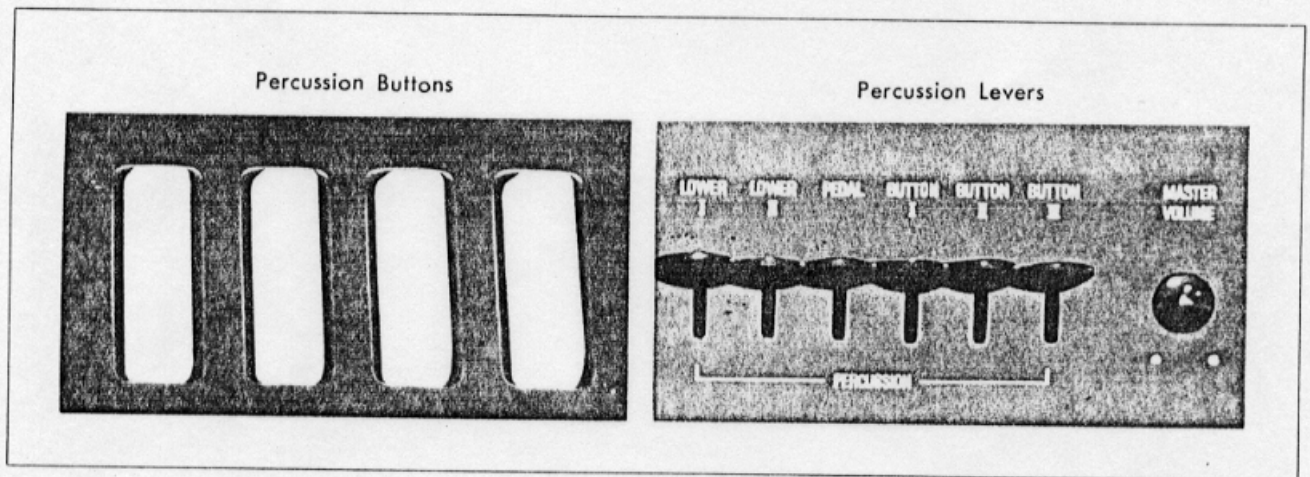


Percussion

The EX-42 offers a wide range of Percussion sounds controlled by a bank of six black tone levers on the extreme right of the control panel, three of which are used in combination with the four white percussion buttons to the left of the Lower manual.

LOWER I
LOWER II → Provides percussion sounds which are played through the pedals.
PEDAL → Provides percussion sounds which are played through the lower manual keys.

BUTTON I, II, III These give a total of twelve independent percussive tones, played on the white percussion buttons.



Percussion levers	Percussion tones
Lower I Lower II	Pinched cymbal (maracas) Brushed cymbal

Pedal	Pedal cymbal			
Buttons	1	2	3	4
Button I	Conga	Bongo	Claves	Brush snare
Button II	Orchestra cymbal	Triangle	White noise (Low)	White noise (Medium)
Button III	High hat cymbal	Wood block	Tom-tom	Snare drum

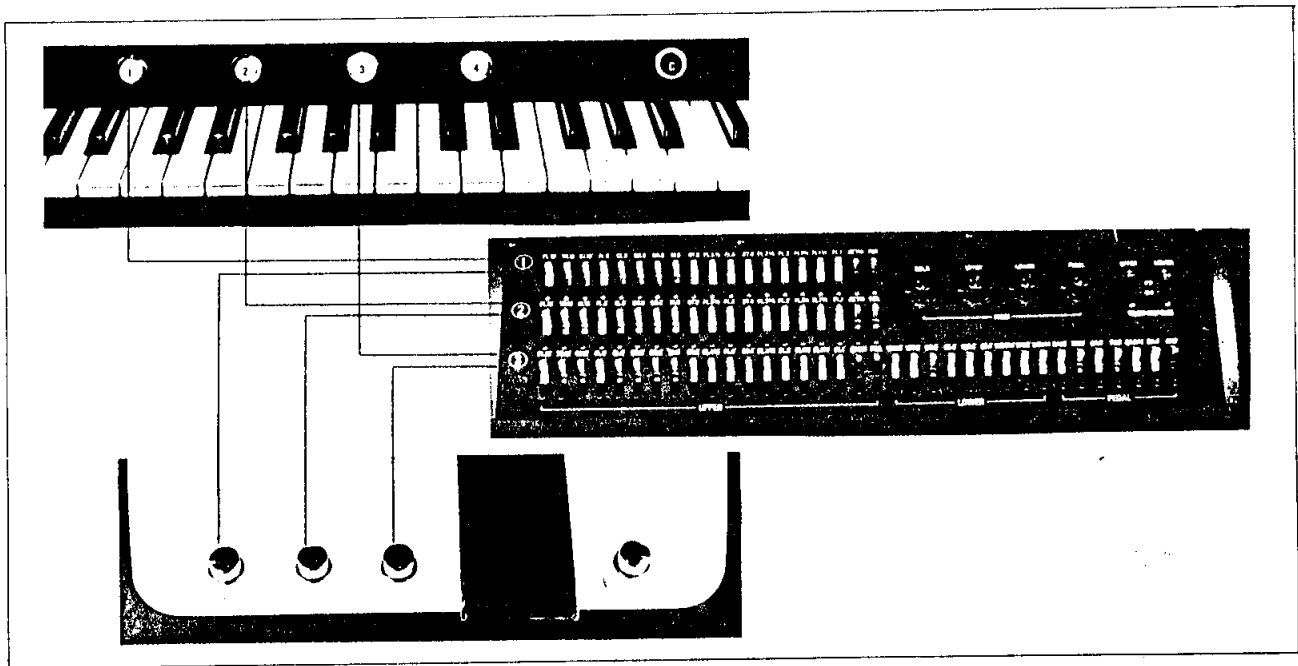
It is extremely helpful to remember that the volume of these percussion effects can be controlled by the continuously variable setting of the controlling tone lever, each of which has the same click-stop convenience.

