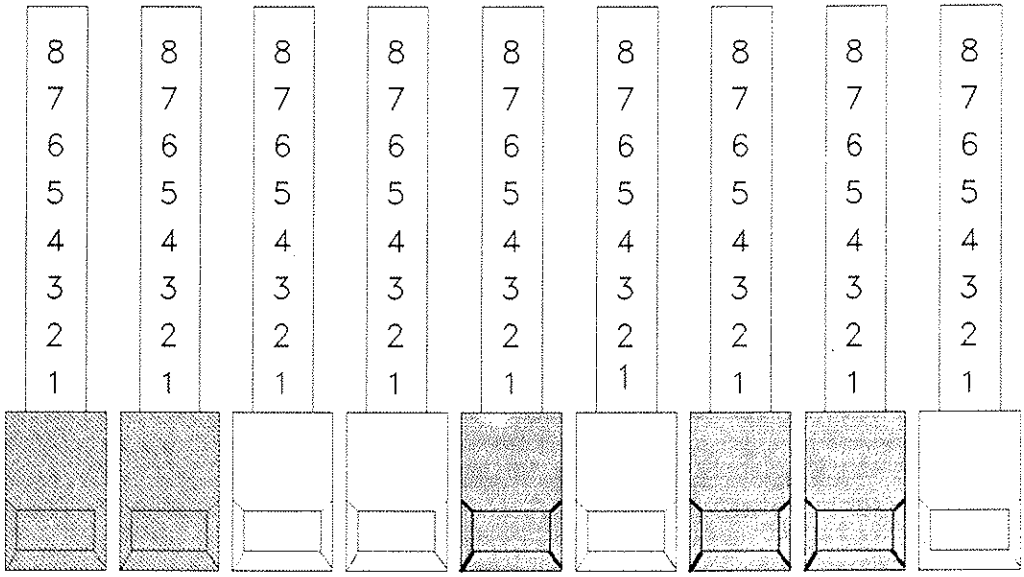


HAMMOND®

SUPER - B

OWNER'S PLAYING GUIDE

IMPORTANT SAFETY INSTRUCTIONS

WARNING - As with any electrical or electronic equipment, care should be exercised to prevent fire and shock hazard. The following information is provided to give guidance in the safe use of your Hammond Organ.

Read all of the instructions before using this product.

To reduce the risk of injury, close supervision is necessary when the product is used near children.

Do not use this product near water.

This product may be capable of producing sound levels that would cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any loss or ringing in the ears, you should consult an audiologist.

This product should be located so that its position does not interfere with proper ventilation and should not be placed near heat sources such as radiators or heat registers.

This product should be connected to a power source only of the type as marked on the product.

The power-supply cord should be unplugged from the outlet when left unused for a long period of time.

Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

IF YOUR INSTRUMENT FAILS TO OPERATE:

1. Be sure your POWER ON/OFF switch is ON, and the MASTER VOLUME is set to least at the half way point.

2. Be sure that at least one voice is selected ON.

3. Make sure headphones are not plugged in to the headphone jack.

4. Make certain that the power cord is plugged in and the "AC" wall receptacle is not faulty.

In the event that the instrument is still inoperable, your Hammond Organ Dealer is best qualified to provide competent service.

PRODUCT SHOULD BE SERVICED BY QUALIFIED SERVICE PERSONNEL WHEN:

A. The power-supply cord or plug has been damaged.

B. Objects have fallen, or liquid has been spilled, into the product.

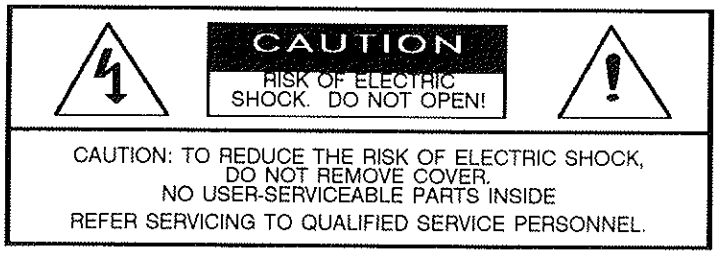
C. The product has been exposed to rain.

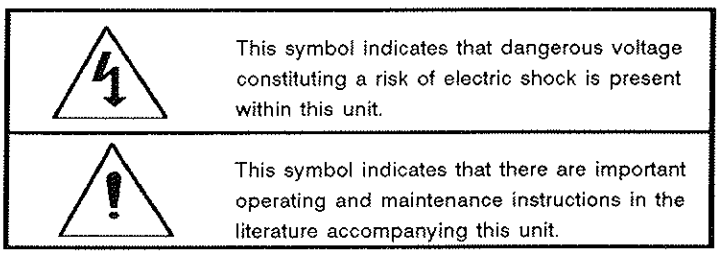
D. The product does not appear to operate normally or exhibits a marked change in performance.

E. The product has been dropped or damaged.

Do not attempt to service this product. All servicing should be referred to qualified service personnel.

SAVE THESE INSTRUCTIONS





WARNING: TO AVOID THE HAZARDS OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THESE APPLIANCES TO RAIN OR OTHER MOISTURE.

YOU'VE SELECTED THE WORLD'S MOST POPULAR ORGAN!

Welcome to the exclusive circle of Hammond Organ owners. We're proud you recognize the distinctive quality that has made it the overwhelming choice of beginners, "buffs," and professionals since Hammond first introduced the electric organ in 1935.

Hammond ingenuity has developed a unique digital sound voicing system combined with the traditional Hammond sound and quality. You own one of the world's great sounding instruments. Play it. Discover the exciting effects you can get. You'll achieve new levels of musical enjoyment with your Hammond.

We thank you for selecting this fine new instrument from Hammond, over the vast number of other instruments that are on the market today.

TABLE OF CONTENTS

PART I - GETTING STARTED

PART II - TURN ON & PLAY

PART III - INFORMATION CENTER DISPLAY

TABLE OF CONTENTS

PART IV - TONEBARS

TABLE OF CONTENTS

PART V - EFFECTS

PART VI - CARD VOICES

TABLE OF CONTENTS

TABLE OF CONTENTS

PART VIII - RAM CARD

PART IX - PRO - FEATURES

TABLE OF CONTENTS

PART X - MIDI

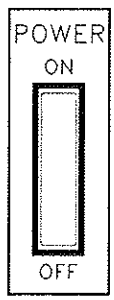
TABLE OF CONTENTS

GETTING STARTED

BASIC CONTROLS

The panel controls on the HAMMOND Super B organ include any of the Touch Buttons, Tabs, Tonebars, Pre-set Keys and Visual Pointer Touch Pads. These controls allow the player to make adjustments and voice changes on the instrument. In general terms, all the controls on the instrument fall into one of two groups: Sound or Effects. The BASS SECTION Voice Touch Buttons are Sound controls because they allow a Sound to be played on the pedals. The VIBRATO Touch Buttons are Effect controls because instead of registering a sound, they modify or change an existing sound. Following is a description of the basic controls of the instrument:

POWER SWITCH



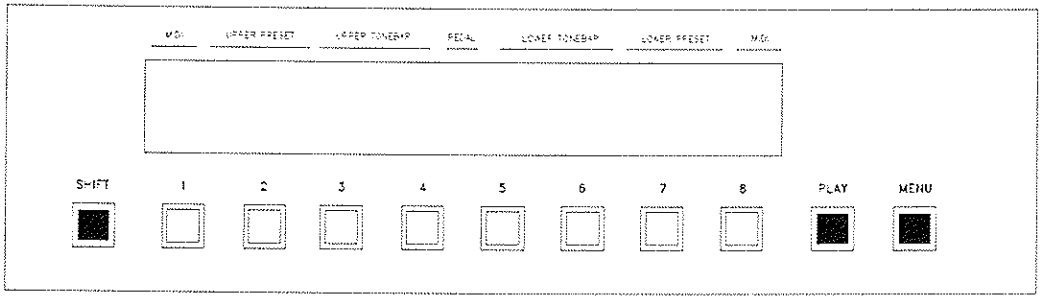
The POWER SWITCH is located to the right of the Upper Keyboard. When this switch is in the ON or forward down position the INFORMATION CENTER DISPLAY as well as some LED's (Light Emitting Diode's) will light up showing the instrument is "ON"

HIDDEN FEATURES PANEL

Located to the left and right sides of the INFORMATION CENTER DISPLAY are the hinged panels that when raised will expose the HIDDEN FEATURES of the Super B

INFORMATION CENTER DISPLAY

The INFORMATION CENTER DISPLAY, is located in the upper center of the organ and has two modes (1) **PLAY MODE** and (2) **MENU EDIT MODE**. Below is what the display looks like before the Super B is turned "ON".



Note: More detail about the PLAY and MENU EDIT modes are covered in the section INFORMATION CENTER DISPLAY. Refer to the Table of Contents for the page numbers.

If you cannot see text on the screen clearly, use the control marked DISPLAY found under the left Hidden Features Panel. To increase the contrast, turn the control right. To decrease the contrast, turn it to the left.

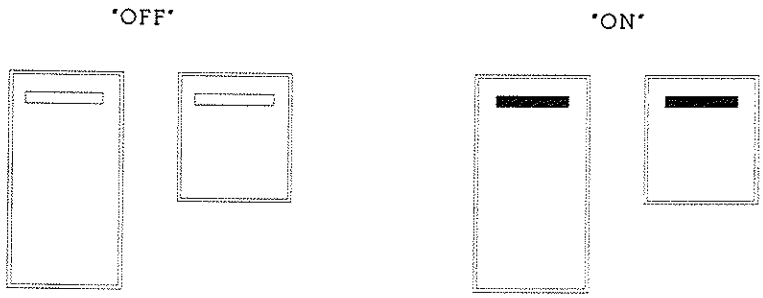
SLIDER CONTROLS

When sliding these up or down they increase or decrease the corresponding control's intensity level.

TOUCH BUTTONS

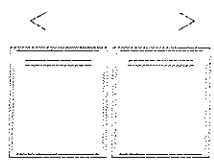
TOUCH BUTTONS have three (3) categories:

1. TOUCH ON / TOUCH OFF Touch Buttons have red LEDs in them that will light up indicating "ON". Touch On/Off Buttons control specific functions like Touch Response Percussion 2nd or 3rd Harmonic.



Note: In some control sections a Select Touch Buttons will remain ON.

2. TOUCH AND HOLD Touch Buttons such as the TEMPO, TRANSPOSE, and certain MENU Touch Buttons are part of this group. The corresponding control level will increase or decreased in incremental steps. New values are displayed in the INFORMATION CENTER when it is in the PLAY mode.



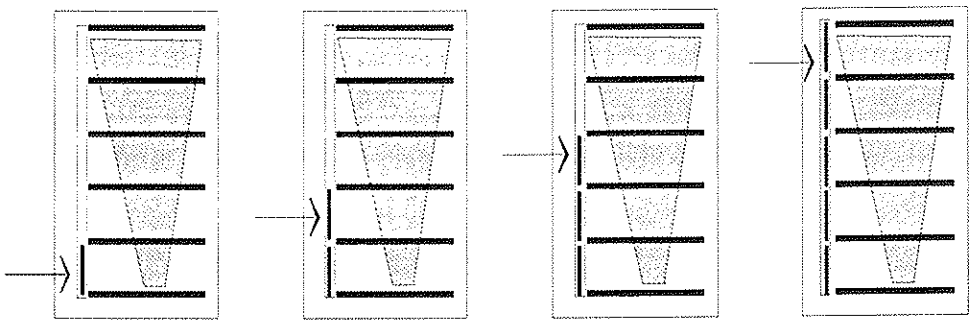
3. SELECT Touch Buttons function much like the Touch ON / Touch OFF buttons - an LED or the Touch Button itself will light up and cancel an already active button. The exception to this are the INFORMATION CENTER DISPLAY Select Touch Buttons which do not light up.

The SELECT Touch Buttons are found in four areas:

1. The PRE-SET KEYS (Reverse black & white keys)
2. Under the INFORMATION DISPLAY CENTER
3. EXTERNAL RHYTHM CONTROL
4. PEDAL CONTROL PRESETS I & II

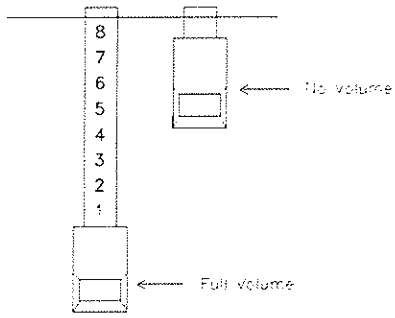
VISUAL POINTER TOUCH PAD - VOLUME CONTROLS

The LEDs of a VISUAL POINTER Touch Pad light up with five steps from bottom to top.



Touching the top of the VISUAL POINTER Touch Pad will light all of the LEDs. This indicates the setting of that section is at maximum setting. Touch the bottom of the Touch Pad and the setting will either be set at its lowest or turned "off" completely.

TONEBARS - DRAWBARS

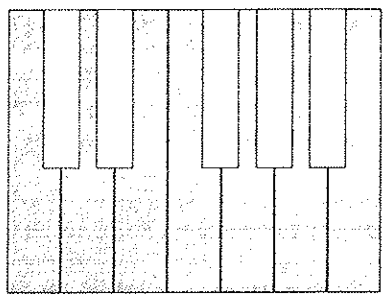


The two sets of nine TONEBARS, often referred to as **DRAWBARS**, for the upper and lower keyboards and the 2 TONEBARS for the pedals are located between the UPPER KEYBOARD and the INFORMATION CENTER DISPLAY.

Pulling a TONEBAR out (towards you) will increase the volume in incremental steps from 0 (no sound) to 8 (maximum volume). Pushing the TONEBAR back in decreases the volume of that TONEBAR.

Note: More information about the TONEBARS is covered later in this owner's guide (See TONEBARS)

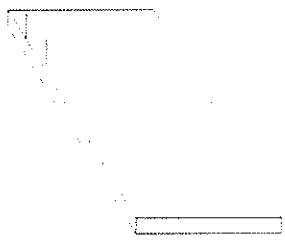
PRE-SET KEYS



To the left of each manual are reverse-color keys which bring into play ten pre-set tonebar combinations. The voice, or combination of voices and footage, is clearly marked on each key. The B key of each group of pre-set keys serve to introduce your choice of tonebar combinations set-up on the orchestral and accompaniment tonebars.

ADDITIONAL CONTROLS

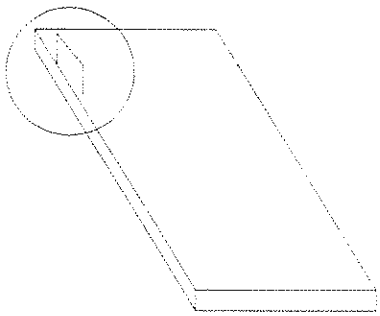
EXPRESSION CONTROL:

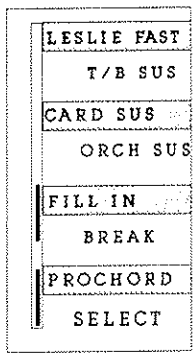


To the right at the base of the organ is a large foot pedal. This is called the Expression or Volume Pedal which controls the overall volume of the organ. Push forward with the toe of your foot to increase the volume and backwards with your heel to decrease the volume.

ProFoot FOOT SWITCH

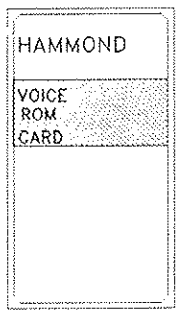
Located on the left side of the Expression Pedal is the ProFoot FOOT SWITCH. This foot switch can be programmed to activate one of 5 different functions from the ProFoot Visual Pointer Touch Pad.

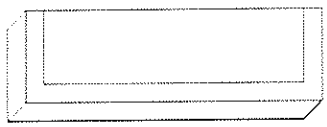




NOTE: The functions of ProFoot are covered in detail later in this guide. (See ProFoot FUNCTIONS.)

MEMORY CARD SLOT





The MEMORY CARD slot has two uses:

1. You can "read from" preprogrammed Hammond Voice ROM Cards. (ROM **R**ead **O**nly **M**emory). Contact your Hammond Organ dealer for more information about these ROM Cards.

2. You can "save to" and "read from" Hammond RAM Memory Cards, your own Custom Combination Presets.

MASTER VOLUME SLIDER CONTROL

This Slider Control is located on the right end of the Upper Keyboard. Move this slider control up to increase the instrument's volume. Move the slider down to decrease the volume.

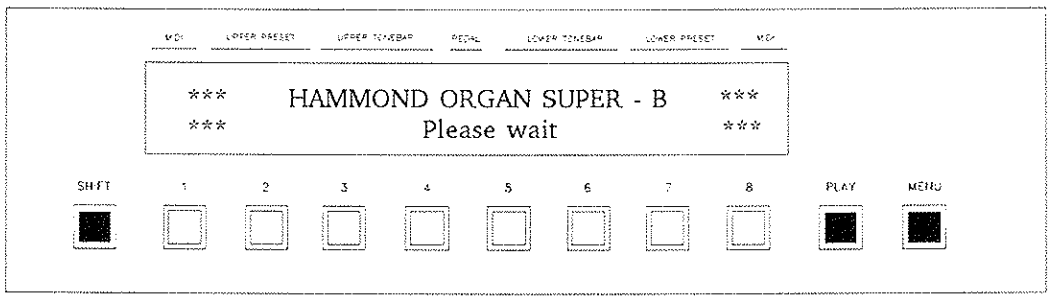
TURN ON
&
PLAY

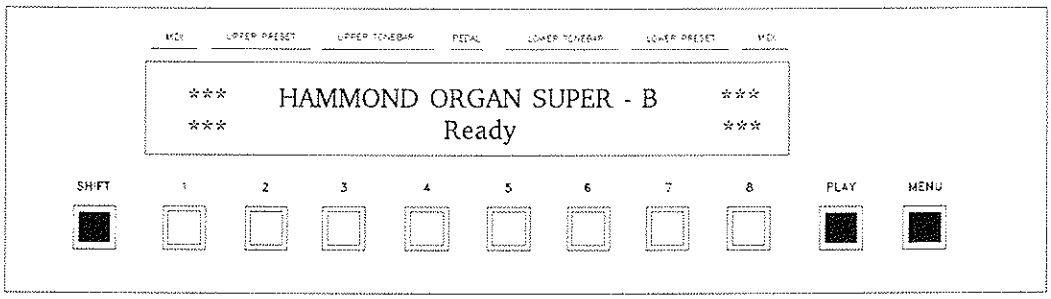
TURN ON AND PLAY

The Hammond Super B is a technologically advanced instrument yet it is easy to play. To illustrate this ease of play we have provided a quick musical example to help get you started making music right away.

The following example will illustrate the TRADITIONAL STYLE of playing.

1. Locate the POWER SWITCH found to the right of the upper keyboard. Turn it on. The control panel will light up and the INFORMATION CENTER DISPLAY will show the following screen displays.





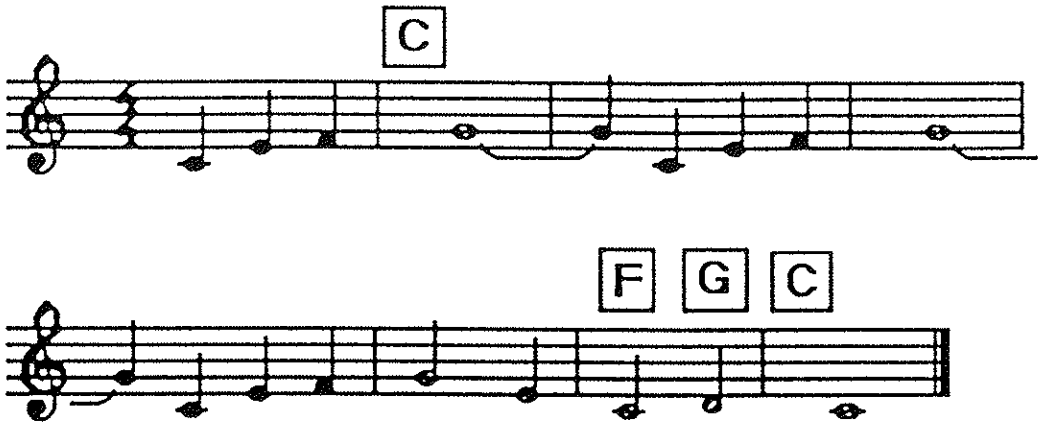
2. Locate the LOWER PRE-SET KEYS to the left of the lower keyboard and touch the A# key. The LED above it will light up.

3. Locate and touch "ON" the Pedal PRESET I. The Pedal PRESET I is found to the left of the POWER switch.

The Super B should now have a PIANO sound on the upper keyboard and a Flute 8' Accompaniment on the lower with a warm bass pedal sound.

You are now ready to begin. Using your right hand play the melody notes on the upper keyboard. With your left hand play your own multiple-finger chords on the lower keyboard. To play the chords match the C, F, and G on the music below on the lower keyboard.

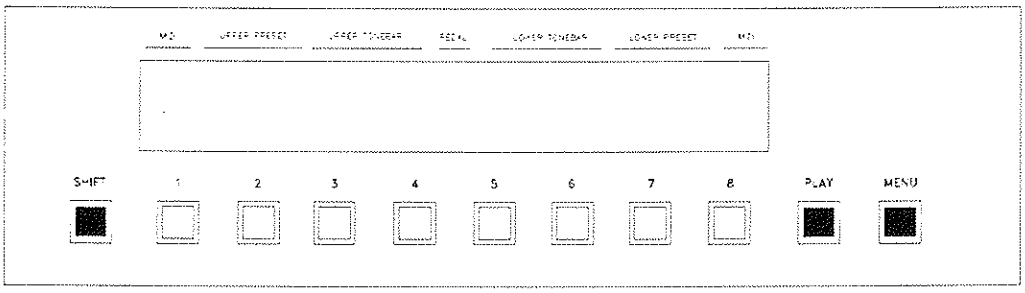
When The Saints Go Marching In



INFORMATION CENTER DISPLAY

INFORMATION CENTER DISPLAY

Normally, the Touch Buttons, Visual Pointer Touch Pads, Tonebars, and Slider Controls are used to control the operations necessary for Registration set-ups, settings for each voice, rhythm tempo, as well as MIDI information. The INFORMATION CENTER DISPLAY allows you to see and regulate these changes.



Below the display window itself are eight gray Touch Buttons marked from 1 through 8. These buttons have functions that change automatically as different modes and menus are used. These basic functions are:

1. Card Voice and Editing features selection.
2. Loading from and Saving to the Memory Card.
3. Turning something ON or OFF.
4. Confirmation - Yes, No or OK.
5. Modification of parameters - increase or decrease.

