Technics

sx-**E55**/sx-**E66**



For U.S.A.

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

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

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, DC 20402 Stock No. 004-000-00345-4."

Technics

OWNER'S MANUAL BEDIENUNGSANLEITUNG INSTRU INSTRUCTIONS D'EMPLOI GEBRU

INSTRUCCIONES DE MANEJO GEBRUIKSAANWIJZING

Caution

Voltage (except North America, Europe, Taiwan)

Be sure the voltage adjuster at the right, below your keyboard, 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.

IMPORTANT (for GREAT BRITAIN)

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 colored 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

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 A LATER PAGE.

Vorsicht!

Netzspannung (außer Nordamerika, Europa, Taiwan)

Versichern Sie sich, daß der Spannungswähler rechts unter dem unteren Manual 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 der letzten Seite dieser Anleitung.

Precaución

Tensión (Excepto América del Norte, Europa y Formosa)

Cerciórese de que el ajustador de tensión, situado a la derecha, debajo del teclado, 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 las páginas siguientes.

Attention

Tension

(A l'exception de l'Amérique du nord, de l'Europe et de Taiwan.)

Avant de mettre cet appareil en marche, s'assurer que le sélecteur de tension situé à droite sous le clavier 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 une page ultérieure.

Attentie!

Netspanning (behalve voor Noord Amerika, Europa, Taiwan)

Let er op dat de spanningscaroussel, die zich rechts onder het toetsenbord bevindt, op de juiste netspanning staat vóór het orgel wordt aangesloten. Gebruik een kleine schroevedraaier om de spanningscaroussel in te stellen. Voordat U gaat spelen, lees de waarschuwings punten op de latere bladzijden zorgvuldig en goed door. • ENGLISH - Here is the main control panel on your Technics organ.

Each button has a light (LED, or light-emitting diode) that goes on when that particular control is activated.

The circled numbers cross-reference the various features, with explanations appearing later in the book.

• DEUTSCH - Hier sehen Sie das Bedienungsfeld Ihrer Technics-Orgel.

Jeder Schalter zeigt durch eine LED (Leuchtdiode) den eingeschalteten Zustand an.

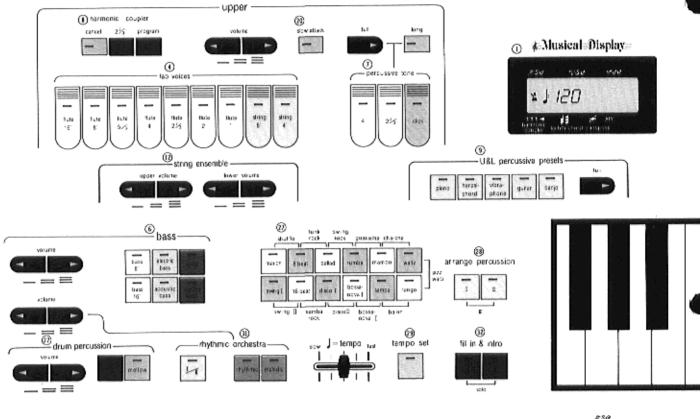
Die Zahlen in den Kreisen verweisen auf die Erläterungen weiter hinten in diesem Heft.

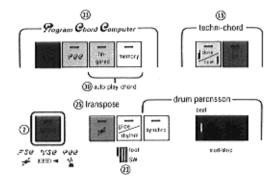
- FRANÇAIS Voici le tableau de commande général de votre orgue Technics.
- Chaque interrupteur indique son état de contact par une LED (diode électro-luminescente).
- Les chiffres dans les cercles renvoient aux explications des différents dispositifs données dans cette brochure.
- L'appareil est équipé d'un couvercle rideau selon la destination.
- ESPAÑOL He aquí el control central del teclado de su órgano modelo Technics.

Por encima de cada interruptor se encuentra una lamparilla de control (LED) que indica que está conectada la función correspondiente.

Las cifras en los circulos remiten a las aclaraciones de los mecanismos en la páginas siguientes de este folleto.

El modelo está provisto de una cubierta para el teclado superior según el país de destino.





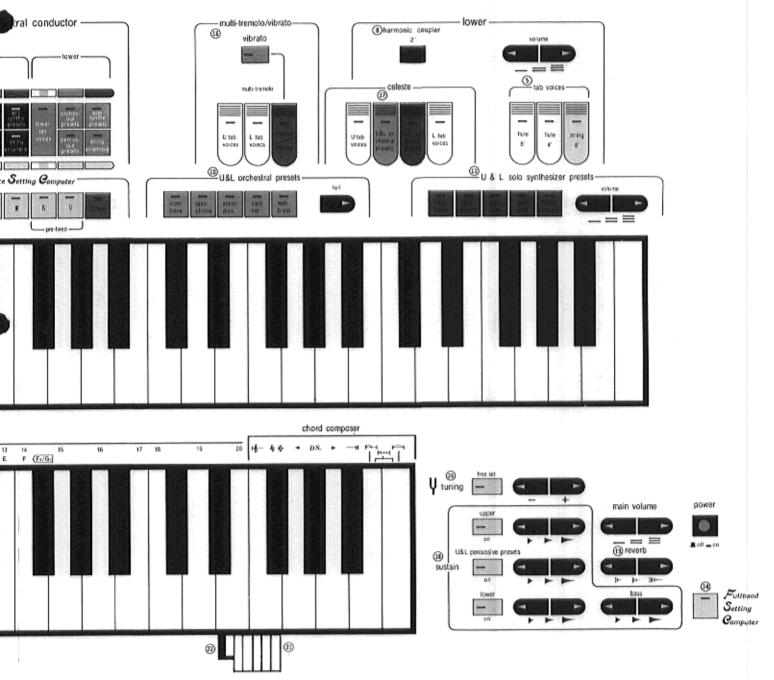
- Below lower keyboard: Connection terminals, large storage shelf for music.
- Unterhalb des unteren Manuals: Anschlussklemmen, grosses Fach für Musikaufbewahrung.
- 땁 2)--(3)--(4)-B C -(<u>5</u>)--@---[?}-
 - Sous le clavier inférieur: bornes de branchement, grand espace de rangement pour livres de musique.
 - Bajo el teclado inferior: terminales de conexión, caja grande para guardar las partituras.

 NEDERLANDS — Op deze afbeelding ziet u alle bedieningsorganen van uw Technics orgel.

Elke druktoets is voorzien van een zogenaamde LED (lichtgevende diode) die gaat branden als de betreffende toets is ingedrukt.

De omcirkelde kleine cijfers verwijzen naar de pagina's in deze gebruiksaanwijzing waar de betreffende bedieningsorganen nader worden beschreven.





Beneden de klavieren vindt u: aansluitingen, en muziek opbergruimte.

Technics E66

 ENGLISH — Here is the main control panel on your Technics organ.

Each button has a light (LED, or light-emitting diode) that goes on when that particular control is activated.

The circled numbers cross-reference the various features, with explanations appearing later in the book.

 DEUTSCH — Hier sehen Sie das Bedienungsfeld Ihrer Technics-Orgel.

Jeder Schalter zeigt durch eine LED (Leuchtdiode) den eingeschalteten Zustand an.

Die Zahlen in den Kreisen verweisen auf die Erläterungen weiter hinten in diesem Heft.

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Chaque interrupteur indique son état de contact par une LED (diode électro-luminescente).

Les chiffres dans les cercles renvoient aux explications des différents dispositifs données dans cette brochure.

