

Technics

SX-EX5L



FOR CANADA

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

POUR CANADA

L'interférence radioélectrique générée par cet appareil numérique de type B ne dépasse pas les limites énoncées dans le Règlement sur les perturbations radioélectriques, section appareil numérique, du Ministère des Communications.

Technics

**OWNER'S MANUAL
INSTRUCTIONS D'EMPLOI
GEBRUIKSAANWIJZING**

**BEDIENUNGSANLEITUNG
INSTRUCCIONES DE MANEJO
ISTRUZIONI PER L'USO**

Caution

Voltage (except North America and Europe [excluding U.K.])
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 19.

Vorsicht!

Netzspannung (außer Nordamerika und Europa)
Versichern Sie sich, daß der Spannungswähler auf der Rückseite mit Ihrer lokalen Netzspannung übereinstimmt, bevor Sie das Instrument in Betrieb nehmen. Ist dies nicht der Fall, benutzen Sie einen Minusschraubenzieher, um den Spannungswähler auf die örtliche Netzspannung einzustellen.

Bevor Sie anfangen zu spielen, lesen Sie bitte die Vorsichtshinweise auf Seite 37 dieser Anleitung.

Attention

Tension (à l'exception de l'Amérique du nord et de l'Europe)
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 55.

Attentie!

Netspanning (behalve voor Noord Amerika en Europa)
Let er op dat de spanningscaroussel, die zich op het achterpaneel bevindt, op de juiste netspanning staat vóór het orgel wordt aangesloten. Gebruik een kleine schroevendraaier om de spanningscaroussel in te stellen.
Voordat u gaat spelen, lees de waarschuwingen punten op bladzijde 91 zorgvuldig en goed door.

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.

Bescheinigung des Herstellers/Importeurs

Hiermit wird bescheinigt, daß der/die/das

TECHNICS, Model No. SX-EX5L

(Gerät, Typ, Bezeichnung)

in Übereinstimmung mit den Bestimmungen der

Vfg 1046 / 1984

(Amtsblattverfügung)

funk-entstört ist.

Der Deutschen Bundespost wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.

PANASONIC DEUTSCHLAND GMBH

Name des Herstellers/Importeurs

Precaución

Tensión (excepto América del Norte y Europa)

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 órgano. 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 73.

Attenzione

Voltaggio (eccetto Nord America e Europa)

Assicurarsi che il cambio tensione, sul pannello posteriore, concordi la tensione con il voltaggio della tensione di rete. Usate nel caso un cacciavite per adattare la tensione. Prima di suonare vi consigliamo di leggere le indicazioni della pagina 109.

ENGLISH

DEUTSCH

FRANÇAIS

ESPAÑOL

NEDERLANDS

ITALIANO

Part I Basic functions

In this section, basic functions of voice, effect and rhythm are explained. For various storage functions that use the **RECORD** button, refer to Part II.

Most buttons are equipped with indicators which light up when in operation.

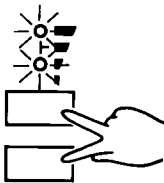
Controls

Volumes and effects on this organ are controlled by 4-stage buttons, except the **TRANSPOSE** and **TEMPO** controls.

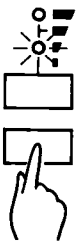
VOLUME



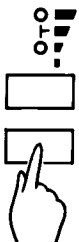
- When the upper button is pressed, the upper indicator lights up and the volume is at the maximum.



- If both buttons are pressed simultaneously, the volume returns to the normal or intermediate level and both indicators turn on.



- When the lower button is pressed, the lower indicator lights up and the volume is decreased.

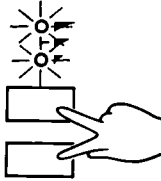


- If the lower button is pressed again, the volume is at the minimum (or turned off, in the case of **DRUMS** and **ACCOMP**) and both indicators are off.

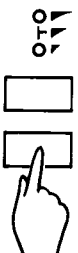
SUSTAIN



- When the upper button is pressed, the upper indicator lights up and the sustain effect is at the maximum.



- If both buttons are pressed simultaneously, the sustain effect returns to the normal or intermediate level and both indicators turn on.



- If the lower button is pressed when either or both of the indicators are lit, the sustain effect is turned off and both indicators turn off.

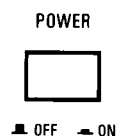
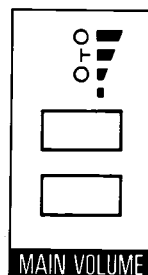


- When the lower button is pressed again, the lower indicator lights up and the sustain effect is at the minimum.

Power/main volume

Pressing the **POWER** switch turns the organ on.

MAIN VOLUME adjusts the loudness of the entire organ.



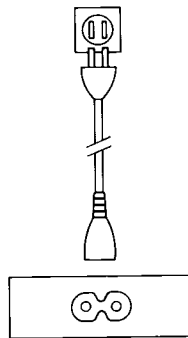
The circled numbers on the separate sheet correspond to the section numbers in this instruction manual.

① Playing Your Technics is Easy!

Let's get ready.

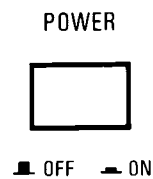
1. Plug the power cord into an outlet.
2. Turn the **POWER** switch on.

①



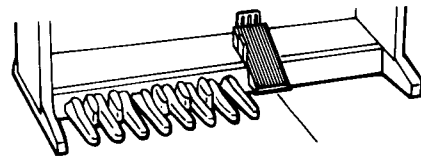
AC IN

②



Let's play.

Now let's play a song. Adjust the **MAIN VOLUME** to an appropriate level.
The sound can be regulated with the expression pedal.



Cuckoo

waltz $\text{♩} = 100$

The musical score for 'Cuckoo' is written in treble clef, 3/4 time, with a tempo of 100. It consists of three staves of music. Above each staff are chord diagrams for C and G. The notes on the staves are: Staff 1: G4, E4, G4, E4, D4, C4, D4, C4. Staff 2: D4, D4, E4, F4, D4, E4, E4, F4, G4, E4. Staff 3: G4, E4, G4, E4, F4, E4, D4, C4.

② Orchestral Conductor

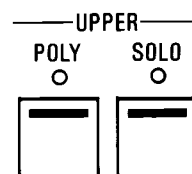
Two voice groups, **POLY** and **SOLO**, are available for the upper keyboard. With the **ORCHESTRAL CONDUCTOR**, you centrally control which voice group is active.

Understanding the **ORCHESTRAL CONDUCTOR** is easy if you think of each button as an "on-off switch" that controls the voice group indicated. The buttons each have an indicator that illuminates when the button is pressed.

- If you wish to combine **POLY** and **SOLO** voices, press both buttons at the same time.

All voices of the Technics organ are reproductions of true instrumental effects made possible by the PCM system. Treble and bass sounds outside the range of the real instruments can also be produced. Particularly in the bass range, the tones start up slowly. Therefore, if you play fast, use the treble range for the most effective performance.

