

### SPECIAL MESSAGE SECTION

This product utilizes batteries or an external power supply (adapter). DO NOT connect this product to any power supply or adapter other than one described in the manual, on the name plate, or specifically recommended by Yamaha.

This product should be used only with the components supplied or; a cart, rack, or stand that is recommended by Yamaha. If a cart, etc., is used, please observe all safety markings and instructions that accompany the accessory product.

#### **SPECIFICATIONS SUBJECT TO CHANGE:**

The information contained in this manual is believed to be correct at the time of printing. However, Yamaha reserves the right to change or modify any of the specifications without notice or obligation to update existing units.

This product, either alone or in combination with an amplifier and headphones or speaker/s, may be capable of producing sound levels that could cause permanent hearing loss. DO NOT operate for long periods of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.

IMPORTANT: The louder the sound, the shorter the time period before damage occurs.

#### NOTICE:

Service charges incurred due to a lack of knowledge relating to how a function or effect works (when the unit is operating as designed) are not covered by the manufacturer's warranty, and are therefore the owners responsibility. Please study this manual carefully and consult your dealer before requesting service.

#### **ENVIRONMENTAL ISSUES:**

Yamaha strives to produce products that are both user safe and environmentally friendly. We sincerely believe that our products and the production methods used to produce them, meet these goals. In keeping with both the letter and the spirit of the law, we want you to be aware of the following:

#### **Battery Notice:**

This product MAY contain a small non-rechargeable battery which (if applicable) is soldered in place. The average life span of this type of

battery is approximately five years. When replacement becomes necessary, contact a qualified service representative to perform the replacement.

This product may also use "household" type batteries. Some of these may be rechargeable. Make sure that the battery being charged is a rechargeable type and that the charger is intended for the battery being charged.

When installing batteries, do not mix batteries with new, or with batteries of a different type. Batteries MUST be installed correctly. Mismatches or incorrect installation may result in overheating and battery case rupture.

#### Warning:

Do not attempt to disassemble, or incinerate any battery. Keep all batteries away from children. Dispose of used batteries promptly and as regulated by the laws in your area. Note: Check with any retailer of household type batteries in your area for battery disposal information.

#### **Disposal Notice:**

**Purchase Date** 

Should this product become damaged beyond repair, or for some reason its useful life is considered to be at an end, please observe all local, state, and federal regulations that relate to the disposal of products that contain lead, batteries, plastics, etc. If your dealer is unable to assist you, please contact Yamaha directly.

#### NAME PLATE LOCATION:

The name plate is located on the bottom of the product. The model number, serial number, power requirements, etc., are located on this plate. You should record the model number, serial number, and the date of purchase in the spaces provided below and retain this manual as a permanent record of your purchase.

### PLEASE KEEP THIS MANUAL

92-BP

## FCC INFORMATION (U.S.A.)

### **IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!**

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.

#### **IMPORTANT:**

When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.

#### NOTE

This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to

the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices. Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

- Relocate either this product or the device that is being affected by the interference.
- Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter/s.
- In the case of radio or TV interference, relocate/reorient the antenna.
   If the antenna lead-in is 300 ohm ribbon lead, change the lead-in to co-axial type cable.

If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate retailer, please contact Yamaha Corporation of America, Electronic Service Division, 6600 Orangethorpe Ave, Buena Park, CA90620

• This applies only to products distributed by Yamaha Corporation of America.

## ····· Congratulations! ·····

You are the proud owner of a fine electronic keyboard. The Yamaha PSR-620 PortaTone combines the most advanced AWM tone generation technology with state-of-the-art digital electronics and features to give you stunning sound quality with maximum musical enjoyment. A new large graphic display and easy-to-use interface also greatly enhance the operability of this advanced instrument.

In order to make the most of your PortaTone's features and extensive performance potential, we urge you to read the manual thoroughly while trying out the various features described. Keep the manual in a safe place for later reference.

## ·····Important Features ······

- 141 outstanding voices with eight percussion kits.
- A Voice Set function automatically selects appropriate voice parameters whenever a voice is selected.
- 100 accompaniment styles, each with independent intro, main A and B, 4 fill-ins, and ending sections.
- Advanced auto-accompaniment technology gives you fully-orchestrated accompaniment to back up what you play on the keyboard.
- Large multi-function LCD display panel makes it easy to select and edit parameters.
- One Touch Setting feature instantly provides you with four types of registration settings, all
  of which match to the selected accompaniment style.
- Digital Effects Reverb, Chorus and DSP, let you freely create a variety of different sonic environments.
- Minus One, and Repeat functions are ideal for learning new songs and polishing your keyboard technique.
- Song recording feature lets you record two melody tracks with an accompaniment track.
- With the Multi Pads, you can play and record a number of short rhythmic and melodic sequences, to add a spice to your performance.
- Registration Memory saves 128 your favorite panel settings for instant recall when needed.
- Optional Yamaha Music Cartridges can be plugged in for enjoyable automated performance, keyboard practice, and extra accompaniment styles.
- Internal 3.5" floppy disk drive provides extended memory capacity and quick play capability.
- MIDI compatibility and a range of MIDI functions make the PSR-620 useful in a range of advanced MIDI music systems.
- Built-in amplifier and speaker system delivers top-quality sound without the need for external equipment.