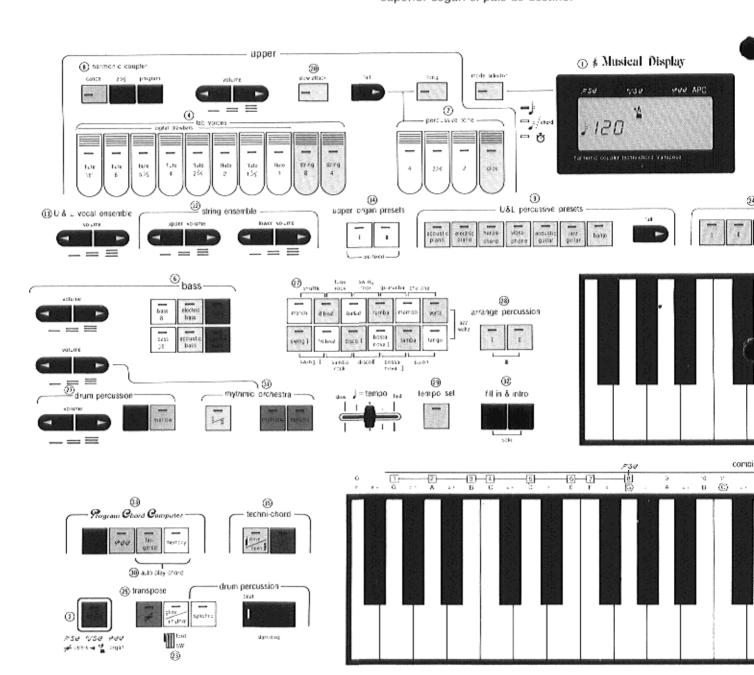
L'appareil est équipé d'un couvercle rideau selon la destination.

 ESPAÑOL — He aqui el control central del teclado de su órgano modelo Technics.

Por encima de cada interruptor se encuentra una lamparilla de control (LED) que indica que está conectada la función correspondiente.

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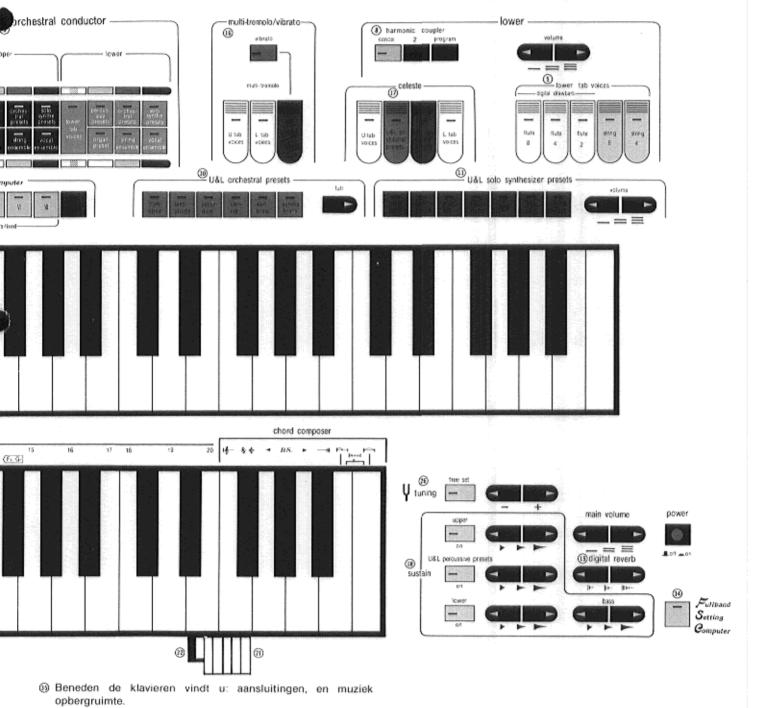
- Below lower keyboard: Connection terminals, large storage shelf for music.
- Onterhalb des unteren Manuals: Anschlussklemmen, grosses Fach für Musikaufbewahrung.
- Sous le clavier inférieur: bornes de branchement, grand espace de rangement pour livres de musique.
- Bajo el teclado inferior: terminales de conexión, caja grande para guardar las partituras.

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De omcirkelde kleine cijfers verwijzen naar de pagina's in deze gebruiksaanwijzing waar de betreffende bedieningsorganen nader worden beschreven.





All buttons and tablets are equipped with LEDs which light when in operation.

Tablet



- Turns off when this part is pressed.
- The LED lights and the tablet turns on when this part is pressed.

Controls

The volumes and effects on the organ are controlled by 2- or 3-stage buttons, except for rhythm tempo controls.

Volume



- Pressing the right button increases the volume and the LED on the button lights.
- Pressing the left button decreases the volume and the LED on the button lights.
- If you press both buttons simultaneously, the LEDs go out and the volume returns to the normal (intermediate) level.



 Pressing this button increases the volume and the LED on the button lights up.

Pressing it again causes the LED to go off and the volume to return to the normal level.

Effect

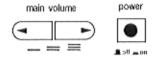
 Press the right button to increase such effects as Sustain, and the left button to decrease them. If you press both buttons simultaneously, the effects return to the intermediate levels.



Power/Main Volume Controls

Pressing the power switch turns the organ on.

Main Volume adjusts the loudness of the entire organ.

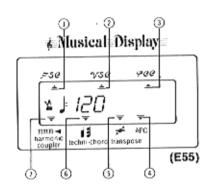


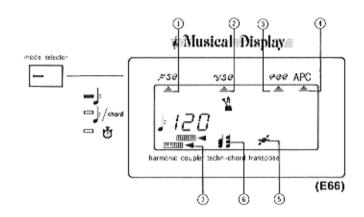
1) Musical Display

The LCD display shows the musical contents of what is being played and the function selected.

I. Display of selected functions

When a function is selected as illustrated below, it is indicated by its symbol, such as $\underline{\hspace{0.1in}}$, $\underline{\hspace{0.1in}}$, or $\underline{\hspace{0.1in}}$.





- Fullband Setting Computer (Refer to

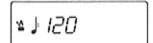
 \(\mathbb{B} \)
- Voice Setting Computer (Refer to <a>®.)
- ③ Program Chord Computer (Refer to ③).)
- (Auto Play Chord (Refer to 199.)
- Transpose (Refer to 39.)
- (i) Techni-Chord (Refer to (i).)
- ① Harmonic Coupler (Refer to ®.)

II. Display of musical contents

■ E55

a) During Manual Play:

Only the tempo is displayed. When the rhythm starts, the metronome display swings.



 b) During Auto Play Chord or Program Chord Computer play: (Refer to ®, ®.)

The tempo and chord are displayed.

Bass note (except for roots) is also displayed when you play the pedals in the Fingered mode of the Auto Play Chord.

■ E66

a) When Mode Selector is lit:
 Only the tempo is displayed. When the rhythm starts, the metronome display swings.

J-120 %

b) When Mode Selector is pressed once
 The tempo and chord are displayed.
 Bass note (except for roots) is also displayed when

Bass note (except for roots) is also displayed when you play the pedals in manual play or the Fingered mode of the Auto Play Chord.

• Chord names C#, D#, Gb, G#, and A# are displayed as Db, Eb, F#, Ab, and Bb, respectively.

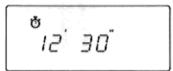
III. Stopwatch (E66 only)

Pressing the mode selector again activates the stopwatch function that lets you measure performance times (\cite{res}).

When starting a rhythm or beginning to play the keyboard, the stopwatch starts. When the rhythm is stopped and the keyboard is not played for about 2 seconds, the stopwatch stops, indicating the performance time. If the keyboard is played again within 5 seconds after pause, measurement of performance time is resumed.

After 5 seconds, 🐧 , ', " marks flash to indicate that the performance time can be measured anew from the beginning.

(Measurement up to 59 minutes and 59 seconds is possible.)