Voice Presets

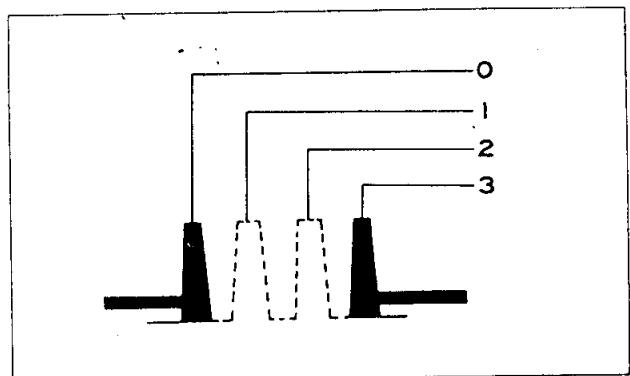
Efficient use of the preset board and changeover pistons will expand the EX-42's range to an astounding degree, actually putting the versatility of five extra manuals at your disposition.

A close look at the preset board shows that each voice is controlled with the same sensitivity as the main panel: by miniature tone levers with the same continuous control and click-stop convenience. The circled numbers to the left of each bank of levers tells which pistons call for that setting. Pistons ① and ② are for Upper manual only, while ③ is for complete Upper, Lower and Pedal changeover.

Once the preset panel levers are set, you can switch to the preset tones via the proper finger piston (located between the Upper and Lower manuals) or corresponding toe piston. Piston ④ is a special Full Organ combination preset at the factory. The © piston finger only serves to cancel the others. When a preset piston has been pushed, its built-in indicator lamp lights. To change from one piston to another, simply press the desired one; it is not necessary to first press the © piston.



Note: When using a preset Upper manual piston, Wave Motion, Piano and Harpsichord can be set; these are of course set on the main control panel only.



In order to prevent sudden changes in volume when switching over to a preset voice combination, try to be sure that the total click-stop level for all levers in any one setting approximates that on the main control panel, since these settings help to maintain the overall acoustic level.

UPPER PRESET TO PANEL (UPPER PRESET CANCEL)

In addition to the four preset pistons the EX-42 also features an Upper Preset to Panel selector which works via the knee lever for instant switchover between preset and main panel voice combinations in the middle of a selection or even a passage.

Once a piston is pressed the preset tones will be played through the keys. When this Upper Preset to Panel tablet is on, a slight pressure against the knee lever will return the Upper manual to the main panel setting. Release the knee lever and the tones suddenly shift back to preset.



General Spec

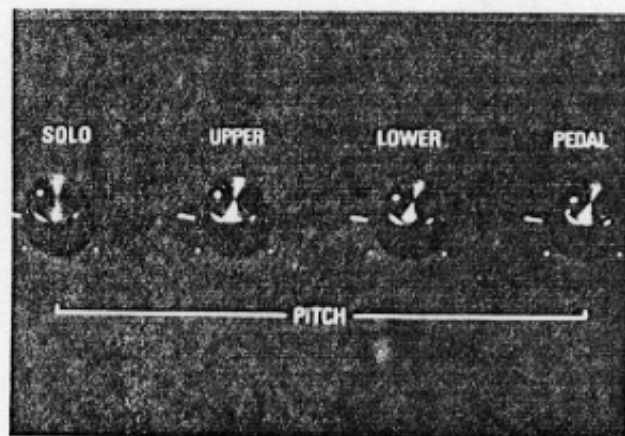


U.S. Spec

SOLO, UPPER, LOWER, PEDAL PITCH

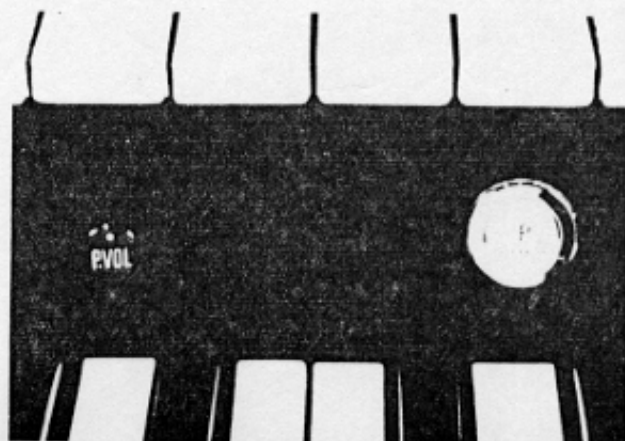
These controls, located on the preset board, let you make full use of the EX-42's five independent tone generators. By varying the pitches between manuals, a variety of interesting sounds can be created, especially when used with the coupler levers.

The Pitch controls can also be used to "tune" the EX-42 to another instrument, such as a piano, for duets, etc.