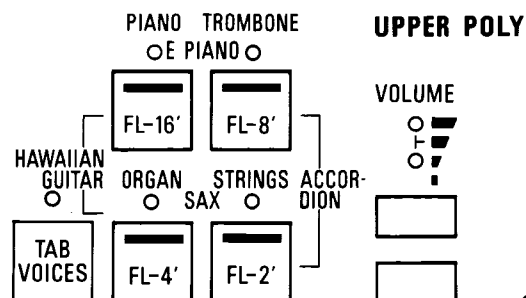
ORCHESTRAL CONDUCTOR



③ Upper Poly

POLY brings in the sounds of both orchestral and percussive instruments. (The **TAB VOICES** button must be off.)

- Pressing two adjacent buttons simultaneously will produce the voice which is indicated between the two buttons.
- Adjust the volume using the **VOLUME** buttons for **UPPER POLY**.
- Voices cannot be mixed.
- For **UPPER POLY**, up to 7 keys can sound simultaneously.



Tab voices

When the **TAB VOICES** button is turned on, the four **FL**-buttons become flute voice buttons.

- Only flute voices will sound when the **TAB VOICES** button is on. To use voices other than flute voices, press the **TAB VOICES** button again to turn it off.
- The four flute voices can be mixed as desired.

Footage marks

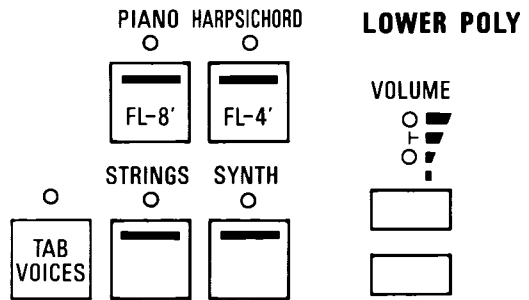
To help you use the **TAB VOICES** most effectively, you should know something about the numbers that appear on the **FL**-buttons. These are called footage marks because they refer to the lengths of pipe used to create musical tones on a pipe organ. The bigger the number (or length of pipe), the lower the tone.

④ Lower Poly

These voices are heard when you play on the lower keyboard; they are used mostly for accompaniment, played by your left hand.

The **LOWER POLY** buttons are operated and function like the **UPPER POLY** buttons.

- For **LOWER POLY**, up to 4 notes can sound simultaneously.

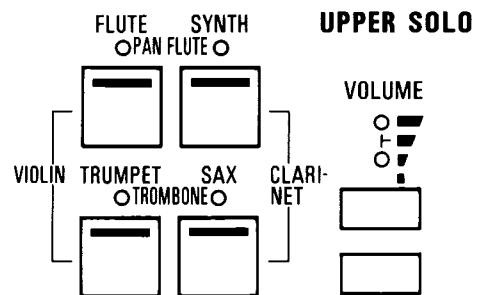


⑤ Upper Solo

All these voices are monophonic, which means they will sound on only one key at a time no matter how many keys you press.

VOLUME buttons let you adjust volume levels.

- Pressing two adjacent buttons simultaneously selects the voice indicated between them.
- When selecting only **SOLO** on the **ORCHESTRAL CONDUCTOR**, the key pressed will sound without any lag, so that rapid passages can be easily played up and down the keyboard.
- When both **SOLO** and **POLY** are selected for the upper keyboard on the **ORCHESTRAL CONDUCTOR**...
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 less than three keys away, the **SOLO** voice will shift to the left hand.)

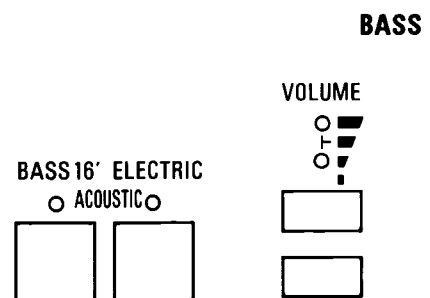


⑥ Bass

Select the voice for the pedal keyboard with these buttons.

- To select **ACOUSTIC**, press both buttons at the same time.

VOLUME allows you to adjust the loudness of the pedal tones in relation to the upper and lower keyboard voices.



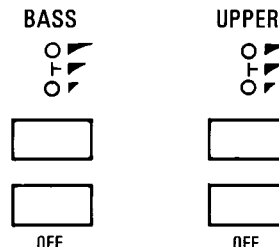
7 Sustain

Regardless of where it is used, sustain allows the sound of the notes to gradually fade away (decay).

Sustain functions for the **UPPER POLY** voices and for the pedal keyboard tones.

- Operation of the **SUSTAIN** controls is explained in detail on page 2.
- **SUSTAIN** does not function for the following voices:
POLY: ACCORDION, TROMBONE, SAXOPHONE

SUSTAIN



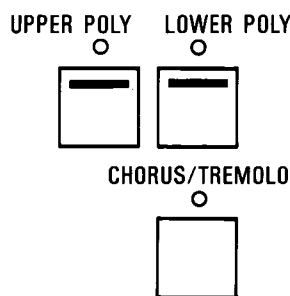
8 Effect (Chorus/Tremolo)

CHORUS/TREMOLO—When this button is off, you'll hear the chorus effect—a very slow tremolo, especially suited to religious and classical music. Press the button to turn it on and hear the faster effect, ideal for most other kinds of music.

UPPER POLY lets you bring any of the **UPPER POLY** voices into the **CHORUS/TREMOLO** effect; **LOWER POLY** allows you to do the same with lower keyboard voices.

- The **TREMOLO** speed can be adjusted. (Refer to 22.)

EFFECT



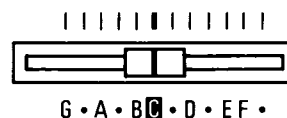
9 Transpose

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 by moving the slide control from the normal key of C.

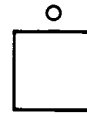
- The pedal keyboard notes are lowered one octave when 8' notes are transposed higher than a major 3rd, and become one octave higher when 16' notes are transposed to lower than C.

TRANSPOSE



10 Techni-Chord

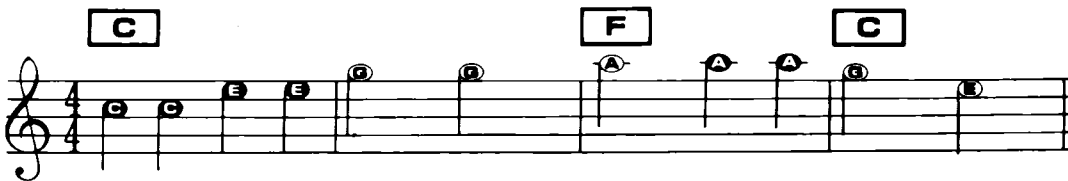
TECHNI-CHORD



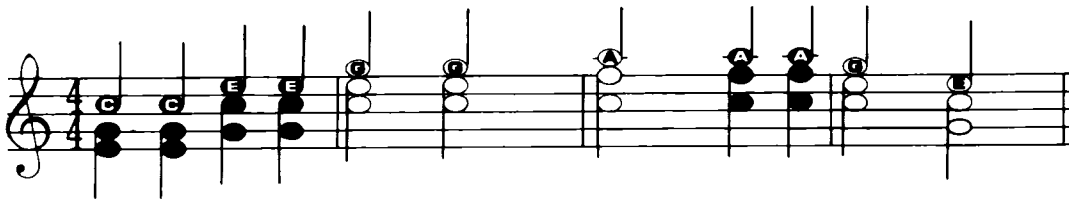
TECHNI-CHORD makes your melodies sound like those of a professional organist by transferring the chord notes you play on the lower keyboard to each melody note you play on the upper keyboard.