IV. Display of stored contents

When storing the harmonic coupler, organ presets (E66 only), Transpose, Tuning, and Program Chord Computer (which are explained later), the contents being stored are displayed. See each section for details.



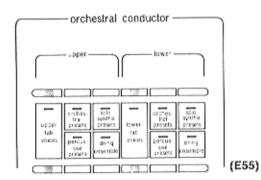


Record creates no effect of its own. It is used for storage operation of the following Technics features: Harmonic Coupler, Organ Presets (E66 only), Voice Setting Computer, Transpose, Tempo Set, Program Chord Computer, and Fullband Setting Computer. When you press record, its light goes on and the lights of the those features mentioned flash quickly. Press the button for the feature you wish to use. Its light will flash slowly and the lights of the other features will go out. NOTE: If you don't make your selection within about five seconds, all the lights will go out — just press record again and then make your choice.

While depressing the **record** button, you can also press the button for the feature you wish to use. For details, see the relevant sections.

Contents stored by using the **record** button remain in memory for about one week even when the power switch is turned off.

3 Orchestral Conductor



The Orchestral Conductor is the nerve center of the Technics organ. It allows you to instantly set up complete groups of voices, or instrumental effects; you can even change them as you play. This adds a versatility to your playing that few professionals enjoy.

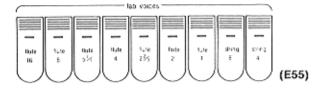
Understanding the Orchestral Conductor is easy if you think of each button as an "on-off switch" that controls the voice group indicated. The buttons each have a light that shines when the button is pressed. Here is a basic description of each button that appears on the various models:

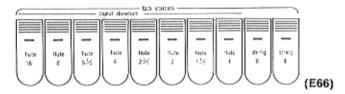
Tab voices allows you to set-up a complete voice tab combination (registration) for the upper keyboard (or lower keyboard) by merely pressing this one button.

NOTE: This button MUST be pressed whenever you wish to use any of the flute or string voices.

String ensemble brings in the rich, shimmering sound of strings.

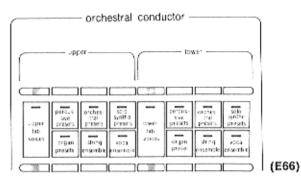
4 Upper Tab Voices





Footage Marks

To help you use the Technics solo voices most effectively, you should know something about the numbers that appear on many of the voice tabs. 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.



Orchestral presets allows you to instantly add the sounds of such effects as wah brass, clarinet, and trombone.

Percussive presets brings in the sounds of instruments that are plucked or struck — piano, harpsichord, and vibraphone.

Solo synthe presets allows you to add contemporary effects to your instrumental sounds.

Vocal ensemble enables you to add choral effects to your music. (E66 only)

Organ presets lets you store your favorite organ sound. (E66 only)

All these buttons act as self-cancelling — to deactivate one, you must press another. If you wish to combine some of the sounds, press two or more buttons at the same time — or hold one down and press another.

 The voices of percussive presets, orchestral presets, solo synthe presets and vocal ensemble can be used on each keyboard independently but not on both at once.

Flutes

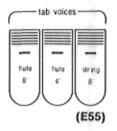
The clear, mellow sounds of this tone family provide the basis for most voice combinations (registrations) on the organ.

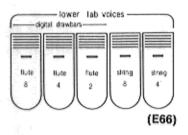
Experiment with each flute voice on your organ model, playing on various parts of your upper keyboard. Try them in different combinations too.

Strings

Like the flutes, strings are extremely versatile. They make beautiful solo voices, and they add sparkle and brilliance to any combination of tabs. String and flute combinations are the basis for many theater organ sounds. You can create an entire string section with String 8 when you play three- and four-note chords on your upper keyboard (or when you use the Techni-chord feature).

5 Lower Tab Voices





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

Flute 8, 4, 2 are the voices you'll most often use for accompaniment, especially for the brighter-sounding solo voices.

String 8, 4 add brilliance to any voice combination. Try it with the flutes.

6 Pedal Voices

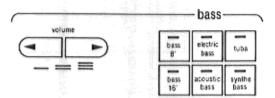
These buttons utilize the PCM system to provide the full body of real-life bass sounds. These buttons are used individually, but bass 8 and bass 16 can be combined.

Bass 8 is useful for playing rhythmic music and adds definition to your pedal notes when combined with Bass 16. Use it alone for light, quiet bass tones.

Bass 16 is a deep, flute-like organ voice that provides a solid foundation for all your music; it is especially effective for sacred music and the classics.

Electric bass is suited to contemporary music.

Acoustic bass adds the realistic sound of this instrument to your music.

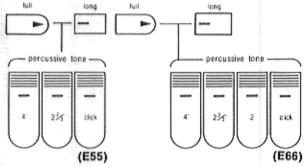


Tuba is similar to the orchestral instrument it's named after — a broad, full voice with a more defined sound than the bass 16 voice.

Synthe bass provides a good accompaniment for the contemporary electric orchestral and synthesized sounds.

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

7 Upper Percussive Tone



This feature adds a tone with a hard initial attack to any of the upper voice tab sounds; or it may be used alone. The effect is what you hear when a player strikes a piano key or plucks a banjo string. It is particularly useful when you play jazz, or rock, organ sounds.

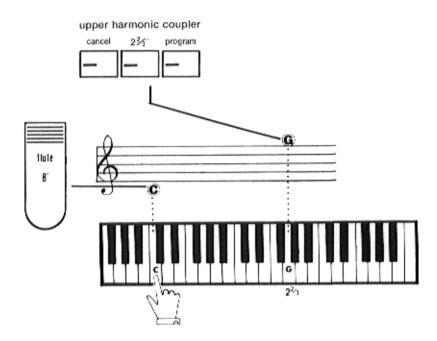
The tabs with footage numbers create tones of those pitch levels; use the fractional voice sparingly — as spices in cooking.

Click is used with any of the upper tab voices to provide a "pop" effect each time you press a key on your upper keyboard. Click will not sound unless a tab voice is selected.

Long causes the percussive tones to decay more slowly.

Full is a volume button to help balance the upper percussive tone with the other sounds.

® Harmonic Coupler



lower harmonic coupler

(E55)

Lower harmonic coupler cancel 2' program

(E66)

The harmonic coupler might be called a "phantom voice" because it adds sounds that were not built into the voice tab groups. To illustrate, set up the organ to play with only the **flute 8** voice on the upper keyboard.

If you play the C key indicated in the illustration, you will hear the C note shown. Then, press upper harmonic coupler "2-2/3". Play the key again and you will hear the C note plus the high G note shown.

To hear what the Harmonic Coupler can really do, press upper flutes 16, 8, and 4 and play the same C key. Then add harmonic 2-2/3 and play the key again — from three voices to six.

Harmonic couplers work with upper or lower tab voices and Upper Percussive Tone. It is effective on up to four notes played simultaneously on either keyboard.

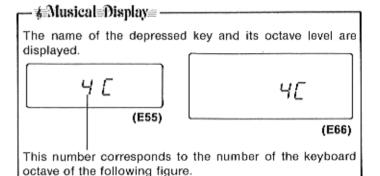
When the orchestral conductor is mixed with other groups, the harmonic coupler does not work. (When mixed with organ presets, its harmonic coupler is given priority.)

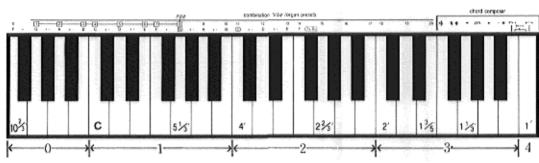
In addition, you can create your own harmonic couplers for storage with the **program** button.