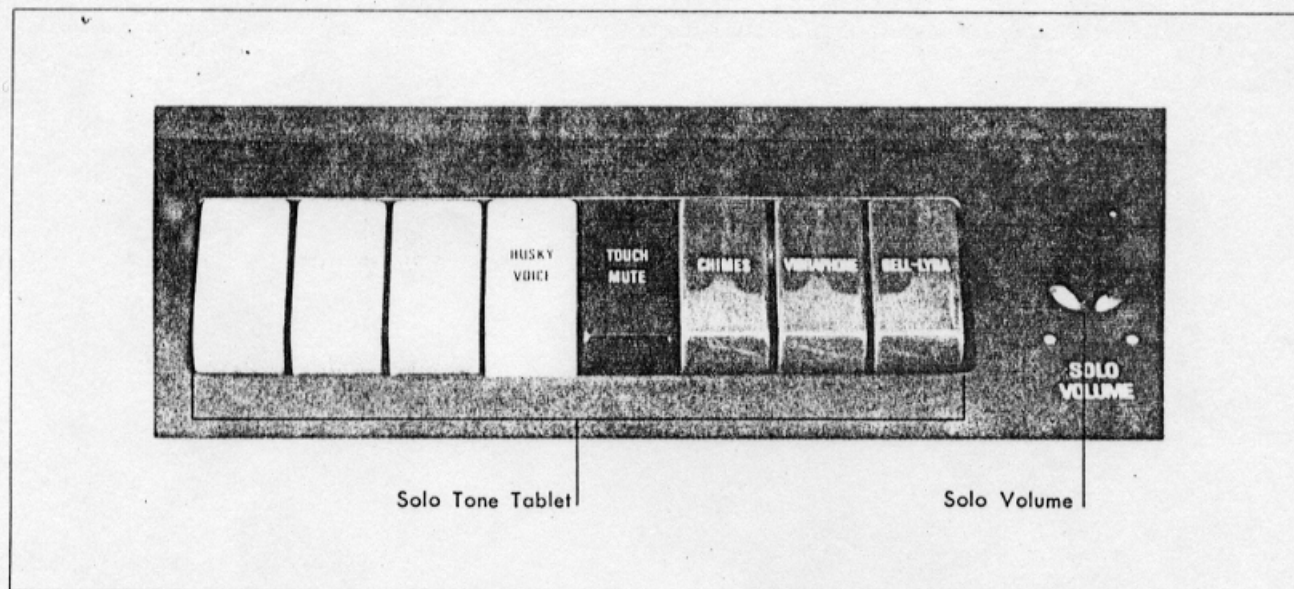


PEDAL SOLO

When this finger piston is pressed the expression pedal no longer controls the pedalboard volume. Instead, the volume is set by the control knob located to the left of the piston. This volume level should be set before beginning the selection. Then, both feet will be free for pedal solo passages.



Solo Manual (Third Manual)



All seven Solo voices have been specially designed for either brilliant realism or a distinctive new appeal. Each voice is set via its selector tablet at the right of the Solo manual.

The four left-hand tablets, i.e., Trumpet, Clarinet, Saxophone and Husky, control voices which purposely cannot produce chords; if two or more keys are pressed simultaneously, only the higher will sound. When using the Chimes, Vibraphone or Bell-lyra, however, chords are possible. Please also note that solo voices cannot be combined. If two or more selector tablets are pressed, the one to the right takes precedence.

TOUCH MUTE

This solo effect can be added to any of the voices to its left on the selector tablet bank: Trumpet, Clarinet, Saxophone or Husky. Using the same fingering technique as with Touch Vibrato, it provides a sound variation strikingly similar to the opening and closing of a traditional wind instrument mute.

The same fingering techniques used with the Touch Mute tablet off gives a Touch Vibrato effect.

Note: Using this tablet alone will result in no Solo manual sound.

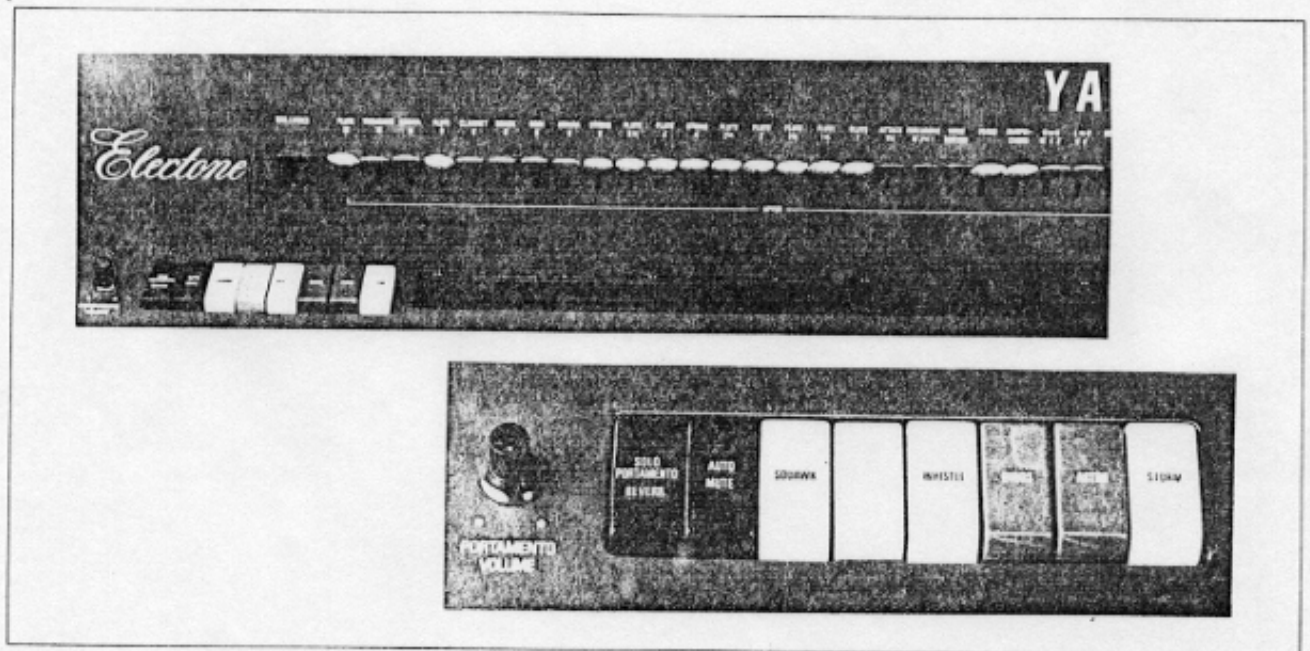


Portamento

The Portamento manual produces continuous pitch shifts just like those produced when the finger slides up and down a violin string. The three-octave range becomes higher toward the right.