Set up your organ to play the example below—use either the one-finger mode, or form your own.

Holy, Holy, Holy



Now press the **TECHNI-CHORD** button and play the example again. Here's how your one-finger melody looks when written out—three-note melody chords!



TECHNI-CHORD functions for any sound other than the **UPPER SOLO** sounds.

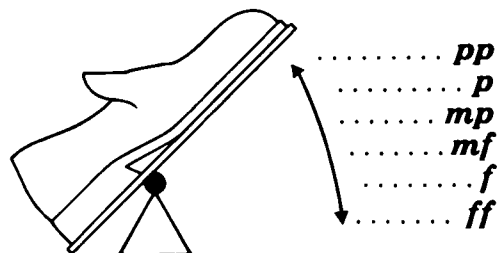
TECHNI-CHORDs cannot be played using the lower seven keys of the upper keyboard.

11 Expression pedal

The expression pedal regulates the loudness of ALL the organ voices, regardless of how individual volume controls may be set.

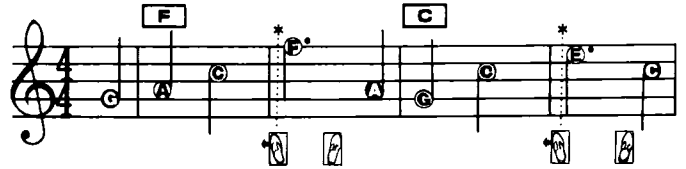
Pushing down with your toe makes the organ louder; pushing down with your heel makes the tone softer.

The "halfway down" position of the pedal represents the medium volume range—this is always a good starting point if dynamic marks don't appear in the music.



12 Glide control

The glide control switch is located on the left side of the expression pedal. When pressed to the left with the side of your foot, it lowers the pitch about one half-step. The example below shows how you can achieve the Hawaiian guitar effect. Press the glide switch just before you play the note you want to "bend" (*).



- Other functions can be turned on and off using this foot switch. (Refer to ②.)
- The glide effect does not function for the following voices:
POLY: PIANO, ELECTRIC PIANO, HARPSICHORD, STRINGS
BASS: all voices

13 Rhythm

The rhythm unit, which employs a pulse code modulation (PCM) system for a more realistic sound, consists of rhythm selector buttons, start/stop devices, a beat indicator, and volume and tempo controls.

The **RHYTHM** buttons themselves are self-canceling—if one is pressed and you choose a new rhythm, the indicator(s) for the first rhythm goes out when you press the button for the new pattern. Pressing the two adjacent buttons simultaneously selects the rhythm indicated between them.

The **START/STOP** button instantly starts and stops the drum rhythm. The rhythm always starts on the first beat of a measure. The indicator above the button indicates the downbeat by flashing on the first beat of each measure. This helps you relate the drum rhythms to the music and helps you keep track of "where you are" while playing.

SYNCHRO & BREAK starts the drum rhythm you've chosen only when a pedal or a key on the lower keyboard is pressed.

DRUMS VOLUME buttons allow you to adjust the loudness of the drums to be in balance with the keyboard voices.

TEMPO adjusts how fast or slow the rhythm is played.

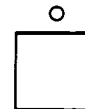
- The numbers alongside the sliding control represent the approximate tempo.



START/STOP



SYNCHRO & BREAK

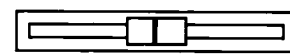


VOLUME
DRUMS



♩ = TEMPO

50 80 120 180 300



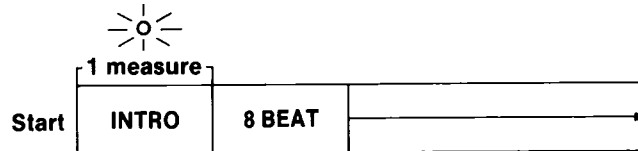
SLOW 440Hz TUNING FAST

14 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):

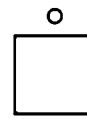
1. Press **8 BEAT**.



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** rhythm. After the intro, the indicator goes out.

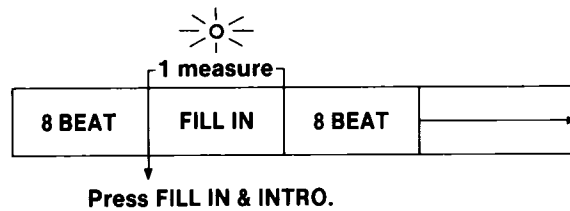
FILL IN & INTRO



As a fill-in:

1. Press **8 BEAT**.
2. 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.

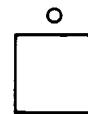


15 Ending

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

- The ending patterns for the **BASS & ACCOMP** (explained later) are also produced by pressing this button.

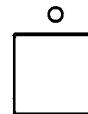
ENDING



16 One Touch Play

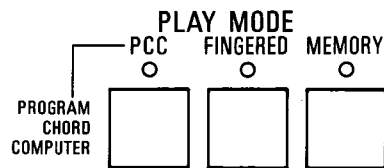
If this button is pressed, the appropriate voice and effect registration for the rhythm chosen are automatically set. Therefore, immediate play is possible if a rhythm is selected and this button is pressed for several seconds until the indicator stops flashing.

ONE TOUCH PLAY



MODE SET

17 Play Mode



These buttons are used to select the desired type of accompaniment.

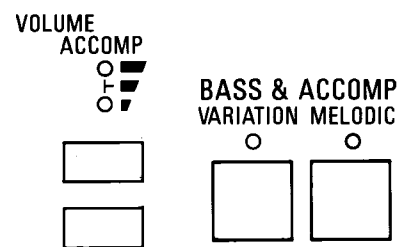
- **Normal mode** (PCC and FINGERED buttons are off)
 - The accompaniment is formed from the pedal and lower keyboards.
 - When the rhythm is started, pressing keys on the lower keyboard starts the rhythmic ACCOMP.
 - With the MEMORY button on, a BASS & ACCOMP which matches the fingered chord on the lower keyboard starts.
- **Auto Play Chord mode** (the FINGERED button is on)
 - The chord and bass sound when the lower keyboard is played.
 - When the rhythm is started, the rhythmic ACCOMP automatically starts. (The voice selected by the LOWER POLY buttons is not rhythmic. To turn off this sound completely, press the TAB VOICES button of the LOWER POLY, and turn off both FL- buttons.)
 - With the MEMORY button on, the played chord is memorized and continues to sound until another chord is played. (Refer to 18.)
- **PROGRAM CHORD COMPUTER mode** (the PCC button is on)
 - The accompaniment is automatically played following the chord progression which was stored in the PROGRAM CHORD COMPUTER. (Refer to 20.)

■ About voice, volume and pattern

ACCOMP: The ACCOMP is performed in a voice and pattern which is automatically matched to the selected rhythm. Adjust the volume with the ACCOMP VOLUME buttons.