- 1. Press the record button.
- Press the program button. (The program button will flash slowly.)
- Press the key at the desired interval from the lowest C key on the lower keyboard. (If you want the harmonic coupler 1', press the C key at the right end. See the illustration below.)

In this case, the harmonic coupler effect can be tested by using the upper keyboard. The upper 25 keys and lower 19 keys on the upper keyboard are used to test the upper and lower harmonic coupler respectively.

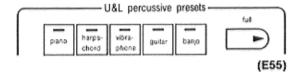
Pressing the program button again turns record off and completes the storage.





To return to ordinary playing, press the cancel button.

9 Percussive Presets



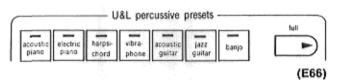
"Percussive" refers to instruments that are played by being struck or plucked.

(Acoustic) piano provides an authentic voice — try it on a wide variety of songs.

Electric piano is now most comonly used, along with the piano. This sound goes well with a wide range of music, especially with new jazz and pops.

Harpsichord. The quaint, dry sound of this instrument sounds good on many classical selections or on certain popular favorites.

Vibraphone is a rich, mellow sound.

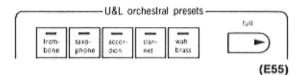


(Acoustic) guitar is a soft and delicate voice that enhances many musical moods.

Jazz guitar works well as a solo sound or when combined with other instruments.

Banjo is a voice often used for country and western music. Full is a volume button to help balance the preset voices with the other organ sounds.

10 Orchestral Presets



You can use these voices as solo instruments, or in combination with other sounds.

Trombone is a full-bodied sound, especially useful as a solo instrument.

Saxophone, played on the lower half of your upper keyboard, sounds like a tenor sax.

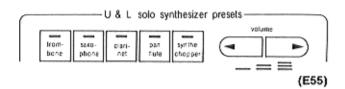
Accordion blends well with other voices, such as flutes. Clarinet is a voice best suited for a soft, mellow solo.

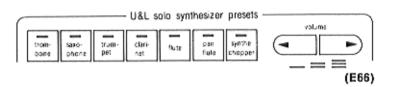
Wah brass can range from the old "wha-wha trumpet" to the newer sounds of today.

Synthe brass is a brass voice with a built-in, slow phase-shift effect.

Full is a volume button to help balance the preset voices with the other organ sounds.

11) Solo Synthesizer Presets





Technics has made synthesizer effects easy — they're all preset sounds! Each voice produced by the PCM system is realistic with all the typical characteristics of each instrument. For example:

Trombone has a smooth, round tone that blends very well with strings or flutes.

Saxophone has the tonal characteristics of a real tenor sax.

Trumpet dominates any voice combination because of its brilliant and sparkling tone.

Clarinet is a voice best suited for a soft, mellow solo.

Flute is a pure, free voice that complements any melody.

Pan flute sounds so real — the breathy attack, the soft, mellow tone — you'll hardly believe it's really your Technics organ.

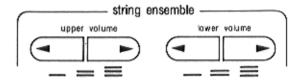
Synthe chopper is a percussive voice with a "key pop" effect, making it an ideal jazz or rock organ sound.

Volume control adjusts the loudness of the synthesized voices in relation to other organ sounds.

All these sounds are monophonic, which means they will sound on only one key at a time no matter how many you press. This gives you the advantage of using these voices in combination with others, yet they will remain solo sounds.

12 String Ensemble

This feature allows you to create beautiful, shimmering string sounds, as either a solo voice or an entire string section. You can also combine the String Ensemble with any of the other voice groups represented in the Orchestral Conductor section.

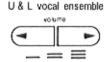


Upper volume adjusts the loudness of the String Ensemble on the upper keyboard.

Lower volume adjusts the loudness on the lower keyboard.

13 Vocal Ensemble

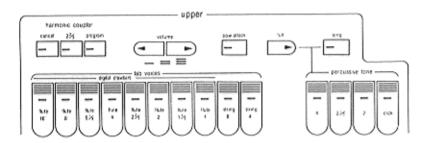
(E66 only)

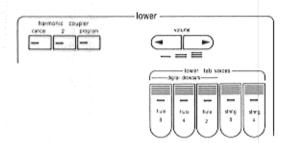


This feature enables you to create colorful and exciting choral effects on either your upper or lower keyboard. Your favorite effects can be selected by using the **vocal ensemble** button of the Orchestral Conductor. Their volume can also be adjusted with the U&L Vocal Ensemble controls.

🕩 Organ Presets

upper organ presets





Your favorite organ tones can be stored for use anytime.

• The following tones and effects are storable:

Upper keyboard - tab voices, percussive tone, slow attack and harmonic coupler

Lower keyboard — tab voices and harmonic coupler

- Combinations of two types (organ presets I and II) for the upper keyboard and one type (organ preset) for the lower keyboard can be stored.
- Set your favorite tone.
- Press the tab voices button of the Orchestral conductor to check the selected tone.

- 2. With the record button held down, press the organ presets I or II button. (For the lower keyboard, press the lower organ preset button of the Orchestral Conductor.) This stores setting in the memory bank.
- To change to another combination, perform the above operation for new storage.

But when you change to another combination, the Organ Presets contents previously stored in the Voice Setting Computer or Fullband Setting Computer will be altered.

How to use the digital drawbar

You can adjust the Flute levels individually.

- 1. Press the record button on.
- 2. Press the organ presets I or II button. (For the lower keyboard, press the lower organ preset button of the Orchestral Conductor.)
- Set your favorite tone.
 - For strings 8' and 4', percussive tone and slow attack, press the relevant tabs or buttons on.
 - · For flutes, adjust the footage levels while watching the musical display.









Pressing here decreases volume by one step.

Pressing here increases volume by one step.

With 5 bars, volume is maximum. When the number of bars becomes zero, the voice is turned off.

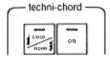
- The tone can be tested by using the upper keyboard. (The tones on the lower keyboard can be checked with the lower keyboard.)
- 4. Press the organ presets I or II button. (Press the organ preset button of the Orchestral Conductor for the lower keyboard.) This turns record off, thereby completing storage operation.

≰ Musical Display —

Flute Footage Level Display Examples

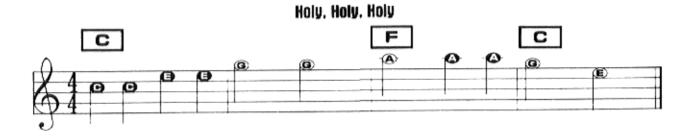
Even if the footage is displayed, if there is no tablet for it, it cannot be stored.

15 Techni-Chord

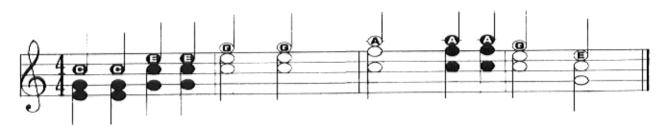


Techni-Chord makes your melodies sound like those of a professional organist by transferring the chord tones you play on the lower keyboard to each melody note you play on the upper keyboard.

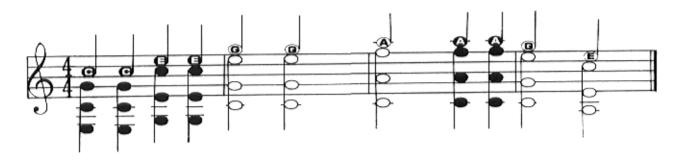
Set up your organ to play the example below — use either one-finger mode, or form your own.



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



Now press the **close/open** button to play the harmony style in the open position usually found in the brass ensemble and choral.

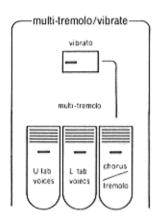


Techni-Chord functions for any sound other than the Solo Synthe.