There are six Portamento voice selector tablets; Birds, Astro and Storm are exclusive voices and cannot be combined with others. If any of these three tablets are switched on it automatically cancels all others to its left.

The other three voices, Squawk, Bagpipe and Whistle, can be combined for new and unusual Portamento sounds.



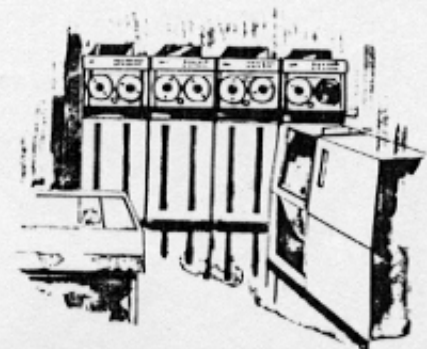
AUTO MUTE

Switch this tablet on for an interesting mute effect on any Portamento voice(s).

Note : At the top of the Portamento manual is a series of white dots. Each single dot indicates 'G', while the double dots indicate 'C'.

SOLO / PORTAMENTO REVERB

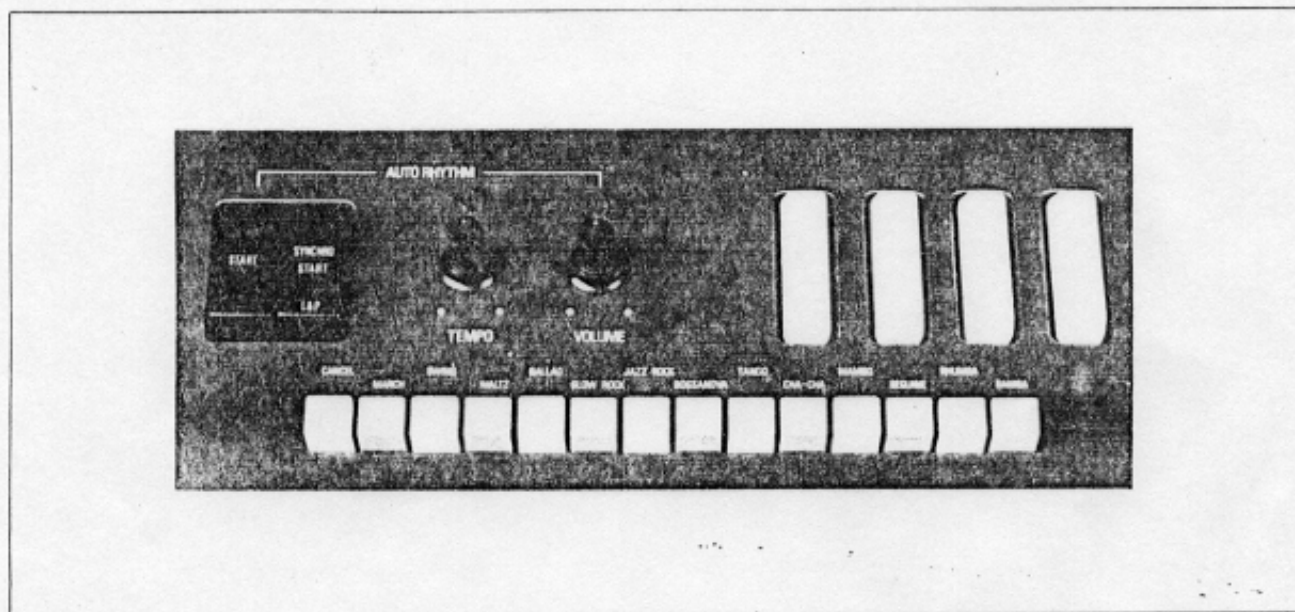
This selector turns the reverb effect for these two manuals on and off simultaneously. It works the same as U & L Reverb (see p13).



Auto Rhythm

The EX-42 Auto Rhythm section provides thirteen snappy beats that can be used singly or in combination, each controlled by its own easy-to-use button.

In addition, there are two different methods of beginning the rhythm accompaniment, according to the selection.



START

Once the beat is selected, volume and tempo set, flick this lever and the rhythm will begin immediately.

SYNCHRO-START Set the beat, volume and tempo, then flick on the Synchro-Start tablet. Nothing will happen until the first Lower manual or Pedal note is played, at which time the rhythm accompaniment will automatically begin with its first beat.

This starting method is much more professional, but requires a precise sense of rhythm.

When the selection is over, or when rhythm accompaniment is no longer desired, return the Start or Synchro-Start tablet to its off position.

TEMPO INDICATOR LAMP

Whenever one or more rhythm selector buttons are depressed this lamp will flash the first beat of every measure, in accordance with the tempo control setting. This lamp is particularly useful for setting the tempo and then beginning your selection at the proper speed, for it gives a private indication of the tempo even though both start tablets are off and no rhythm sound is being broadcast over the speakers.

Note: The tempo lamp will flash even with the start tablets both in off position, AS LONG AS AT LEAST ONE OF THE TEMPO SELECTOR BUTTONS IS DEPRESSED. In other words, pushing the Cancel button shuts off the whole rhythm section, including the lamp.

Other Controls

EXPRESSION PEDAL

Controls the volume within the overall range set by the various volume controls.

MASTER VOLUME

Controls the EX-42's overall range. Once this is set, the other volume controls can be adjusted for the desired balance.

PORTAMENTO, SOLO, PEDAL AND RHYTHM VOLUME

These various controls can be used to adjust the balance of each section.

Note : There is no Upper or Lower manual volume control. First use the Master Volume to set the range of these two manuals, then adjust the other volume controls in relation to them. Finally, use the U & L Balance control to adjust the relative Upper and Lower manual volumes.