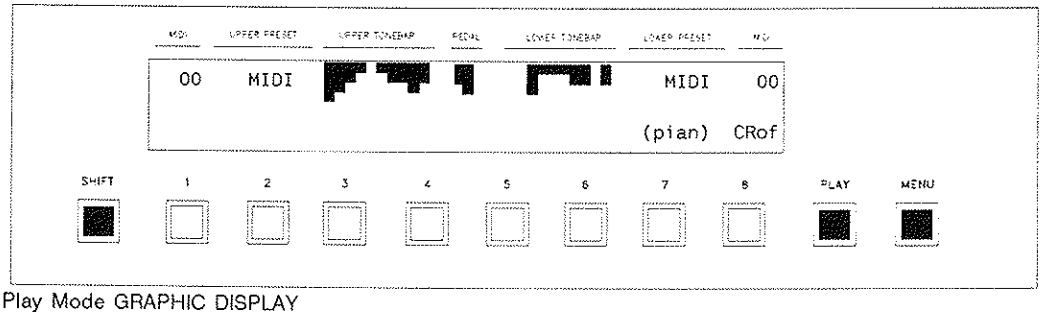
There are also 3 black Touch Buttons; SHIFT, to the left of the 8 gray touch buttons and the PLAY and MENU touch buttons found to the right. The SHIFT Touch Button allows you to access other display and function levels of the PLAY and MENU modes.

As stated in GETTING STARTED there are two modes, PLAY MODE and MENU EDIT MODE. The following is only the basic levels and NOT a complete explanation of all the functions. Detailed information is covered for every function of the menus in each chapter of this owner's guide.

IMPORTANT: It is assumed at this point that you have just turned the organ on and have not touched either the PLAY or MENU Touch Buttons, if you have please turn the organ "OFF" wait 5 seconds and turn it back on so the INFORMATION CENTER DISPLAY shows "**** Ready ****". Also the Tonebars should be "OFF" (pushed "in") so no numbers are showing.

PLAY MODE

Touch the black PLAY Touch Button so that the Information Center Display is in the PLAY MODE. The display should look similar to this:



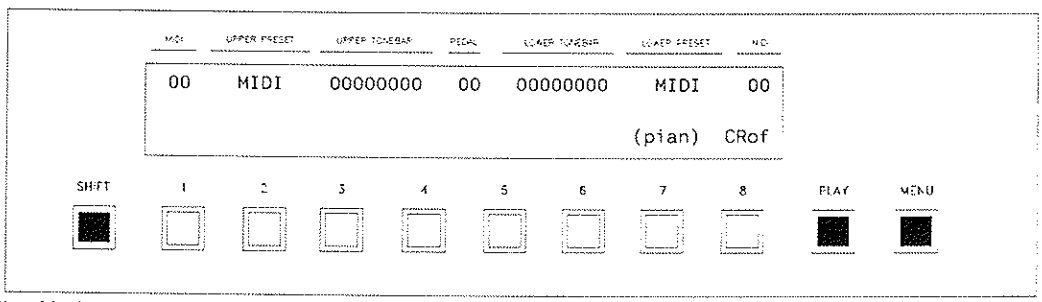
Play Mode GRAPHIC DISPLAY

This is the 1st level of the Play Mode called **GRAPHIC DISPLAY**. GRAPHIC DISPLAY means when a Tonebar is pulled out the position is shown "graphically" in the upper half of the Information Center Display. This is helpful when one of the PRE-SET KEYS, located to the left of the upper & lower keyboards, is pressed by showing "graphically" how far the Tonebars are pulled out.

The upper half of the display also shows the PRE-SET KEY name and its PROGRAM NUMBER as well. The bottom half of the Information Center Display shows the Card Voice names that are loaded, Chorus and Transpose.

Now pull out and push in the Tonebars and you will see the GRAPHICS change in the upper center portion of the display.

Next, touch the PLAY Touch Button again while the Graphic Play Display is on. Now you are in the 2nd level of the Play Mode called the **NUMERIC DISPLAY** and it should look similar to this:



Play Mode NUMERIC DISPLAY

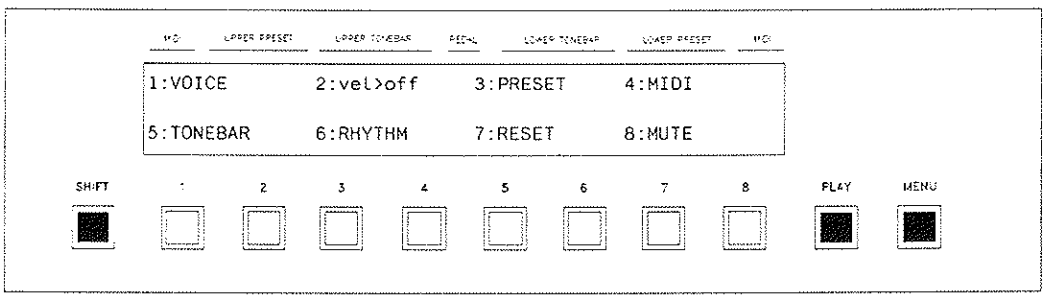
The Tonebars position will show "numerically" in the upper portion of the display. This allows you to see the exact setting of the Tonebars, as well as the Tonebar settings of each of the PRE-SET KEYS.

Either of these PLAY displays should be set while playing. Also, the new names will show each time a new VOICE ROM CARD is loaded.

NOTE: Please experiment with the parameters as you can always RESET the organ "back to" the factory settings. (See RESET in at the end of this section for this procedure.)

MENU EDIT MODE

Touch the MENU Touch Button to enter the Menu Mode. The INFORMATION CENTER DISPLAY should look like this:



Menu Mode LEVEL 1

Eight menus from 1 through 8 should now appear in the display window.

This is a brief explanation of these 8 functions:

1. CARD - Loads "new" ROM CARD VOICES from a Memory Card into the organ. (ROM means **R**ead **O**nly **M**emory) The CARD menu has 3 functions for using RAM CARDS; LOAD, SAVE and FORMAT. (RAM means **R**andom **A**ccess **M**emory.)

2. vel> - (velocity sensitivity) This is used to turn off the Touch Sensitivity or between two Touch Sensitivities of the 7 ROM CARD VOICES.

3. PRESET - Used when saving your own custom PRE-SET KEYS.

4. MIDI - This allows you to edit and modify MIDI parameters.

5. TONEBAR - This allows you to change the Brightness, Attack, turn on or off the Octave detune feature and select the Leslie Channel ch1 or ch2 of the Tonebars.

6. RHYTHM - This allows you to view the tempo settings when used with a MIDI drum machine.

7. RESET - This is for resetting the organ back to factory settings.

8. MUTE - The MUTE Select Touch Button is used to send a command turning off all MIDI notes. This is usefull if a receiving MIDI device is holding onto notes.

These are the modes and functions. How to operate them will be discussed in greater detail under separate sections.

RESET

To recall the factory settings, use RESET of the Menu Edit Mode. When RESET is used, all settings will change back to the factory settings. It is recommended that the RESET operation be carried out once, before starting to play with your own registrations set-ups, especially when you or other players play alternately, or after loading new presets.

There are some points to remember before doing the RESET operation:

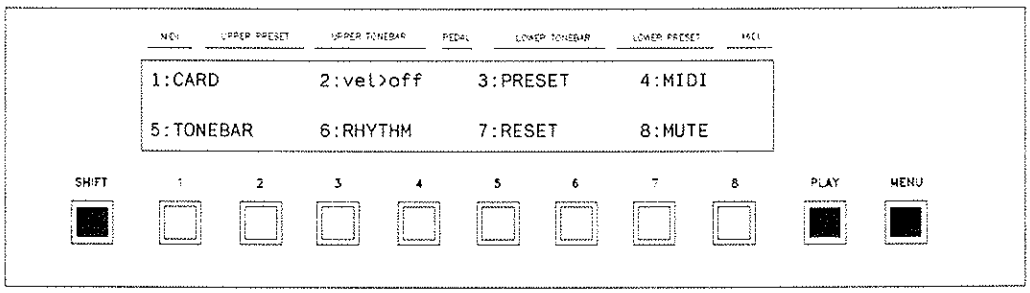
* The PRE-SET KEYS will automatically be reset to the default values and all of the contents of your own custom PRE-SET KEYS and any currently loaded CARD VOICES will be erased.

* As long as a ROM Voice Card is inserted in the Memory Card Slot, the voices will be re-loaded. If a ROM Voice Card is not inserted only the PIANO VOICE will automatically be returned.

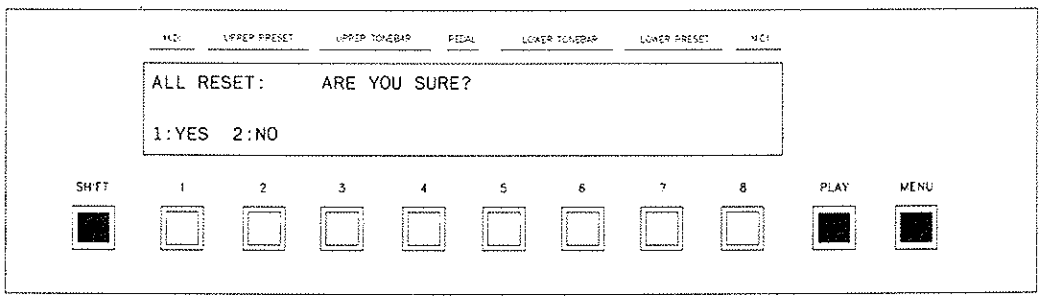
The RESET process.

TRY THIS:

1. Touch the black MENU Select Touch Button so the Information Center Display looks like this:

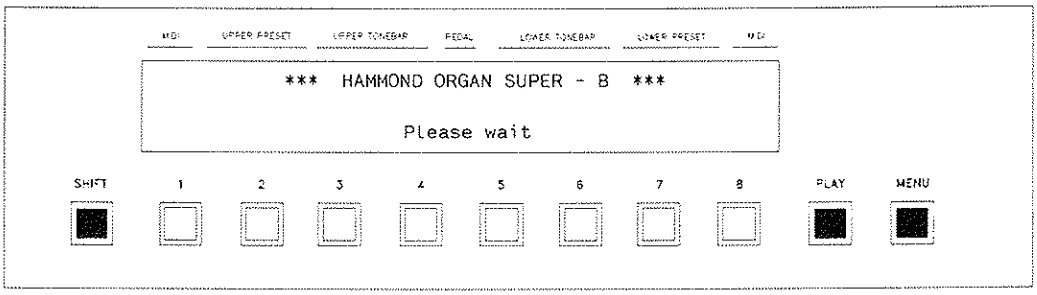


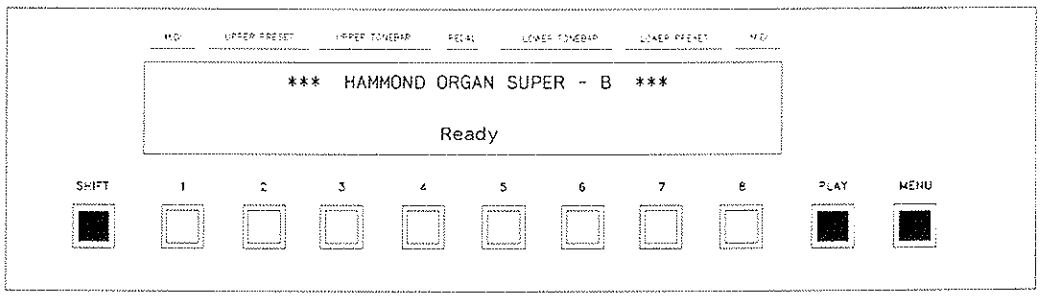
2. Touch the gray Number 7:RESET Select Touch Button and the Information Center Display should look like this:



3. Touch the gray Touch Button number 1 to confirm "YES" that you want to RESET the organ.

4. The Information Center Display should display the following two screens:





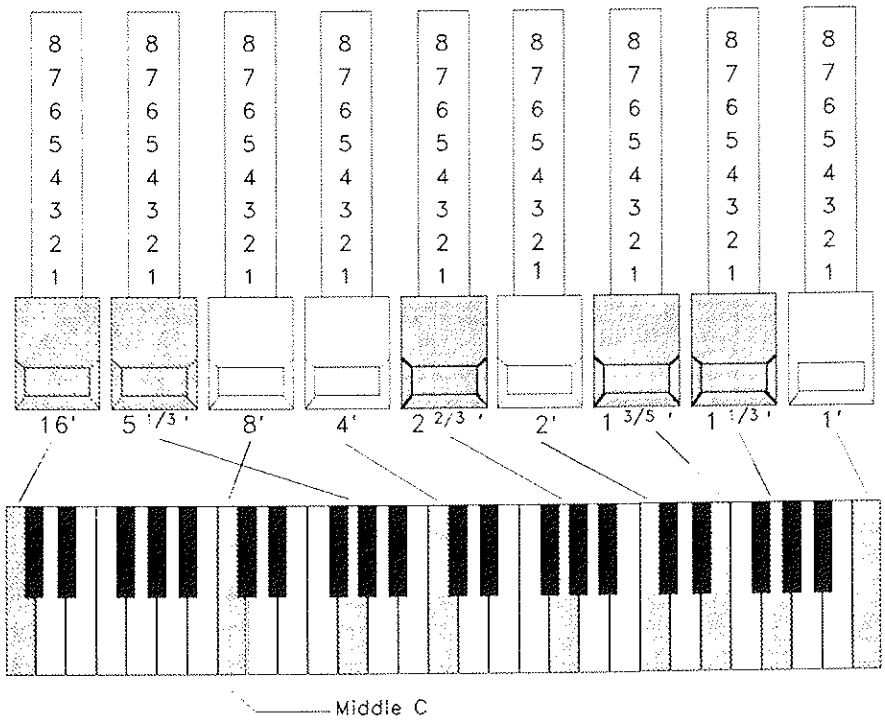
You may now proceed as the Super B is now RESET to the factory default settings.

TONEBARS

TONEBARS - DRAWBARS

There are 2 sets of nine TONEBARS, one set for the upper and the other set for the lower keyboard. TONEBARS, often called DRAWBARS, are the heart and basis of the renowned Hammond Sound and have been used since the first Hammond Organ Model A was introduced in 1935.

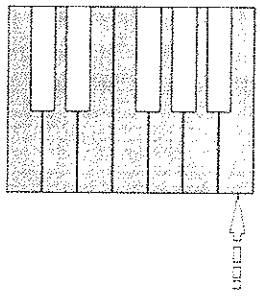
There are approximately 253,000,000 possible sound combinations that can be produced by these Tonebars. Each Tonebar consists of pure tones of different pitches (or tone depth). The illustration below shows how each Tonebar relates to the keyboard when middle "C" is pressed.



If you are unfamiliar with Tonebar terminology, each Tonebar is marked with a number follow by the footage mark (8'). This is derived from the vertical pipe length of a pipe organ. The numbers from 1 through to 8 are marked on each Tonebar, which serves as a level of volume for controlling the amount of sound. This also make registrations set-ups simpler.

Tonebars are divided into 3 groups of sound as well as 3 color groups. We will first look at the 3 sound groups.

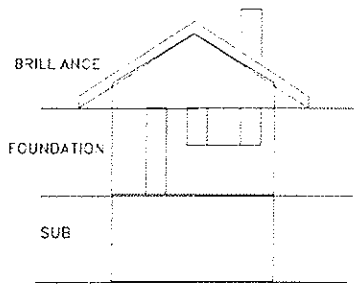
To use the TONEBARS, first touch the Upper and Lower black "B" PRE-SET KEYS this will allow the TONEBARS to be used.

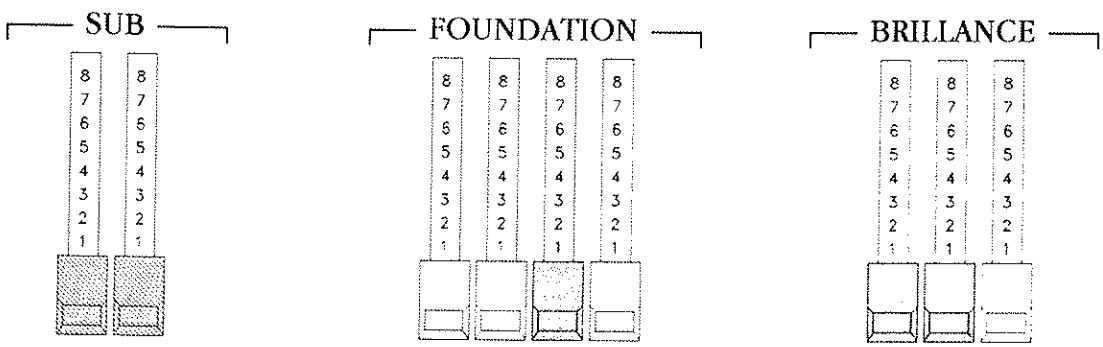


Also you should have the Information Center Display in either of the PLAY modes. The display will change according to TONEBAR movements.

SOUND GROUPS

You may think of these sound groups in terms of the levels of a house - the SUB being the deep downstairs basement sounds, the FOUNDATION being the middle living area and the BRILLIANCE is the high upstairs sounds.





TRY THIS:

1. Make sure all Tonebars are "IN" (off).

2. Hold down a C chord (C, E, and G) with right hand on the upper keyboard.

3. Starting with the 8' Tonebar pull out and push in each of the FOUNDATION Tonebars one at a time until you have a sound that you like.

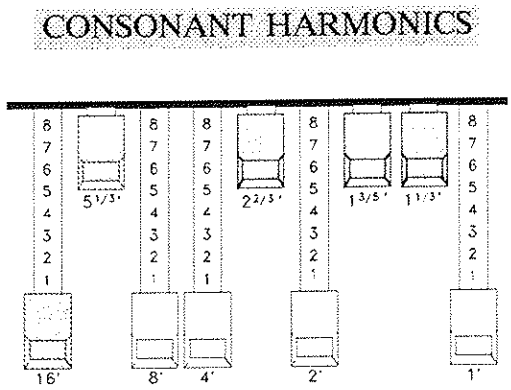
4. While still holding the "C" chord down, pull each of the brown SUB Tonebars out until you like the sound.

5. Now do the same with the BRILLIANCE Tonebars.

It's that easy to create your own custom Tonebar settings. At this point you could also store your settings in one of the KEY PRE-SETS. To store your custom Registration set-ups, see the section of this owner's guide called KEY PRE-SETS.

TONEBAR COLOR GROUPS

WHITE TONEBARS



The first white Tonebar represents the "fundamental" or "8' base" tone. All of the other white Tonebars are octave intervals or harmonics of the fundamental tone. The tonal brilliance is greatly increased by adding white tonebars but the harmonics added are always in "consonance" or harmony.

TRY THIS:

1. Make sure all upper Tonebars are pushed "in".

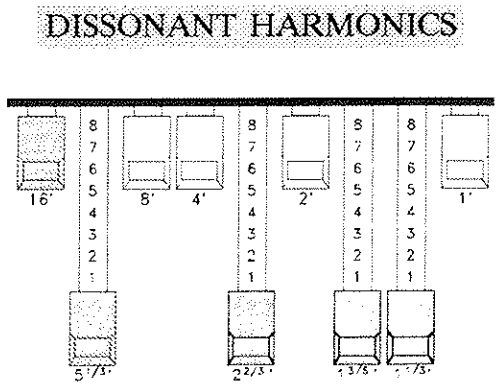
2. Hold down a "C" note in the middle range of the upper keyboard.

3. Pull the 8' Tonebar out.

4. Now, one by one, add the white tonebars in sequence.

As you add each Tonebar you will hear the addition of the same note an octave higher in each case.

BLACK TONEBARS



The Black Tonebars on the Hammond Organ represents the dissonant (discordant) harmonics which are also necessary in building rich tone colors. It must not be assumed that the dissonant harmonics are unmusical. You will find them present in varying degrees in many orchestral voices. For instance, the mellowness of a horn, the pungency of strings, and the brilliance of reed voices. These all owe their character to the presence of harmonics in different degrees.

TRY THIS:

1. Make sure all upper Tonebars are pushed "in".

2. Hold down a "C" note int the middle range of the upper keyboard.

3. Pull the first white Tonebar, marked 8', all the way out.

4. Now pull the 3 Black Tonebars all the way out.

The sound now produced by the Tonebars is that of a clarinet. When someone plays a clarinet and blows across the reed in the clarinet's mouth piece the fundamental tone 8', and the harmonic tones are produced simultaneously.

In general the black Tonebars should not be emphasized strongly above the white Tonebars. If a black Tonebar is emphasized, it is a good rule to use adjacent white drawbars to strengths within two steps of the black Tonebar. A combination such as 00 1282 882, for instance, will sound off key.

BROWN TONEBARS

In addition to the white and black Tonebars, there are two brown tonebars in the group. These two Tonebars produce "sub-octave" effects. Both of these Tonebars are used to add depth and richness to many combinations by increasing the range of the keyboard one octave.

The first brown Tonebar is the sub-octave of the fundamental 8' Tonebar it is "one octave" lower in sound.

TRY THIS:

1. Make sure all upper Tonebars are pushed "in".

2. Hold down a "C" in the middle range of the upper keyboard.

3. Pull the first white Tonebar all the way out.

4. While continuing to holding middle "C" down pull the first brown Tonebar (16').

You will now hear the sound of "C" one octave lower being added.

The second brown Tonebar is the "sub-octave" of the third harmonic.

TRY THIS:

1. Make sure all upper Tonebars are pushed "in".

2. Hold down a "C" note in the middle range of the upper keyboard.

3. Pull the first white Tonebar all the way out.

4. While continuing to hold the "C" note down, pull the first brown Tonebar (16') out all the way. You will now hear the sound of "C" one octave lower being added.

5. Now pull the second brown tonebar out and you will hear it add a richness to the sound of the "C" note that you are holding down.

TONE FAMILIES BY SHAPE

Regardless of the size of a pipe organ or its number of stops, all of its voices are related to four basic families of tone. The four basic families FLUTE, REED, STRING and DIAPASON can be quickly set up on the harmonic tonebars by relating a pattern or shape to each family.

These are the generalities which apply to the tonal resources of the organ, and in themselves produce pleasant and usable effects. However, real beauty of tone is secured in two ways. The first is the use of registrations which have been worked out by fine organists, such as those published on most organ music. The second, and eventually the one that best expresses your own feeling for the music, is to create your own tonal effects, experimenting with and perfecting tones which you use to play your favorite selections. Mark your music with those you like best. Don't always play the same selection with the same registration. Explore other new tones. You can play each musical piece in hundreds of different ways with the Hammond Organ Tonebars.