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## .....Taking Care of Your PortaTone .....

Your PortaTone will give you years of playing pleasure if you follow the simple rules given below:

### ■ Location

Do not expose the instrument to the following conditions to avoid deformation, discoloration, or more serious damage.

- Direct sunlight (e.g. near a window).
- High temperatures (e.g. near a heat source, outside, or in a car during the daytime).
- Excessive humidity.
- Excessive dust.
- Strong vibration.

### ■ Power Supply

- Turn the power switch OFF when the instrument is not in use.
- An AC adaptor, if used (the PSR-620 runs from either batteries or an optional AC adaptor), should be unplugged from the AC outlet if the instrument is not to be used for an extended period of time.
- Unplug the AC adaptor during electric storms.
- Avoid plugging the AC adaptor into the same AC outlet as appliances with high power consumption, such as electric heaters or ovens. Also avoid using multi-plug adaptors since these can result in reduced sound quality, operation errors, and possibly damage.

## ■ Turn Power OFF When Making Connections

To avoid damage to the instrument and other devices to which it is connected, turn the power switches of all related devices OFF prior to connecting or disconnecting MIDI cables.

### **■** Handling and Transport

- Never apply excessive force to the controls, connectors or other parts of the instrument.
- Always unplug cables by gripping the plug firmly, not by pulling on the cable.
- Disconnect all cables before moving the instrument.
- Physical shocks caused by dropping, bumping, or placing heavy objects on the instrument can result in scratches and more serious damage.

### ■ Cleaning

- Clean the cabinet and panel with a dry soft cloth.
- A slightly damp cloth may be used to remove stubborn grime and dirt.
- Never use cleaners such as alcohol or thinner.
- Avoid placing vinyl objects on top of the instrument (vinyl can stick to and discolor the surface).

### **■** Electrical Interference

 This instrument contains digital circuitry and may cause interference if placed too close to radio or television receivers. If this occurs, move the instrument further away from the affected equipment.

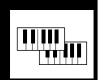
### ■ Data Backup

• Internal data (e.g. Registration Memory data) is retained in memory even if the power switch is turned OFF as long as backup batteries are installed or the AC plug is connected. The internal memory can, however, be corrupted by incorrect operation. Be sure to save important data to floppy disk frequently so you have a backup to revert to if the data in memory is accidentally damaged. Also note that magnetic fields can damage data on floppy disks, so it is advisable to make a second backup copy of disks that contain particularly important data. Always keep backup disks in a safe place away from stray magnetic fields (e.g. those produced by speakers, appliances containing motors, etc.). More important precautions for floppy disk use are given in the "Floppy Disk" section begining on page 64.

### ■ Service and Modification

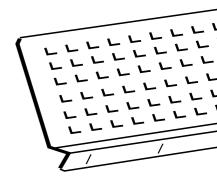
The PSR-620 contains no user serviceable parts. Opening it or tampering with it in anyway can lead to irreparable damage and possibly electric shock. Refer all servicing to qualified YAMAHA personnel.

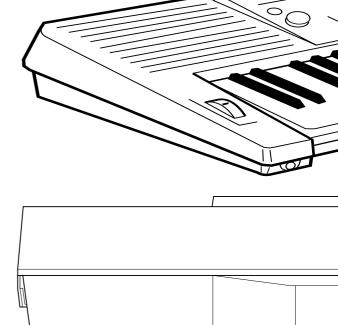
YAMAHA is not responsible for damage caused by improper handling or operation.



# **Panel Controls**

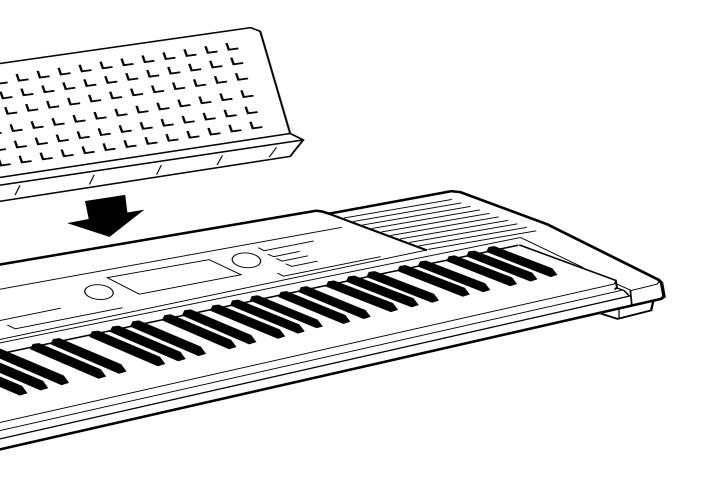
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0	POWER Switch	page	e 8
0	MASTER VOLUME Control	page	e 8
8	DEMO Button	page	e 9
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8	<ul> <li>SONG Section</li> <li>REC Button page</li> <li>PLAY/STOP Button page 48</li> <li>REPEAT PLAY Button page</li> <li>MINUS ONE Button page</li> </ul>	, 51, page	52 75
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0	CURSOR ▲, ▼, ◀, ▶ Buttons	page	10
0	TEMPO ▲, ▼ Buttons	oage	34
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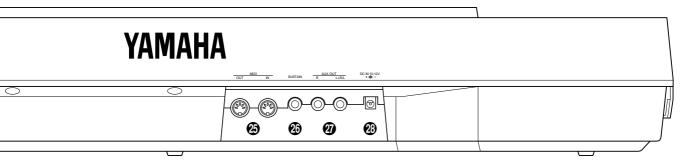