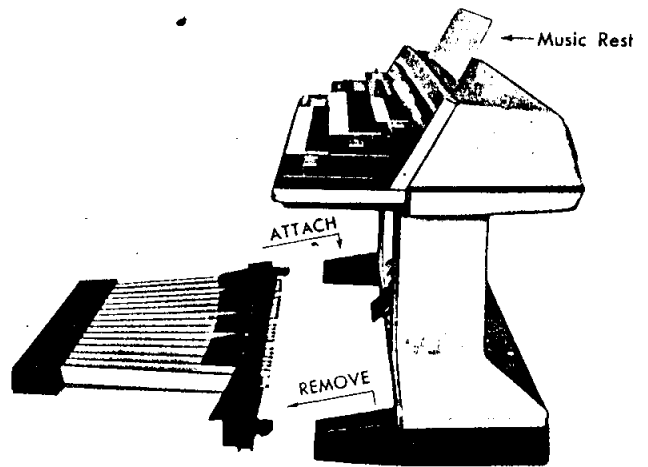


Set-Up and Connections

PEDALBOARD AND SEAT

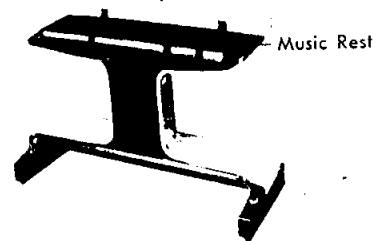
In spite of its durable construction and appearance, the EX-42 pedalboard is both lightweight and easy to move. To connect it to the instrument simply slide it in between the legs as shown in the illustration, then lift up each corner and slip the hinge over the hook.

The seat straddles the pedalboard and can be moved back or forward to suit any player.



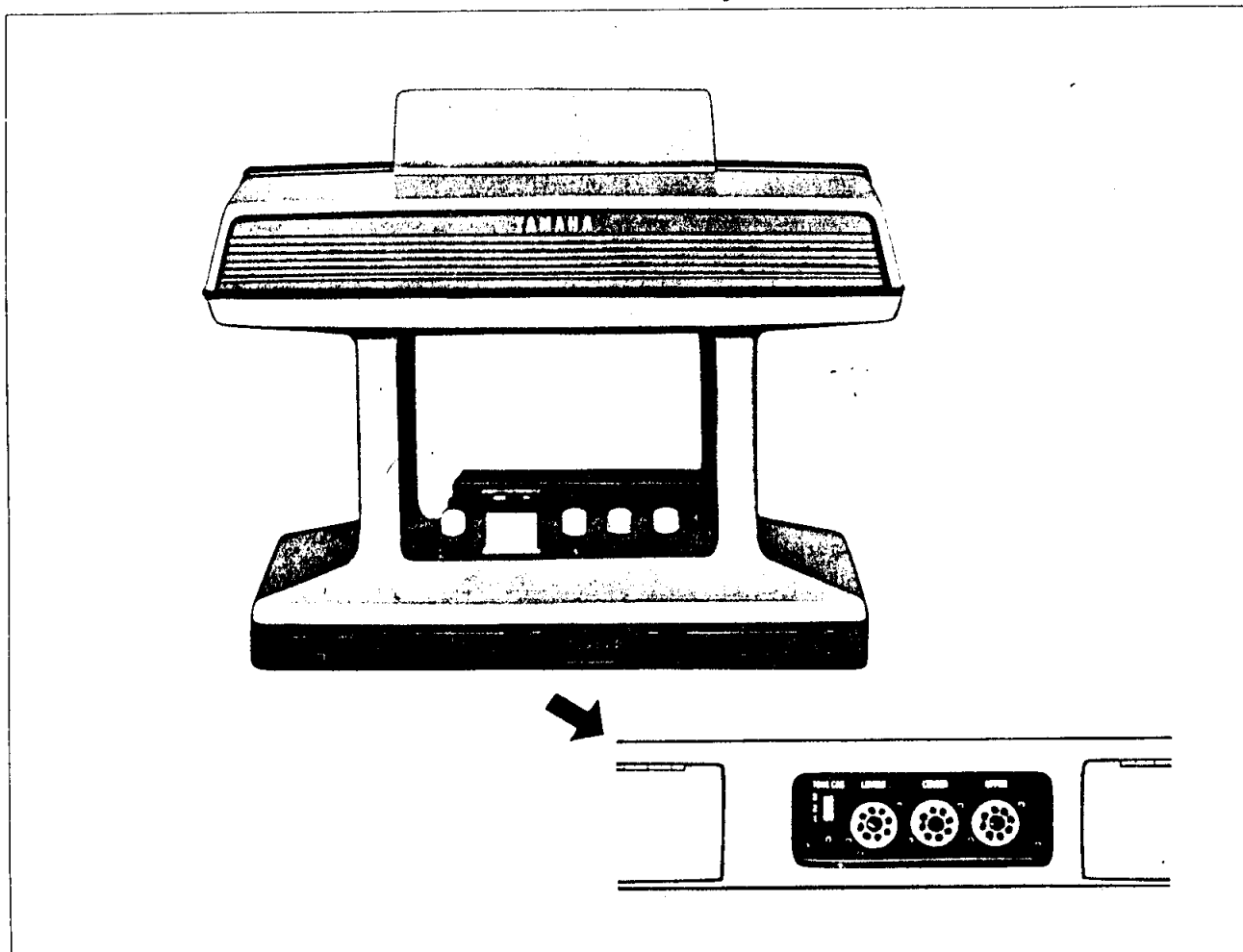
MUSIC REST

The music rest is located under the seat cover (hinged). Remove it and slip it into position on the top of the cabinet when playing from a score.