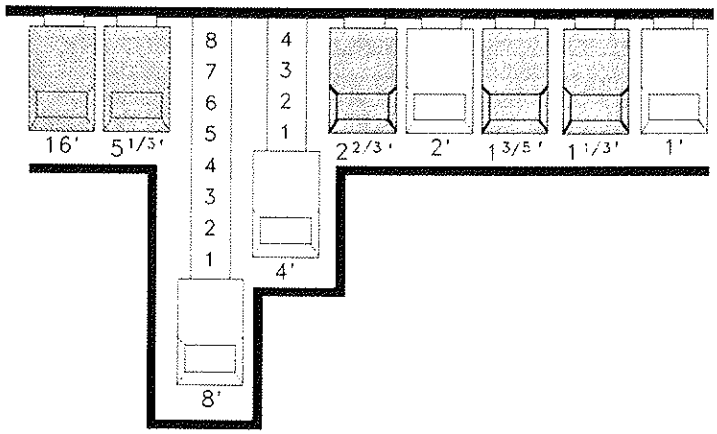
The Hammond Organ Tonebars allows you not only to set up any tonal effect you want, but also to make many fine variations of the tone. Only on the Hammond Organ Tonebars can you play exactly the shade of tone you want for every selection and, perhaps even more important, for every size and type of room in which you play.

So important is this matter of acoustics that expensive custom built pipe organs are "voiced" after they are installed in order to adapt the tone of the pipes to the acoustics of the church or hall.

With the Hammond Organ Tonebars a touch of a finger is all that is needed to make the tone quality softer or more brilliant, from one harmonic or another.

TYPICAL TONEBAR REGISTRATION PATTERNS FOR THE FOUR FAMILIES OF ORGAN SOUND

Flute family - (2 step pattern)



A BASIC FLUTE TONE

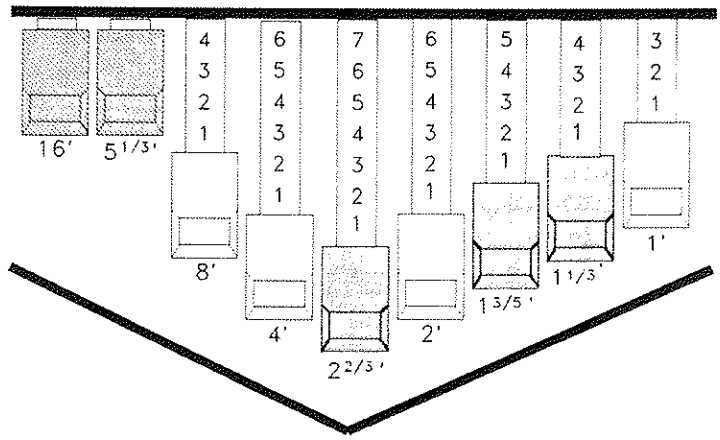
There are literally hundreds of flute tones available on the Hammond organ, in contrast to other types of organs on which you can play only the one or perhaps two or three tones which are set up at the factory. In the example above simply changing the relative positions of the 8' and 4' tonebar to 00 3700 000 you can create a light concert type of flute. Or by closing the 4' tonebar altogether and adding a little of the $2^{2}/_{3}$' tonebar plus a heavier fundamental, you can get a solo tibia - 00 8020 000. This should be used with Leslie off.

Any combination of white tonebars provides various flute tones; the first brown tonebar adds depth.

FLUTE

Accompaniment flute 8'	00 8460 000
	00 3220 000
	00 8600 000
Blokflote 8'	00 5310 000
Blokflote 4'	00 0503 010
Chorus of Flutes 16'	80 8605 002
Concert Flute 8'	00 6300 000
Flute 8'	00 6201 000
Flute 4'	00 0602 001
Flute 2'	00 0106 004
Flute (Organ type) 16'	50 3000 000
Flute (Organ type) 8'	00 5300 000
Flute (Organ type) 4'	00 0503 000
Flute (Organ type) 2'	00 0005 000
Nazard 2 2/3	00 0030 000
Open Flute 8'	00 7510 000
Orchestral Flute 8'	00 3831 000
Piccolo 2'	00 0006 003
Principal Flute 8'	00 8530 000
Stopped Flute 8'	00 5020 000
Tibia 8'	00 7030 000
Tibia 4'	00 0700 030
Tibia (Solo) 8'	00 8020 000
Tibia (Theater) 16'	80 8605 004
Wooden Open Flute 8'	00 8840 000

Reed family - (triangle pattern)



A BASIC REED TONE

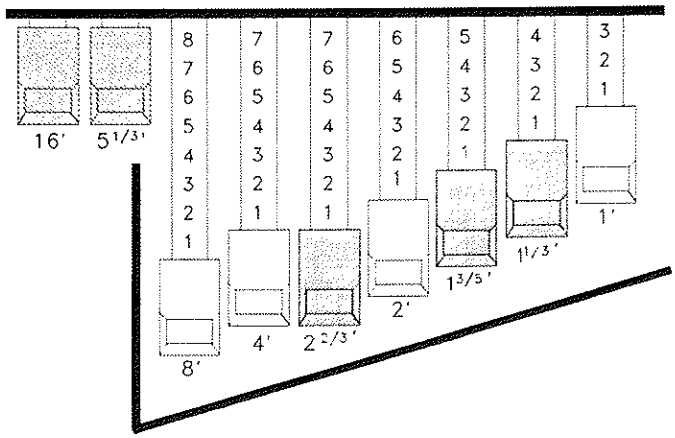
The reeds are more brilliant and numerous than any other tone group. Many are used as solo stops because of their strong personalities.

Reed tones include the brasses and woodwinds. The tones of the woodwinds are created by vibrating reeds. The oboe, a typical reed tone, is obtained by emphasizing the tonebars in the middle of the group, with nearly as much of the first black tonebar as the fundamental itself. Use of the first black tonebar is typical of many reed registrations. It creates a "triangle" pattern that is easy to remember. The triangle pattern of a less powerful registration, 00 2333 200, is a useful accompaniment tone on the lower manual.

REED

Bassoon 16'	44 7000 000
Bassoon 8'	08 7500 000
Bombarde 16'	86 8400 000
Chorus Reed 8'	00 7777 750
Clarinet 8'	00 6070 540
Clarinet	00 6060 300
English Horn 8'	00 3682 210
Flugel Horn 8'	00 5777 530
French Horn	00 7654 321
Kinura 8'	00 0172 786
Oboe (Orchestral) 8'	00 4764 210
Oboe (Organ type) 8'	00 4571 320
Oboe Horn 8'	00 4675 210
Post Horn 8'	00 6677 530
Reed Chorus	63 8888 863
Saxophone 16'	86 7100 000
Saxophone 8'	01 8762 431
Trombone 8'	01 8777 530
Trumpet (Orchestral) 8'	00 6788 650
Trumpet (Organ type) 8'	00 7677 320
Tuba (Organ type) 16'	88 8864 000
Tuba (Organ type)	03 6888 760
Tuba Sonora 8'	02 7788 640
Vox Humana 16'	33 6045 000
Vox Humana 8'	00 4720 123

Diapason family - (check mark pattern)



A BASIC DIAPASON TONE

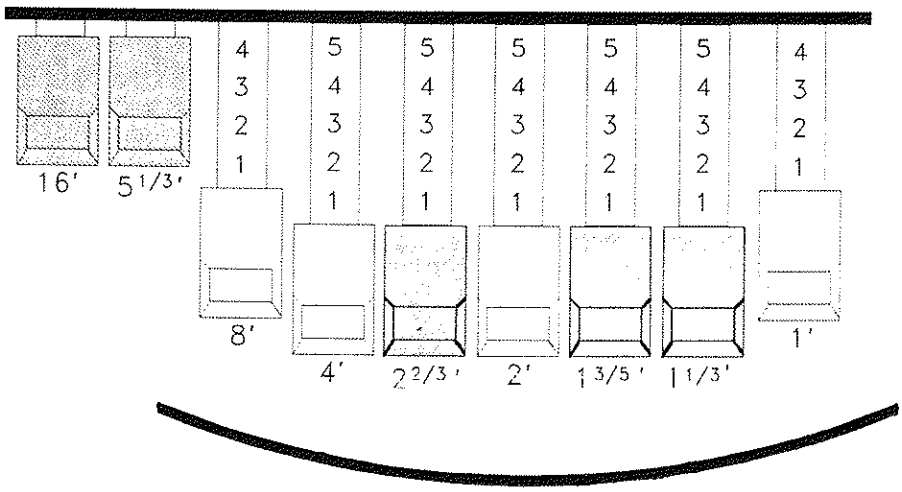
All diapason tones are characterized by a strong fundamental and second harmonic with relatively weak upper harmonics. Diapason tones are more affected by good or bad acoustics than are the tones of more pronounced character. Registration that is good in one location may not be satisfactory in another. The "phonon" type of diapason was developed on pipe organs by designers who wanted to produce a soft flute foundation tone.

In discussing tone as a structure, diapason tones lie between the flute tones, which are almost devoid of upper harmonics, and the string tones characterized by strong upper harmonic development.

DIAPASON

Accompanimental Diapason 8'	00 8874 210
Chorus Diapason 16'	84 8421 000
Chorus Diapason 8'	00 8686 310
Chorus Diapason 4'	00 0806 085
Diapason 8'	00 7785 321
	00 7783 210
Diapason Chorus	61 8855 424
Echo Diapason 16'	43 4421 000
Echo Diapason 8'	00 4434 210
Harmonic Diapason 16'	85 8524 100
Harmonic Diapason 8'	00 8877 760
Harmonic Diapason	00 8678 453
Harmonic Diapason	00 6546 532
Harmonic Diapason 4'	00 0606 045
Horn Diapason 16'	77 7621 000
Horn Diapason 8'	00 8887 480
Open Diapason 8'	01 8866 430
Open Diapason	00 8745 423
Open Diapason	01 6655 320
Solo Diapason 16'	85 8544 000
Solo Diapason 8'	01 8855 331
Solo Diapason 4'	00 0818 055
Swell Diapason 8'	00 7765 320
Wood Diapason 16'	82 7311 000
Wood Diapason 8'	00 7754 321

String family - (bow pattern)



A BASIC STRING TONE

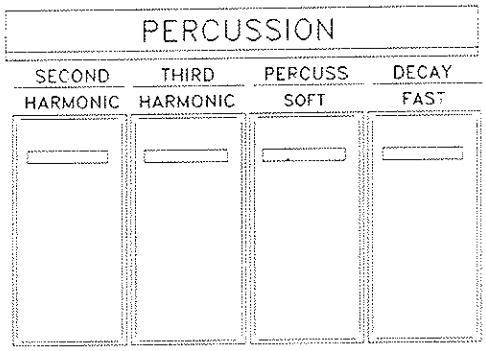
The fourth and last of the organ "family" groups is the string family, both organ and orchestral. String tone qualities are characterized by especially strong upper harmonic development. The fundamental and second harmonic structure is the opposite of flutes.

There are many hundreds of possible string tone registrations. Every string tone can be made either "dull" or "bright" by varying the amount of the upper harmonics. In fact, the string family, considered the most versatile of the four tone families, can be soft or loud, single strings or groups, used as solos or accompaniments.

STRING

Celio 8'	00 3564 534
Cello	00 3564 211
Dulciana 8'	00 7770 000
Gamba 8'	00 3484 443
Gamba	00 3474 121
Gemshorn 8'	00 4741 321
Gross Gamba 8'	00 4786 543
Harmonica (Organ type) 8'	00 1233 321
Keen Strings 8'	00 1687 664
Muted String 8'	00 2452 010
Orchestral String 8'	00 1464 321
Salicional 16'	25 4321 000
Salicional 8'	00 2453 321
Salicional 4'	00 0204 052
Soft String 16'	13 3210 000
Soft String 8'	00 1332 320
Solo Cello 8'	00 3485 543
Solo Viola 8'	00 2474 341
Solo Violin 8'	00 3654 324
String Organ	22 5787 765
String Organ	22 4767 765
Viola da Gamba 8'	00 2465 432
Violin 8'	00 2334 434
Violin	00 2382 233
Violin	00 2476 264
Violina 4'	00 0103 064
Violine 16'	26 3431 000

PERCUSSION - Touch-Response Percussion



The Percussion control section consists of four separate Touch Buttons, which are available to the upper keyboard. To hear the tones produced by the PERCUSSION VOICE Touch Buttons 2 and/or 3 the keys of the upper keyboard must be played in a detached (non-Legato) manner.

You use "Touch-Response" percussion when and where you choose to highlight single notes, full chords, even entire songs. Also if you play a single note and then hold it down while playing other keys, the Percussion voice will not play again until you release all keys and again play detached notes.

SECOND (2nd harmonic)

The tone for this harmonic is the same as the sound derived from the 4' Tonebar. Combining this 2nd harmonic to the Tonebars will produce brite and clear sounds.

THIRD (3rd harmonic)

This harmonic tone is the same one produced by the 2 2/3' Tonebar. Combining this 3rd harmonic to the Tonebars will produce powerful and heavy sounds.

SOFT (Soft Percussion)

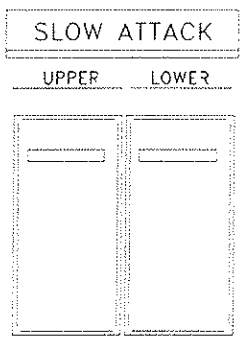
This control regulates the volume of the percussion tone. When it is in its normal state (LED is not lit) the percussion effect will be very prominent, compared to the tones produced by the upper keyboard Tonebars. When this Touch Button is "ON" (LED lit) the percussion effect is lower in volume or much less prominent.

FAST (Fast Decay)

When this Touch Button is in its normal state (LED is not lit the percussion tone will decay (die away) slowly like a chime. When FAST DECAY is "ON" (LED is lit) the percussion effect will decay rapidly like an xylophone or glockenspiel.

The PERCUSSION Voices are usually output through a different channel other than the TONEBAR channel. If you wish you can output the PERCUSSION voices through the LESLIE channel number 1 by using the MENU EDIT mode Number 5: TONEBAR, and the LES>ch gray Select Touch Button.

SLOW ATTACK - Upper and Lower



You can change the "attack" or how fast the sound of the TONEBARS responded when you are playing for both the upper and lower keyboards.

FAST ATTACK - This is the default (LED's not lit) or normal mode. In general, the TONEBARS have a "fast" or quick response producing the famous Hammond "KEY POP". FAST ATTACK can be used all the time with any style of music.

SLOW ATTACK - The key response of the TONEBARS can be change to a "slow" attack. This slowing of the key response allows the sound of the TONEBARS to reproduce the breathy sound of theater or classical pipe organs. This breathy sound is due to the slight delay between the time that the valve at the pipe opens and the air passes over the mouth of the pipe.

TRY THIS:

To adjust the ATTACK of the TONEBARs do the following.

1. Touch the upper black "B" PRE-SET KEY so the UPPER TONEBARS can be used.

2. Set the UPPER TONEBARS to the following registration. This is so you will be able to hear the ATTACK difference.

00 8000 000

3. With your right hand play a "C" chord on the upper keyboard. Do not hold the chord but chop it slowly.

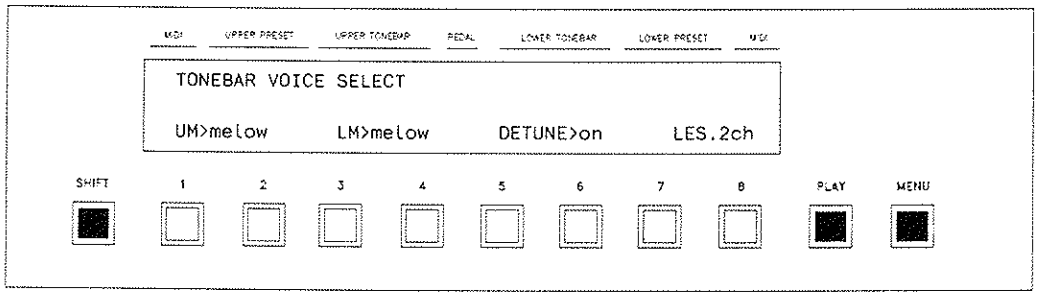
4. While chopping the "C" chord slowly, touch the UPPER SLOW ATTACK Touch Button "on".

5. This will turn the SLOW ATTACK "ON" and you will hear the ATTACK of the TONEBARS change.

Touching the UPPER SLOW ATTACK Touch Button will turn the SLOW ATTACK "off" returning it to the fast or normal attack mode.

ADVANCED TONEBAR FEATURES

TONEBAR EDIT MENU



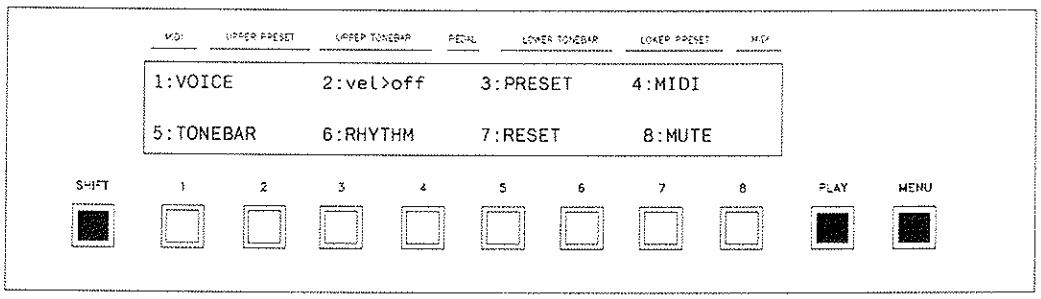
The Tonebar Edit Menu will allow you to modify the following:

1. UM> LM> - Upper & Lower Tonebar voicing.
2. DETUNE> - Octave Detune.
3. LES> - Vibrato & Chorus channeling through the Leslie.

Each function is explained in detailed in the following pages of this chapter.

To view the TONEBAR EDIT MENU do the following:

1. Touch the black MENU Select Touch Button. The Information Display should show the following:



2. Touch the gray Number 5:TONEBAR Select Touch Button. You are now in the TONEBAR EDIT MENU.

MODIFYING THE TONEBARS VOICING - Mellow or Bright

The TONEBARS for the Upper and Lower keyboards each have two tone voicing modes: (1) Mellow and (2) Bright. These tone voicing modes are compared to the tone control found on some radios or stereo systems.

MELOW Mode - The distinctive Hammond sound which is the normal factory default setting when you turn the organ on or do a RESET. This is suited for play popular, big band or jazz styles of music.

BRITE Mode - The higher or "brighter" tones are allowed to be heard more distinctly and greater clarity. This can be used when you wish to produce sounds of a pipe organ.

TRY THIS:

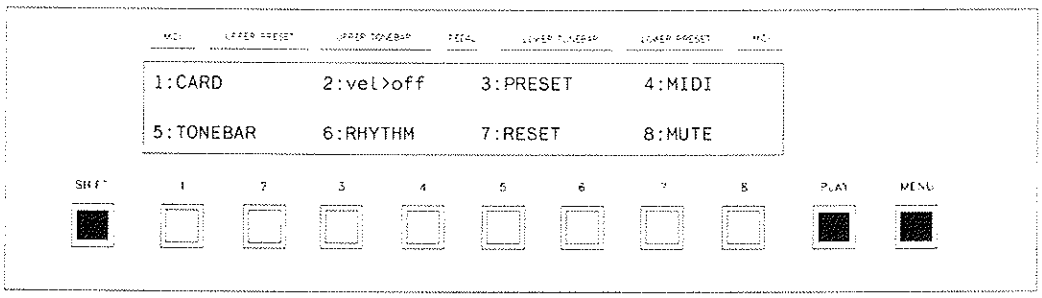
To adjust the TONEBAR tone voicing do the following.

1. Touch the black "B" upper PRE-SET KEY so the TONEBARS can be utilized.

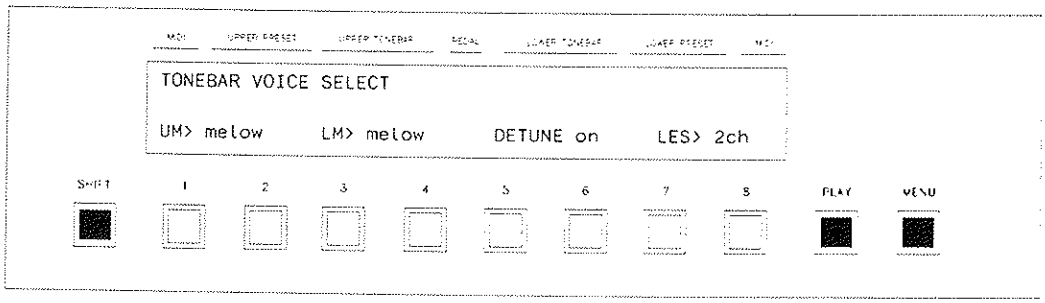
2. Set the UPPER TONEBARS to the following registration. This is so you will be able to hear the voicing tone difference.

80 8808 008

3. Touch the black MENU Select Touch Button so the Information Center Display shows the following:



4. Touch the gray number 5 Select Touch Button to access the TONEBAR menu so the Information Center Display shows the following:



5. With you right hand hold a "C" chord (E, G & C notes) down on the upper keyboard.

6. While holding the "C" chord down touch the gray Number 2:UM>melow Select Touch Button. The word "melow" will change to "brite".

You will hear the tone of the TONEBARS change from mellow to bright.

7. Touch the gray number 2 Select Touch Button to change the display back to the mellow mode.

Touching the gray number 4 Select Touch Button will change the tone of the lower keyboard TONEBARS to LM>brite and touching it again will change it back to LM>melow.

DETUNE - Octave Detune

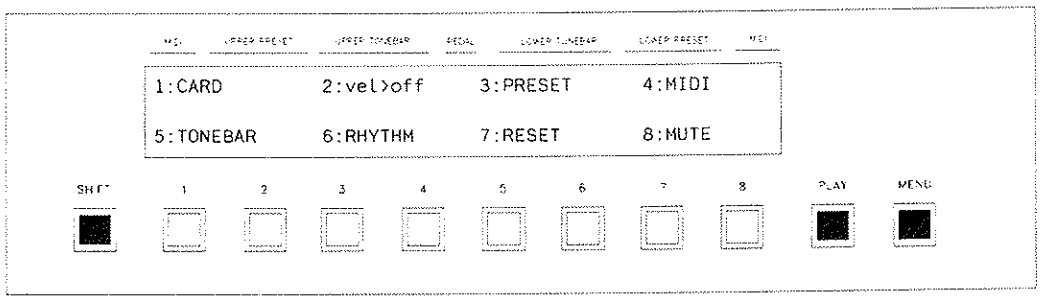
The original Hammond tone-wheel organs produced their deep rich sounds due to each Drawbar tone being created independently. This is the reason why Hammond tone-wheel organs are rated among professional players as acoustic-like organs although they are electric sound-producing instruments.