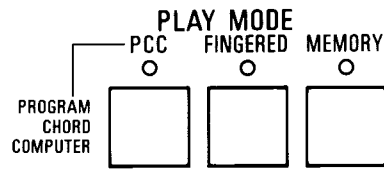
Turning on the MELODIC button of the BASS & ACCOMP changes the rhythmic pattern to a melodic pattern.

The BASS and ACCOMP patterns also change depending on whether the VARIATION button is on or off.



BASS: The BASS sound is determined by the BASS voice buttons and VOLUME buttons.

18 Auto Play Chord



Auto Play Chord is an effective musical aid and a source of enjoyment regardless of your previous musical experience. Combined with other exciting Technics features—automatic **RHYTHM**, and **TECHNI-CHORD**—Auto Play Chord can help you create orchestral and full organ sounds using only one finger on each hand. Further, it can actually help you learn to play the organ in the traditional manner. Let's see how...

The **FINGERED** button, if pressed, automatically selects the one-finger mode when you play only one key on the lower keyboard or the fingered mode when playing 3 or more keys.

The one-finger mode allows you to play a full chord and a bass tone by pressing any single key on your lower keyboard; these chords are called *major*, indicated by a chord symbol letter (C, E \flat , etc.). To play *seventh* chords (G7, B \flat 7, etc.), press any long, light-colored bass pedal as you play the appropriate key. To play *minor* chords (Am, F \sharp m, etc.), press any short, black bass pedal as you play the appropriate key. Occasionally you'll play *minor seventh* chords (Dm7, Gm7, etc.). As you play the lower manual key with the appropriate letter-name, press any long and short bass pedals, at the same time, with your left foot.

The **FINGERED** mode also allows you to form your own chords on the lower keyboard; the correct bass tone is automatically provided. If you play the pedal keyboard at this time, the bass pattern beginning with the pressed note is played.

MEMORY provides the sound of the chord and bass tone even if you release the lower manual key(s). The chord and bass continue to sound until you play another chord or stop the rhythm.

In addition to the features listed above, your Technics organ has a walking bass feature available at all times. This allows you to automatically re-create professional bass parts when you use either pedal voice along with any of the automatic rhythms.

Pressing the **FINGERED** button again shuts off the Auto Play Chord feature, permitting normal play.

Set up lower keyboard and pedal voices and play the chord example below. If you use the one-finger mode, play the chord key indicated by the letter-name in each chord symbol. If you play in the fingered mode, form the chords as shown with your left hand. Use **MEMORY** to allow yourself time to find the correct notes.

One-finger:	F	G7	Cm	E\flat	Dm7	G7	A\flat	C
Fingered:								

■ **About the break function**

When the **FINGERED** and **SYNCHRO & BREAK** buttons are turned on and the **MEMORY** button is turned off, the rhythm is heard while pressing the keys on the lower keyboard.

If the hand is removed, the rhythm will stop. Press the keys again and the rhythm will start from the first beat.

Part II Storage functions

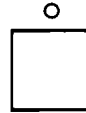
Refer to Part I for basic operations of each function.

19 Record

RECORD creates no effect of its own. This button is used to store functions such as the **PROGRAM CHORD COMPUTER**. When you press **RECORD**, its indicator and the indicators of all programmable features flash quickly. Press the button for the feature you wish to use. Its indicator will flash slowly and the indicators of the other features will go out.

NOTE: If you don't make your selection within about five seconds, all of the indicators will go out—just press **RECORD** again and then make your choice.

RECORD



NOTE: Functions and memories which are stored using the **RECORD** button are returned to their factory-preset states when the power to the organ is turned off.

20 Program Chord Computer

The **PROGRAM CHORD COMPUTER**, complete with a memory bank, is an amazing device that is exclusive to most Technics organ models. This makes it possible for you to program the chord accompaniment of an entire song and store it right inside the organ. The main advantage of this is that, while you're learning to play a song, the computer can play the accompaniment, complete with rhythm, while you concentrate on practicing the melody.

There are two groups of controls that operate the **PROGRAM CHORD COMPUTER**—the buttons illustrated at right, and the 9 keys on the right of the lower keyboard.

NOTE: A total of 100 chord entries may be made before the built-in computer memory is full. A quarter-measure () or *D.S* key is counted as two chords. When the computer memory is full, short beeps will sound.

The **PCC** button prepares the computer for the storage of the chords of your choice (after **RECORD** is pressed).

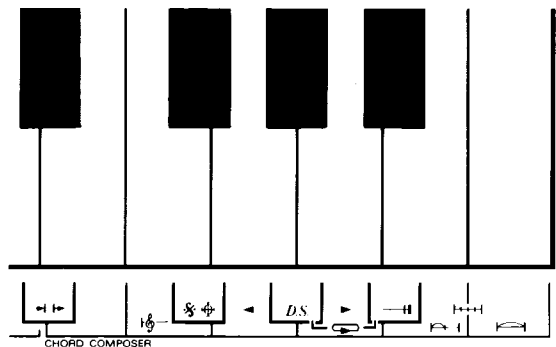
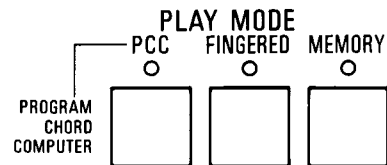
The 9 keys are used for the actual process of storing chords in the computer. Here is what they do:

stores a chord for an entire measure (one chord per measure).

stores a chord for a half-measure (two chords per measure).

(pressing two keys at a time) stores a chord for a quarter-measure (four chords per measure).

Amend keys () are used to correct individual chords in a sequence, or to change chords already in the memory bank.



can be pressed should you wish to start programming over from the beginning.

(end) is pressed after the last chord has been stored.

(pressing two keys at one time) completes storage so that performances can be automatically repeated.

allows you to input a pause at any time during the recording. This pause is reproduced when the recording is played back.

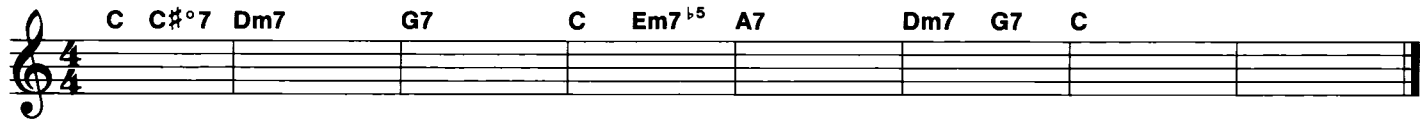
The use of the and *D.S* keys allows you to store chords according to the music, making storage operation easy. This is explained later in detail.

It's possible to store these types of chords:

Major	Minor	Minor Seventh	Minor Seventh Augmented	Diminished Seventh	Minor Seventh Flat Fifth	Major Seventh	Minor Major Seventh	Seventh Suspended Fourth
C	Cm	C7	Cm7	Caug	C°7 or Cdim7	C [♭] 7 or Cm7 ^{b5}	CM7 or Cmaj7	C7sus4





Some of these chord types are not available as a one-finger chord; no matter, however, since your computer easily mixes one-finger and fingered chords.