 Techni-Chord does not operate with the lower 7 keys of the upper keyboard.

Effects

16 Multi-tremolo/Vibrato



The basic effect of tremolo is a rapid change in volume (loudness).

Vibrato is a rapid change of pitch (high and low tones) that adds a warm, wavering quality to a musical tone.

Vibrato can be heard in a singer's voice and in the tone of most wind or string instruments.



Celeste is the multi-directional effect which can make you think you are playing in a huge concert hall or a cathedral.

U tab voices lets you bring any of the upper tab voices into the celeste effect; L tab voices allows you to do the same with lower keyboard voices.

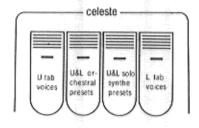
U&L orchestral presets applies the celeste effect to these solo instruments on both keyboards.

U tab voices lets you bring any of the upper tab voices into the tremolo or vibrato effect.

L tab voices allows you to do the same with lower keyboard voices.

Chorus/tremolo — In the off position, you will hear the chorus effect — a very slow tremolo, especially suited to religious and classical music. Press the button to the on position and hear the faster effect, ideal for most other kinds of music.

Vibrato — Vibrato is given priority to multi-tremolo. When the vibrato button is pressed during the chorus or tremolo effect, the vibrato turns on. To return to the chorus or tremolo effect, press the vibrato button again to turn it off.



U&L solo synthe presets — The celeste effect may be applied to the synthesized voices on both keyboards.

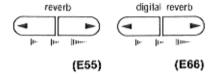
18 Sustain Controls

These Technics models have sustain incorporated with their upper and lower keyboards and pedals.

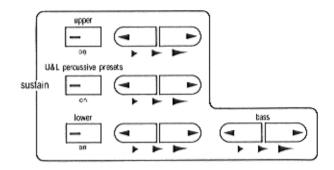
Regardless of where it is used, sustain allows the sound of the notes to fade gradually away (decay).

Pedal sustain is always at work, the length of which can be adjusted by using the sustain control. To combine sustain with the upper tab voices, lower tab voices or percussive presets, press the respective button. This feature does not work when upper tab voices or lower tab voices are combined with orchestral presets or organ presets.

19 Reverb



Reverb, an abbreviation for reverberation, is more commonly known as "echo". If you've walked down a narrow, uncarpeted hallway, you may recall that your footsteps "echoed", or became louder than usual. This was due to the sound waves bouncing from the walls and ceiling instead of being absorbed into the carpeting, furniture and draperies. Because the furnishings in most rooms usually absorb all the echo, your Technics organ is equipped with reverb to electronically replace the echo which is lost. Reverb is effective with most general settings.



On your upper keyboard, combine long sustain with Flute 4 for a music box effect. Or combine it with Flute 16, 8 and the String 8 tab for a Hawaiian guitar sound.

20 Slow Attack



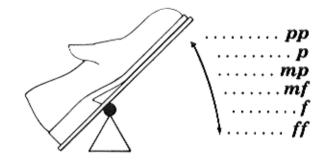
When this button is not used, the response of the upper tab voices is instant — press a key and you will hear a musical tone immediately. Press the slow attack button, however, and you'll notice a slight hesitation between the time you press the key and the time you hear the tone. This effect is especially useful for imitating instruments that have a natural slow attack such as the accordion, harmonica, or the pipe organ.

(21) 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.

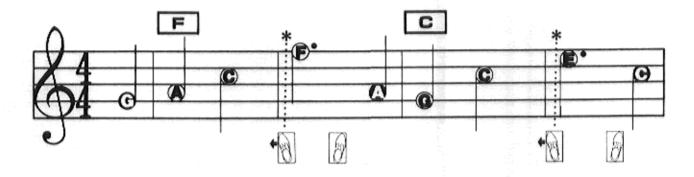
The "halfway down" position of the pedal represents the medium volume range — this is always a good starting point if dynamic marks don't appear in the music.





22) 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, or tuning, of the organ 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".



23 Foot Switch — Glide/Rhythm

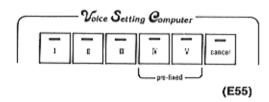


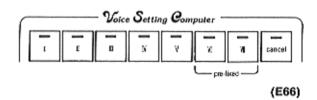


This button allows you to use the glide control switch for two purposes — to provide a means for you to conveniently turn the automatic rhythm on and off, and to help you add the "glide effect" to your music.

When the button is not on, the foot switch provides the glide effect. Press the button to on and the foot switch starts and stops the rhythm.

4 Voice Setting Computer



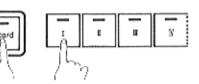


All voices and effects can be programmed into the Voice Setting Computer. NOTE: No slide control setting can be recorded in the computer.

The button furthest to the right, marked cancel, lets you shut off the Voice Setting Computer and change to standard organ sounds.

Buttons I through VII are used to store the voices and effects for both keyboards and pedals.

- 1. Set registration.
- With the Record button held down, press the I button.
 This stores your setting in the memory bank. That's all it takes!



To change your custom registrations, just set up the tabs you want and then press **record** and the desired button. The previous setting is automatically replaced by the new one.

You can change the selected voice and effect from the memory by pressing any other button. The memory contents in the organ, however, remain unchanged.

When storing the voices and effects programmed by this VSC in the Fullband Setting Computer to be described later, different contents for 8 tunes can be stored with each of the I, II and III buttons. In the IV, V (VI and VII) buttons, however, storage is only possible for one type of contents.

In other words, when you change to another registration, the contents previously stored in the FSC will be altered.

How to Use the Factory-Preset VSC

In addition, the factory-preset 20 voices combinations allows you to choose your favorites for storage in I through VII buttons.

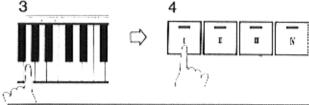
- 1. Press the Record button.
- 2. Press the I button to store the desired voices
- 3. Select your favorite voice from the keys marked from 1 to 20 on the lower keyboard. (Playing the upper and pedal keyboards lets you check the voices and effects. The voices and effects of the lower keyboard can be checked on the lower 19 keys of the upper keyboard. If you wish to change part of the voice, you can amend it by pressing the tablets or buttons.)
- Pressing the I button again turns the record button off, and the selected voice is stored in the I button.

In step 4, when the II button is pressed instead of the I button, the selected voice is stored in the I button and the storage operation can be immediately continued for the II button.

After the desired voice is selected, pressing the II button again completes storeage and turns the **record** button off. If further storage is desired, however, press the III button instead of the II button and continue as with the I and II buttons.

- * The following voices are preset in the keys from 1 to 20.
 - 1. theater organ
 - 2. church organ
 - pop organ (I)
 - 4. pop organ (II)
 - 5. rock organ
 - 6. jazz organ
 - 7. classical strings
 - 8. classical ensemble
 - 9. pop ensemble (I)
 - 10. pop ensemble (II)

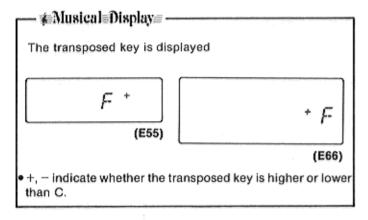
- 11. soft brass
- 12. big band brass
- marching brass
- synthe brass
- fusion guitar
 new wave
- 17. funk rock
- jazz guitar combo
 mix combo
- 20. ballade sound



45 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. Here's how you can quickly and easily put the song in a comfortable vocal range:

- 1. Press Record.
- 2. Press Transpose.
- 3. Press one of the keys in the section of the lower keyboard marked: (a) ~ (c) ~ (FFG+); this automatically puts the song in a different key. You might have to try several keys before you find one that's comfortable. Do this by playing in the upper keyboard.