By turning the DETUNE effect "on" this will shift the tone structure of each octave thereby adding this depth to your playing. The DETUNE is suited for use in playing classical organ music or other music with an internal harmony structure. If you do not need such a detune effect for your music, turn "off" the DETUNE.

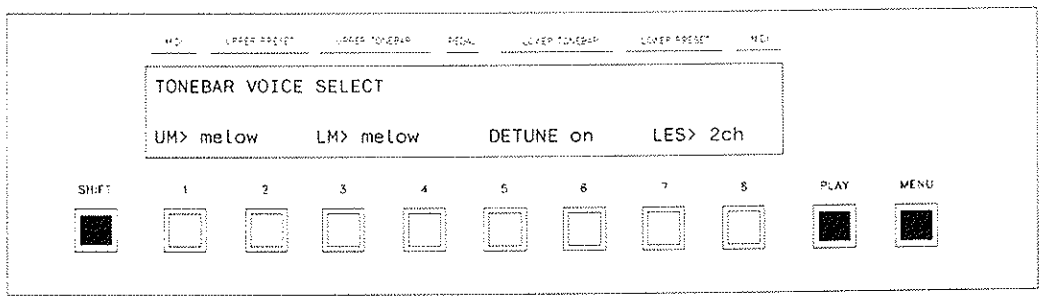
TRY THIS:

1. Touch the upper black "A" PRE-SET KEY.

2. Touch the black MENU Select Touch Button so the Information Center Display shows the following:



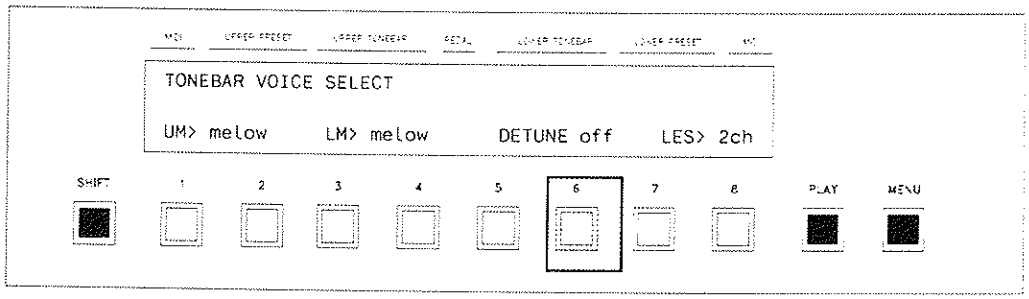
4. Touch the black SHIFT Select Touch Button so the Information Center Display shows the following:



5. Hold down both middle "C" and the "C" one octave higher. You will hear the notes have a slight wavering effect.

6. Release the two "C" notes.

7. Touch the gray Number 6:DETUNE Select Touch Button. The word "on" to right or the word DETUNE will change to "off".



8. Press and hold down the 2 "C" keys again. Now you will hear the notes in pitch with each other.

9. Finish by releasing the 2 "C" keys.

LES>ch2

The Hammond Super B organ has 2 channels that sounds produced by the organ go through. These channels are the STATIONARY channel and ROTARY speaker channel. When the LESLIE speaker is in the "FAST" tremolo position it gives the TONEBARS the big theater sound.

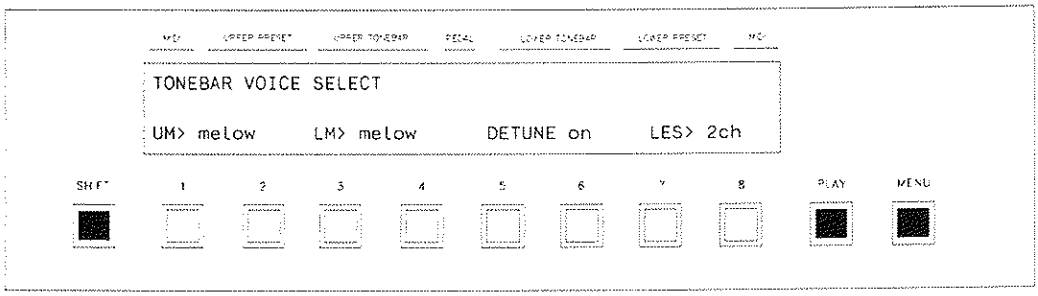
The following is a brief explanation of the difference between 2ch and 1ch.

1ch - Selecting 1ch will cause the sound produced by the TONEBARS always go through the LESLIE speaker. This also allows the VIBRATO and CHORUS effects to be used with the LESLIE speaker as well.

2ch - This is the factory default setting. You must use the UPPER and/or LOWER Touch Buttons in the LESLIE control section to send the TONEBARS through the LESLIE.

NOTE: Only the sound produced by the TONEBARS can be channeled through the LESLIE Speaker. All other voices are channeled through the STATIONARY channel. Make sure that the organ is RESET to the factory default setting, if you are not sure see RESET.

Touching the gray number 8 Select Touch Button will change then information under the prompt <LES> from 2ch to 1ch. Touching it again will change it back.



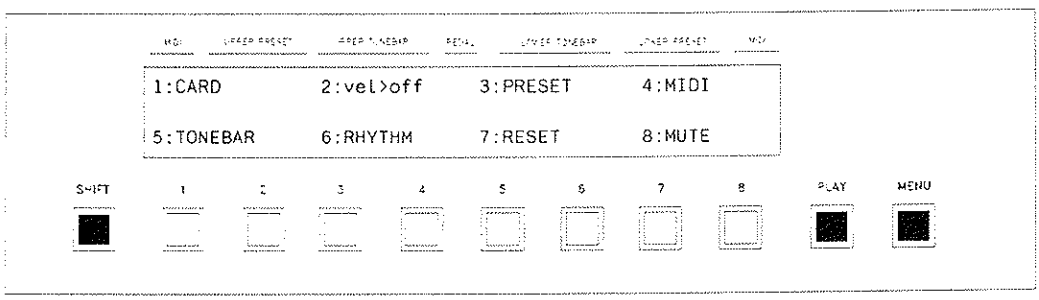
TRY THIS:

1. Touch the upper black "A" PRE-SET KEY.

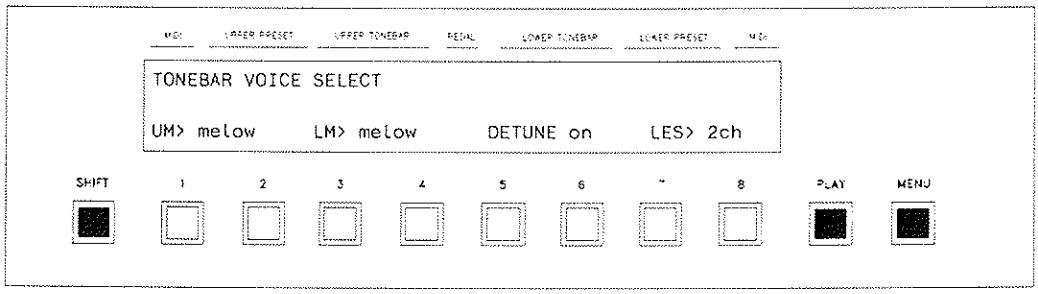
2. Touch the UPPER and LOWER LESLIE Select Touch Buttons "off". (LED's not lit.)

3. Touch the LESLIE FAST Select Touch Button "on".

4. Touch the black MENU Select Touch Button so the Information Center Display shows the following:



3. Touch the gray Number 5:TONEBAR Select Touch Button so the Information Center Display shows the following:



4. Hold a "C" chord (E, G, and C) down on the Upper Keyboard.

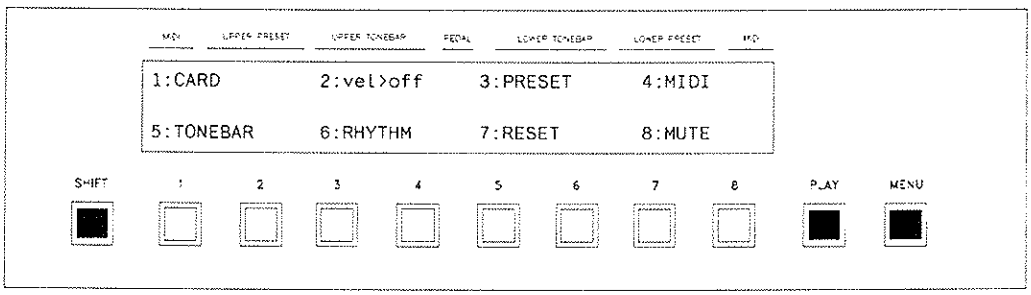
5. While continuing to holding the "C" chord down touch the gray Number 8 Select Touch Button. You will hear the sound change for one channel to the other.

Each time the gray Number 8:2ch Select Touch Button is touched you will hear the the sound change channels.

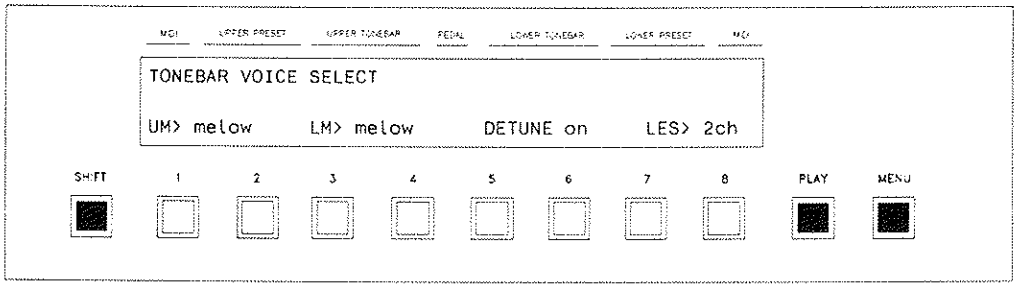
TONEBAR MENU - SHIFT Menu

To access the TONEBAR MENU - SHIFT Menu do the following:

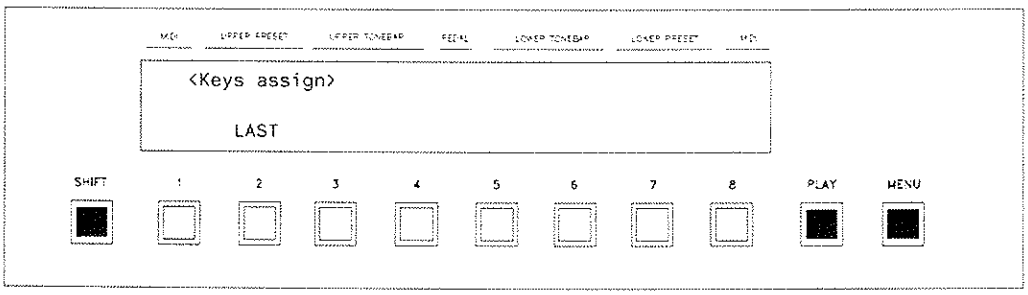
1. Touch the black MENU Select Touch Button so the Information Center Display shows the following:



2. Touch the gray Number 5:TONEBAR Select Touch Button so the Information Center Display shows the following:



3. Touch the black SHIFT Select Touch Button so that the Information Center Display shows the following:



By touching the gray Number 2: Select Touch Button the word "last" will change to "high".

KEYS ASSIGN

Notes are produced in groups by digital systems. For example some inexpensive portable keyboards can only produce 3 notes at time. If you were to hold down 4 keys only three notes would sound. When this happens the manufacturer has determined if the LOWEST or HIGHEST note will play. Your Hammond organ is capable of playing many more notes then a portable keyboard. However, should you use a lot of TONEBARS and a CARD VOICE with many notes being played at the same time you might notice a note drop off on the bottom.

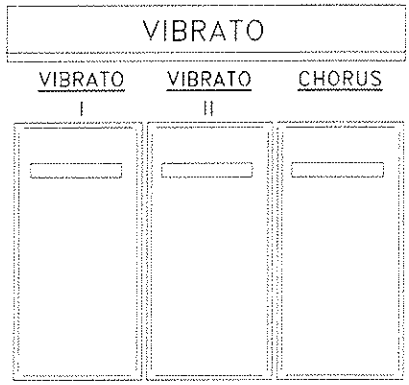
With KEY ASSIGN you can assign which note you wish to have priority in playing - the LAST note or FIRST note played. On the average this is used very little and probably you will never need to change the factory setting. However, you do have the choice of choosing which option you want.

EFFECTS

EFFECTS

The organ has the effects of VIBRATO, LESLIE, SUSTAIN AND REVERB. By adding such effects, you can enhance the TONEBAR and PERCUSSION tones. In the following sections, each effect is explained in detail.

VIBRATO



Just like the earlier Hammond organ models this effect will make the music produced by the TONEBARS richer and fuller, and add depth. TONEBAR registration settings using VIBRATO are much more pleasing and less tiring to the ear the when VIBRATO is not used.

Altogether, these Touch Buttons provide three degrees of VIBRATO and three degrees of CHORUS.

VIBRATO I - (Small Vibrato)

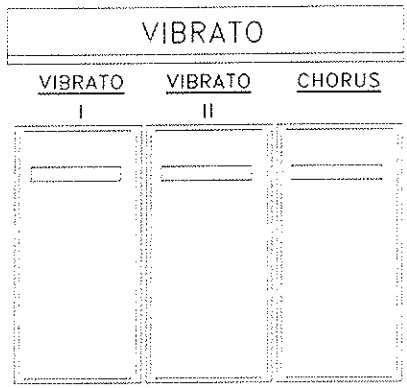
This produces the vibrato equivalent of most orchestral solo instruments.

VIBRATO II - (Normal Vibrato)

This is the standard depth vibrato used with the TONE-BARS to produce the effect of a theatre organ.

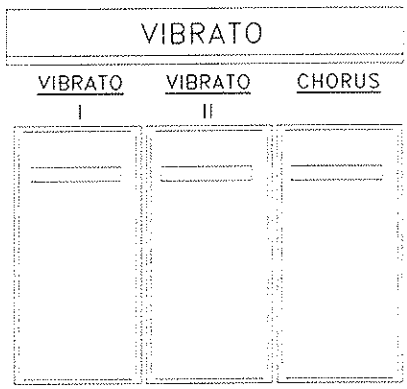
VIBRATO III - (Wide Vibrato)

By pressing both VIBRATO I and II Touch Buttons "ON" you get the fullest amount. It is definitely "theatrical" on most music and adds much warmth and enhancement of simple music.



CHORUS

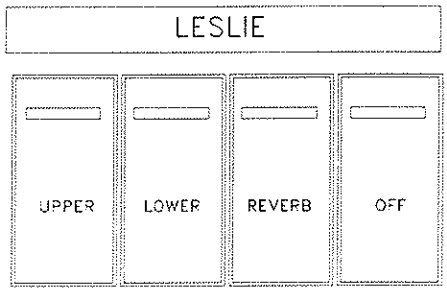
The CHORUS effect (sound of many voices) is a combination of vibrato signal with the direct signal. CHORUS works in conjunction with the VIBRATO I & II Touch Buttons. Using the I & II just as with VIBRATO will increase or decrease the amount of CHORUS effect. The CHOURS effect will only work when one or both of these buttons is "ON".



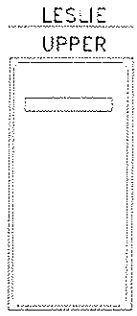
NOTE: When the LESLIE speaker is used it takes priority over the VIBRATO and VIBRATO cannot work. However, it is possible to use the LESLIE simultaneously with VIBRATO, when the LESLIE is set to channel 1.

LESLIE

The four Touch Buttons that control the LESLIE speaker are located to the left of the lower keyboard. The LESLIE speaker is used with the TONEBARS and produces the dynamic tremolo sounds of a theater pipe organ.

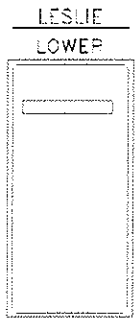


UPPER Touch Button



Touching the UPPER Touch Button will change the sounds produced by Upper Keyboard TONEBARS from the stationary speaker channel to the LESLIE Speaker channel.

LOWER Touch Button



Touching the LOWER Touch Button will change the sounds produced by Lower Keyboard TONEBARS from the stationary speaker channel to the LESLIE Speaker channel.

REVERB Touch Button

Touching the REVERB Touch Button "ON" will direct the REVERB output from the stationary speakers to the LESLIE Speaker.

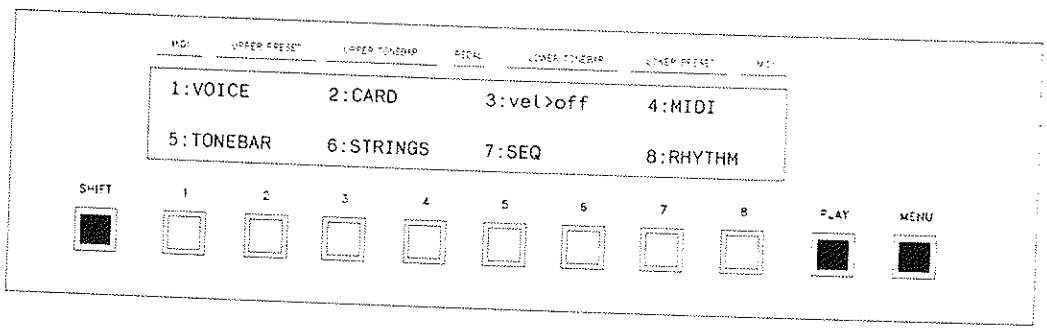
FAST Touch Button

When this Touch Button is in its normal state (LED not lit) the LESLIE Speaker rotates slowly. This is great for use with hymns, classical style music and some slower songs. Touching the FAST Touch Button "ON" (LED lit) will cause the LESLIE Speaker to speed up and rotate fast to produce the rich full theater organ sound.

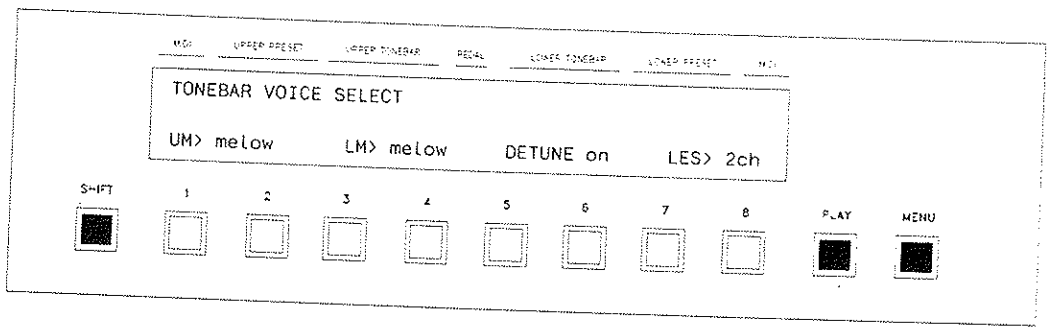
The relationship between the TONEBARS and the LESLIE channels is as follows.

The LESLIE is automatically set to channel 2 (2ch) when the organ's power is turned "on" for the first time. To check to see which channel the LESLIE is set to, do the following:

1. Touch the black MENU Select Touch Button.



2. Touch the gray number 5:TONEBAR Select Touch Button.

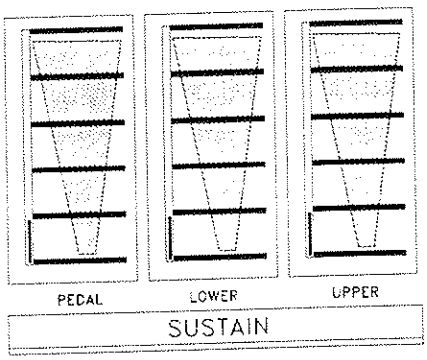


3. The Information Center Display will show either one of the two channels at the lower-right portion.

When the LESLIE is set to channel 2 (2ch), it takes priority over the VIBRATO, CHORUS and the PERCUSSION effects. These are heard through the stationary channel (fixed channel of the Leslie Speaker) regardless of whether the LESLIE is either "ON" or "OFF". In addition, when the LESLIE is set to channel 1 (1ch), you can add the VIBRATO effects of the TONEBARS to the LESLIE. Also, like the TONEBARS, the PERCUSSION is heard from the LESLIE Speaker channel.

NOTE: VIBRATO will be canceled if the UPPER and LOWER Leslie Touch Buttons are turned "ON".

SUSTAIN



The SUSTAIN Visual Pointer Touch Pads controls, located to the left of the Upper Keyboard Tonebars, are used with the TONEBARS to produce a lingering tone when keys are released. It is suited for producing sounds like harps, chimes or bells.

The SUSTAIN controls are divided into three control groups - UPPER, LOWER and PEDAL. Each of these groups gives you 5 levels of SUSTAIN.

Touching the bottom of a SUSTAIN Visual Touch Pad will give you a short sustaining effect to that group which you are using.

Touching the next higher segment of a SUSTAIN Visual Touch Pad will give you a longer sustain for that group which you are using.

Touching the top of a SUSTAIN Visual Touch Pad will give you the longest sustain effect for that group which you are using.

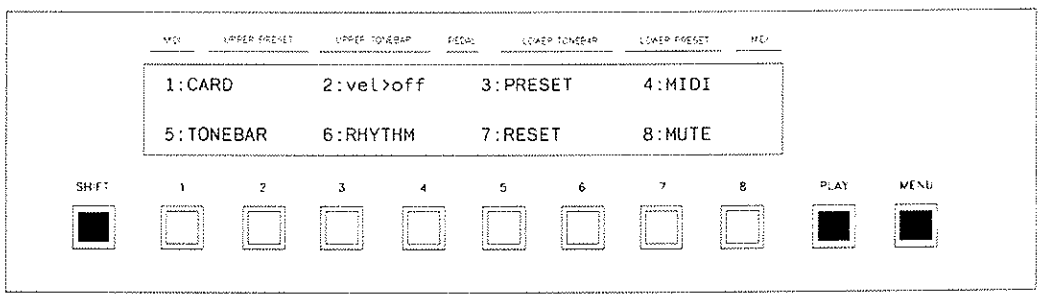
Touching the bottom most segment of SUSTAIN Visual Touch Pad twice will turn the SUSTAIN off for that group.

NOTE: When you play a palm glissando or fast arpeggio producing many tones at a time, the notes may be heard dropping off. This is because the number of simultaneous tones exceeds the limit that can be produced normally.

VELOCITY SENSITIVITY

This allows you to express the degree of sound volume and the sound quality when playing the keyboard. More specifically, it is designed to sense the speed at which each key is played. This reproduces the sound volume according to your playing style. For example when VELOCITY SENSITIVITY "Vel>1" or "Vel>2" is combined with the PIANO voice you play the organ keyboard the same way you would play a real piano.

Touch the black MENU MODE Select Touch Button so the Information Center Display looks like this:



Two sensitivity choices and sensitivity "off" are available to the ORCHESTRAL Voices as well as the CARD Voices. The two sensitivity choices are shown as "Vel>1" and "Vel>2", while the sensitivity off choice is shown as "Vel>off". This "Vel>off" is the normal or factory default setting.

