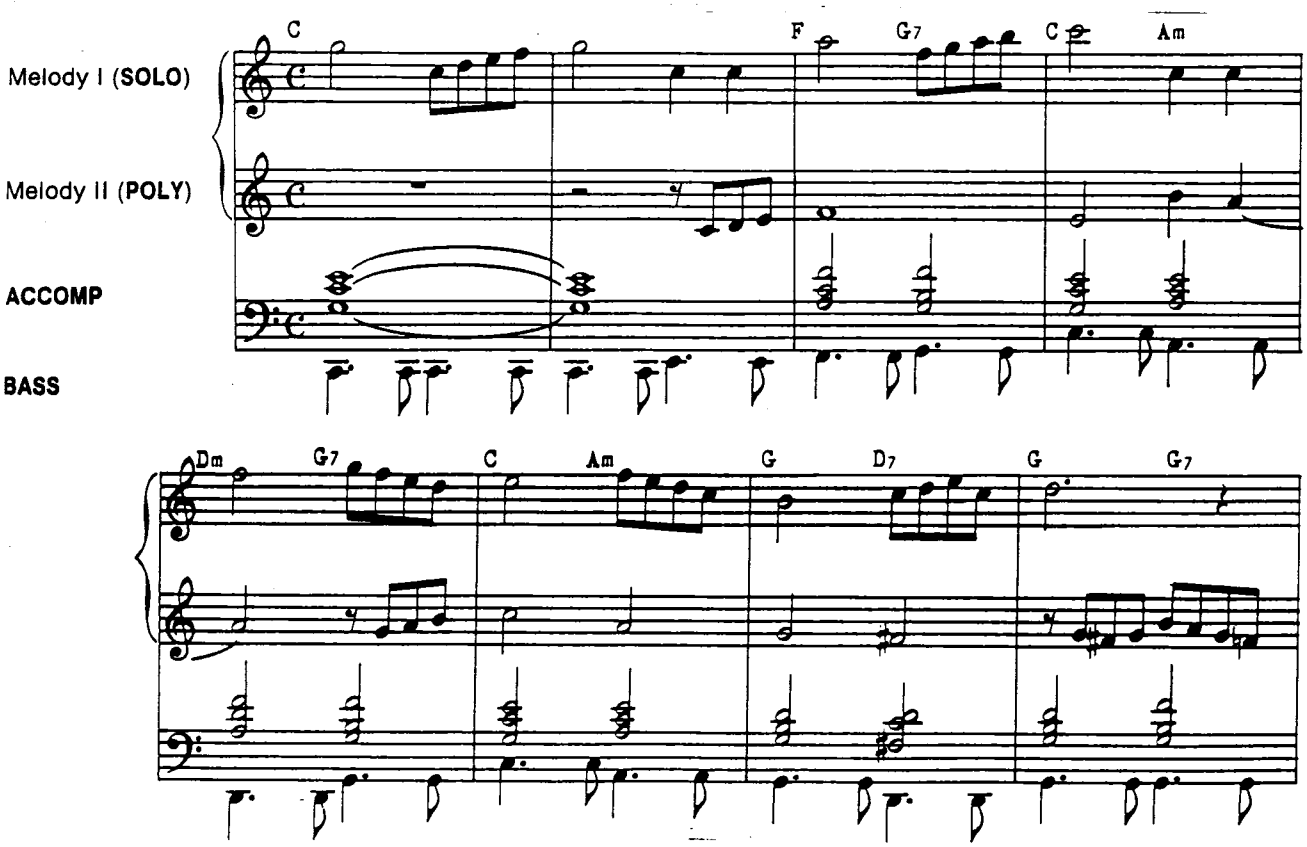


Part button	Storable contents	
SOLO	The performance played in the voices selected by the **SOLO** part.	Voice, sustain, **FILL IN & INTRO**, **START/STOP**, **ENDING**, changes in **BALANCE** settings, **CHORUS** (**SOLO**, **POLY**, **ACCOMP** parts only)
POLY	The performance played in the voices selected by the **POLY** part.	
ACCOMP (/CHORD)	The performance played in the voices selected by the **ACCOMP** part.	
BASS	The performance played in the voices selected by the **BASS** part.	
DRUMS & CONTROL	Changes in the preset **RHYTHM**, **KEYBOARD PERCUSSION**, and panel settings other than **TRANSPOSE**, **MAIN VOLUME**, **TEMPO**, **ONE TOUCH PLAY** and **SEQUENCER**.	

Storing in real-time

Let's store the following tune.

Registration: **SOLO...GLOCKEN** **POLY...VIBRAPHONE** **RHYTHM...POP 2**
TEMPO...♩=120 **ACCOMP...JAZZ ORGAN 2** **BASS...ELECTRIC 1**



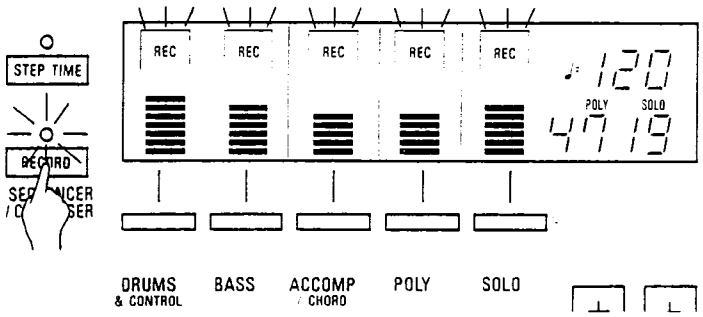
Getting ready to play

Set the voices and effects, rhythm, etc. before starting to play.

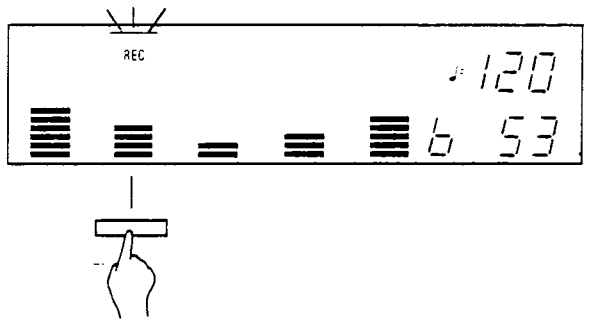
- If adding an **INTRO**, turn on the **FILL IN & INTRO** button.
- Set the voices for the **ACCOMP** and **BASS** parts in step 3 below.