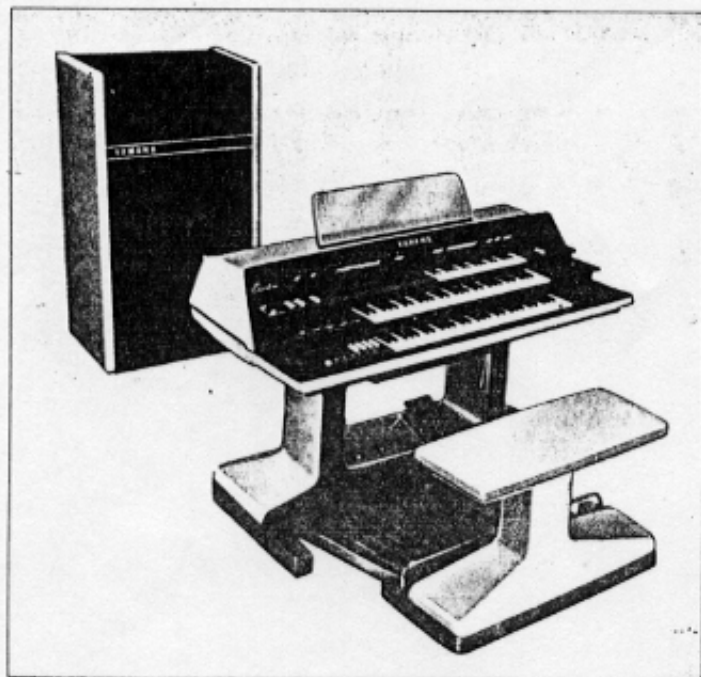
STONE CABINET CONNECTIONS

There are three possible speaker set-ups, using one, two or three tone cabinets. In each case connection and switch settings are different. First locate the panel of sockets with its switch, on the rear of the EX-42.

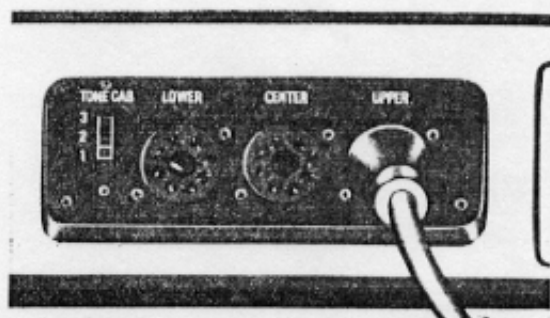


ONE TONE CABINET

In this case, connect its signal cord to either the Lower or Upper socket and set the switch to 1. All signals will be fed to this tone cabinet.



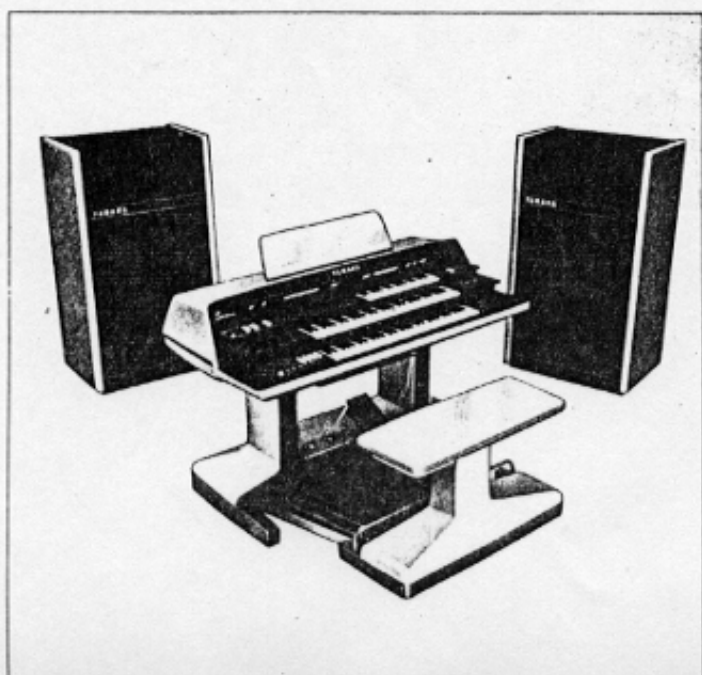
Note: If you connect the speaker to the Center socket you may hear part of the signal by adjusting the switch setting, but it will be impossible to broadcast the full signal.



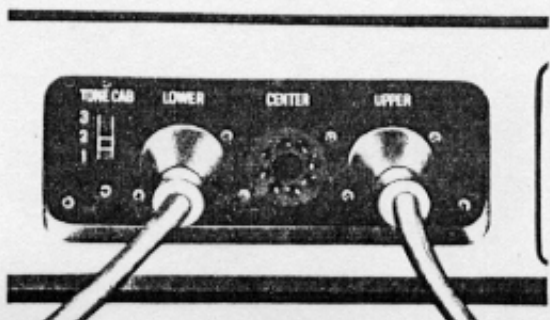
TWO TONE CABINETS

Connect one tone cabinet signal cord to the Upper and the other to the Lower sockets. Set the switch to 2. Now the Upper, Solo and Portamento manual signals will be fed via the Upper socket and the Lower manual signals via the Lower socket. In addition, Pedal, Rhythm and Percussion signals will be heard through both tone cabinets.

This is the optimum two-channel stereo system for the EX-42.