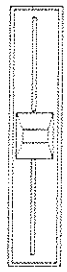
"Vel>1 - sensitivity is like playing a piano with a hard or heavy touch. This means that you must press the keys quickly and decisively for full volume.

"Vel>2 - sensitivity is a lighter touch and requires less pressure to play at full volume.

"Vel>off - this is the normal mode. To control the volume you use the Expression Pedal.

To change the VELOCITY, touch the gray Number 2 VELOCITY Select Touch Button while in the MENU EDIT MODE. Touching the gray Number 2 Touch Button again will toggle to the next sensitivity choice.

REVERB



The REVERB Slider Control is located on the right end block of the Lower Keyboard. Using REVERB adds the beautiful concert hall effect to all voices when you are playing and counteracts the "deadening" effect of the carpets, drapes and the furniture in your home.

Sliding the REVERB Slider Control away from you (up) will increase the amount of REVERB. Sliding the REVERB towards you (down) will decrease the amount of REVERB.

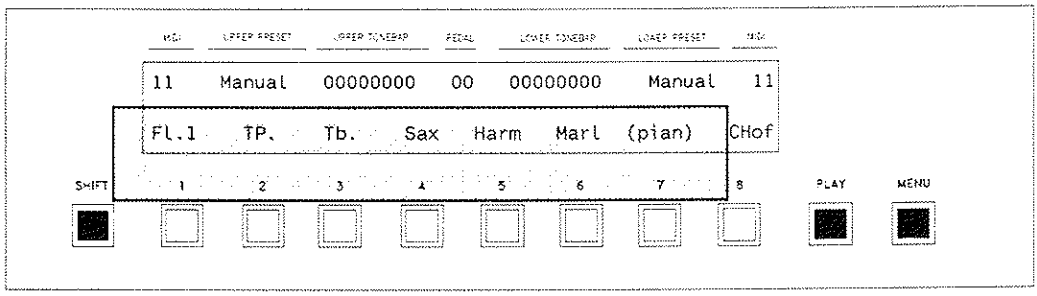
Setting the REVERB Slider Control to the center position (half way) or more will produced beautiful reverberation suited for classical and theater pipe organ sounds.

Setting the Slider Control below the center position to no less then a quarter of the way up position will produce brisk reverberation. This is best for Big Band, Popular and Jazz styles of music.

NOTE: REVERB will not be added to any external sound sources that come though the AUX INPUT jacks.

CARD VOICES

CARD VOICE



The CARD VOICE Section is divided into 3 areas of the organ.

1. The CARD VOICE Select Touch Buttons. These are the gray Select Touch Buttons below the display which allow you to access the seven CARD VOICES that you have "read" from a Hammond ROM Voice Card.

2. The CARD VOICE Control Section. This Control Section contains 3 Touch Buttons and the VOLUME Visual Pointer Touch Pad for the CARD VOICES.

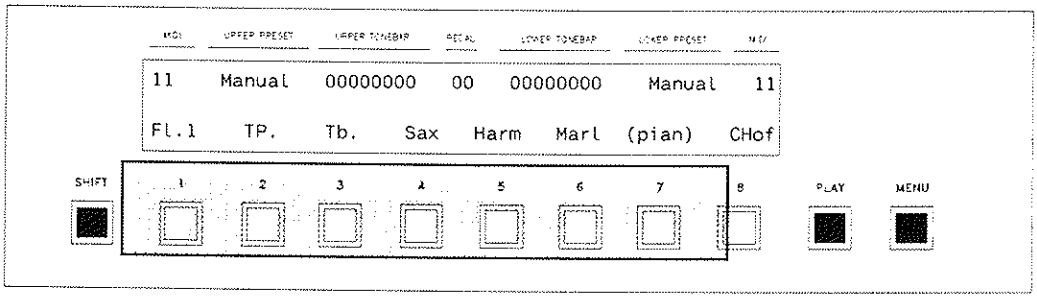
3. The MEMORY CARD SLOT used for "reading from" the pre-programed ROM Voice Cards. A maximum of 6 "new" voices can be loaded at any time from a ROM Voice Card. The 7th Card Voice shown in the Information Center Display will always be PIANO. The Voice ROM Card #1 is supplied with the Hammond Super B. Contact your Hammond dealer for the most recent listing of Hammond Voice ROM Cards.

The CARD VOICE group of voices reproduces sounds characteristic of actual musical instruments with almost complete fidelity due to sampling of real instrumental sounds.

CARD Voices can be used SOLO or in combination with the TONEBARS. You can also use VELOCITY SENSITIVITY to increase your musical expression. More about VELOCITY SENSITIVITY is covered in the EFFECTS section of this owner's guide.

Selecting a CARD Voice

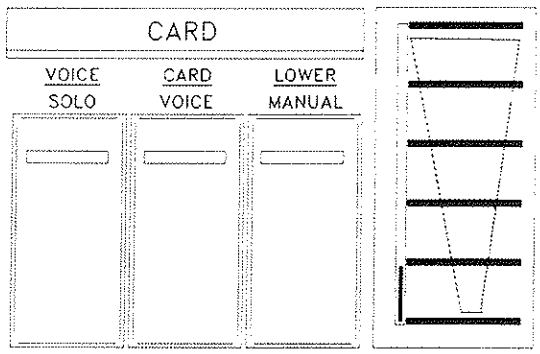
To activate one of the 7 Card Voices simply touch the gray Numbered Select Touch Button. The CARD VOICES Select Touch Buttons are located below the CARD VOICES displayed in the bottom half of the Information Center Display.



NOTE: You are also able to adjust the brightness of the CARD Voices and depth of VIBRATO & CHORUS effects according to your taste via the black SHIFT Menu.

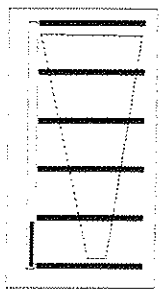
Using the CARD VOICE Control Section

The CARD VOICE Control Section contains 3 Touch Buttons and Visual Touch Pad. These CONTROLS allow you to regulate several options such as volume, which keyboard you want the voice to play from and turning the CARD VOICE Section "ON" or "OFF".



CARD VOICE VOLUME CONTROL

This VISUAL POINTER TOUCH PAD controls the amount of volume in relationship to the other voices. To increase or decrease the volume simply touch the pad at the desired level. Touching the top of the Visual Touch Pad will set the maximum volume.



CARD VOICE Control - "ON"

This Touch Button must be "ON" (LED lit) so you can hear the CARD VOICE. Simply touch this to turn it "ON" and again to turn it "OFF"

TRY THIS:

1. Touch the black Upper Keyboard "C" PRE-SET KEY (CANCEL) "ON" (LED lit).

2. Touch the CARD VOICE "ON" Touch Button. (LED lit.)

3. Touch the gray Number 4 (SAX) Select Touch Button.

4. Play some notes on the UPPER KEYBOARD and you will hear the sound of the SAX.

CARD VOICE Control - LOWER

This Touch Button transfers the CARD VOICE now being used from the UPPER KEYBOARD to the LOWER KEYBOARD. To transfer the selected CARD VOICE simply touch the LOWER MANUAL Touch Button "ON" (LED lit). To deactivate this Touch Button simply touch it again (LED not lit). This Touch Button can be used together with the SOLO Touch Button for solo performance on the LOWER KEYBOARD.

TRY THIS:

1. Touch the black Upper Keyboard "C" PRE-SET KEY (CANCEL) "ON". (LED lit.)

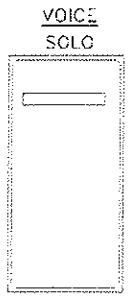
2. Touch the CARD VOICE "ON" Touch Button. (LED lit.)

3. Touch the gray Number 4 (SAX) Select Touch Button.

4. Touch the "LOWER MANUAL" Touch Button. (LED lit.)

5. Play some notes on the LOWER KEYBOARD and you will hear the sound of the TENOR SAX.

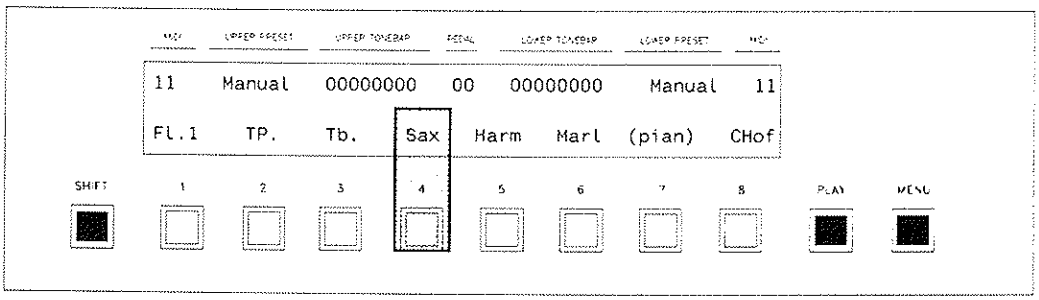
CARD VOICE Control - SOLO



Normally when you have selected a CARD VOICE you would it activate them by touching the CARD VOICE Touch Button "ON". The CARD VOICE selected will be combined with the TONEBARS or PRE-SET KEYS in use. Touching the VOICE SOLO Touch Button "ON" (LED lit) will cancel the TONEBAR or PRE-SET KEYS allowing only the selected CARD VOICE to play. Touching VOICE SOLO Touch Button "OFF" (LED not lit) will deactivate the VOICE SOLO Mode.

TRY THIS:

1. Select the gray Number 4:SAX Select Touch Button. Make sure that the CARD "ON" Touch Button is lit.



2. Touch the black "B" PRE-SET KEY.

3. Set the UPPER TONEBARS to this registration:

80 8808 008

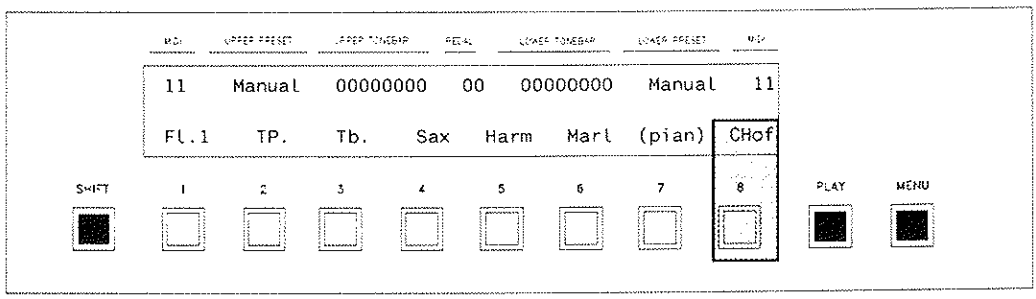
4. Play and hold down a C chord (E, G & C) on the UPPER KEYBOARD. You will hear the SAX CARD VOICE and the TONEBARS sounds play together.

5. Release the chord that you are playing.

6. Touch the VOICE SOLO Touch Button "ON". (LED lit.)

7. Now play the same chord again and you will hear only the sound of the SAX.

CHORUS Control



The gray Number 8:CHof Select Touch Button produces rich sound expansion by dividing the CARD Voice into two subtly different pitches as if you were playing two instruments simultaneously. It produces a chorus effect with natural depth, by producing two different sound pitches. This effect is called "acoustic mix".

The CHORUS is an ON/OFF Select Touch Button. Touching it will turn it "ON" and touching it again will turn it "OFF".

TRY THIS:

1. Touch the black Upper Keyboard "C" CANCEL PRE-SET KEY.

2. Make sure that the CARD VOICE "ON" Touch Button is lit.

3. Touch the gray Number 7:PIANO Card Voice Select Touch Button.

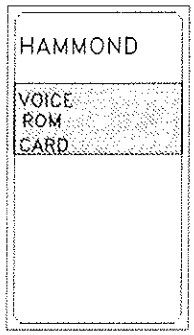
4. Play a melody on the upper keyboard.

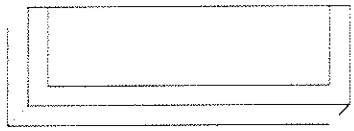
5. Now touch the gray Number 8:CHof Select Touch Button. The letters CHof will change to CHon.

6. Now play your melody again. You will hear the sound of the PIANO Voice change to the HONKY TONK PIANO sound.

LOADING A VOICE ROM CARD

The organ comes from the factory with VOICE ROM CARD #1. This Voice Card contains six voices. New VOICES are loaded into the organ from HAMMOND VOICE ROM CARDS (Read Only Memory). For a current list of VOICE ROM CARDS contact your HAMMOND ORGAN DEALER.



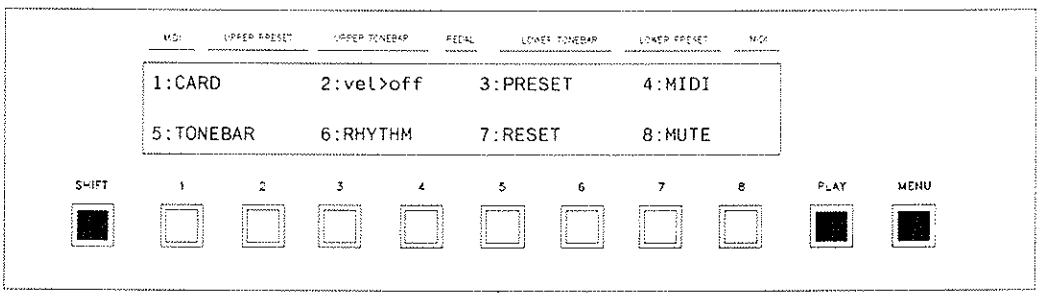


To locate the MEMORY CARD SLOT lift the Hidden Features Panel located to the right of the Information Center Display.

To LOAD a new VOICE ROM CARD

1. Insert your new VOICE ROM CARD into the MEMORY CARD slot of the organ with the label face up. The card should slide in easily with very little force.

2. Touch the black MENU Select Touch Button. The Information Center Display should look like this:



3. Touch the gray Number 1:CARD Select Touch Button.

4. The Information Center Display will now display:

" *** CARD LOADING *** "

There is another way of loading a VOICE ROM CARD.

1. Before turning the organ power "ON" simply insert your VOICE ROM CARD into the CARD SLOT.

2. Turn the organ POWER SWITCH "ON". The organ will now automatically load the VOICE ROM CARD.

If you want to load another VOICE ROM CARD, insert the new VOICE ROM CARD and start the loading procedure. Once Card Voices are loaded they remain in memory until you turn the power switch "off" or until you RESET the organ. This means, even if you remove the ROM Voice Card from the slot, the voice will still be retained.

ADVANCED CARD FEATURES

MODIFYING CARD VOICES

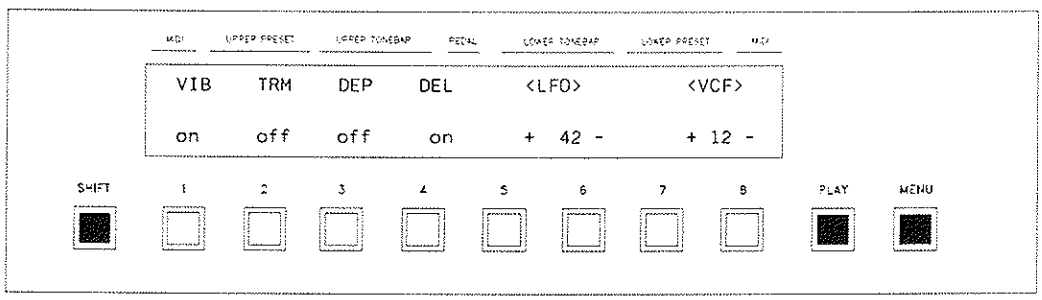
At times it may be desirable to change some of the factory preset VIBRATO and TREMOLO options as well as the sound characteristics (voicing) options of each voice.

The two MENUS involved in doing this are:

1. SHIFT Level 1 MENU of the PLAY Mode.

2. SHIFT Level 2 MENU of the PLAY Mode.

SHIFT Level 1 - PLAY MENU



When you are in SHIFT Level 1 or the PLAY Mode you can turn "ON" or "OFF" the following:

1. VIB - VIBRATO - gray Touch Button Number 1 is to turn the VIBRATO effect "on" or "off".

2. TRM - TREMOLO - gray Touch Button Number 2 is used to turn the TREMOLO effect "on" or "off".

3. DEP - DEPTH - gray Touch Button Number 3 works with both Vibrato and/or Tremolo to turn the DEPTH on or off.

4. DLY - DELAY - gray Touch Button Number 4 works with both Vibrato and Tremolo to turn the automatic DELAY on or off.

5. <LFO> - LOW FREQUENCY OSCILLATOR - this is used to increase or decrease the velocity of vibrato and tremolo effects.

To INCREASE the velocity, Touch and Hold the gray Select Touch Button Number 5.

To DECREASE the velocity, Touch and Hold the gray Select Touch Button Number 6.

Values from 1 through to 100 can be set for both + or -. TOUCHING AND HOLDING either of these Touch Buttons will increase of decrease their respective values rapidly.

6. <VCF> - VOLTAGE CONTROLLED FILTER - this is used to increase or decrease the brightness of CARD VOICES.

To INCREASE the brightness, Touch and Hold the gray Select Touch Button Number 7.

To DECREASE the brightness, Touch and Hold the gray Select Touch Button Number 8.

Values from 2 through 40 can be set by using these Touch Buttons. TOUCHING AND HOLDING either of these Touch Buttons will increase or decrease their values rapidly.

When a new CARD VOICE Select Touch Button is selected and you SHIFT to this menu the "on" or "off" <LFO> and <VCF> parameters will change in the Information Center Display.

NOTE: Any changes that you make will NOT stay in memory once the organ's power is turned "OFF".

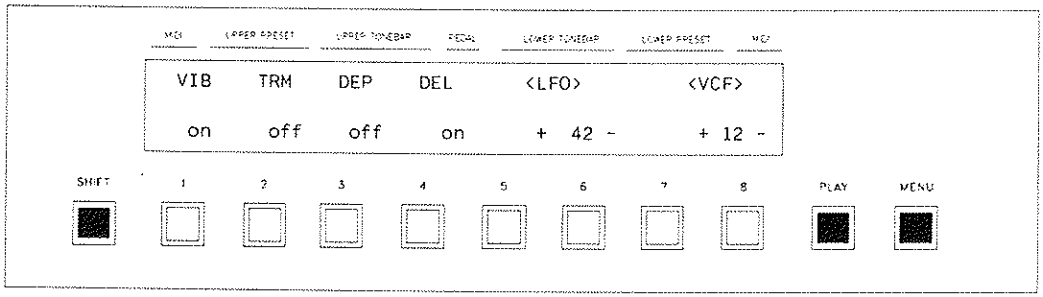
TRY THIS:

NOTE: Make sure that VOICE ROM CARD #1 is loaded into the organ. If not, then LOAD the VOICE ROM CARD #1.

1. Touch the black PLAY Select Touch Button so that you are in either one of the PLAY Menu Modes.

2. Touch the gray Number 1:Fl.1 CARD VOICE FLUTE Select Touch Button.

3. Touch the black SHIFT Select Touch Button so Level 1 of the SHIFT Mode is displayed. The Information Center Display should look like this:



4. Press and hold any key (note) on the UPPER KEYBOARD. The CARD VOICE Flute has VIBRATO.

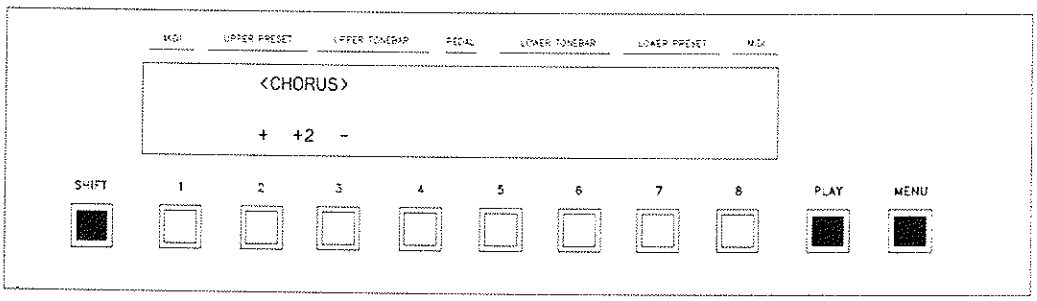
5. Release the key (note) that you are holding.

6. Touch the gray Number 1 VIB Select Touch Button to "off".

7. Again press and hold any key (note) on the UPPER KEYBOARD. You will now hear no VIBRATO effect.

Feel free to try other CARD VOICES as well as other options.

SHIFT Level 2 - PLAY MENU



When you are in Level 2 of the PLAY SHIFT MENU you can change and adjust the following option:

<CHORUS> - CHORUS EFFECT - This parameter works in with the gray Number 8:CHon "CHORUS" Select Touch Button of the CARD VOICE Section. Using this adjusts one of the two different pitches of sound that is produce by the CHORUS EFFECT.

To INCREASE the Chorus Effect to the plus side Touch and Hold the gray Select Touch Button Number 2.

To DECREASE the Chorus Effect to the minus side Touch and Hold the gray Select Touch Button Number 3.

Values from +9 to -9 can be set by using these Touch Buttons. TOUCHING AND HOLDING either of these Touch Buttons will increase or decrease their respective values rapidly. Setting the CHORUS EFFECT to "0" causes no CHORUS.

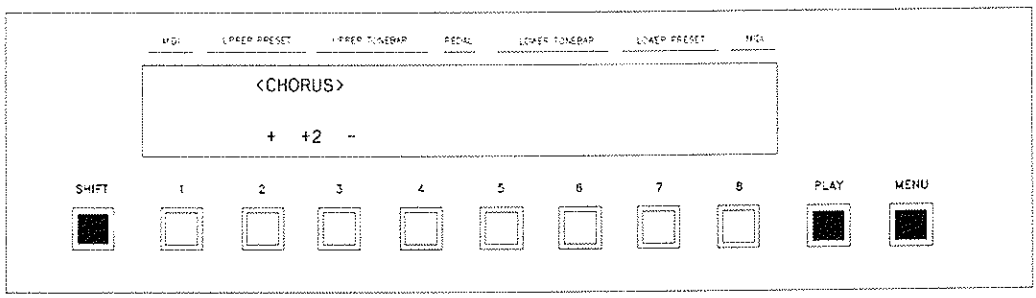
TRY THIS:

1. Put the INFORMATION CENTER DISPLAY into one of the PLAY MODES.

2. Select the CARD VOICE PIANO by touching the gray Number 7 Select Touch Button. Make sure that the CARD VOICE Touch Button LED is lit ("ON") in the CARD VOICE Control Section

3. Touch "ON" the gray Number 8:CHon CHORUS Select Touch Button in the CARD VOICE CONTROL Section.

4. Touch the black SHIFT Select Touch Button 2 times so the display shows the following:

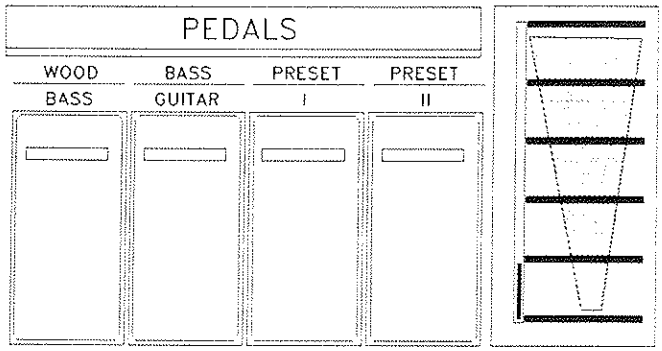


5. TOUCH and HOLD the gray Number 2 Select Touch Button until the display reaches +9.

6. Now play a melody on the UPPER KEYBOARD and you will now hear the sound of a HONKY TONK Piano.

Feel free to experiment with the <CHORUS> Select Touch Buttons with other CARD VOICES.