19 Tuning

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

With the **free set** button off, the pitch is set at the standard 440 Hz.

Tuning

- 1. Press the free set button on.
- Press the + control button intermittently or keep it held down to increase the pitch, and the — control button to decrease it. Adjust the pitch to any other instrument in use. When the pitch is higher than the standard 440 Hz, the LED on the + button illuminates. If lower, the LED on the — button illuminates.

When playing at the standard 440 Hz, turn the free set button off.

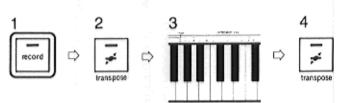
The pitch adjusted in step 2 is stored, making it possible to play at this pitch when the free set button is turned on again.

The pitch can be adjusted within the range from 438 Hz to 446 Hz. The LED will flash when the pitch reaches the upper or lower limit of the adjustment range.

transpose



4. Press Transpose again to "lock in" the new key signature.

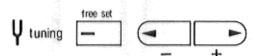


The light on the transpose button stays on continuously, telling you a transposition is in effect.

To change back to the original key, just press transpose again (and the light goes out). You can recall the transposition by just pressing transpose again.

Another good use for the Transpose feature is to allow you to play with certain other instruments — trumpet, saxophones, etc. — that are "built in different keys". The Transpose feature can allow you both to read the same music and what you play will sound good together.

 The bass note is lowered one octave when the key is transposed higher than major 3rd.

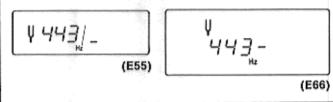


The pitch is displayed when the free set button is turned on.
 The pitch display turns automatically to the previous display about 5 seconds after finishing tuning.

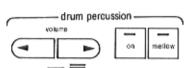
Every time the + or the - button is pressed, the pitch changes by about 1/3 Hz.

The bars on the right indicate the decimal numbers as follows: - indicates 0 Hz, = indicates 1/3 Hz, and = indicates 2/3 Hz.

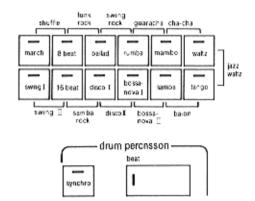
• 443.0 Hz



② Drum Percussion (Automatic 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 downbeat light, and volume and speed controls.

The rhythm buttons themselves are self-cancelling — if one is pressed and you choose a new rhythm, the light on the first button 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 LED light on this 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 starts the drum rhythm you've chosen only when a pedal or a key on the lower keyboard is pressed.

Volume allows you to adjust the loudness of the drums to be in balance with the keyboard voices.

Press **drum percussion on** button to turn on when you use Drum Percussion.

The mellow button softens the drum sounds.

Tempo adjusts how fast or slow the rhythm is played.

28 Arrange Percussion



Try this feature for all individual automatic rhythm patterns.

Automatic rhythms are designed so that their patterns

change according to performance conditions (such as the number of keys being pressed). This "play response"

function creates a greater change of patterns when Arrange

Arrange percussion is designed to change the patterns and to add various percussion instrument sounds to enrich each of the 23 rhythms.

I is the simplest rhythm pattern.

With II on, an enriched bass, for example, with a conga is added for pattern variations.

With III (I and II pressed simultaneously), an enriched treble, for example, with a tambourine, is added for greater pattern variations.



After storing your favorite tempo, simply press the **tempo set** button to set.

Jetempo 1333 tempo set

Percussion II or III is turned on.

How to Store

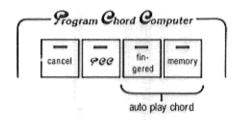
- Use the tempo control to adjust the tempo.
- With the record button held down, press the tempo set button. This completes the tempo storage.

30 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, 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.

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♭, etc.). To play "seventh" chords (G7, B♭7, etc.), press any long, light-coloured bass pedal as you play the appropriate key. To play "minor" chords (Am, F♯m, etc.), press any short, black bass pedal as you play the appropriate key. To play "minor seventh" chords (Dm7, Gm7, etc.), play the lower manual key with the appropriate letter-name and press any long and short bass pedals at the same time with your left foot.



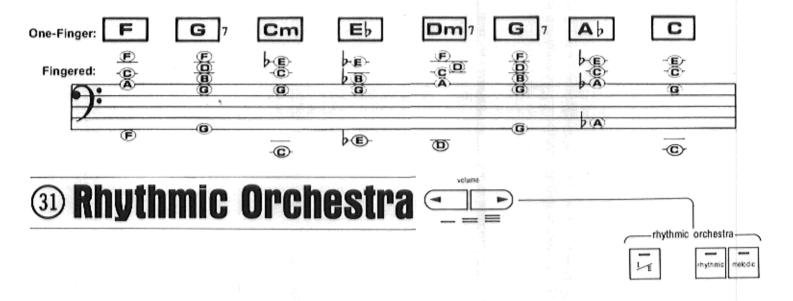
Fingered mode allows you to form your own chords on the lower keyboard; the correct bass tone is automatically provided. If you press any bass pedal at this time, the sound of the relevant key is produced, allowing bass playing regardless of the chords.

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.

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.

Cancel shuts off the Auto Play Chord feature, permitting normal playing.

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.



These controls work exclusively in conjunction with the automatic rhythms. No matter which drum pattern you use, the rhythmic voice(s) provides chords that are perfectly synchronized with the automatic rhythm. Try all the drum patterns on your model and listen to the Rhythmic Orchestra voice with each.

Rhythmic Orchestra can be used with or without Auto Play Chord.

If you combine Rhythmic Orchestra with the lower keyboard voices, you will hear a combination of sustained (continuous) and rhythmic chord accompaniment.

- Pressing the rhythmic button allows chordal accompaniment.
- Pressing the melodic button allows melodic accompaniment.
- Pressing the I/II button further changes the accompaniment pattern.

NOTE: Pressing the lower harmonic coupler button (2', program) enhances the sound from the rhythmic button.

32 Fill in & Intro

This feature lets you use a one measure drum solo (or "fill") as an introduction to a song, or to connect different sections of a song. Using the bossa nova rhythm, let's see how this works.

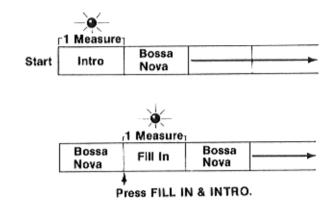
As an intro (introduction):

- Press bossa nova.
- Press fill in & intro indicator lights up.
- Start the rhythm (press Rhythm start/stop). You'll hear the drums start with the intro and continue on to the bossa nova. After the intro, the indicator light goes out.

As a fill-in:

- 1. Press bossa nova.
- 2. Start the rhythm.
- Whenever you want the "drummer" to "fill-in", press fill in & intro — the fill-in is immediately played for one measure, after which the bossa nova rhythm resumes.

fill in & intro



Two patterns, I and II, are available for Fill In & Intro. Try a variety of rhythms with these patterns.

Solo

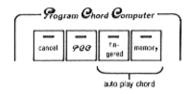
Pressing the fill in & intro I and II buttons simultaneously produces solo effects.

- The solo only slightly affects the sound of the automatic rhythm performance when there is constant movement on the keyboard, but a brilliant drum solo is produced when the notes are held or when the keyboard is not being played. Pressing the fill in & intro I or II button returns the rhythm to normal after one measure of fill in is played.
- If the rnythm starts after the I and II buttons are pressed simultaneously, a drum solo is brought in for 8 measures before the normal rhythm begins.