Storing each part (multiplex storage)

1. Press the **RECORD** button to turn it on.



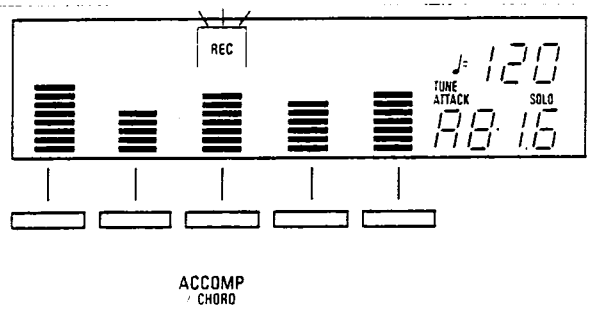
2. Press the button for the part you wish to store first (for example, the **BASS** button).



3. Set the voices and effects for the selected part.

4. Now play the part, and it is stored as you play it.
- The voices selected for the **SEQUENCER** part can be played on the entire keyboard.
- When the rhythm is not used, do not press **START/STOP**. The rhythm can be started and stopped any time during the performance, as desired.
- The tempo can be freely adjusted during playback of the performance.
- The voices and effects can also be freely changed any time before or during playback of the performance.

5. When you have finished playing the part, press the button for the next part to be stored (for example, **ACCOMP/ CHORD**). The ⌐ indicator of the selected part will flash slowly.



- The rhythm will stop automatically.
- At this time, confirm that the ⌐ indicator for the part already stored is still lit.
- Instead of pressing the button for the next part in step **5**, you could press the **RECORD** button to end the storage process. Even in this case, however, you can press **RECORD** again, press the button for another part to store (its ⌐ indicator will flash), and continue storing in the **SEQUENCER**.

6. Press the **START/STOP** button. The part(s) already stored will be played, and you can play in time with it to store the next part.
- Use the **START/STOP** button to start playback of the already-stored part(s), even for a tune which has no rhythm.
- If you wish to end a part before the end of the song, you do not have to wait until the entire song has been played back. You can press the button to record the next part at any time; but in this case, do not stop the rhythm.

7. Repeat steps **5** and **6** to store the remaining parts, if desired.

8. When you have finished storing all the parts, press the **RECORD** button again to turn it off.

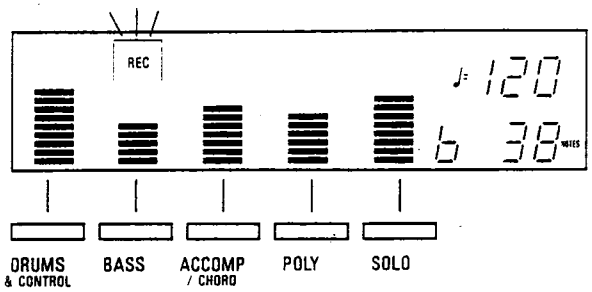
Storage capacity

The storage capacity is as follows:

Part	Notes
SOLO	860
POLY	2000
ACCOMP/CHORD	890
BASS	530
DRUMS & CONTROL	270

The number shown on the **MUSICAL DISPLAY** is 1/10 of the remaining storage capacity.

Example: If there are 380 remaining **BASS** notes:

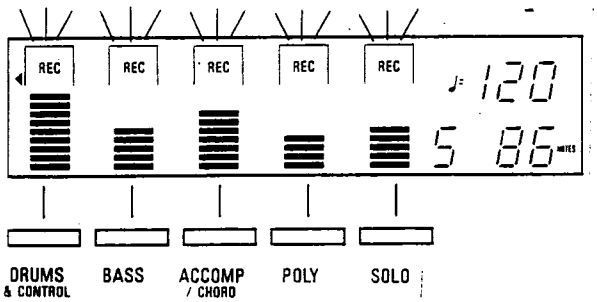


- **How to count the number of notes**
  The cycle of one key being pressed and released is counted as one note.
- Data such as voice changes etc. can be stored per part, but will reduce the storage capacity accordingly.

Storing two or more parts at the same time

For example, if all five parts are stored at the same time, **CONDUCTOR** settings, voice settings and **RHYTHM** patterns are all stored with your performance.

1. Press the **RECORD** button.
2. Press the buttons one at a time for the parts you wish to store.



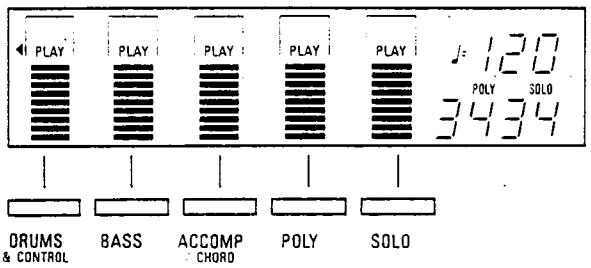
3. Set the beginning voices and effects before starting to play.
4. Play.
   - Keyboard sounds are produced according to the **CONDUCTOR** settings and **KEYBOARD PERCUSSION** button on/off state.

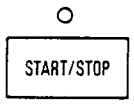
- When storing the **SOLO**, **BASS** or **POLY** part, select the respective part on the **CONDUCTOR** before selecting the voices.
- When storing the keyboard percussion in the **DRUMS & CONTROL** part, turn on the **KEYBOARD PERCUSSION** button.

- Chords are stored in the **ACCOMP/CHORD** part only if the **ONE FINGER** or **FINGERED** button of the **AUTO PLAY CHORD** is on.

5. When the performance is over, press the **RECORD** button to turn it off.

For automatic performance of the stored contents

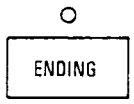




1. Press the button(s) for the part(s) you wish to perform automatically. The ⌐¯ indicators for the selected parts appear.
- Make sure that only the indicators for the parts you wish to perform automatically are shown. (If the indicator for another part is turned on, the wrong melody may be played or the rhythm may stop during performance.)

2. Press the **START/STOP** button to begin the automatic performance.
- Use the **START/STOP** button to start playback even if the song has no rhythm.

SEQUENCER RESET



SEQUENCER RESET

When the **SEQUENCER RESET** button is pressed while the play is in the stop mode (the sequencer part displays "PLAY" and the **START/STOP** button is off), the stored performance and the panel status will return to the original status.