PEDAL VOICES

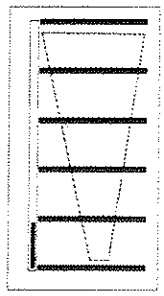


The PEDAL VOICE Control Section contains 4 Touch Buttons and the PEDAL VOLUME Visual Pointer Touch Pad. The Touch Buttons allow you to access the two factory PEDAL VOICES and two CUSTOM PEDAL PRESETS.

PEDAL VOICE SELECTION

To select a PEDAL VOICE simply touch the desired PEDAL VOICE Touch Button.

PEDAL VOICE VOLUME CONTROL



This VISUAL POINTER TOUCH PAD is used to control the volume of PEDAL VOICES in relationship to the other voices groups. To increase or decrease the volume simply touch the pad at the desired level. Touching the top of the Visual Touch Pad will set the maximum volume.

PEDAL PRESET I & II

The two PEDAL PRESETS are used to store your own CUSTOM PEDAL set-ups. The PEDAL PRESETS allow you to use and store both the two PEDAL VOICES and the PEDAL TONEBARS independently or in combination. PEDAL SUSTAIN and PEDAL VOLUMES information are also saved by the PEDAL PRESETS. All PEDAL PRESET information can be saved to a Hammond RAM Card. See the RAM CARD section of this owner's guide.

The PEDAL PRESETS also contain two factory default settings which will return when the RESET procedure is done.

To SAVE a PEDAL PRESET

TRY THIS:

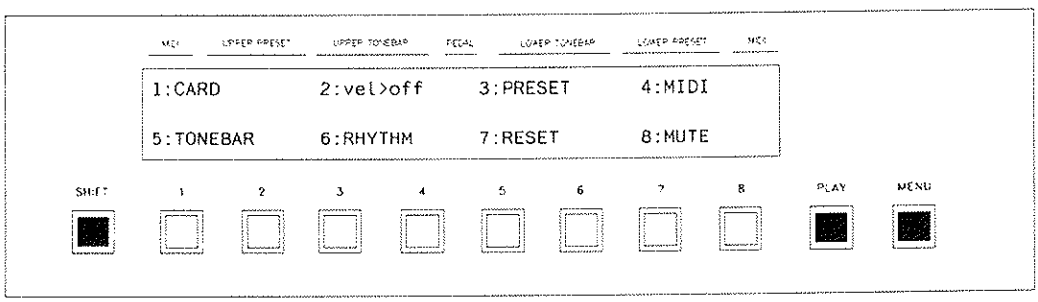
1. Touch Pedal SUSTAIN Visual Pointer Touch Pad at position 4 (4 LEDs should be lit).

2. Pull the 16' PEDAL TONEBAR out to 7

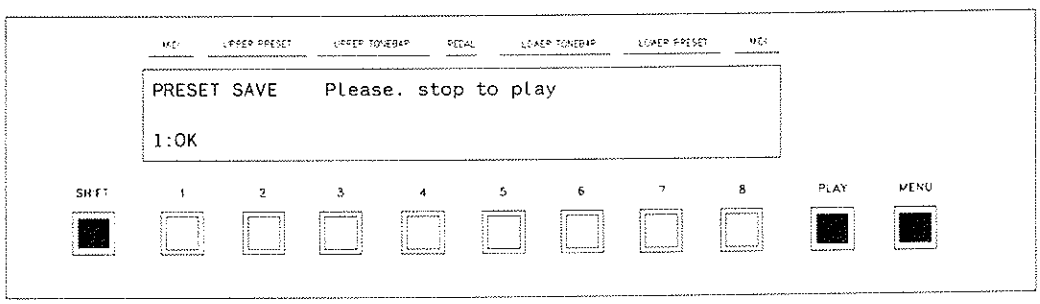
3. Touch the WOOD BASS Voice Touch Button "ON".

4. Touch the PEDAL Voice Visual Pointer Touch Pad at the top (all 5 LEDs should be lit).

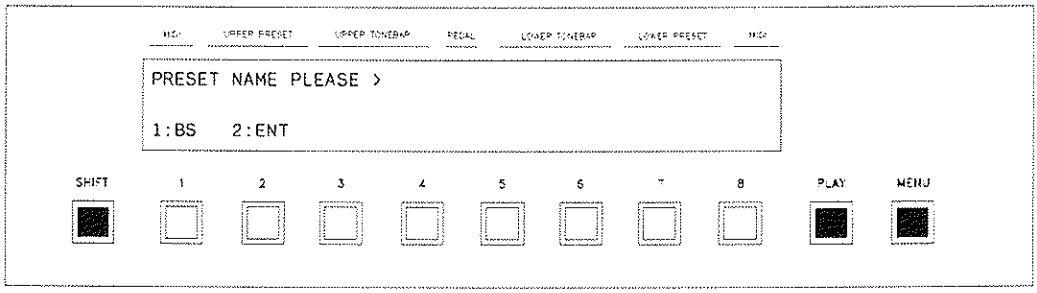
5. Touch the black MENU Select Touch Button so that the Information Center Display displays the following:



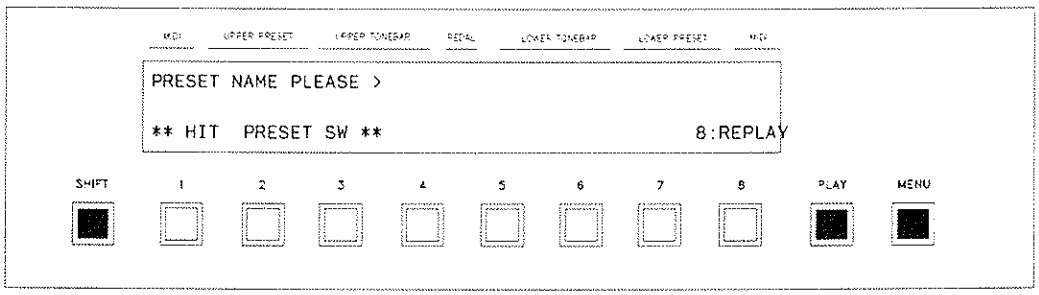
6. Touch the gray Number 3:PRESET Select Touch Button and the Information Center Display should look like this:



7. Touch the gray Number 1:OK Select Touch Button. The display will show the following:



8. Touch the gray Number 2:ENT (ENTER) Select Touch Button. The Information Center Display will now show the following:



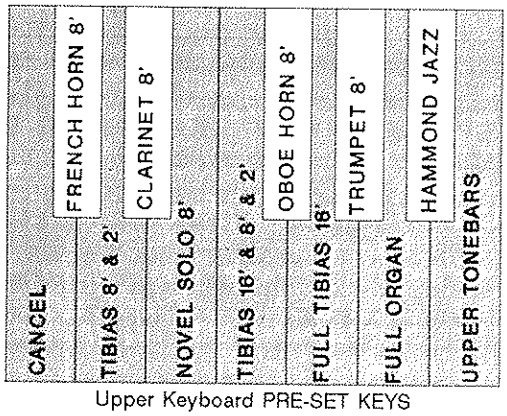
9. Select PEDAL PRESET I.

10. Now the Information Center Display will show "RECORDED"

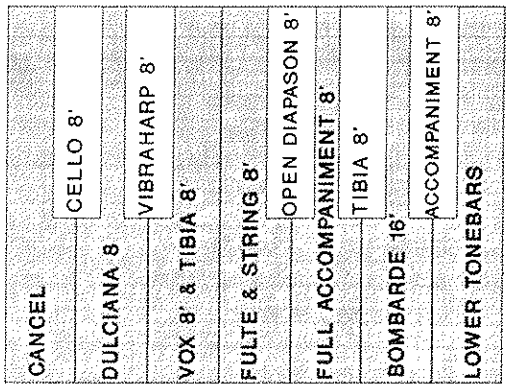
11. Touch the black PLAY MENU Select Touch Button. Your PEDAL PRESET is recorded. To retreive your PEDAL PRESET simply touch PEDAL PRESET I.

PRE-SET KEYS

PRE-SET KEYS



Upper Keyboard PRE-SET KEYS



Lower Keyboard PRE-SET KEYS

To the left of each keyboard are twelve PRES-SET KEYS. The first key (to the left) on each keyboard is a CANCEL key. Depressing the CANCEL key cancels any other PRE-SET KEYS previously depressed.

The next ten PRE-SET KEYS C# through A# are PRE-SET to those voices and combinations of voices most often used by organists. The PRE-SET KEYS perform the same function as combination pistons on a pipe organ. They permit the player to change very quickly for example, from a soft solo quality to a full theater sound at the touch of one finger. The 20 PRE-SET KEYS provide almost unlimited registration flexibility and facility instantaneously.

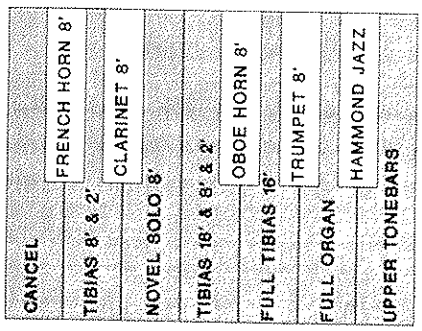
The voices PRE-SET on these keys may be changed to suit the needs or musical taste of the player. A description of this feature is covered later in this section of the owner's guide under the heading: "Customizing your Super B."

The 10 PRE-SET registrations on each keyboard are graduated in volume form left to right . . . from soft to loud. Generally speaking. the white PRE-SET KEYS are solo, instrumental voices, while the black PRES-SET KEYS are organ-type voices.

The last two PRE-SET KEYS, the black "B" are used as on-and-off Touch Buttons for the Upper & Lower set of TONEBARS. The black Upper "B" key controls the 1st group of 9 TONEBARS and the black Lower "B" controls the 2nd group of 9 TONEBARS.

Super B PRE-SET VOICES

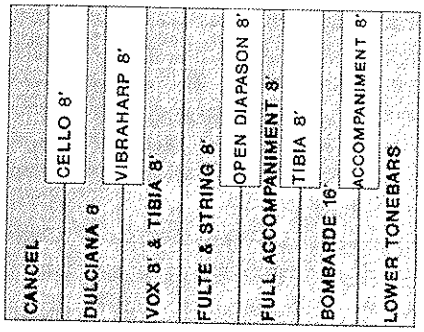
UPPER PRE-SET KEYS



PRE-SET KEY	TONEBAR SETTING	PRE-SET NAME
C		Cancel
C#	00 8740 000	French Horn
D	00 8408 004	Tibias 8' & 2'
D#	00 8080 840	Clarinet 8'
E	08 8800 880	Novel Solo 8'
F	60 8088 000	Tibias 16',8'&2'
F#	00 4685 300	Oboe Horn 8'
G	80 8808 008	Full Tibias 16'
G#	00 6888 654	Trumpet 8'
A	76 8878 667	Full Organ
A#	88 8000 00	Hammond Jazz*
B	Adjust Tonebars in 1st Group	

* Adds Touch Responce Percusson Third & Fast Decay

LOWER PRE-SET KEYS



PRE-SET KEY	TONEBAR SETTING	PRE-SET NAME
C		Cancel
C#	00 4545 440	Cello 8'
D	00 4432 000	Dulciana 8'
D#	00 4800 000	Vibraharp 8'
E	00 2500 234	Vox 8' Tibia 8'
F	00 6554 322	Flute & String 8'
F#	00 5642 200	Open Diapason 8'
G	00 7656 311	Full Accompaniment 8'
G#	00 8030 000	Tibia 8'
A	84 7767 666	Bombarde 16'
A#	00 8400 000	Accompaniment 8'
B	Adjust Tonebars in 2nd Group	

NOTE: The PRE-SET KEYS can only be used one at a time for each keyboard.

CHANGING THE PRE-SET KEYS

When the black "B" PRE-SET KEYS are "ON" you have complete control over CARD VOICE selection, TONEBARS, TOUCH BUTTONS and VISUAL TOUCH PADS corresponding to each KEYBOARD. Also, different sounds are set into the PRE-SET KEYS which can be changed with one-touch operation. When any PRE-SET KEY is active, except the black "B" keys, you can not change any of the TONEBAR settings. However, you have control over the TOUCH BUTTONS, VISUAL TOUCH PADS, SLIDER CONTROLS and the gray CARD VOICE SELECT TOUCH BUTTONS.

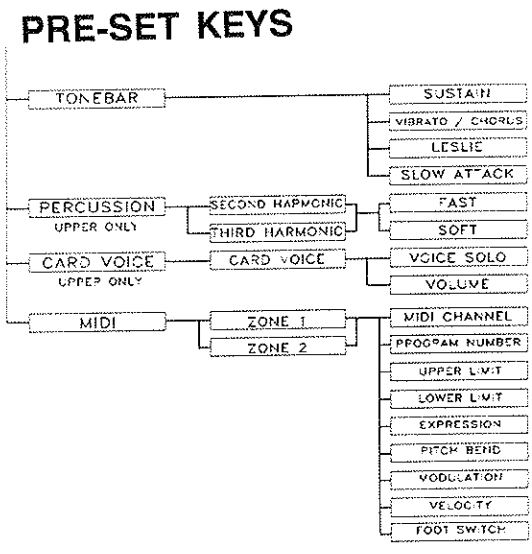
When the Information Center Display is in one of the PLAY MODE and a PRE-SET KEY is activated, the TONEBAR settings will change together with the names of the presets and MIDI program number shown in the Information Center Display.

The LESLIE SPEAKER, VIBRATO, PERCUSSION, SUSTAIN, VISUAL POINTER TOUCH PADS and SLIDER CONTROLS can be changed as you wish. However, if you touch another PRE-SET KEY, the changes you have made are not saved.

SAVING THE PRE-SET KEYS

The relationship between the PRE-SET KEYS and the available effects are in the following diagram for your reference.

All effects described in the diagram can be saved in the PRE-SET KEYS as registrations. However, you should remember that the CARD VOICE sounds themselves and each parameter you set on the CARD VOICE cannot be saved in the PRESET memory. Only the position, but not the sounds themselves, is saved. If a ROM Voice Card other than the orginal Voice Card is used the sounds of the new CARD VOICES will sound.



To SAVE a PRE-SET KEY

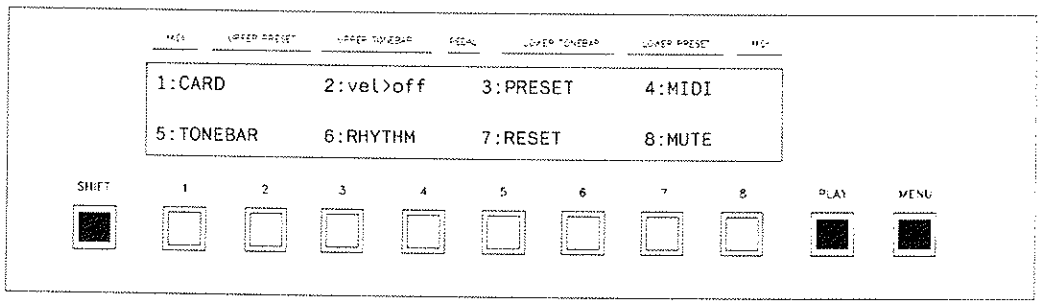
NOTE: Make sure that the alphanumeric strip supplied with your Super B is placed above the Upper Keyboard.

TRY THIS:

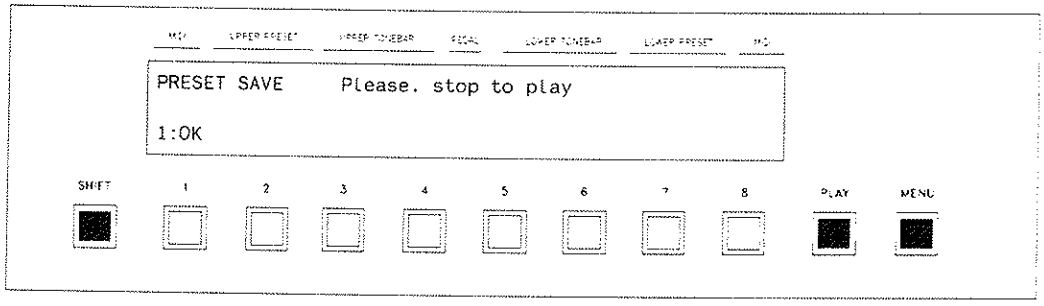
1. Touch the UPPER black "B" PRE-SET KEYS "ON".

2. Set up you own REGISTRATION SET-UP for the UPPER KEYBOARD. Use the TONEBARS, CARD VOICES and what ever you wish.

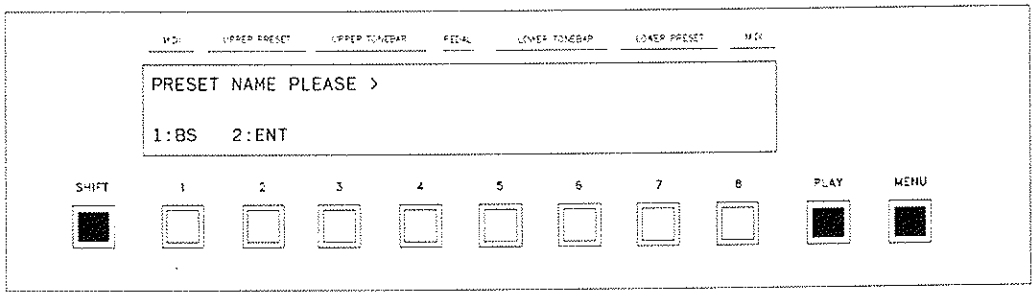
3. Touch the black MENU Select Touch Button so the Information Display Center shows the following:



4. Touch the gray Number 3:PRESET Select Touch Button. The display will show the following:



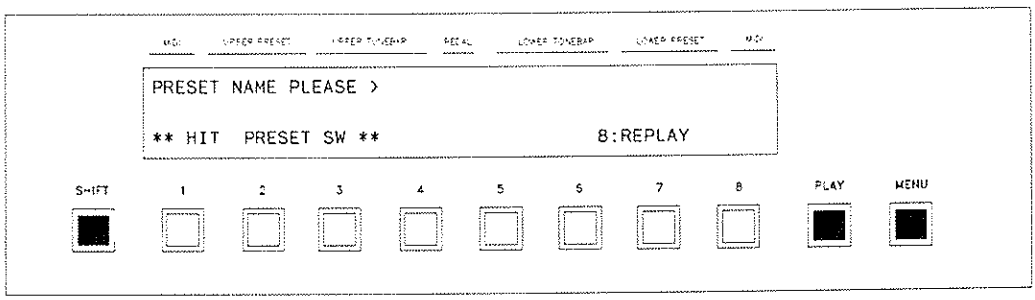
5. Touch the gray Number 1:OK Select Touch Button. The display will show the following:



6. Now name your PRESET (7 letter max) or leave the name blank and go to step 7. To name your PRESET, use the UPPER KEYBOARD to type in the name, holding down the last key with the word CAP will allow you to use upper-case letters.

If you make a mistake use the gray Number 1:BS (back space) to erase that letter.

7. When you have finished entering your PRESET name touch the gray Number 2:ENT (ENTER) Select Touch Button. The Information Center Display will now show the following:



8. Select one of the UPPER KEYBOARD PRE-SET KEYS.

9. Now the Information Center Display will show "RECORDED"

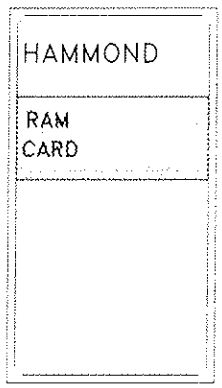
10. Touch the black PLAY MENU Select Touch Button.

11. Touch the PRE-SET KEY that you stored your registration set-up in and you will see its name appear in the upper right-hand corner of the Information Center Display.

The same procdure is followed for saving information to the LOWER PRE-SET KEYS except for steps 1 and 8, you should use the LOWER PRE-SET KEYS rather then the UPPER PRE-SET KEYS.

RAM CARD

USING THE RAM CARD



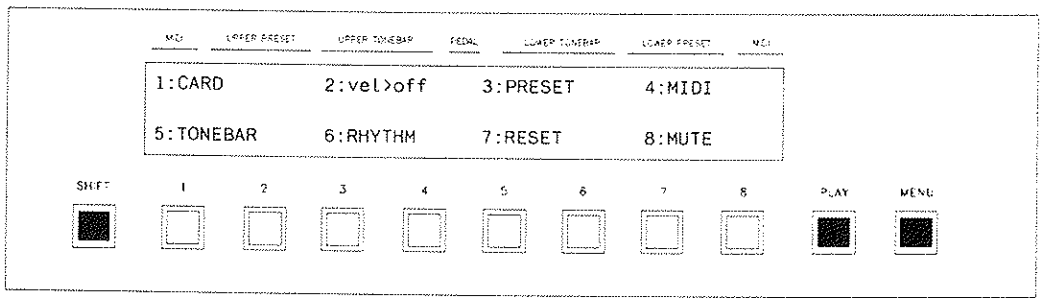
RAM Cards come in 32K size. These RAM CARDS are use to store PRE-SET KEYS data that you have created.