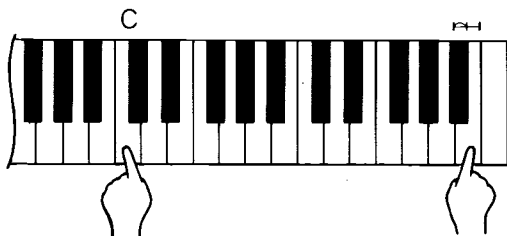
Use the following example to learn operations of the **PROGRAM CHORD COMPUTER**. The variety of chords presented will help you do this.





Storing chords in the computer


1. Press **RECORD** and then **PCC**. Computer memory is now ready to receive the chords in the example.


Press and hold the C chord on your lower keyboard, either in the one-finger or fingered mode. **DON'T PRESS THE FINGERED BUTTON** however, since doing so cancels the record feature. While holding the C chord key(s), press the key marked . The chord sounds while you're holding it; as you press the  key, you'll hear a "beep"—this tells you the chord is now in the memory. **ALWAYS REMEMBER:** When you hear the chord you want, THEN press  or .














Since the C# diminished seventh chord is not available in the one-finger mode, you'll have to form it yourself (C#-E-G-Bb). Hold it and press the  key again. The "beep" sounds and the first measure is complete.

The second measure contains only the Dm7 chord. If you don't form it yourself, you can press the one-finger D chord and add a short bass pedal (for minor) and a long pedal (for seventh). While holding this chord, press the  key; the second measure is now complete.

Continue with the remaining chords in the example, entering half and whole measures as required. Incidentally, the notes of the Em7^{b5} chord are E-G-Bb-D. The last chord, C, is played for two measures. As you hold down the key(s), press the  key twice—once for each measure.

2. Press the  (end) key. This closes the memory to further storage, and turns off the **RECORD** button. The indicator for the **PCC** button stays on, however.

Other facts you should know about storing chords...

- To store "no chord" (N.C.) press the  or  key, as necessary, without playing a chord.
- When the programmed chord sequence is automatically played back, it stops after one play. For repeat automatic play, follow the procedures below in step 2 above.
- To repeat the programmed chord sequence until the rhythm is stopped: Instead of the  key, press the  keys (pressing the *D.S.* and  keys at the same time).
- To specify the number of repetitions (up to 8 times): While holding the *D.S.* key down, press one of the keys 2 to 8 (on the lower keyboard) corresponding to the number of repetitions (e.g. the 3 key to repeat 3 times). Then press the  key.
- If you press the  key when storing the chord sequence, the sequence will stop at the first beat of the next chord during automatic playback. Pressing the **START/STOP** button resumes the sequence at the chord next to the stopped one.
- For example, press the G7 , , C  and Am  keys for storage. When automatically played back, the chord sequence stops at the first beat of the C chord after the G7. Pressing the **START/STOP** button resumes the sequence at the Am chord.

Playing the programmed chords


After making sure the **PCC** indicator is on, start the automatic rhythm of your choice. The stored chords are automatically repeated in sequence for the correct number of measures.

When you are playing a programmed chord sequence and you wish to replay a certain part of the program—maybe you missed a melody note—press the **START/STOP** button. This stops the automatic rhythm and the chords; at the same time, the program returns to the beginning of the chord sequence, allowing you to restart and play again.

Modifying or correcting programmed chords



Suppose you wanted to change the A7 chord in the example to an E \flat 7—here are a couple of ways you could do it.

Using the rhythm


1. Press the **RECORD** and **PCC** buttons.
2. Press **START/STOP** to begin the chord sequence with the rhythm.
3. Stop the rhythm when the sequence reaches the A7 chord.
4. Play and hold the new chord (E \flat 7) and press the  key. The new chord is now in the position of the original chord.
5. Press **PCC** again.

Using the forward () and back () keys






Step 1 as above.

2. Press the  key once for each chord from the start of the program. In this case, the A7 is the seventh chord in the sequence; watch the example and press  seven times.
3. Stop when you hear the chord you want to change.

Steps 4 and 5 as above.

The  key is used the same way when you want to move one chord at a time from the end of the program to the beginning.

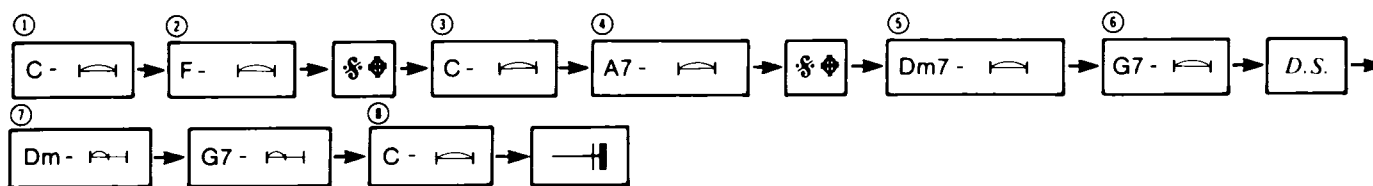
Other facts you should know about changing chords...

- The  and  keys operate only when the rhythm is stopped and the **RECORD** and **PCC** buttons are pressed.
- Each press of the  key advances one unit and each press of the  key moves back one unit, whether the unit is a whole measure, a half-measure, or a quarter-measure.
- Should you enter the wrong chord, press the  key once and enter the correct chord.

Using the ♪, ♠, D.S. keys

After pressing the symbol keys according to the music sheet, the chord of the measure is stored. Let's try to store the following music.

The memory procedure is as follows.



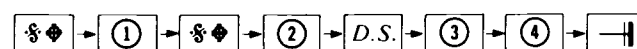
Music written with repeat marks other than ♪, ♠, and D.S. can be stored with the following correspondence.

♪ : , , Fine
 D.S.: D.C., al Fine ,

(For , press the ♪, D.S. keys in succession.)

Example

The memory procedure is as follows:



The following kinds of music cannot be stored by using ♪, D.S. keys.

- When the position of and "to ♠" are the same.
- When the ranges of two repeats overlap.
- When the positions of and D.C. or D.S. are the same.

Fill in & intro, ending storage

This **PROGRAM CHORD COMPUTER** stores not only chords but also the **FILL IN & INTRO** and **ENDING**.

■ INTRO

Storage can be done by pressing the **FILL IN & INTRO** button at the beginning of a tune.

■ FILL IN

After storing a chord, press the **FILL IN & INTRO** button, and one measure of that chord will be stored as the fill-in.

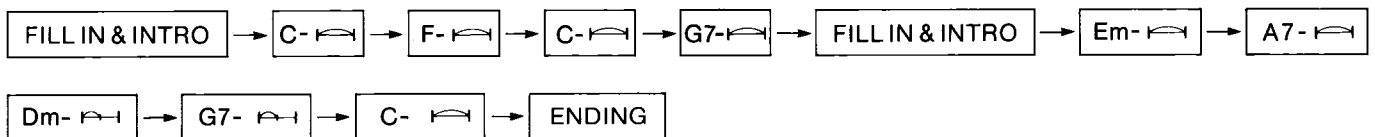
■ ENDING

If the **ENDING** button is pressed at the end of a song, the last chord will be stored as an ending pattern. (The **RECORD** button will be turned off.)