- If the **START/STOP** button is pressed while the **ENDING** button is held down, the play will be repeated.

Editing a stored sequence

You can alter a performance stored in real-time, starting the edit at any point and continuing to the end.

1. If you wish to edit one part of the **SEQUENCER** while listening to another part, turn on the **SEQUENCER** button for the other part so you can hear it played back.

2. Press the **RECORD** to turn it on. Its indicator flashes.

3. Press the button twice for the part you wish to modify. The ⌐¯ indicator for the part flashes slowly.

4. Press the **START/STOP** button. Playback of the part to be edited begins along with the other part.

5. Listen until the playback reaches the point you wish to change. As long as you do not play the keyboard or make changes in the effect, voice or rhythm sections the part will remain unchanged in the **SEQUENCER**. The edit portion begins when you start to play the keyboard or make changes in the effects, voices or rhythm, and at this time until the end of the performance, the indicator for the part flashes slowly.
- If you begin to edit but do not continue to play the keyboard to the end of the playback, the unplayed portion of that part following the edit point will be blank. Once the edit begins, you must continue to play to the end of the performance, also making any desired changes in voice, effect and rhythm.

6. When edit is completed, press the **RECORD** button to turn it off.

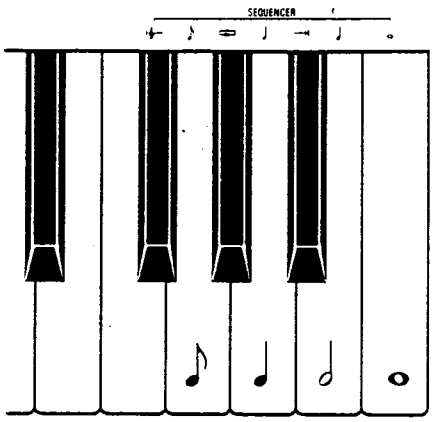
Specifications

			SX-AX3	SX-AX5	SX-AX7
KEYBOARD			61 KEYS	61 KEYS (TOUCH SENSITIVE KEYBOARD)	
CONDUCTOR				L BASS, POLY, R SOLO, POLY	
KEY SPLIT				○ (G2, C3, C4)	
NOTES & EFFECTS	PRESET	POLY/ACCOMP	PIANO, ELECTRIC PIANO, CLAVI, VIBRAPHONE, STEEL DRUM, GUITAR, JAZZ GUITAR, SOLID GUITAR, ORGAN, STRINGS, VOCAL BRASS, TRUMPET, SYNTH BRASS, SPECIAL 1, 2	PIANO, ROCK PIANO, ELECTRIC PIANO 1, 2, CLAVI, HARPSICHORD, CHIME, VIBRAPHONE, XYLOPHONE, STEEL DRUM, PIZZICATO, GUITAR, JAZZ GUITAR, SOLID GUITAR, ROCK GUITAR, SHAMISEN, PIPE ORGAN, JAZZ ORGAN, THEATER ORGAN, STRINGS 1, 2, VOCAL, BRASS, TRUMPET, SYNTH BRASS, DIST BRASS, SAX, CLARINET, FLUTE, SPECIAL 1, 2, 3	
		SOLO	PIANO, ELECTRIC PIANO, GLOCKEN, ROCK GUITAR, TROMBONE, SAX, PAN FLUTE, SPECIAL	PIANO, ELECTRIC PIANO, CHIME, GLOCKEN, GUITAR, ROCK GUITAR, STRINGS, HUMMING, TROMBONE, SYNTH BRASS, SAX, FLUTE, PAN FLUTE, SPECIAL 1, 2, 3	
		BASS	ACOUSTIC, ELECTRIC, CHOPPER	STRINGS, ACOUSTIC, ELECTRIC 1, 2, CHOPPER 1, 2, SYNTH 1, 2	
	MEMORY	POLY	1~8	1~16	1~32
		SOLO	1~4	1~16	1~32
		BASS	1	1~8	
	SOUND EDIT	PCM ATTACK SOURCE	HAMMER 1, 2, PLUCK, METAL HIT, WOOD HIT, PICK 1, 2, SLAP, CLICK, LOOPING NOISE, BOWED ATTACK, LIPS 1, 2, BREATH, SPECIAL 1, 2 (SELECTOR... + / − BUTTONS)		
		BODY SOURCE	PIANO, ELECTRIC PIANO, CLAVI, MALLET 1, 2, GUITAR 1, 2, ETHNIC, ORGAN, STRINGS, VOCAL, BRASS 1, 2, REED, FLUTE, SPECIAL (SELECTOR... + / − BUTTONS)		
			WITH 5 VARIATIONS EACH	WITH 10 VARIATIONS EACH	
		PARAMETER	ATTACK (VARIATION, VOLUME), BODY (VARIATION, VOLUME), HARMONICS/TOTAL, BODY ENVELOPE (ATTACK, DECAY, SUSTAIN, RELEASE), HARMONICS/TOTAL, MODULATION (VARIATION, DEPTH, SPEED, DELAY), TREMOLO/VIBRATO, AUTO BEND, DETUNE, HARMONICS INTERVAL, MIDI VELOCITY SENSITIVITY, TOTAL VOLUME	ATTACK (VARIATION, VOLUME), BODY (VARIATION, VOLUME), HARMONICS/TOTAL, BODY ENVELOPE (ATTACK, DECAY, SUSTAIN, RELEASE), HARMONICS/TOTAL, MODULATION (VARIATION, DEPTH, SPEED, DELAY), TREMOLO/VIBRATO, AUTO BEND, DETUNE, HARMONICS INTERVAL, TOUCH SENSITIVITY, TOTAL VOLUME	
	EFFECT	CHORUS	○ (POLY, ACCOMP, SOLO)		
		SUSTAIN	○ (POLY, ACCOMP, SOLO, BASS)		
		DIGITAL REVERB	—		○ TYPE (HALL 1, 2, ROOM, ECHO), DEPTH
PORTAMENTO			○		
PITCH BEND WHEEL			○		
MODULATION WHEEL			○		
ONE TOUCH SYNTH			BRIGHT/MELLOW, MOD+/MOD−, COMPARE		
RHYTHM	SELECTOR		MARCH/COUNTRY, WALTZ/JAZZ, SWING, SHUFFLE, BALLAD, TANGO/RHYMBA, BOSSA NOVA, SAMBA, GUARACHA, SALSA, 8 BEAT, 16 BEAT, REGGAE, SWING ROCK, DISCO, ROCK 1, 2, 3, POP 1, 2		