FORMATTING A CARD

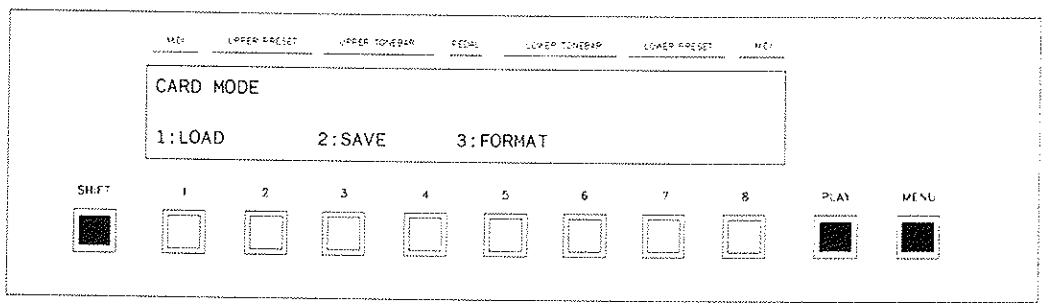
Before you use a new RAM card it first must be Formatted so that it can be used. Here are the steps for FORMATTING.

1. Inset a new RAM card into the memory card slot.

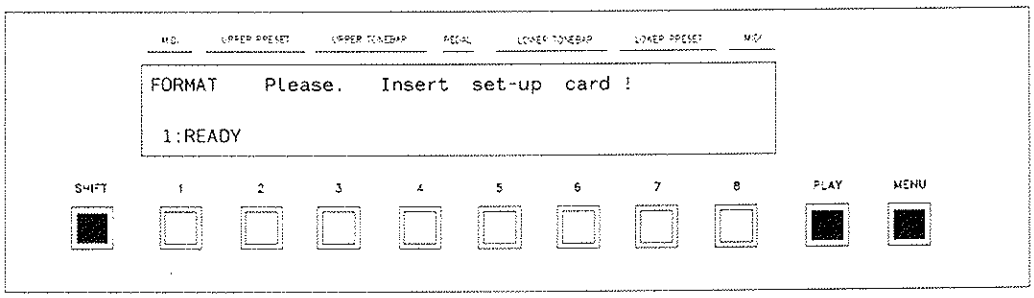
2. Touch the black MENU Select Touch Button so that the display looks like this:



3. Touch the gray Number 1:CARD Select Touch Button. The display should now be in the CARD mode and look like this:



4. Touch the gray Number 3:FORMAT Select Touch Button. The display should show the following FORMAT mode.



5. Touch the gray Number 1:READY Select Touch Button. The display should now flash "FORMAT".

The display will now return to the MENU MODE. The formatting operation is now complete.

Note: It is possible to cancel this formatting operation during this process if you wish, before pressing the gray Number 1:READY Select Touch Button. To cancel the formatting operation during this process, either touch the PLAY or MENU Select Touch Button before pressing the gray Number 1:READY Select Touch Button.

Note: You may re-FORMAT a RAM CARD that has already been formatted previously. Remember that if you re-format a RAM card, it will erase all data previously stored on that card.

SAVING DATA

Saving data is called WRITING to the formatted RAM CARD from the data stored in the memory of the organ. In the following sections, you will learn how to save such data onto the RAM CARD for the Custom PRE-SET.

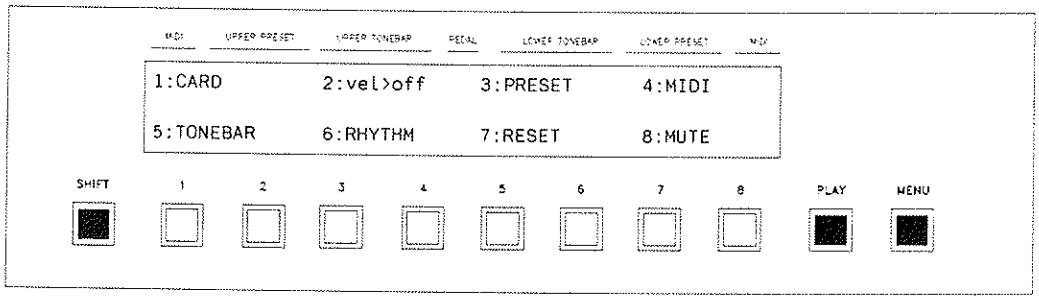
NOTE: Make sure that the alphanumeric strip supplied with your Super B is placed above the Upper Keyboard.

Saving CUSTOM PRE-SET KEYS DATA

TRY THIS:

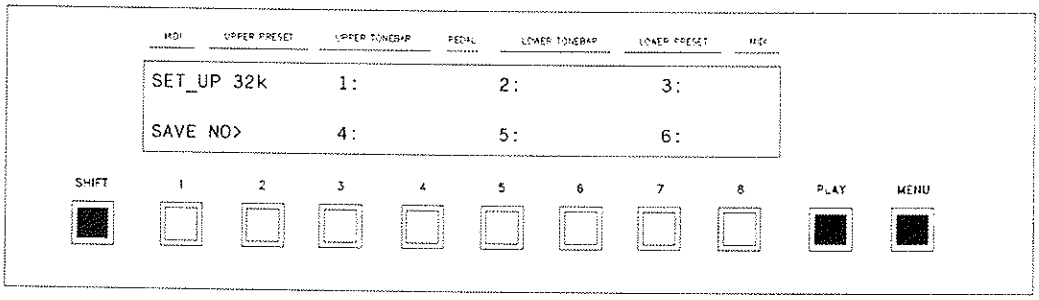
1. Insert a formatted RAM card into the CARD MEMORY SLOT.

2. Touch the black MENU Select Touch Button so that the display looks like this:



3. Touch the gray Number 1:CARD Select Touch Button.

4. Touch the gray Number 2:SAVE Select Touch Button. The display should now look like this:



5. Select a Number to save your set of custom PRE-SET KEYS into. For example touch the gray Number 1: Select Touch Button.

6. Name your SET of PRE-SET KEYS. The naming procedure is the same as described under the section PRE-SET KEYS. Use the name SETUP1 for the example.

7. Once you have enter the name correctly, touch the gray Number 8:ENT Select Touch Button.

8. Touch the gray Number 7:OK Select Touch Button to confirm that it is OK to save PRE-SET KEYS data to the RAM CARD.

Touching the gray Number 8:REPLAY will take you back to step number 6.

9. The display will return to Level 1 of the MENU Mode. The saving process for the PRE-SET KEYS is complete.

Confirming PRE-SET KEYS Data

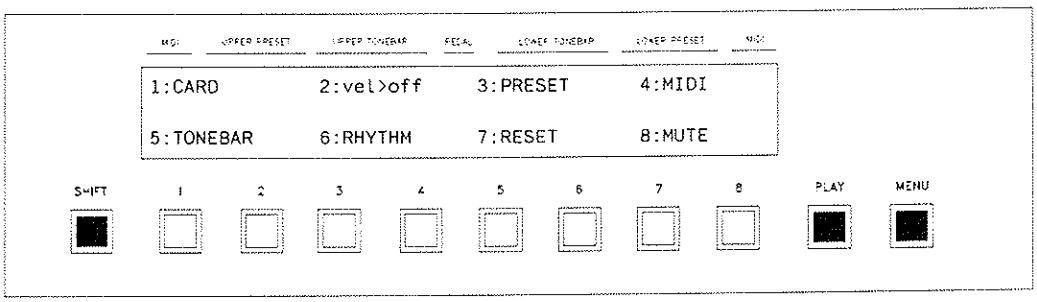
1. Make sure that the INFORMATION CENTER DISPLAY is in Level 1 of the MENU Mode.

2. Touch either the gray Number 1:LOAD or gray Number 2:SAVE Select Touch Buttons.

Loading PRE-SET KEY Data

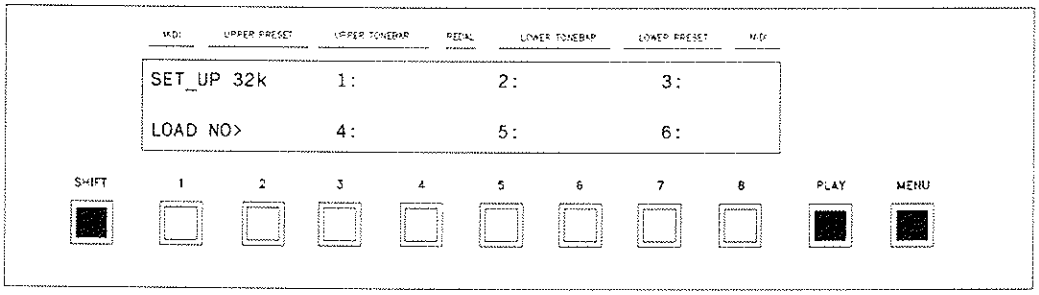
1. Insert a PRE-SET KEY RAM CARD in the MEMORY CARD SLOT.

2. Touch the black MENU Select Touch Button so that the display shows the following:



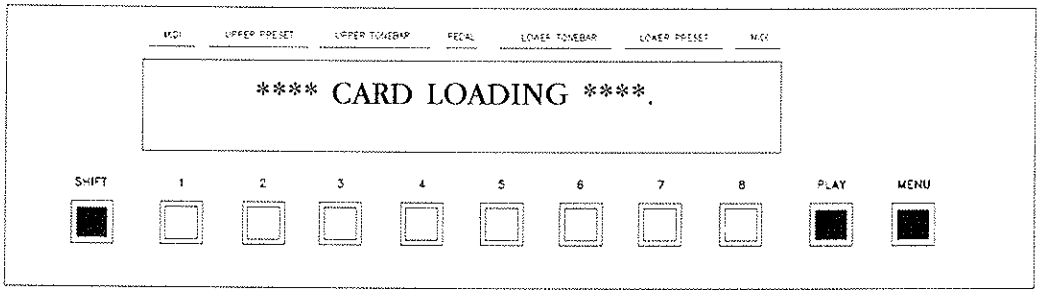
3. Touch the gray Number 1:CARD Select Touch Button.

4. Touch the gray Number 1:LOAD Select Touch Button. The Card LOAD Setup Menu will look similar to this:



5. Select the set of PRE-SET KEY set-ups by touching the corresponding Select Touch Button.

6. After selecting the correct number, touch the gray Number 7:OK Select Touch Button. The display will then flash:

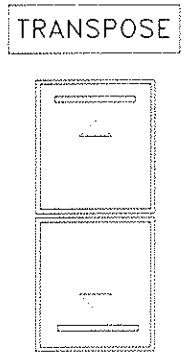


If you want to cancel this loading, touch the gray Number 8:REPLAY Select Touch Button. This will return you to the top of step 6.

7. The display will now return to Level 1 of the MENU Mode and the data loading is complete.

TURN ON
&
PLAY

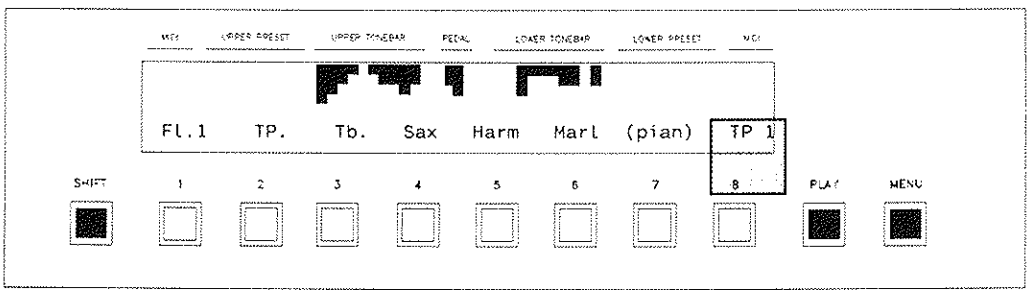
TRANSPOSE (Key Select)



The pitch of the organ can be transposed up or down, so a song played in, for example, C major, could sound in, say G major. TRANSPOSE will step either up or down six semitones from the CENTER Position. The TRANSPOSE, which is located at the left-hand side of the UPPER KEYBOARD, consists of two separate switches.

The upper one is for ascending transposition and the lower one is for descending transposition.

If you touch the descending Touch Button once, the LED will light, lowering the pitch (tune) of the entire organ a semitone (half tone). At the same time, if the Information Center Display is in the PLAY MODE, the lower right hand corner shows "TP-1".

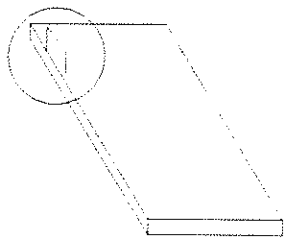


Each time that you touch the TRANSPOSE DOWN Touch Button the display will change showing each step down. If you touch the TRANSPOSE UP Touch Button once, from the CENTER point (no LED lit), then the display will show "TP+1".

NOTE: As long as a TP-1 (down) or TP+1 (up) is displayed, the Chours ON cannot be displayed. Touch the gray Number 8: Select Touch Button while in the PLAY MODE and the Chours "ON" display will return.

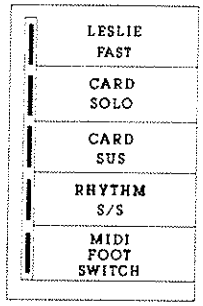
ProFoot - FOOT SWITCH

By using the FOOT SWITCH located on the left side of the EXPRESSION PEDAL and the ProFoot VISUAL POINTER TOUCH PAD Control you can select from several different functions.



ProFoot Touch Pad

The Touch Pad has five functions. Simply touch the name of the desired function and the LED to the left of it will light indicating that the selected function is active. Pressing a different function will change functions. Touch a lit ProFoot Touch Pad function will turn all ProFoot functions off.



ProFoot FUNCTIONS

LESLIE FAST

With this function on, if you press the LEFT FOOT SWITCH gently to the left and release it immediately the LESLIE SPEAKER will change from the Slow Mode to the Fast Mode, or the Fast Mode to the Slow Mode. (The FOOT SWITCH serves as a toggle switch).

CARD SOLO

The CARD VOICE becomes temporarily SOLO if you gently press the FOOT SWITCH, while in this mode when using a CARD VOICE together with Tonebars. Pressing the FOOT SWITCH again will turn off the SOLO CARD VOICE function. In addition, the CARD VOICE and the SOLO will be turned on simultaneously if you press the FOOT SWITCH in this mode when the CARD VOICE is not used. (The SOLO will be released if you press the FOOT SWITCH when the SOLO Touch Button is "ON".

CARD SUS - CARD SUSTAIN

With this function on, you are able to sustain the decay time of the card voice as long as you leave the FOOT SWITCH pressed to the left. For a sound whose tone has a percussive decay, the CARD SUStain serves as a piano's sustain pedal. In addition, for an instrument which has a non-percussive or continous sound such as a trumpet or a flute, the CARD SUS sustains the notes you play until the FOOT SWITCH is released. Check to ensure how it works by setting the CARD VOICE to the PIANO.

RHYTHM STOP / START

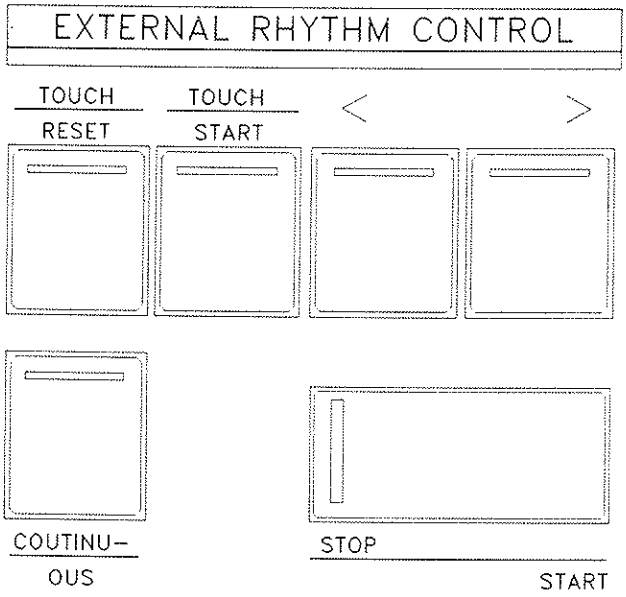
The RHYTHM STOP / START function will turn "on" or "off" a MIDI Drum Machine when connected. Press the FOOT SWITCH gently to the left to START or STOP the connected MIDI Drum Machine. In short, this function works the same as if you were touching the STOP / START Touch Button.

MIDI FOOT SWITCH

This is used in conjunction with MIDI implementation. First, select one of the MIDI controller function via the MIDI implementation menu. Now the ProFoot switch will activate or deactivate that function of a receiving MIDI device.

EXTERNAL RHYTHM CONTROL SECTION

The Super B is equipped with on board Touch Buttons to control an external MIDI Drum Machine.

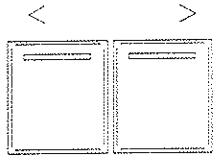


To use a MIDI Drum Machine with the Super B the Drum Machine must be connected properly to the Super B via the ACCESSORY PANEL on the back of the organ. To insure the proper installation of the MIDI Drum Machine to the organ see the MIDI section of this owner's guide "HOW TO CONNECT A DRUM MACHINE"

RHYTHM VOLUME CONTROL

This SLIDER CONTROL is located to the right of RHYTHM CONTROL Touch Buttons. This SLIDER CONTROL is used to control the INPUT volume of the DRUM MACHINE in relationship to the organ. To increase or decrease the volume simply slide the SLIDER CONTROL up to increase the volume and down to decrease the volume.

TEMPO TOUCH BUTTONS



The two TEMPO Touch Buttons have two functions; (1) to control the tempo (speed) of the RHYTHM PATTERNS and (2) as a TEMPO BEAT Display.

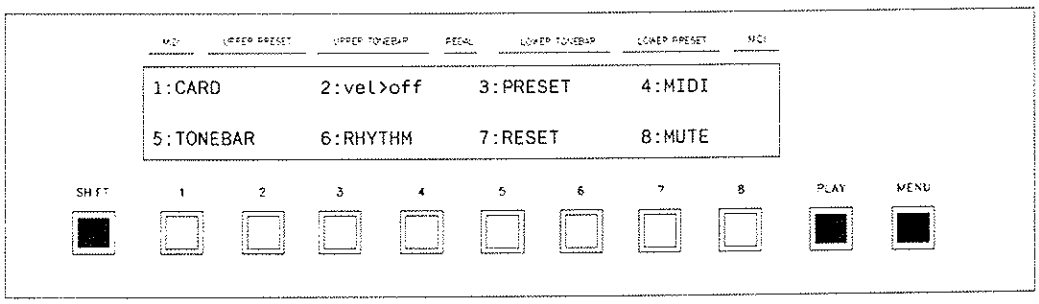
TEMPO UP / DOWN

To increase the TEMPO (or speed) of a rhythm Touch and Hold the right TEMPO Touch Button. To decrease the TEMPO by Touching and Hold the left TEMPO Touch Button.

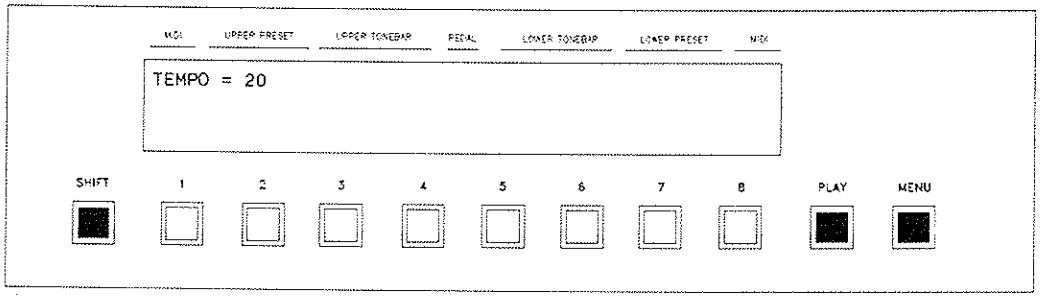
TEMPO NUMERIC DISPLAY

You may also view the TEMPO setting in Beats Per Minute by touch the gray Number 6:RHYTHM Select Touch Button.

1. Touch the black MENU Select Touch Button and the Information Center Display will look like this:

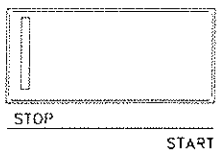


2. Now touch the gray Number 6:RHYTHM Select Touch Button and the display should look similar to this:



STOP / START

Touch this to start the rhythm and the LED will light, press again to stop a rhythm. The right foot switch can also be used as well to STOP or START the RHYTHMS.



TOUCH START

When selected, the rhythm starts automatically as soon as any key or keys are pressed on the LOWER KEYBOARD. When this Touch Button is activated both it and the STOP/START Touch Button LED will light.

TOUCH RESET

Selecting this function allows the receiving MIDI drum machine to be activated by touching and holding a key or group of keys on the lower keyboard. When these keys are released the receiving MIDI drum machine will stop. Touching the lower keyboard again will start the rhythm once again on the downbeat.

CONTINUOUS Touch Button

This function allows you to start a rhythm with either the START/STOP Touch Button or the ProFoot foot switch, when selected from the ProFoot Visual Touch Pad. Once the rhythm is stopped and then reactivated the rhythm will pick up from point at which it was stopped (not from the downbeat).

MIDI

What MIDI Can Do

The letters MIDI stand for Musical Instrument Digital Interface, an international standard for connecting synthesizers, sound modules, drum machines, and other electronic musical instruments so that they can exchange performance data. The Super B organ features three MIDI jacks - IN, OUT, and THRU -that allow it to both send and receive these kinds of data. These MIDI jacks as well as the Aux IN & OUT jacks are located under the accessary panel on the back of the organ.

Note: The sending and receiving instruments must be assigned the same channel number before they can communicate.

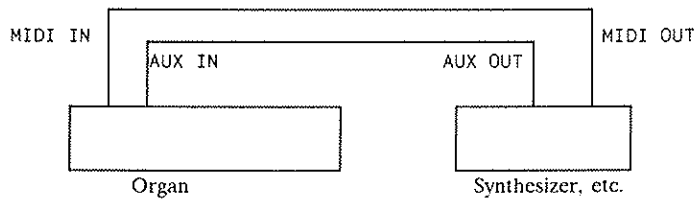
The MIDI interface on your Hammond Organ allows you to:

(1) Receive and transmit keyboard data.
(2) Receive and transmit foot pedal data (ON/OFF).
(3) Receive and transmit program numbers - codes for changing voices.
(4) Receive and transmit Pitch Bend and Modulation control information.
(5) Set MIDI channel numbers for sending and receiving to any number between 1 and 16.
(6) Turn LOCAL CONTROL on and off - either from the keyboard or another instrument.
(7) Synchronization of clock messages for the synchronization of tempo as well as to the starting and stopping of that rhythm.

How to Connect MIDI - Typical Applications

Ensemble playing with another keyboard instrument

Example: A synthesizer



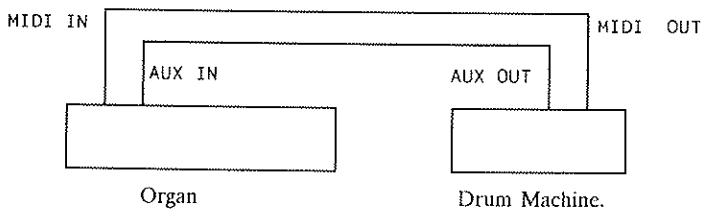
If you connect the MIDI OUT jack of the organ to the MIDI IN jack on the synthesizer and the synthesizer's LINE OUTPUT jack to the organ's LINE IN jack, you will be able to play both instruments from the organ's keyboard.