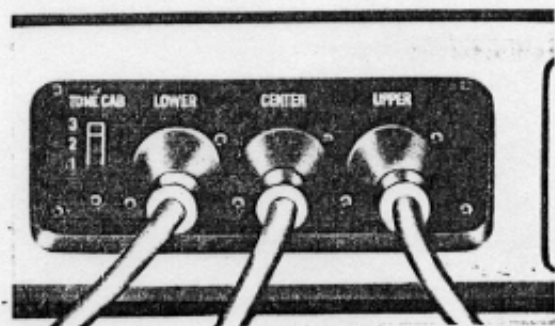
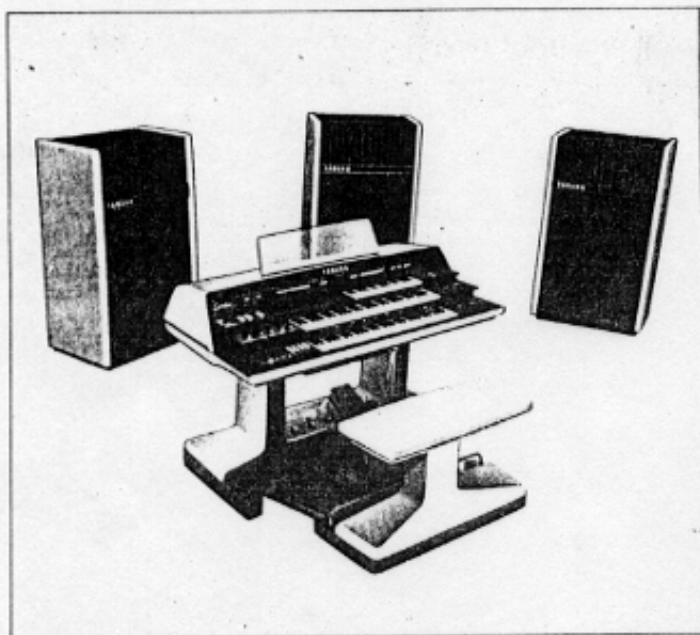
Note: Here again, using the Center socket will result in loss of some signals.



THREE TONE CABINETS

Connect one tone cabinet cord to Upper, the other to Lower and that for the center cabinet to Center. Set the switch to 3.

This three-channel system, ideal for massive halls and unstinting musical creativity, results in Upper manual signals passing via the Upper socket, Lower manual signals via the Lower socket and all others heard through the center tone cabinet.



Plug in the power cord and switch on the EX-42 only AFTER all connections are complete.



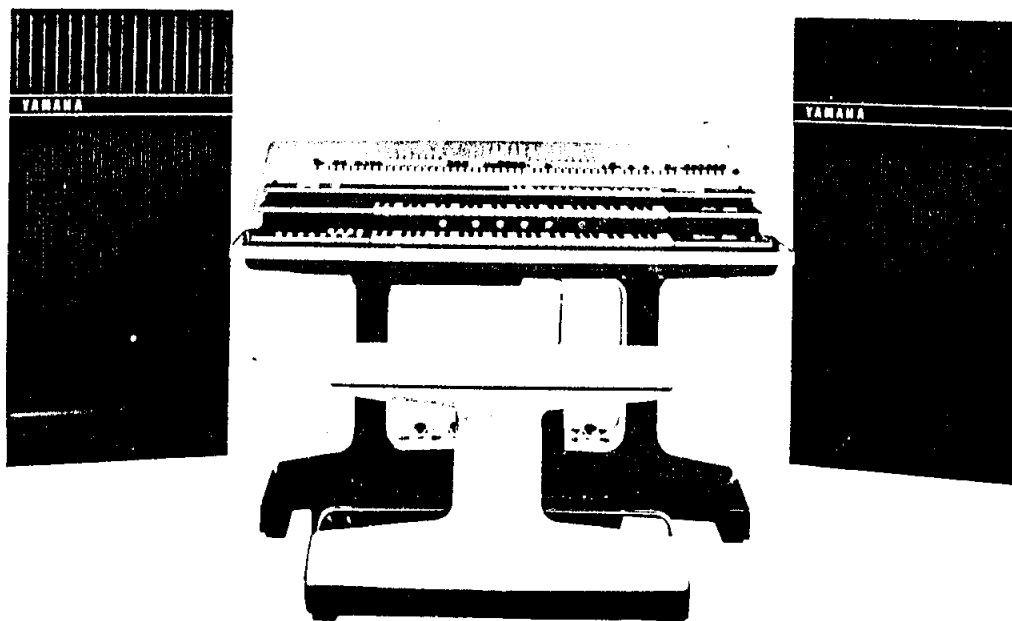
Maintenance and Care

Your Electone EX-42 is a masterpiece of durability both electronically (it incorporates the finest solid state IC circuitry) and mechanically (all moving parts are test proven for durability and most of their materials are Yamaha-produced). Even the cabinet is of special fiber-glass-reinforced plastic and steel. Nevertheless, there are certain points which must be remembered in order to assure yourself the decades of musical pleasure the instrument was designed to provide.

- * Before plugging in the AC cord for the first time, make sure the voltage corresponds to indications on the chassis. If it does not, the voltage source wiring must be changed. Contact your Yamaha dealer and do not plug in the cord.
- * If any troubles occur, shut off the power and contact your service agent. Do not attempt to repair any part of the circuitry or mechanism yourself.
- * Whenever you finish playing, turn off the power. Check the indicator lamp before leaving the bench.
- * The all-transistor circuitry, like any fine solid state equipment, is sensitive to extreme temperatures and can be seriously damaged by excessive heat. Keep the EX-42 and tone cabinets well away from sources of heat and direct sunlight.
- * All keys controls, levers and the cabinet should be cleaned in the same way: with a slightly dampened cloth only. If excessive dirt has accumulated, a mild soap solution may be used in limited quantity, and it should be rinsed off immediately. Do not let any water or other liquid leak into the EX-42.

DO NOT USE A CLEANING SOLUTION CONTAINING ALCOHOL, BENZOL OR OTHER PETROLEUM PRODUCT. This will result in permanent damage to any surface it contacts.

- * Do not place anything on the keys or control boards. If necessary a metronome or spare music may be placed on the top of the cabinet, but it is an excellent practice to keep it completely clear. Although the case is extremely durable, once scratched it is equally difficult to repair.
- * Select a well-ventilated, dry location. Long exposure to humidity or hot air currents will result in breakdowns and shorten the instrument's life.



Do not be alarmed if...