	CONTROLS		ENDING, SYNCHRO & BREAK, START/STOP, FILL IN & INTRO, TEMPO/BEAT		
	RHYTHM VARIATION		1~4		
	KEYBOARD PERCUSSION		29 KEYS	36 KEYS	
AUTO PLAY CHORD			ONE FINGER, FINGERED, MEMORY		
ONE TOUCH PLAY			○		
PANEL MEMORY			—	1~4, SET	
COMPOSER			—	1~8, RECORD, STEP TIME, DRUMS, BASS, ACCOMP, LEVEL (1~4), INST CANCEL, TIE, TOUCH, PART CLEAR, TRIPLET	1~12, RECORD, STEP TIME, DRUMS, BASS, ACCOMP, LEVEL (1~4), INST CANCEL, TIE, TOUCH, PART CLEAR, TRIPLET
SEQUENCER			RECORD, EDIT, STEP RECORD, ACCOMP/CHORD, DRUMS & CONTROL, KEYBOARD... 𝅝 𝅗𝅥 ♩ ♪ 𝅘𝅥𝅯	RECORD, DRUMS & CONTROL, BASS, ACCOMP/CHORD, POLY, SOLO, KEYBOARD... 𝅝 𝅗𝅥 ♩ ♪ 𝅘𝅥𝅯	
MEMORY CARD			—	LOAD, SAVE	
BALANCE			DRUMS, BASS, ACCOMP, POLY, SOLO		
TRANSPOSE			UP, DOWN		
MUSICAL DISPLAY			○	○	
MODE SET	MIDI		KEY NOTE ONLY, ENABLE/DISABLE (VELOCITY, PROGRAM CHANGE, PITCH BEND, MODULATION, BALANCE, EXPRESSION), MIDI CLOCK, MIDI KEY ASSIGN (SINGLE, MULTI), TRANSPOSE OUT, APC OUT, INITIALIZE, LOCAL CONTROL (SEQUENCER TO EXT, MANUAL TO EXT, BOTH TO EXT, ALL OFF=NORMAL), MIDI DUMP (ALL, TONE MEMORY)	KEY NOTE ONLY, ENABLE/DISABLE (VELOCITY, P CHANGE, PITCH BEND, MODULATION, BALANCE, EXPRESSION), MIDI CLOCK, MIDI KEY ASSIGN (SINGLE, MULTI), TRANSPOSE OUT, APC OUT, PANEL MEMORY=P CHANGE, LOCAL CONTROL (SEQUENCER TO EXT, MANUAL TO EXT, BOTH TO EXT, ALL OFF=NORMAL), MIDI DUMP (ALL, COMPOSER, TONE MEMORY), OCTAVE −2~+2, SONG SELECT	
	FUNCTIONS		BASIC CH & TUNE, PITCH BEND RANGE, FOOT SW (SUSTAIN, PORTAMENTO, ENDING, START/STOP, FILL IN), SEQUENCER RESET ACCOMP − POLY ON + RHYTHM	BASIC CH & TUNE, PITCH BEND RANGE, PORTAMENTO TIME, FOOT CONTROLLER 2 (MIDI CH & CONTROL NO., MODULATION), FOOT SW 1, 2 (SUSTAIN, PORTAMENTO, ENDING, START/STOP, FILL IN), INITIALIZE, MEMORY PROTECT, SEQUENCER RESET, ACCOMP − POLY ON + RHYTHM	
OTHERS			MAIN VOLUME, POWER ON/OFF, MEMORY CARD SLOT		
TERMINALS			HEADPHONE JACK, LINE OUT (R/R+L, L), PEDAL IN JACKS (FOOT SWITCH, EXPESSION), MIDI TERMINALS (IN, OUT), AC CORD INPUT	HEADPHONE JACK, MEMORY CARD SLOT, LINE OUT (R/R+L, L), PEDAL IN JACKS (FOOT SWITCH 1, 2, FOOT CONTROLLER (EXP) 1, 2), MIDI/MOD MIDI TERMINALS (IN, OUT, THRU), AC CORD INPUT	
OUTPUT			5W × 2	10W × 2	
SPEAKERS			12 cm (4-23/32") × 2	9 cm (3-17/32") × 1, 12 cm (4-23/32") × 1	
POWER REQUIREMENT			55W		
			AC 120V, 60 Hz (NORTH AMERICA)	AC 120/220/240V, 50/60 Hz (EUROPE)	
DIMENSIONS (WXHXD)			103.5cm × 13.2cm × 35.6cm (40-3/4" × 5-3/16" × 14-1/32")		
NET WEIGHT			10.5kg (23.1 lbs.)	11.1kg (24.5 lbs.)	11.3kg (24.9 lbs.)
ACCESSORIES			MUSIC RACK, DUST COVER, AC CORD		

Storing with the step method

The **ACCOMP/CHORD** part and **DRUMS & CONTROL** part can be stored using the step method.

In addition to the **SEQUENCER** buttons, the seven rightmost keys of the keyboard are used for storing with the step method.



Note keys
- 𝅝 : Press to store a whole note.
- 𝅗𝅥 : Press to store a half note.
- ♩ : Press to store a quarter note.
- ♪ : Press to store an eighth note.

Reset key
𝄋 : Press to begin storing from the beginning.

End key
⊣ : Press after all of the sequence has been stored (if automatic repeat playback is not desired).

Repeat key
⊂⊃ : Press to complete storage and specify automatic repeat playback of the stored sequence.

ACCOMP/CHORD

Chord progressions and changes in the **POLY** and **SOLO** voices, effects and rhythm can all be stored in the **ACCOMP/CHORD** part.

Store the following example:

1. Press the **RECORD** button. The ⌐¬ indicators flash.

2. Press the **ACCOMP/CHORD** button. Its ⌐¬ indicator flashes slowly.
- If the **AUTO PLAY CHORD** function was not activated, the mode now changes automatically to the **FINGERED** mode of the **AUTO PLAY CHORD**.

3. Press the **STEP TIME** button to turn it on.

4. Store one measure of a C chord.

Specify the chord — Specify the note unit

While holding down a C chord on the left part of the keyboard, press the 𝅝 key, extreme right key of the seven edit keys, to specify a whole note (one measure of C chord).