The interface transmits both the keys played and the strength with which you played them, so the synthesizer output is exactly the same as it would be if you were playing the keyboard directly. The only difference is that the synthesizer uses a different voice, which blends with the organ's to create an ensemble effect. You can, for example, add the synthesizer's strings to your piano solo to give it more depth.

Note: If you reverse the MIDI IN and MIDI OUT connections, you can play the organ from the synthesizer just as easily.

Drum Machines

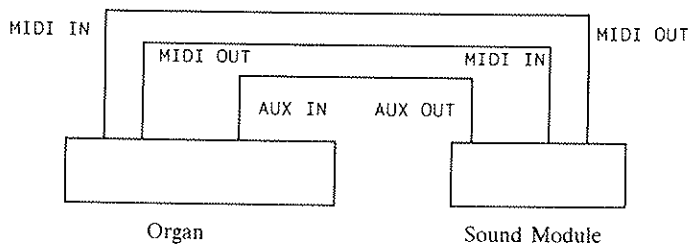
Example: A drum machine



Connecting a drum machine allows you to add a rhythm accompaniment to your playing or create special effects by adding notes from the percussion instrument to the organ.

Sound Modules

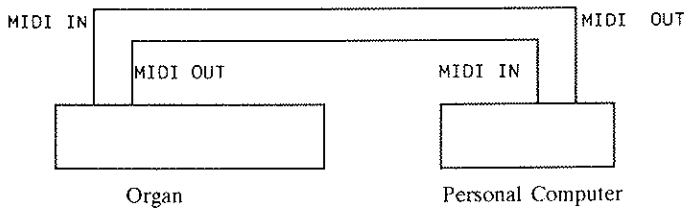
Example: an External Sound Module



The above illustration shows how an external synthesizer module may be connected to the organ.

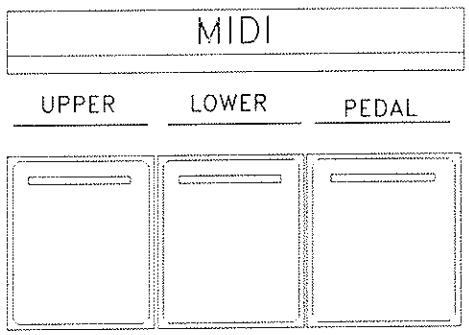
Personal Computer

Example: Personal Computer

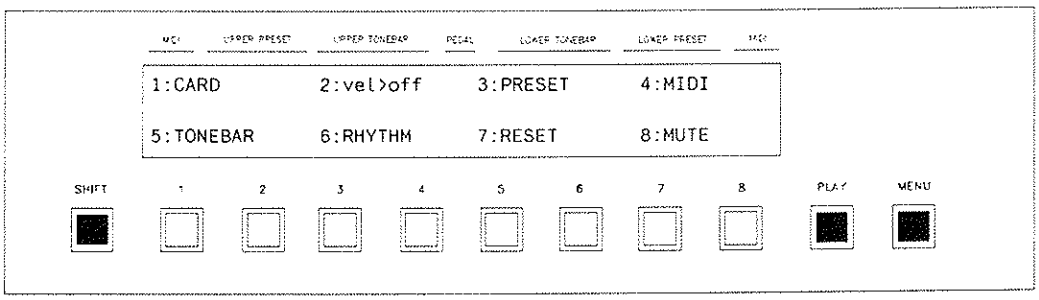


If you wish to use the organ with a personal computer (the organ is a MIDI slave instrument in this case) run a standard MIDI cable from the MIDI OUT (or MIDI THRU connector) to the MIDI master instrument to the MIDI IN connector of the organ. You will also need some type of MIDI interface and special MIDI software for you computer. Contact your Hammond Organ Dealer for more help.

How to Turn On MIDI - MIDI implementation



The three MIDI Touch Buttons are located under the left Hidden Features Panel on the console and are marked UPPER, LOWER, and PEDAL. Also the gray Number 8:MUTE Select Touch Button, when the Information Center Display is in the MENU mode, is used as part of the MIDI controls.



PITCH BEND and MODULATION WHEELS

Also part of the MIDI controls are the PITCH BEND and MODULATION Control Wheels. These MIDI Controls are located to the left of the lower PRE-SET KEYS.

The left most Control Wheel is the PITCH BEND CONTROL. Rotating (pushing forward) this control will raise the pitch of a contected MIDI sound module or synthesizer. Rotating (pulling down) this control will lower the pitch of a contected MIDI insturment.

The right Control Wheel is used to control the amount (more or less) of MODULATION of a contected MIDI instrument. Moving the control forward will decrees the amount of MODULATION. Moving the control down will increase the amount of MODULATION.

To turn on MIDI, proceed as follows:

The UPPER, LOWER and PEDAL Touch Buttons are used to turn on and off MIDI in order to transmit MIDI signals. These switches will be illuminated when the power is turned on.

The MUTE Touch Button is used to send a command turning off all MIDI notes. Suppose a MIDI instrument is connected to the organ and both are being played simultaneously (ensemble) and for some reason the two instruments are disconnected. A note or group of notes will hold on, even if you have released the keys. Touch the MUTE Touch Button and the organ sends an "all-note-off" command clearing the holding notes.

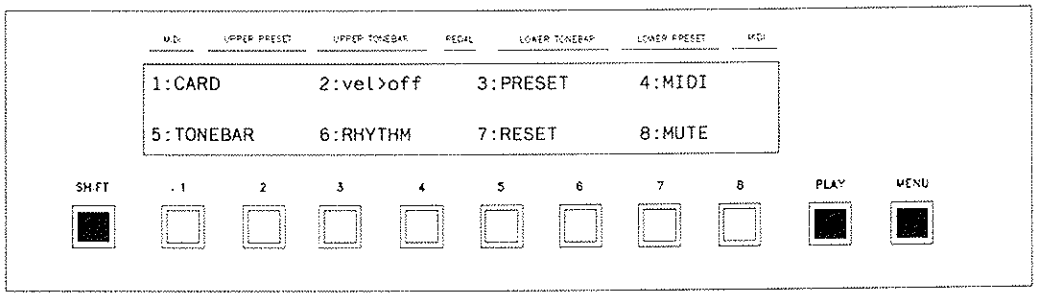
How To Set MIDI Parameters

The parameters of the organ on leaving the factory are set to 16 MIDI channels as follows:

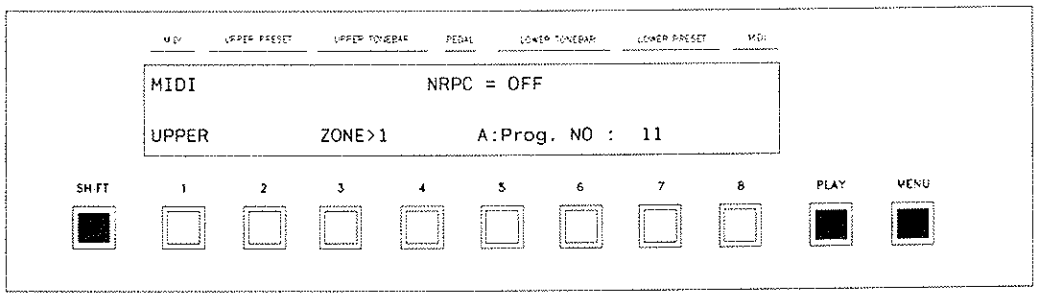
Upper	Channel 1	Prog. No.00
Lower	Channel 5	Prog. No.00
Pedal	Channel 9	Prog. No.00

Setting MIDI parameters

1. Touch the black MENU Select Touch Button. The Information Center Display should show the following:



2. Touch the gray Number 4:MIDI Select Touch Button. The Information Center Display should show the following:



Number 1:UPPER Select Touch Button

This Select Touch Button is used to select between "Upper", "Lower" or "Pedal" so the the MIDI parameters may be changed. Touch the gray Number 1:Upper Select Touch Button to change "Upper", "Lower" and "Pedal" in sequence.

Number 4:ZONE>1 Select Touch Button

Both the upper and lower keyboards each have two ZONES. Each ZONE allows the control of two external MIDI sound sources simultaneously. ZONE 1 will control MIDI sound source number 1 and ZONE 2 will control MIDI sound source number 2. Touching the gray Number 2:ZONE> Select Touch Button selects from one ZONE to the other.

Number 5: - - Select Touch Button

Touching the gray Number 5: Select Touch Button will change the Display Information to one of the following choices:

1: Continuous - Allows the selected controller function of the receiving MIDI device to function.

2: Foot Switch - Used when MIDI FOOT SWITCH function of ProFoot is selected. A controller function of a receiving MIDI device can be turned "on" or "off" via the ProFoot foot switch.

3: Velocity - Used to set the scale (level) of the velocity sensitivity of the receiving MIDI device.

Touching the gray Number 7 or Number 8 Select Touch Buttons will change the current control values. The gray Number 7 Select Touch Button will increase the current value (up) and the gray Number 8 Select Touch Button will decrease the current value (down).

Number 6: - - Select Touch Button

This is Select Touch Button is used to change to one of the following controls and/or parameters:

A: Prog. No. - When in the "Prog. No." mode you can select from 0 to 127 for a total of 128 Program Numbers. The gray Number 7 Select Touch Button will increase the Program Number and the gray Number 8 Select Touch Button will decrease the Program Number.

Remember that the value of the "A:Prog. No." of the organ begins with 0. Some MIDI slave instrument preset or patch voices begin with Program Number 1. In other words, "Prog. No." 0 on the organ equals "Prog. No. 1" of a voice patch of a sound module. For example if the a voice patch is number 16 of the MIDI sound module you will need to set the "Prog. No." to 15 on the organ.

B:MIDI Ch. - Any value from 1 to 16 can be set for "MIDI Ch.". This means that you should touch the CANCEL Touch Button before setting the MIDI channel. Use the gray Number 7 (increase or raise) and Number 8 (decrease or lower) Select Touch Buttons to change the MIDI Channel.

NOTE: The "MIDI Ch." cannot be used when the presets are used.

C:Lower Lmt - Use this to set the lowest note that the receiving MIDI device will play.

D:Upper Lmt - This is used to set the highest note that the receiving MIDI device will play.

E:Expression - ON or OFF - When "on" the volume of the receiving MIDI device from the expression pedal of the Super B.

F:Wheels - ON or OFF - When "off" the pitch bend and modulation wheels are not active. Hence a receiving MIDI device will not respond to the wheels functions when used.

Non Registered Program Control - NRPC

This Non Registered Program Control is used to choose whether to transmit or receive the command which determines a control exchange between specific organ models. For example, if you run MIDI cables from one organ to another and then to another and then turn on the NRPC, you will be able to transmit all control changes of each Touch Button or Controls to the other two instruments. Once NRPC is turned ON, turning the power switch off is the only way to cancel this feature. To turn NRPC ON do the following:

1. TOUCH and HOLD the black SHIFT Select Touch Button.

2. While holding the SHIFT Select Touch Button touch the gray Number 6 Select Touch Button.

Transmitting MIDI Information

The following sections will show three specific commands which are transmitted in MIDI format to a MIDI slave instrument, and what they can do in detail.

The Active Keypress Command

The active keypress command tells which key has been played and with what velocity touch. For example, you play middle "C" on the keyboard of the organ connected to a synthesizer. The organ transmits both commands of which key has been played and at what velocity to the synthesizer. Upon receiving this information the synthesizer will produce middle "C" at the proper volume.

The Control Switch Command

The control switch command tells how the VIBRATO and the organ's FOOT SWITCH have been operated. For example, set PROFOOT in the CARD SUSTAIN mode. Now play and hold middle "C" and press the PROFOOT foot switch and then release middle "C". The organ transmits, at the same time both of the commands of which key has been played and at what velocity to the synthesizer. Upon receiving this information the synthesizer will produce middle "C" with SUSTAIN.

The Note Switching Command

The note switching command specifies the numbers assigned to notes, Touch Buttons and switches of the MIDI slave instrument. For example, if you touch the PRE-SET KEY Number 01 (C#) on the organ it will select VOICE patch Number 1 of the synthesizer.

These three commands are transmitted and received by assigning them to 16 different MIDI channels. Because of this, they cannot be transmitted and received successfully unless the 16 MIDI channels of both MIDI master instrument and MIDI slave instrument are exactly the same. In the organ, it is possible to set 16 MIDI channels to the UPPER KEYBOARD, LOWER KEYBOARD and the PEDALS. This means that you can only transmit a maximum of three MIDI channels at one time. You may connect the organ to your MIDI slave instruments as you wish.

The MIDI inplementation of the Hammond Super B does not allow access to SYSTEM EXCLUSIVE information. SYSTEM EXCLUSIVE information are those features that are only found on a particular instrument by a particular manufacturer.

MIDI IMPLEMENTATION CHART

SYSTEM COMMON	Song Pos Song Sel	X X	X X	
REAL	Clock Command	O OStart, Stop, Cont	O OStart, Stop, Cont	Memorized
Ets.	Local Control All Notes Off Active Sense Reset	X O X X	X O X X	
NOTES	DEFAULT UPPER LOWER PEDAL	 CH1 CH5 CH9	 MIDIOUT, NRPC off MIDIOUT, NRPC off MIDIOUT, NRPC off	

MODE 1: OMNI ON, POLY MODE 2: OMNI ON, MONO O=YES
MODE 3: OMNI OFF, POLY MODE 4: OMNI OFF, MONO

NPRC MIDI IMPLEMENTATION

NRPC (lo)
Bx 62 OO

NRPC (hi) pp
00 LESLIE slow/fast
01 LESLIE reverb
02 VIBRATO 1
03 VIBRATO 2
10 SLOW ATTACK upper
11 PERCUSSION 2nd
12 PERCUSSION 3rd
14 PERCUSSION soft
15 PERCUSSION fast
20 CARD solo
21 CARD lower
22 CARD vol
30 PEDAL volume
40 PEDAL voice 1
41 PEDAL voice 2

NRPC (hi)
bX 63 pp

DATAENTY
Bx 06 dd

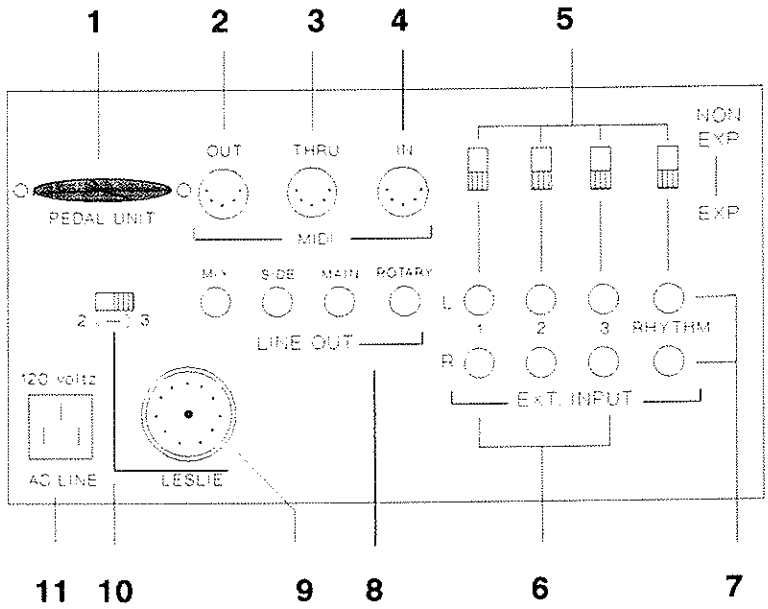
DATAENTY dd
00 off (SW TIPE)
7F on

00 min (VOL TIPE)
0F max

REFERENCE

ACCESSORY PANEL

The ACCESSORY PANEL is located under the LOWER keyboard on the right side of the organ.



1. PEDAL UNIT

The cable from the pedals is plugged into this socket.

2. MIDI OUT

Run a MIDI cable from the MIDI OUT connector to the MIDI IN connector of a MIDI slave instrument.

3. MIDI THRU

Run a MIDI cable from the MIDI OUT connector of a MIDI instrument or device to the MIDI THRU.

4. MIDI IN

Run a MIDI cable from the MIDI IN connector to the MIDI OUT or MIDI THRU connector of a MIDI compatible optional instrument.

5. NON-EXP / EXP

When an external device, such as a portable keybord, is used turn on EXP (switch down) in order to have the input device work with the EXPRESSION PEDAL and turn on NON EXP (switch up) in order to control the sound volume independently of the EXPRESSION PEDAL.

6. LINE IN

The organ has three Left and Right Audio inputs as well as EXP/NON EXP. You can run cables from the L (left) and R (right) stereo input connectors to the stereo output connectors of a MIDI compatible instrument. If the input device is monophonic, plug its cable into the L (left) input jack.

7. RHYTHM

The audio output of a drum machine can be fed through the Organ's speaker system. If the drum machine has only a single output, plug its cable into the L. (left) input jack.

8. LINE OUT

These jacks allow you to directly conncet the Super B to a tape recorder, P.A System or the input jack(s) of an audio device.

9. LESLIE CONNECTOR

The Leslie Speaker cord is plugged into this connector.

10. LESLIE CHANNEL SWITCH

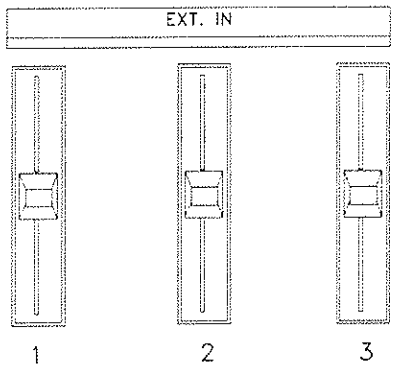
This switch allows you to select between a two channel or three channel Leslie Speaker.

11. AC LINE

The female end of the AC Power Cord is plugged into this socket

EXTERNAL VOLUME CONTROLS

These three SLIDER CONTROLS, located under the left Hidden Features Panel. These SLIDER CONTROLS are used to control the INPUT volume of an audio device that is plugged into its respective input jack, in relationship to the organ. Simply slide the SLIDER CONTROL up to increase the volume and down to decrease the volume.



SPECIFICATIONS

Keyboards
2 - 61 Note Keyboards
Pedals 25 Notes

Upper Keyboard
9 Tonebars - 16', 51/3', 8', 4', 22/3', 2', 13/5', 11/3', 1'

Touch Response Percussion - (2nd Harmonic, 3rd Harmonic, Percussion Soft, Percussion Fast Decay), Built in Piano Voice,

Voice Rom Card - Card Voice, Voice Solo, Lower Manual, 5 Step Volume Control

Preset Keys (C - A#)

Lower Keyboard
9 Tonebars - 16', 51/3', 8', 4', 22/3', 2', 13/5', 11/3', 1'

Preset Keys (C - A#)

Pedal
2 Tone Bars - 16', 8'

Pedal Voices - Wood Bass, Bass Guitar, 5 Step Volume Control

Presets - Preset I, Preset II

Effects
Vibrato - Vibrato I, Vibrato II, Vibrato I & II

Chorus - Chorus I, Chorus II, Chorus I & II

Leslie - Leslie Upper, Leslie Lower, Leslie Reverb, Leslie Fast

Sustain - Upper 5 Step, Lower 5 Step, Pedal 5 Step

Reverb - Slider Control

Controls
Slow Attack - Upper, Lower

Transpose - 6 Steps Up, 6 Steps Down

ProFoot - Leslie Fast, Card Voice, Solo Card, Voice Sustain, Midi Foot Switch, Rhythm

Master Volume Slider Control

External I II III, Input Slider Volume Controls

Display - Brightness Adjustment Control

Tone Control - Stationary, Rotary Adjustment Controls

Information Center Display
L.C.D. (2 line, 40 Characters, Back Lighted), Menu/Play 1, 2, 3, 4, 5, 6, 7, 8, Shift Select Touch Buttons

External Rhythm Control
Tempo Up, Tempo Down, Touch Start, Touch Reset, Continous, Start/Stop

MIDI
Upper - Zone 1 & 2, Patch Number, Midi Channel, Upper Limit, Lower Limit, Expression Level, Continous Velocity, Foot Switch

Lower - Zone 1 & 2, Patch Number, Midi Channel, Upper Limit, Lower Limit, Expression Level, Continous Velocity, Foot Switch

Pedal - Patch Number, Midi Channel, Expression Level

Wheels - Pitch Bend, Modulation

Memory Card Slot
Voice ROM Card, Preset RAM Card

External Connections
Midi In, Midi Out, Midi Thru, Leslie Output, External Inputs 1 2 3, Head Phone Jack, Expression Switchs 1 2 3, Microphone Input

Foot Switch
ProFoot Select Touch Pad

Dimensions
126(w) x 72(d) x 98.5(h) (CM)
49.6" x 28.3" x 38.7"

Weight
Console 73kg, Pedals & Bench 41kg

Power
110 Volts AC

Accessory
Special Bench, Voice Rom Cards, Setup RAM Cards

Finish
Real Walnut

INSTRUMENT CARE

CABINET AND BENCH

As with any piece of furniture, direct sunlight can damage the finish of your instrument. Use a soft dry cloth for dusting. To remove fingerprints or dulling film, use a soft cloth slightly moisten with water and a little mild soap. Immediately wipe dry with a soft dry cloth.

KEYS AND BUTTONS

To clean keys and buttons, use a clean soft cloth moistened with water. Do not use any solvents, thinners or dryers such as alcohol, gasoline, lighter fluid, carbon tetrachloride, etc. These solutions may affect the letters and/or finish on the buttons and keys.

MOVING YOUR INSTRUMENT

It is not necessary to bolt or fasten any parts of the instrument when moving. Careful consultation with your mover will assure you of a satisfactory moving job.

Hammond maintains a policy of continuous improvement and upgrading of its instruments and therefore reserves the right to change specifications without notice. Although every attempt has been made to insure the accuracy of the descriptive contents of this owners guide, total accuracy cannot be guaranteed. Should the player require further assistance, inquiries should be made to:

1. YOUR AUTHORIZED HAMMOND DEALER

2. HAMMOND SUZUKI USA
1121 North Main Street
Lombard, IL 60148

Technical materials are available and can be obtained by mailing a request to the address listed below:

HAMMOND SUZUKI USA
ATTENTION SERVICE DEPARTMENT
1121 North Main Street
Lombard, IL 60148

CAUTION: Service instructions are for use by qualified personnel only. To avoid risk of electric shock, the user should not perform any servicing or changing of the instrument's specifications other than those listed in this guide unless qualified to do so. All other servicing should be referred to qualified service personnel.