33 Program Chord Computer

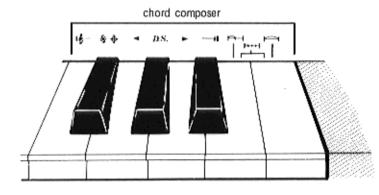
The Program Chord Computer, complete with a memory bank, is an amazing device that is exclusive to most Technics organ models. That's right — a computer built into the Technics organ! This makes it possible for you to program the chord accompaniment of an entire song and store it right inside the organ. 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.

This feature is also used in conjunction with the Fullband Setting Computer, which is discussed on later pages.



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

There are two groups of controls that operate the Program Chord Computer — the buttons illustrated below, and the eight keys at the right-hand end of your lower keyboard.



NOTE: A total of a 74 chord entries may be made before the built-in Computer memory is full. A quarter measure () is counted as 2 chords. When the Computer memory is full, short beeps will sound.

The eight 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.

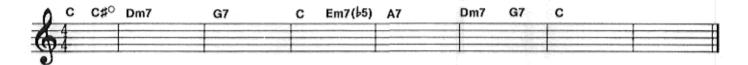
can be pressed should you wish to start programming over from the beginning.

(End) is pressed when the entire chord sequence is stored.

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

* N	Iusical≣I)isplay≣–							
It's pos	sible to st	ore these	types of c	hords:					
Major	Minor	Seventh	Minor Seventh	Augmented	Diminished	Minor Seventh Flat Fifth	Major Seventh	Minor Major Seventh	Seventh Suspended Fourth
C	Cm	C7	Cm7	Caug	C or C dim.	C ⁰ or Cm7 (♭5)	CM7 or C maj. 7	CmM7	C7sus4
\mathcal{L}	[Γ γ	[-7	Ĺs	Ĺa	[,-5	Enn	[#n	[as

Some of these chord types are not available as one-finger mode; no matter, however, since your computer easily mixes One-Finger and Fingered modes. 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

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

Since the C# diminished chord is not available as a 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 (\$5) chord are E-G-B\$-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 switch. The LED light on 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.

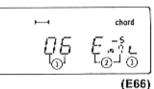
To specify the number of repetitions (up to 8 times):
White holding the D.S. key down, press one of the keys 1 to 1 (on the lower keyboard) corresponding to the number of repetitions (e.g. the 1 key to repeat 3 times). Next press the —1 key.

D.S. key and - key.

∦ Musical⊕Display —

The sequence number and chord name are displayed.

[5] (E55)



Sequence number

② Chord name

3 Chord length

Keys D.S., \P and H are displayed as \varnothing , \S , and $\mathscr E$ respectively. Pressing the D.S. key and H key simultaneously displays F

Playing the Programmed Chords

After making sure the PCC LED light 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-7 — here are a couple of ways you could do it:

Using the Automatic Rhythm

- 1. Press Record and PCC buttons.
- 2. Press Start/Stop to begin chord sequence with rhythm.
- Stop the rhythm when the sequence reaches the A7 chord.
- 4. Play and hold the new chord (Eb7) and press the key. The new chord is now in the position of the original chord.
- 5. Press PCC again.

Using the Forward or Back Keys

Step 1 as above.

- Press the Forward 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

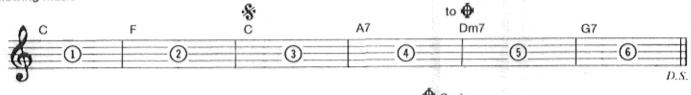
 press of the

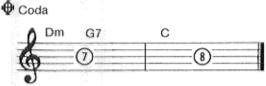
 key moves sequence back one unit,

 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.

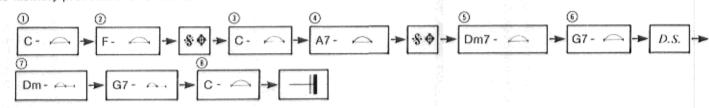
Using the **% ⊕**, D.S. keys

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.





(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 2 repeats overlap.
- When the position of \exists_1 and D.C. or D.S. are the same.

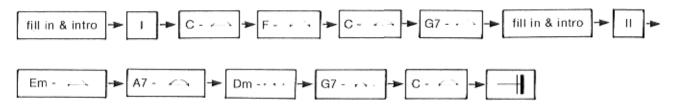
Voice, Fill in & Intro Storage

This Program Chord Computer stores not only chords but voices from the Voice Setting Computer, as well as Fill in & Intro.

- For Voice storage:
- Before storing a chord, press the **voice selting computer** button. This stores the selected voice at the beginning of the next measure. The voice will continue until the next voice is selected.
- For Fill in & Intro storage:
- Pressing the **fill in & intro** button at the beginning of a song stores intro. Pressing the button after storage of a chord stores the fill-in for a measure at the beginning of the chord.
- When the chord sequence is over, you can continue playing with the last voice selected. But when you stop playing, the first voice will return after six seconds.
- The voice will change a half beat ahead of the rhythm so that you can remain in tempo with the rhythm.

• Lets store the following:		С	F	С		G7	Em	A7	Dm G7	С
fill in & intro	Intro				•	fill in				
Vec				1				1	1	

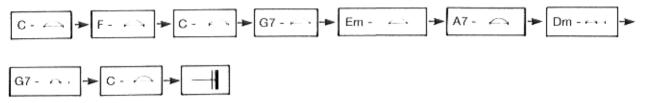
After first pressing the **record** button then the **PCC** button, perform the storage operation as follows:



- Up to 8 selections of the voice, Fill In & Intro can be stored. (Storing voice and Fill In & Intro in sequence is counted as one selection.)
- It is also possible to store voices, Fill In & Intro after storing only the chords.
 Let's store the previous example using the following
- When the song is repeated, the last voice of the song continues through the first voice of the second sequence. In order to specify the first voice of the second sequence, store the desired voice after the last chord is stored.

1. First, store only the chords.

procedure.

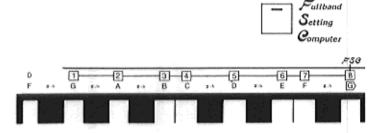


- 2. Press the record button and then the PCC button.
- 3. Press the fill in & intro button.
- 4. Press the I button of the Voice Setting Computer.
- Press the Forward key () four times to advance chord to the G7 position.
- 6. Press the fill in & intro button.
- 7. Press the II button of the Voice Setting Computer.
- 8. Press the PCC button.

34 Fullband Setting Computer

This feature is used:

- To program the complete accompaniment and registrations of your favorite songs into memory.
- To play back these accompaniment parts you have programmed into the memory so you can play the melody.



Programming Your Own Songs

You can enter eight of your favorite songs into the memory by way of the white keys numbered [] to [8].

- Press Record. The LED's for the Voice Setting Computer, Transpose, Program Chord Computer, and Fullband Setting Computer, and etc., flash rapidly.
- 2. Press PCC. Enter the chords of the song as they appear on the music. You can make up to 74 chord entries per song. Don't forget to press (End) when you are finished. The LED for the Chord Computer will remain lighted.
- 3. If necessary, store the **record** functions such as of Transpose and Tempo set.
- 4. Press the voice, effect and rhythm controls you wish to use.

Once you've decided which rhythm to use, stop the rhythm. If you wish to add an introduction, this is the time to press fill in & intro.

5. Press Record and then Fullband Setting Computer.

6. Within about five seconds, press white key no. [] for storage of your song. This completes the program/storage process; the record and FSC lights go out.

You can repeat this procedure for seven more songs of your choosing (using white keys [2] to [8]). You can also, at any time, replace any song in the memory with another selection.

Locking is possible so that the stored contents are not erased by mistake.

(When locked, the LED of the **FSC** button does not flash.) To lock...

Simultaneously press the FSC button and the 0 key on the lower keyboard (extreme left key).