- A "beep" will sound to indicate that the chord has been stored.
- If, while holding down a C chord, the 𝅝 key is pressed two times, the C chord will be stored for two measures.

5. Store one measure of an F chord.
While holding down an F chord on the left part of the keyboard, press the 𝅝 key, extreme right key of the seven edit keys, to specify a whole note (one measure of F chord).

6. In the same way, store one measure of a G chord and one measure of a C chord.

7. Press the ⊣ key to end storage.
- If you want the sequence to be repeated automatically, instead of the ⊣ key, press the ⊂⊃ key. (In the case of a 3-beat rhythm, if an intro is used or if the number of measures is an odd number, the timing will be off.)
- To insert an ending pattern, press the **ENDING** button instead of the ⊣ key.

- To store the sequence again (redo) from the beginning, press the reset key 𝄋 and begin storing again from step 3.

Automatic performance of the stored chord sequence

1. Press the **ACCOMP/CHORD** button on. The ▭ indicator turns on.

2. Select a rhythm and press the **START/STOP** button. The stored chord sequence is automatically played back.

- If the **START/STOP** button is pressed during automatic performance, the playback of the rhythm and chord stops, and at the same time, the chord returns to the beginning of the sequence.
  When the **START/STOP** button is pressed again, the chord playback starts from the beginning of the sequence.

Storing voices, effects and rhythm

Besides chord progressions, any changes in voice, effect and rhythm can also be stored in the **ACCOMP/CHORD** part.

■ **Before playing, set the registration.**
Before starting the storage procedure, (that is, before pressing the **STEP TIME** button), set the beginning registration. If an introduction is desired, press the **FILL IN & INTRO** button on.

■ **Storing an intro**
Press the **FILL IN & INTRO** button on first. Next press the **STEP TIME** button on and then select the part. At the beginning of the song, store a space (one measure) for the intro, either with or without chords.

- If a stored song with an intro section is played back without an intro, or if a stored song without an intro section is played back with an intro, the timing of the measures will be off during a repeat performance of the sequence.

■ **Storing voices, effects and rhythm**
Before storing a chord, set up the voices, effects and rhythm you want to store. This stores the selected voices, effects and rhythm at the beginning of the next measure. Storage continues until a different voice, effect or rhythm is specified.

■ **For FILL IN storage:**
After pressing the **FILL IN & INTRO** button on, press a note unit key and the fill-in will be stored.
After pressing the **FILL IN & INTRO** button on, if a note unit key is pressed while a chord is played, the chord and the fill-in will be stored together.

■ **For ending storage:**
To store an ending pattern, press the **ENDING** button at the end of the tune. (The **STEP TIME** button turns off.) If the **ENDING** button is pressed while the last chord of the song is being played, the ending pattern is added to the last chord.

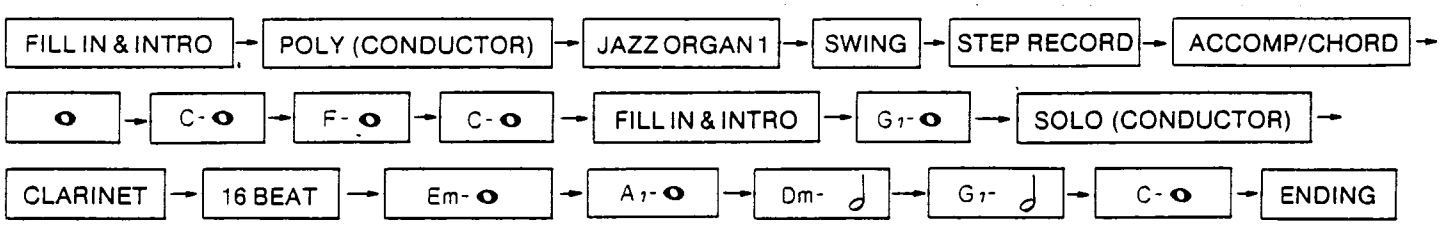
- When the tune is repeated, the last voice and rhythm of the tune continue through to the beginning of the repeat play. In order to specify the first voice of the second sequence, store the desired voice after the last chord is stored.

- Storing voice, effects and rhythm is counted as one note.

Store the following sequence:

Chord		C	F	C	G7	Em	A7	Dm G7	C	
FILL IN & INTRO, ENDING	**INTRO**				**FILL IN**					**ENDING**
Voice		**POLY: JAZZ ORGAN 1**				**SOLO: CLARINET**				
RHYTHM		**SWING**				**16 BEAT**				

Store the sequence as shown below.



DRUMS & CONTROL

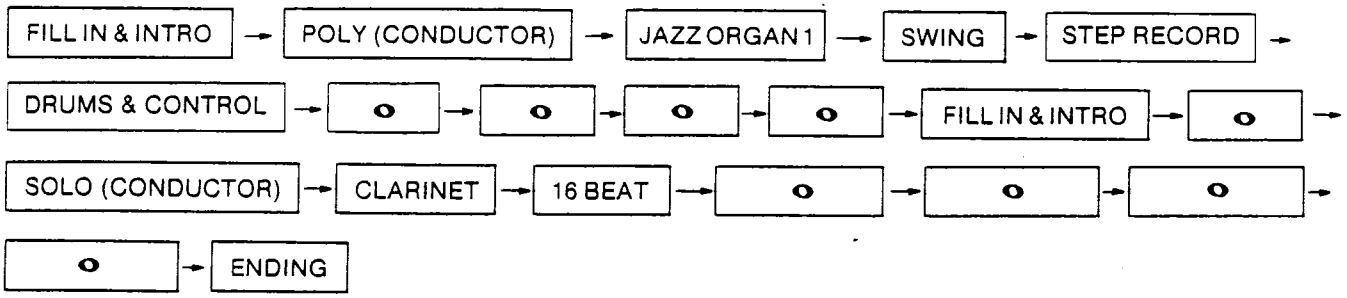
Changes in the voice, effect and rhythm can be stored in the **DRUMS & CONTROL** part.

The way to store is the same as when storing the **ACCOMP/CHORD** part, except that instead of pressing both a chord key and a note unit key, just a note unit key is pressed. (Chords cannot be stored in the **DRUMS & CONTROL** part.)