Let's store the following:

Chord		C	F	C	G7	Em	A7	Dm G7	C
FILL IN & INTRO, ENDING	INTRO				FILL IN				ENDING

After first pressing the **RECORD** button then the **PCC** button, perform the storage operation as follows:

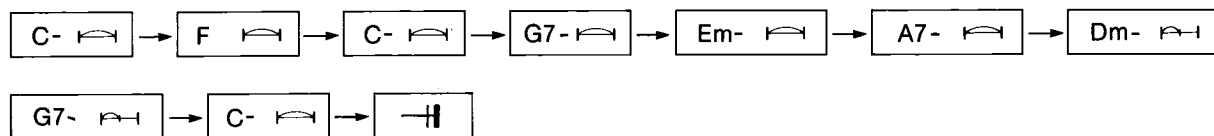


- Up to 10 selections of the **FILL IN & INTRO** and **ENDING** can be stored. (Storing **FILL IN & INTRO** and **ENDING** in sequence is counted as one selection.)

- It is also possible to store **FILL IN & INTRO** and **ENDING** after a chord sequence has been entered.

Let's store the previous example using the following procedure.

1. First, store only the chords.



2. Press the **RECORD** button and then the **PCC** button.

3. Press the **FILL IN & INTRO** button.

4. Press the forward key (▶) four times to advance the chord to the G7 position.

5. Press the **FILL IN & INTRO** button.

6. Press the forward key (▶) six times.

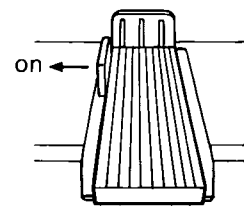
7. Press the **ENDING** button.

②1 Programmable function switch

The function desired during play can be stored in the foot switch. Thus, the effects can be easily changed with your foot.

- The switch normally works as a glide switch.
- Functions for storage

START/STOP
CHORUS/TREMOLO
TECHNI-CHORD
FILL IN & INTRO
ENDING



For storage

1. Press the **RECORD** button.
2. Press the foot switch to the left.
 - This causes a short beep to sound, and the indicators of the buttons available for recording flash.
3. Press the button of the function you wish to store. (Press the **START/STOP** button, for example.) This automatically turns the **RECORD** button off and completes storage of the selected function in the foot switch. (In this

example, the rhythm will start when the foot switch is pressed to the left.)

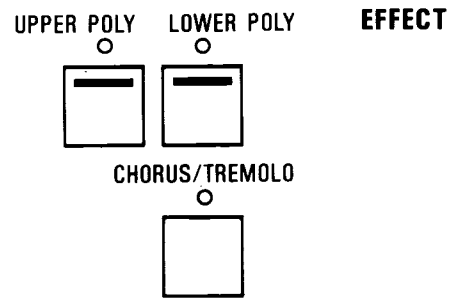
- Press the foot switch once again to return to the original state.
- To return the foot switch to the original function (glide switch), press the **INITIAL** key on the lower keyboard instead of the button described in step 3 above.

22 Tremolo speed adjustment

The Technics organ allows the **TREMOLO** speed to be adjusted. The **TREMOLO** creates an effect like two speakers rotating at different speeds. The fast and slow speeds are both adjustable.

1. Press the **RECORD** button.
2. **Fast speed adjustment:**
Press the **UPPER POLY** button of the **EFFECT** section. The indicator above the button will flash slowly.
3. Each time you press the **CHORUS/TREMOLO** button, the frequency is increased. If the button is pressed again after the maximum frequency is reached, the frequency returns to the minimum.
 - During speed adjustment, the **TREMOLO** is automatically turned on. This allows you to carefully check on the upper keyboard how the tremolo effect is applied. (The lower keyboard does not sound.)

Upper keyboard	To check lower keyboard voices and effects (19 keys)	To check upper keyboard voices and effects (25 keys)
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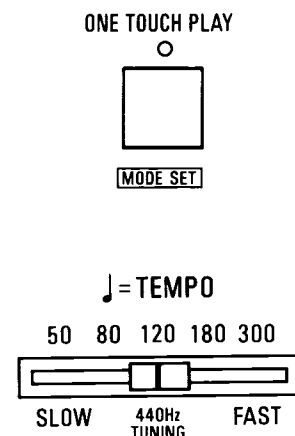


4. **Slow speed adjustment:**
Press the **LOWER POLY** button of the **EFFECT** section.
5. Adjust the frequency using the **CHORUS/TREMOLO** button.
6. When the adjustment is completed, press the **RECORD** button to turn it off.
 - Adjustment range
Fast speed: 8.4 Hz to 30.5 Hz
Slow speed: 4.9 Hz to 8.1 Hz
 - If you wish to return the speed to the factory-preset state (20.3 Hz and 6.4 Hz), press the **INITIAL** key in step 3 or 5 above.

23 Tuning

This function facilitates the adjustment of pitches when used for an ensemble with other instruments.

1. Press the **RECORD** button. The indicator flashes.
2. Press the **MODE SET (ONE TOUCH PLAY)** button. The indicator flashes slowly.
3. Adjust the pitch with the sliding **TEMPO** control (to the right to raise the pitch, to the left to lower it). The center position is 440 Hz.
 - The initial setting is 440 Hz.
4. Press the **RECORD** button to turn it off.



②④ Connection terminals

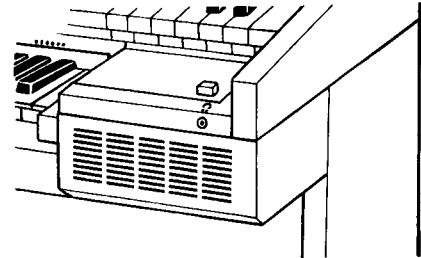
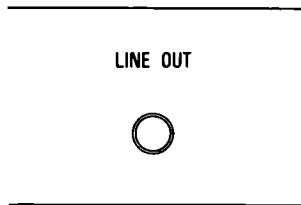
(On the rear of the organ)

LINE OUT (output level 300 mV, 600Ω)

By plugging into a high-power amplifier, the organ sound, including microphone and auxiliary instruments, can be reproduced at a very high volume level. The organ can also be tape recorded by using this method of connection.




PHONES ()

For silent practice headphones may be used. When plugged in, the organ's speaker system is automatically switched off, and the entire organ is heard only through the headphones. (Use headphones with 16 ohm impedance.)