To unlock for new programmings...

First press the record button.

Next simultaneously press the FSC button and the 0 key. The FSC button will flash and programming is possible.

 With the stored contents locked, when the FSC button is pressed for memorization, a warning will sound with long beeps. If any of the keys 1 to 3 is pressed, the sound of short beeps will denote an error.

Only the stored contents in the Voice Setting Computer can be entered into the FSC.

When storing a changed voice selected from the VSC, first store it in the VSC and then in the FSC.

Playing the Songs You Programmed

- 1. Press FSC button.
- 2. Press white key no. 1 or whichever key has the number of the song you wish to play. The LED's on the controls you used in your program now go on.
- 3. Press Start/Stop and play the melody.

35 Connection Terminals



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.)

Mic (input level 7.5 mV 10kΩ) The organ will accept a microphone of the uni-directional type. This type of microphone reduces feedback to the minimum.

Mic Volume balances instrumental or vocal sounds fed into the microphone with the loudness of the organ. Aux (input level 150 mV, 10kΩ) Among the many items which can be connected to this are tape/disc pre-amps, portable synthesizers, etc.

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 be tape recorded by using this method of connection also. A 2-channel output (LR) or a 3-channel output (1, 2, 3) can be selected with a switch.

36 Symptom which appears to be signs of trouble

The following symptom of the set is not an indication of trouble.

Symptom

The slow attack button cannot be turned off when operating the organ presets memory.

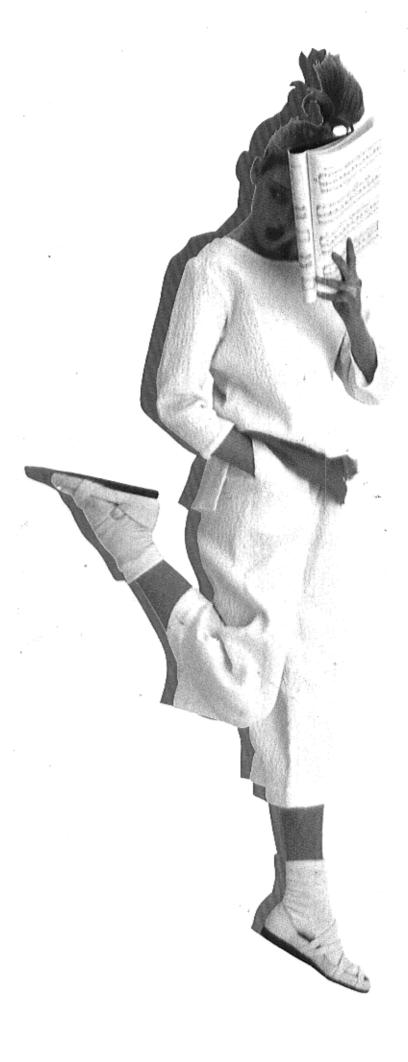
Solution

- 1. Press the record button to turn off.
- 2. If the slow attack button is lit, press it to turn off.
- With the record button held down, press the organ presets
 I or II button (for the lower keyboard, the organ preset button of the orchestral conductor).
- 4. Next, once again enter the organ presets in the memory.

SPECIFICATIONS SPEZIFIKATIONEN ESPECIFICACIONES SPECIFICATIONS SPECIFIKATIES

		SX-E55	SX-E66							
keyboard		upper manual 44 keys, lower manu	ual 44 keys, pedal keyboard 13 keys							
fullb	and setting computer		cord'. []~[(lower keyboard)							
voic	e setting computer	I~III, IV~V (pre-fixed), cancel, record*, 20 combination VSC (lower keyboard)	I~III. IV~VII (pre-fixed), cancel, record*, 20 combination VSC (lower keyboard)							
	tone selector	orchestral conductor (upper5, lower5)	orchestral conductor (upper7, lower7)							
upper tones	tab voices	flute 16', 8', 5-1/3', 4', 2-2/3' 2', 1', string 8', 4', volume	flute 16', 8', 5-1/3', 4', 2-2/3', 2', 1-1/3', 1', string 8', 4', volume							
	(percussive 1tone)	4', 2-2/3', click, long, full	4', 2-2/3', 2', click, long, full							
	(harmonic coupler)	2-2/3', program, cancel, record*								
	organ presets	- I, II (pre-fixed), record*								
	string ensemble	valume								
	vocal ensemble	- volume								
	percussive presets	piano, harpsichord, vibraphone, guitar, banjo, full	acoustic piano, electric piano harpsichord, vibraphone acoustic guitar, jazz guitar banjo,							
	orchestral presets	trombone, saxophone, accordion, clarinet, wath brass, full	trombone, saxophone, accordion, clarinet, wah brass, synthe brass, full							
	solo synthe presets	trombone, saxophone, clarinet, panflute synthe chopper, volume	trombone, saxophone, trumpet, clarinet, flut pan flute, synthe chopper, volume							
8	tab voices	flute 8', 4', string 8', volume	flute 8', 4', 2', string 8', 4', volume							
	(harmonic coupler)	2'	2', program, cancel, record'							
	organ presets	mi	○ (U/L), record*							
tones	string ensemble	volume								
lower	vocal ensemble	volume ○ (U/L)								
8	percussive presets	○ (U/L)	○ (U/L)							
	orchestral presets	○ (U/L)	○ (U/L)							
	solo synthe presets	○ (U/L)	C (U.L.)							
pass tones		bass 16', 8', acoustic bass, electric bass, synthe bass, tuba, volume								
	sustain									
	slow attack	(upper) on, control (percussive presets) on, control (lower) on, control (bass) control upper								
22	multi-tremolo/vibrato									
effects	celeste	upper tub, lower tablichorus/tremolo, vibrato upper tabliU/L orchestral presets, U/L solo synthe presets, lower tab								
٥	reverb	reverb								
	glide	reverb digital reverb								
	techni chord	on clos								
	drum percussion	march, shuffle, swing I, II, 8-beat, funk rock, 16-8								
	(selectors)	rumba, guaracha, bossa nova I. II, mambo, ch	a-cha, samba, baion, waltz, jazz waltz, tango							
	(controls)	on, mellow, synchro, start/stop, volu								
	tempo set	Ieco								
	arrange percussion	1. 11.	III							
fill in & intro rhythmic orchestra auto play chord program chord computer		fill of & intro I, II, solo								
		rhythmic, melodic, I/II, full								
		fingered, memory, cancel								
		PCC, cancel, record*, f , ◀ ▶ , ⊨ , ⊨ → , l>→ , l> , l>								
	transpose	transpose (≠), record*, ② ~ (5-5-1 (lower keyboard)								
	tuning									
musical display		free set, +								
	mode selector	_	ō							
thers		power switch, main volume, headphone jack, output termin	input jack, microphone jack (with volume)							
utpu	t	90W (2-channel)	110W (3-channel)							
peak	ers	30 cm (12") × 1, 20 cm (8") × 2, 8 cm (3.2") × 2	30 cm (12") × 1, 20 cm (8") × 3, 8 cm (3.2") × 2							
ower requirement		250W	300W							
		300 VA (Canada) AC 120/220/240V 50/60 Hz	350 VA (Canada) AC 120V 60 Hz — North America, Taiwan							
abinet W×H×D		114.6 cm × 103.1 cm × 60.3 cm	AC 220V 50/60 Hz — Europe 114.6 cm × 103.1 cm × 60.3 cm							
		(45-1/8" × 40-9/16" × 23-3/4")	(45-1/8" × 40-9/16" × 23-3/4")							
at we	ght without bench	77 kg (169.8 lbs.)	78 kg (172.0 lbs.)							

[&]quot;Common "record" switch on the left side is used for these switches.



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