Store the following:

Note unit		o	o	o	o	o	o	o	o	
FILL IN & INTRO, ENDING	**INTRO**				**FILL IN**					**ENDING**
Voice		**POLY: JAZZ ORGAN 1**				**SOLO: CLARINET**				
RHYTHM		**SWING**				**16 BEAT**				

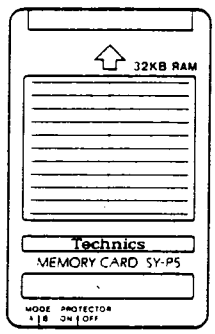
Store the sequence as shown below.



Part VIII Other storage functions

㉑ Optional Memory Card SY-P5 (AX5/AX7)

Your performances or registrations can be recorded on optional SY-P5 memory cards.
The cards have two modes, **FSC** (**A**) and **PS** (**B**), which can be selected with the **MODE A/B** switch.



PROTECTOR switch
Set to **ON** to avoid accidental erasure of stored data.
MODE switch

Storage capacity

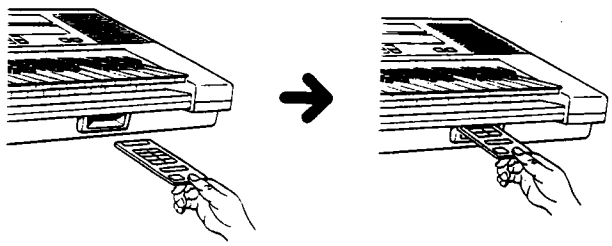
FSC mode (**A**)	On the AX7, three tunes' worth of performance data, including voice changes and **COMPOSER** data, other than **SEQUENCER** data. On the AX5, four tunes' worth of performance data.
PS mode (**B**)	One tunes' worth of performance data, including the contents of the **SEQUENCER** and **COMPOSER** (same storage capacity as the Synthesizer Keyboard's internal memory)

PS mode

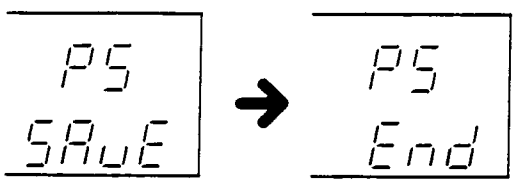
Storage

Performance data are first stored in the Synthesizer Keyboard's memory, and then transferred to the memory card.

1. Preparing the memory card.
   1) Set the memory card's **MODE** switch to **B** and the **PROTECTOR** switch to **OFF**.
   2) Insert the memory card securely into the slot on the right side directly below the keyboard.

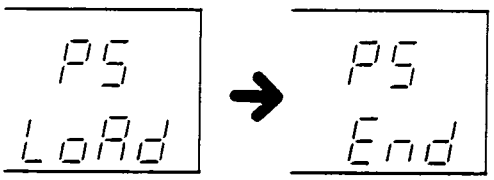


2. If appropriate, perform **SOUND EDIT**, **COMPOSER**, etc. procedures.
3. Store the performance data in the Synthesizer Keyboard's memory. (Refer to ⑳.)
4. Transfer the contents of the Synthesizer Keyboard's memory to the memory card. Press the **SAVE** button. The indicator flashes, and *PS* appears on the **MUSICAL DISPLAY**. Press the **SAVE** button again until a beep sounds and *End* appears on the **MUSICAL DISPLAY**.



Playback

1. Insert the memory card with the stored performance data into the slot.
2. Press the **LOAD** button. The indicator flashes.
   • *PS* appears on the **MUSICAL DISPLAY**.
3. Press the **LOAD** button again until *End* appears on the **MUSICAL DISPLAY**.



4. Press the **START/STOP** button. The stored tune will be played back automatically.

• Performing these procedures changes the Synthesizer Keyboard memory contents to the data stored on the memory card.
• You can copy the contents of a memory card onto another memory card by loading the card contents into the Synthesizer Keyboard memory, inserting a blank memory card, and then performing storage procedures. Note, however, that some manufacturer's pre-recorded memory cards cannot be copied.

FSC mode

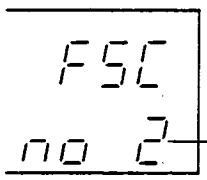
Using an **FSC** mode memory card with the AX7, three selections of registration data (voices, effects, rhythms and their combinations) including the contents of the **ACCOMP/ CHORD** and **DRUMS & CONTROL** parts of the **SEQUENCER** can be stored and easily recalled as required. With the AX5, four selections can be stored.

■ You can store
- Button settings on the panel
- **PANEL MEMORY** contents
- **MEMORY** button contents
- **COMPOSER** contents

Storage

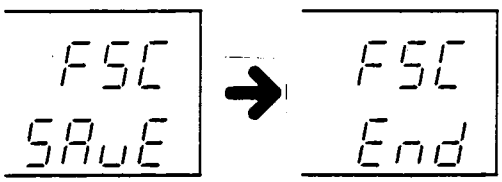
1. Set the memory card's **MODE** switch to **A** and the **PROTECTOR** switch to **OFF**.
2. Securely insert the memory card into the slot on the right side below the keyboard.
3. If appropriate, perform storage procedures for **SOUND EDIT**, **COMPOSER**, etc.
4. Set voices, effects, rhythms, etc.
- The **TRANSPOSE** and **TEMPO** settings are also recorded. If these buttons are pressed during playback, however, these effects will be changed to manual control.
- If an intro is required, turn on the **FILL IN & INTRO** button.

5. Save the information on the memory card.
   1) Press the **SAVE** button. The indicator flashes.
   2) Press the ⊞ and ⊟ buttons to select the track in which you wish to store the data.
   - If you save to a track number in which data was stored previously, the registration data will be erased and replaced by the new data.



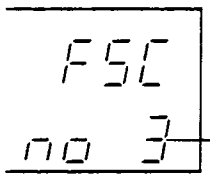
The selected track number is shown on the **MUSICAL DISPLAY**.

   3) Press the **SAVE** button again until a beep sounds and *End* appears on the **MUSICAL DISPLAY**.



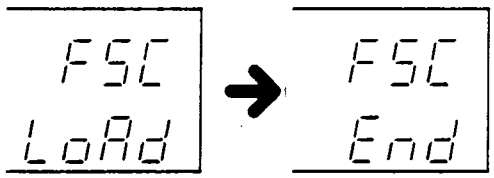
Playback

1. Insert the memory card into the slot.
2. Press the **LOAD** button. The indicator flashes.
3. Press the ⊞ and ⊟ buttons to select the track in which the data you wish to recall is stored.