②⑤ Symptoms which appear to be signs of trouble

The following changes in performance may occur in the Technics keyboard but do not indicate trouble:

Phenomenon	Remedy
The buttons, keyboards, etc. malfunction.	Press the RECORD button and then MODE SET button. Then press the INITIAL key on the lower keyboard. If the buttons, keyboards, etc. do not return to normal, turn the POWER switch off once, then turn on again.
A rhythm does not start or no rhythm sounds.	No rhythm sounds if the DRUMS VOLUME buttons are turned off.
The contents of the PROGRAM CHORD COMPUTER , etc. cannot be stored.	After pressing the RECORD button, press the necessary buttons within 5 seconds. The RECORD button turns off after a lapse of 5 seconds, making storage operation impossible. Press the RECORD button again.
Storage is not possible with the PROGRAM CHORD COMPUTER .	<ul style="list-style-type: none"> • Check that the PCC indicator is slowly flashing. Pressing the FINGERED button turns off the RECORD button, making storage operation impossible. • Do not release the left hand (chord designation) before pressing the measure keys ( ,  , and ).
The TREMOLO speed is improper.	The TREMOLO speed is adjustable. Adjust to your favorite speed. (Refer to ②.)
The cabinet becomes heated to some degree.	The Technics organ has a built-in power source that heats the cabinet to some degree. This is not an indication of trouble.

Initial key

The **INITIAL** key is used to reset the storable functions and memories of the Technics organ to their factory-preset state.

1. Press the **RECORD** button. The indicator flashes.
2. Press the **MODE SET (ONE TOUCH PLAY)** button. The indicator flashes slowly.
3. Press the **INITIAL** key on the lower keyboard.
 - The stored contents are also returned to their factory-preset state when the **POWER** is turned off once and then on again.

26 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.**

Teil I Grundfunktionen

In diesem Abschnitt werden die Grundfunktionen für Klangfarben, Effekte und Rhythmen erklärt. Die Beschreibung verschiedener Speicherfunktionen mit der Taste **RECORD** finden Sie in Teil II.

Die meisten Tasten sind mit Anzeigen ausgerüstet, die bei betätigter Taste aufleuchten.

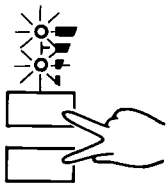
Bedienungselemente

Lautstärke und Effekte werden bei dieser Orgel mit 4-stufigen Tasten geregelt, mit Ausnahme des Reglers **TRANSPOSE** und des **TEMPO**.

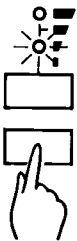
VOLUME



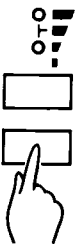
- Beim Drücken der oberen Taste leuchtet die obere Anzeige und die Lautstärke wird auf den Maximalpegel gestellt.



- Beim gleichzeitigen Drücken der beiden Tasten wird die Lautstärke auf den Normal- oder Mittelwert gestellt und beide Anzeigen leuchten.

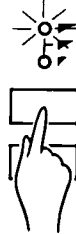


- Beim Drücken der unteren Taste leuchtet die untere Anzeige und der Lautstärkepegel wird verringert.

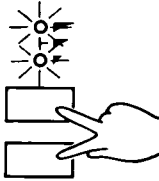


- Wenn die untere Taste nochmals gedrückt wird, wird die Lautstärke auf den Minimalwert gestellt (im Fall von **DRUMS** und **ACCOMP** ausgeschaltet) und beide Anzeigen verlöschen.

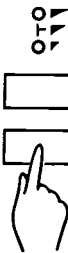
SUSTAIN



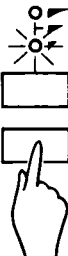
- Beim Drücken der oberen Taste leuchtet die obere Anzeige und der Sustain-Effekt wird auf den Maximalwert gestellt.



- Beim gleichzeitigen Drücken der beiden Tasten wird die Lautstärke bzw. der Sustain-Effekt auf den Normal- oder Mittelwert gestellt und beide Anzeigen leuchten.



- Beim Drücken der unteren Taste, wenn eine oder beide Anzeigen leuchten, wird der Sustain-Effekt ausgeschaltet und beide Anzeigen verlöschen.

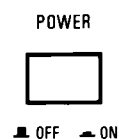
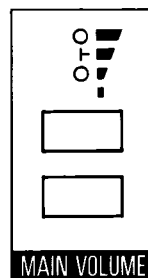


- Wenn die untere Taste nochmals gedrückt wird, leuchtet die untere Anzeige und Sustain-Effekt wird auf den Minimalwert gestellt.

Netzschalter und Lautstärkeregler

Durch Drücken des Netzschalters (**POWER**) wird die Orgel eingeschaltet.

Mit dem Knopf **MAIN VOLUME** können Sie die Gesamtlautstärke der Orgel einstellen.



26 Precauzioni per l'uso

Installazione: dove?

1. **Un posto ben ventilato**
Non collocate lo strumento in un posto nel quale non riceva abbastanza ventilazione e non coprite le aperture per la ventilazione con tende o simili.
2. **Installatelo in un luogo dove non sia esposto direttamente alla luce solare e al calore eccessivo dell'impianto di riscaldamento.**
3. **Installatelo in un luogo dove l'umidità, la polvere, e le vibrazioni siano minime.**

Allacciamento elettrico

1. **Siate sicuri che la tensione di funzionamento corrisponda al voltaggio locale prima di connettere la spina di alimentazione.**
2. **Non si può usare corrente continua.**

Allimentazione

1. **Non toccate mai il cavo o la spina con le mani bagnate.**
2. **Non tirate mai il cavo.**

Oggetti metallici introdotti nello strumento possono causare scosse elettriche e danni

Non permettete mai che oggetti di metallo siano introdotti nell'interno.

I bambini in particolare debbono essere avvisati di non introdurre nessun oggetto all'interno dell'organo.

Se un oggetto metallico dovesse cadere all'interno dell'organo, scollegate la spina di alimentazione ed informate il negozio dove avete comprato lo strumento.

Presenza d'acqua all'interno

Scollegate la spina di alimentazione ed informate il negozio dove avete comprato lo strumento. Come precauzione non mettete mai sullo strumento portafiori o altri oggetti contenenti acqua.

In caso di funzionamento anormale

Spegnete immediatamente l'organo ed informate il negozio dove avete comprato lo strumento.

Non continuate ad usare lo strumento altrimenti il danno sarà maggiore, e potrebbe accadere qualcosa di grave.

Cavo di alimentazione

Se il cavo dovesse essere logorato o rotto, oppure se fa contatto malamente può causare incendi o dare una pericolosa scossa elettrica. Il cavo di alimentazione non dovrebbe mai essere piegato con forza.

Non toccate mai le parti interne

Alcune parti nell'interno sono sotto tensione elevata. Non provate mai a rimuovere i quadri dei controlli sopra e sotto l'organo. Rivolgetevi ad una persona competente per ispezionare l'interno oppure per cambiare il fusibile, se necessario. Non provate mai a farlo voi stessi.

Manutenzione

I seguenti suggerimenti vi aiuteranno a conservare il vostro strumento in perfette condizioni.

- Assicuratevi di spegnere lo strumento dopo averlo usato e non accendetelo e spegnetelo rapidamente, visto che questo fa sì che si sovraccarichino indebitamente i componenti elettrici.
- Per conservare la brillantezza dei registri e pulsanti usate semplicemente un panno umido; passate poi leggermente un panno asciutto. Usate qualsiasi prodotto per dare brillantezza, però non usate solventi o prodotti che hanno come base chimica il petrolio.
- Potete dar brillantezza alle parti in legno con un prodotto fatto a base di cera, anche se noterete che è sufficiente passare leggermente un panno pulito e morbido.