- 1) a note sounds when the power switch is turned on. This is a normal result of the initial power surge, and will not cause any damage.
- 2) only one note is produced even though two keys are pressed. Remember, there are several effects which require this limitation.
- 3) occasional static is produced. This could be caused by nearby appliances, automobile ignitions, neon signs, etc., which are faulty or do not have necessary noise prevention devices.
If this happens with annoying frequency, check your household appliances or those of your neighbor, as well as local machines, factories, etc. If you are in doubt as to the cause, contact your Yamaha dealer.
- 4) the EX-42 reproduces radio or TV sound signals. This possibility is inherent in the circuitry, in case there is an excessively powerful transmitter in the vicinity. Consult your Yamaha dealer.
- 5) the Pedalboard sounds too high in relation to the other manuals. For piano players the pedal and higher notes of the upper manual may seem out of tune with each other. This is because the piano's more complicated harmonics require a special tuning technique based on much more than fundamental tones.
- 6) The EX-42, like all electronic organs, has a more precisely defined set of harmonics which in turn necessitate slightly different tuning methods. If you have a piano background, give yourself a few weeks to become accustomed to the whole organ balance.

We want to be sure you derive the maximum in creative pleasure from your EX-42. For this reason we would be delighted to hear your opinions and suggestions. Please drop us a line if you have any remarks to pass along.



Specifications

KEYBOARDS

Upper Manual	61 keys	C ~ c4
	(5 octaves)	
Lower Manual	61 keys	C ~ c4
	(5 octaves)	
Pedalboard	25 keys	C1 ~ c
	(2 octaves)	
Solo Manual	37 keys	c ~ c3
Portamento	3 octaves	

TONE LEVERS

Upper Manual			
Flute	16'	Kinura	16'
Flute	8'	Clarinet	8'
Flute	5½'	Brass	8'
Flute	4'	Oboe	8'
Flute	2½'	Kinura	8'
Flute	2'	String	8'
Flute	1½'	String	4'
Flute	1½'	Piano	
Flute	1'	Harpsichord	
Trombone	16'		

Lower Manual

Wood	16'	Wood	1½'
Wood	8'	Horn	8'
Wood	4'	Cello	8'
Wood	2½'	Cello	4'
Wood	2'	Strings	

Pedalboard

Bass	16'	Tromba	16'
Bass	8'	Tuba	8'
Bass	5½'	Bass Guitar	
Bass	4'		

COUPLERS

Upper to Upper	16' · 4' · 2'
Lower to Upper	8' · 4'
Upper to Lower	8' · 4'
Lower to Pedal	8' · 4'

PRESET TONE SELECTORS

Solo Manual	
Trumpet	Chimes
Clarinet	Vibraphone
Saxophone	Bell-lyra
Husky Voice	
Portamento	
Squawk	Birds
Bagpipe	Astro
Whistle	Storm

EFFECT LEVERS

Brilliance (Upper & Lower)
Repeat (Upper)
Repeat Speed (Upper)

Touch Vibrato (Upper)

Upper Vibrato
Lower Vibrato
Upper Attack 1½'
Percussive 16' · 2½' 1' (Upper)
Waev Motion (Upper)
Pedal Attack 8'

EFFECT CONTROLS

Upper, Lower, Pedal Sustain
U & L Reverb, Balance

EFFECT SELECTORS

Upper Touch Response I, II (8' · 4')
Lower Touch Response I, II (8' · 4')
Upper, Lower Sustain (8' · 4')
Upper Singing Vibrato
U & L Attack (8' · 4')
Upper Preset to Panel
Touch Mute (Solo)
Auto Mute (Portamento)
Solo/Port Reverb

TREMOLO SELECTORS

Upper Voice (Main/Tremolo)
Upper Tremolo, Chorus
Lower Voice (Main/Tremolo)
Lower Tremolo, Chorus

PISTONS

Pedal Solo
Preset Pistons
1 ~ 2 Upper
3 General
4 Full Organ (Factory set)
C Cancel

TOE PISTONS

Duplicate preset pistons 1 ~ 4

AUTO RHYTHM SECTION

Rhythm Selectors	
March	Tango
Swing	Cha-Cha
Waltz	Mambo
Ballad	Beguine
Slow Rock	Rhumba
Jazz Rock	Samba
Bossanova	Cancel

Rhythm Controls

Rhythm Start
Synchro-Start
Tempo
Volume
Tempo Indicator Lamp

PERCUSSION SECTION

Percussion Levers
Lower I, II
Pedal
Button I, II, III
Percussion Buttons (Four)

OTHER CONTROLS

Preset Board (Drawer type)
Knee Lever
Master Volume
Solo Volume
Portamento Volume
Pedal Volume
Expression Pedal
Upper, Lower Touch Response Controls
Independent Pitch Controls
(Solo, Upper, Lower, Pedal)
Power Switch & Pilot Lamp

OTHER FITTINGS

Piston Indicator Lamps (Five)
Tone Cabinet Sockets (Right, Left, Center)
Music Rest
Matching Bench

AMPLIFIER/SPEAKER SYSTEMS

Two Yamaha Tone Cabinets R-60B

Each Cabinet:

Main Spkrs.:	Natural Sound
	2 Squawkers
	2 Tweeters
Tremolo Spkrs.:	3 Natural Sound
(2-speed)	2 Tweeters
Output Power:	100W (4 Ω)
Power Consump.:	300W (max.)

DIMENSIONS

	Console	Bench	Tone Cab.
Width:	154 cm (61")	95 cm (37")	75 cm (29½")
Depth:	80 cm (32")	35 cm (14")	51 cm (20")
	122 cm (48")		
	with pedalboard		
Height:	106 cm (42")	60 cm (24")	143 cm (56½")
	without music rest		
WEIGHT	180 kg (396 lbs.)	20 kg (44 lbs.)	124 kg (273 lbs.)
	with pedalboard		

CONSTRUCTION

Fiberglass-reinforced Plastic, Steel

Specifications subject to change without notice.