The selected track number is shown on the **MUSICAL DISPLAY**.

4. Press the **LOAD** button again until *End* appears on the **MUSICAL DISPLAY**.
- The loading procedure is completed when appears on the **MUSICAL DISPLAY**.



This completes the procedure for recalling the registration data for the tune to be played.

> You cannot save to or load from a memory card when *Err* is shown on the **MUSICAL DISPLAY**.
> •For information concerning errors, refer to page ??.

■ Only one mode, **FSC** (**A**) or **PS** (**B**), can be used per card.
• When the mode is switched and data is stored on the memory card, any previously stored data is erased.
■ When loading the stored data, be sure to use the mode in which the data was stored.
• If the other mode is used, either the stored contents cannot be recalled or the Synthesizer Keyboard may not operate properly.

Precautions when using the memory card

■ The memory card includes electronic components such as ICs and should never be dropped or hit.
■ Do not touch the connector directly (with a pin or other pointed tool, for example).
■ Never try to disassemble the memory card.
■ Do not subject the memory card to extreme temperatures or humidity.
■ Never expose to or discard in fire.
■ Always store in the case when not in use.

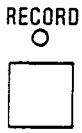
• If the memory card's battery runs out, the stored contents will be cleared and new contents cannot be stored.
If the battery runs out, please consult with your local dealer. There is a charge for having the battery replaced. At normal temperatures, the life of a new battery is about 3 years.
• Note that in the process of replacing the battery, the stored contents of the memory card are cleared. To preserve the contents of a memory card, first make a copy (in the keyboard's internal memory or in another memory card) before the battery is consumed. The battery can then be removed and replaced with a new one.

㉒ Setting other functions

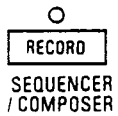
The following procedures allow you to set or adjust various functions on your keyboard.

I. Change to the function-setting mode

1. Press the **RECORD** button to turn it on. The indicator flashes.

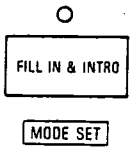


(AX3)

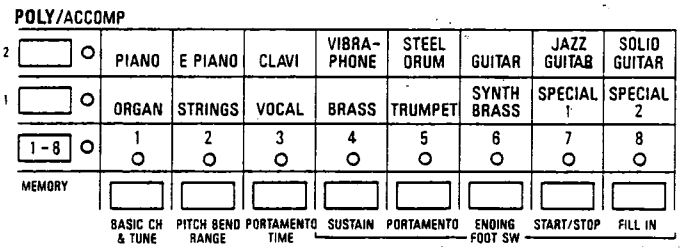


(AX5/AX7)

2. Press the **MODE SET** button. The indicator flashes slowly.

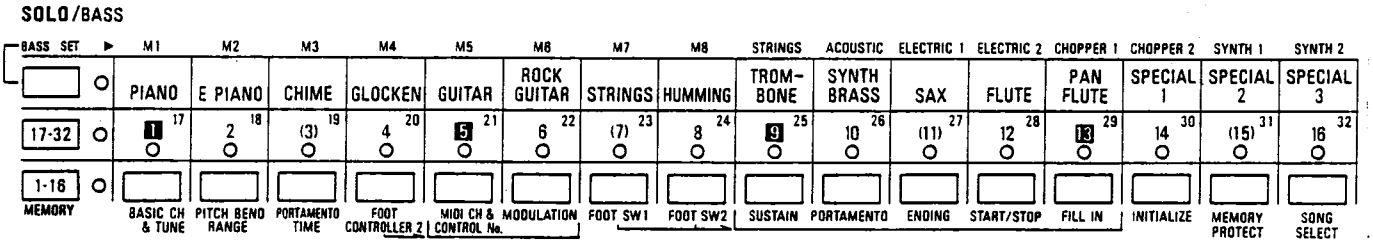


II. Set each function



(AX3)

The **POLY** voice buttons **1~8** are used to set each function.



(AX5/AX7)

The **SOLO** voice buttons **1~16** are used to set each function.

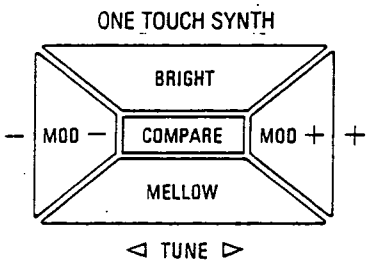
■ BASIC CH & TUNE

When this button is pressed on, the basic channel of each MIDI part and the tuning can be set. (For details about MIDI, please refer to the separate MIDI manual.)

The **TUNE** function is used to adjust the pitch of the keyboard for ensemble playing.

The **MOD+** and **MOD−** buttons of the **ONE TOUCH SYNTH** are used to adjust the tuning.

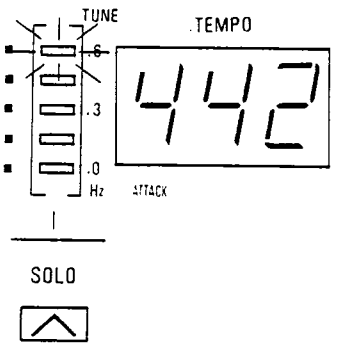
- Each time the **MOD+** button is pressed, the pitch is raised by 1/3 Hz, and each time the **MOD−** button is pressed, the pitch is lowered by 1/3 Hz. Pressing both buttons at the same time will return the keyboard to the standard tuning of 440 Hz.



When using the **TUNE** setting function, the pitch is shown on the **MUSICAL DISPLAY**. The example below shows a pitch of 442.0 Hz.

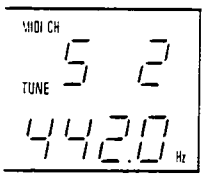
■ AX3

The pitch is displayed only when the **MOD+** button is pressed.



- Decimals are indicated on the **BALANCE** indicators for the **SOLO** part.

■ AX5/AX7

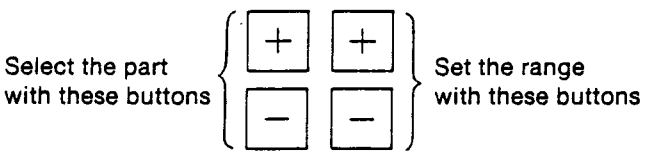


■ PITCH BEND RANGE

Press this button on to adjust the range of **PITCH BEND** wheel.