LE RIPARAZIONI DEVONO ESSERE FATTE SOLO DAL DISTRIBUTORE OD ALTRA PERSONA QUALIFICATA.

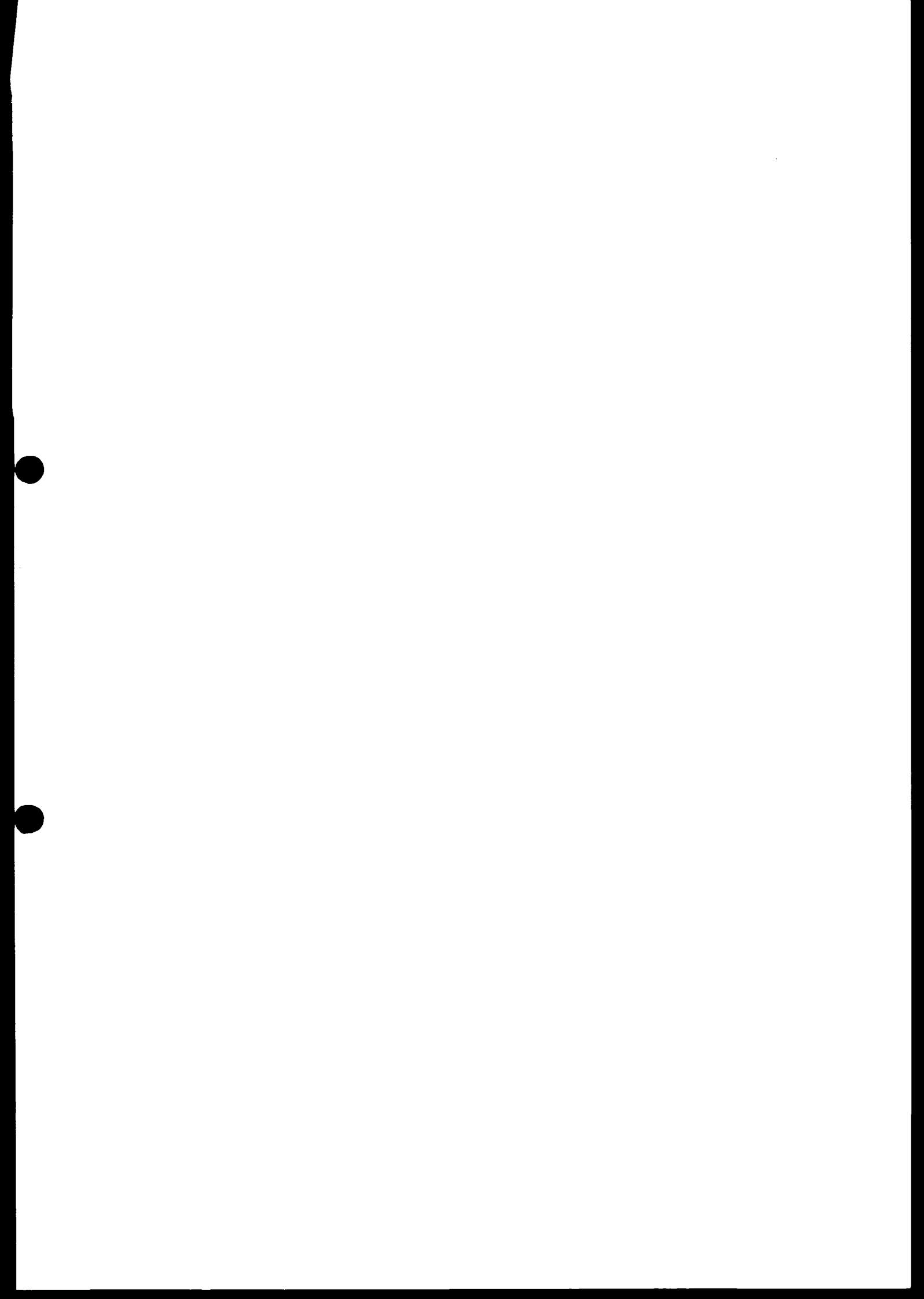
Specifications

KEYBOARD	UPPER MANUAL 44 KEYS, LOWER MANUAL 44 KEYS, PEDAL KEYBOARD 13 KEYS
ORCHESTRAL CONDUCTOR	UPPER...POLY, SOLO
UPPER POLY	PIANO, E PIANO, TROMBONE, ACCORDION, STRINGS, SAX, ORGAN, HAWAIIAN GUITAR TAB VOICES (FLUTE 16', 8', 4', 2'), VOLUME
UPPER SOLO	FLUTE, PAN FLUTE, SYNTH, CLARINET, SAX, TROMBONE, TRUMPET, VIOLIN, VOLUME
LOWER POLY	PIANO, HARPSICHORD, SYNTH, STRINGS, TAB VOICES (FLUTE 8', 4'), VOLUME
BASS	BASS 16', ACOUSTIC BASS, ELECTRIC BASS, VOLUME
SUSTAIN	UPPER, BASS
EFFECT	UPPER POLY, LOWER POLY, CHORUS/TREMOLO
TECHNI-CHORD	○
GLIDE	FOOT SWITCH
RHYTHM SELECTORS	MARCH, BALLAD, 8 BEAT, CHA-CHA, RUMBA, JAZZ WALTZ, WALTZ, TANGO, SAMBA, BOSSA NOVA, DISCO 1, 2, 16 BEAT, SALSA, SWING, SHUFFLE
CONTROLS	SYNCHRO & BREAK, START/STOP, VOLUME (DRUMS), TEMPO
FILL IN & INTRO	○
ENDING	○
BASS & ACCOMP	VARIATION, MELODIC, VOLUME (ACCOMP)
PLAY MODE	PCC, FINGERED, MEMORY
ONE TOUCH PLAY	○
PROGRAM CHORD COMPUTER	PCC, RECORD*, ♩, ◀▶, ◀▶, ◀▶, ◀▶, ♯, ♯, ♯, ♯, ♯, ♯, D.S., ◀▶, ◀▶, ◀▶, ◀▶
TRANSCOPE	CONTROL (G~C~F#)
TUNING	○
PROGRAMMABLE FUNCTION SWITCH	FOOT SWITCH, RECORD*
OTHERS	POWER SWITCH, MAIN VOLUME, MODE SET, EXPRESSION PEDAL, HEADPHONE JACK, OUTPUT JACK, AC CORD INPUT, INITIAL KEY (LOWER KEYBOARD)
OUTPUT	40 W × 2
SPEAKERS	16 cm (6-5/16") × 1, 6.5 cm (2-9/16") × 1
POWER REQUIREMENT	110 W, 100 W (NORTH AMERICA, SCANDINAVIA) AC 120/220/240V 50/60 Hz AC 120V 60 Hz (NORTH AMERICA) AC 220V 50/60 Hz (EUROPE [EXCEPT FOR ENGLAND])
DIMENSIONS (W×H×D)	105.2 cm × 87.3 cm × 39.1 cm (41-13/32" × 34-3/8" × 15-13/32")
NET WEIGHT	36 kg (79.4 lbs.)

*Common **RECORD** button is used for these buttons.

MEMO

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