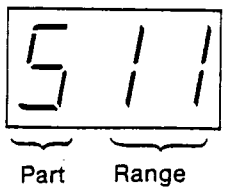
- The range for each part—**POLY**, **SOLO**, **ACCOMP** and **BASS**—is set independently.

Select the part and range with the ⊞ and ⊟ buttons.

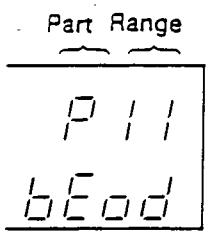


The part and range are shown on the **MUSICAL DISPLAY**.

(AX3)



(AX5/AX7)



The range can be set from 0 to 12. Each increment represents a half-tone increase in the range. When set to 0, the pitch does not change.

P...**POLY**, S...**SOLO**, A...**ACCOMP**, b...**BASS**

- On the AX5/AX7, the part can also be specified with the part buttons.

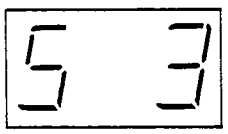
■ **PORTAMENTO TIME**
Press this button on to adjust the portamento time. (Refer to ⑧.)
- Portamento time is set for the **POLY** and **SOLO** parts independently.

Set the part and portamento time with the ⊞ and ⊟ buttons.

Set the part with these buttons { + + / − − } Set the time with these buttons

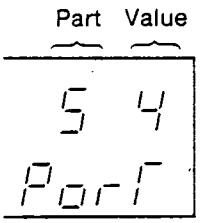
The part and portamento time are shown on the **MUSICAL DISPLAY**.

(AX3)



P...**POLY**, S...**SOLO**

(AX5/AX7)



The portamento time can be set from 0 to 9. When set to 9, the longest portamento time is set. When set to 0, portamento does not function.

■ **FOOT CONTROLLER 2** (AX5/AX7)
When this button is pressed on, you can select the function of **FOOT CONTROLLER 2**.

- The Foot Controller is sold separately.

Turn on the **MODULATION DEPTH** button to adjust the depth of the modulation effect with the Foot Controller.

- If the **MIDI & CONTROL NO.** button is turned on, you can select a MIDI channel and control number to be controlled by the Foot Controller. (Refer to the separate MIDI manual.)

■ **FOOT SW** (AX3)
■ **FOOT SW 1, FOOT SW 2** (AX5/AX7)
Select one of the following functions to be turned on/off by the foot switch(es): **SUSTAIN, PORTAMENTO, ENDING, START/STOP, FILL IN.**

■ **AX3**
Press the button on for the function you wish to turn on/off with the foot switch.

■ **AX5/AX7**
1. While the **FOOT SW 1** indicator is lit, press the button for the function you wish to turn on/off with foot switch 1.
2. While the **FOOT SW 2** indicator is lit, press the button for the function you wish to turn on/off with foot switch 2.

■ **INITIALIZE**
Press this button on to return all the **MODE SET** functions to their standard settings.

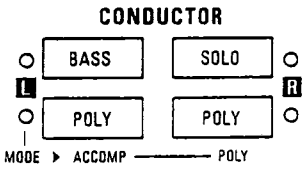
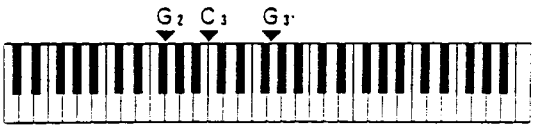
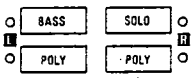
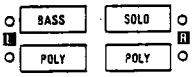
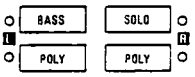
■ **MEMORY PROTECT**
When this button is pressed on, the memorized contents of the **COMPOSER, SEQUENCER** and the memory card cannot be altered.

■ [L] **POLY/ACCOMP**

If the [L] **POLY** button of the **CONDUCTOR** is pressed on when in the function-setting mode, the [L] **POLY** button works as the **ACCOMP** button of the **CONDUCTOR**.

- A maximum of 3 notes in the [L] **ACCOMP** keyboard section can be played at one time.

There are three ways to assign voices to the keyboard when the [L] **ACCOMP** is used (when the **AUTO PLAY CHORD** is off).)

CONDUCTOR settings	Tonal keyboard	Number of notes that sound simultaneously
		
 Press at the same time.	[L] **ACCOMP** — [R] **SOLO** Split point	[L] **POLY**: 3 notes [R] **SOLO**: 1 note
 Press at the same time.	[L] **ACCOMP** — [R] **POLY** Split point	[L] **ACCOMP**: 3 notes [R] **POLY**: 4 notes
 Press at the same time.	[L] **ACCOMP** — [R] **POLY + SOLO** Split point	[L] **BASS**: 3 notes [R] **POLY**: 4 notes **SOLO**: 1 note

* If the **AUTO PLAY CHORD**'s **ONE FINGER** or **FINGERED** button is switched on when, at **CONDUCTOR**, only the **BASS** or **ACCOMP** part is selected, the keyboard is split and the right part becomes **POLY** tone color.

■ **PANEL MEMORY**

If the a **PANEL MEMORY** button is pressed when in the function-setting mode, all four indicators light, and the range of panel settings which are stored in the **PANEL MEMORY** can be increased.

- If the **PANEL MEMORY** is off during the function-setting mode, the following panel settings will be stored when using the **PANEL MEMORY** feature:
  1) **SOLO**, **POLY**, **ACCOMP**, **BASS** voices and their respective volumes (**BALANCE**)
  2) **CHORUS** and **SUSTAIN** status
  3) **CONDUCTOR** status
  4) **PORTAMENTO** status
  5) **DIGITAL REVERB** status

- If the **PANEL MEMORY** is on during the function-setting mode, the following additional panel settings will be stored:
  6) **KEYBOARD PERCUSSION** status
  7) **KEY SPLIT** point
  8) **RHYTHM** and **RHYTHM VARIATION**
  9) **AUTO PLAY CHORD** status
  10) **COMPOSER** button status
  11) **TRANSPOSE** status

III. Exit the function-setting mode

When the desired functions have all been set, press the **RECORD** button to turn it off.