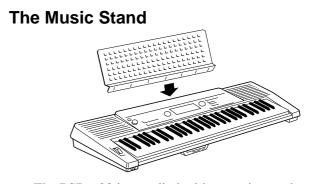
0	VOICE Button	page 12
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---- Panel Controls





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② Disk Drivepage 64
■ Rear Panel Controls
MIDI OUT and IN Connectorspage 7, 81
3 SUSTAIN Jack page 7
AUX OUT R, L+R/L Jacks page 7
DC IN 10-12V Jackpage 6



The PSR-620 is supplied with a music stand that can be attached to the instrument by inserting it into the slot at the rear of the control panel.



# **Setting Up**



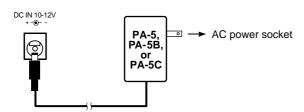
This section contains information about setting up your PSR-620 and preparing to play. Be sure to go through this section carefully before using your PSR-620.

### **Power Supply**

Your PSR-620 will run either from batteries or an optional power adaptor. Follow the instructions below according to the power source you intend to use.

### ■ Using An Optional AC Power Adaptor

Plug the DC output cable from an optional Yamaha PA-5, PA-5B, or PA-5C AC Power Adaptor into the **DC IN** jack on the rear panel of the PSR-620, then plug the Power Adaptor (or the AC cable of the Power Adaptor) into a convenient wall AC power socket. The internal batteries are automatically disconnected when an AC Power Adaptor is used.



### **X** CAUTION

 Never interrupt the power supply (e.g. remove the batteries or unplug the AC adaptor) during any PSR-620 record operation! Doing so can result in a loss of data.



Use ONLY a Yamaha PA-5, PA-5B, or PA-5C AC Power Adaptor to power your instrument from the AC mains. The use of other adaptors may result in irreparable damage to both the adaptor and the PSR-620.

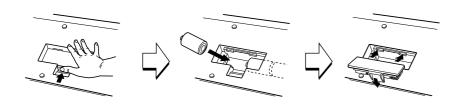
### ■ Using Batteries...

For battery operation the PSR-620 requires six 1.5V SUM-1, "D" size, R-20 or equivalent batteries.

When the batteries need to be replaced "Btry Low" will appear on the display. Also the volume may be reduced, the sound may be distorted, and other problems may occur. When this happens, turn the power OFF and either replace the batteries or connect an AC adaptor.

Replace the batteries as follows:

- 1 Open the battery compartment cover located on the instrument's bottom panel.
- 2 Insert the six new batteries, being careful to follow the polarity markings on the inside of the compartment.
- **3** Replace the compartment cover, making sure that it locks firmly in place.



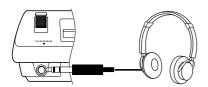
### **CAUTION**

- When the batteries run down, replace them with a complete set of six new batteries.

  NEVER mix old and new batteries
- Do not use different kinds of batteries (e.g. alkaline and manganese) at the same time.
- To prevent possible damage due to battery leakage, remove the batteries from the instrument if it is not to be used for an extended period of time.

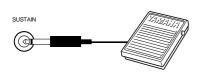
### Connections

### ■ The PHONES Jack.



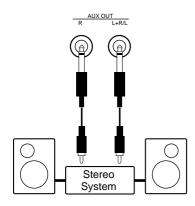
A standard pair of stereo headphones can be plugged in here for private practice or late-night playing. The internal stereo speaker system is automatically shut off when a pair of headphones is plugged into the **PHONES** jack.

### ■ SUSTAIN Jack...



An optional Yamaha FC4 or FC5 footswitch can be plugged into the rearpanel **SUSTAIN** jack for sustain control. The footswitch functions like the damper pedal on a piano — press for sustain, release for normal sound.

### ■ AUX OUT R and L+R/L Jack.....



The AUX OUT R and L+R/L jacks deliver the output of the PSR-620 for connection to an external amplifier, mixing console, PA system, or recording equipment. If you will be connecting the PSR-620 to a monophonic sound system, use only the L+R/L jack. When a plug is inserted into the L+R/L jack only, the left- and right-channel signals are combined and delivered via the L+R/L jack so you don't lose any of the instrument's sound.

### ■ MIDI IN and OUT Connectors ......



The **MIDI IN** connector receives MIDI data from an external MIDI device (such as a MIDI sequencer) which can be used to control the PSR-620. The **MIDI OUT** connector transmits MIDI data generated by the PSR-620 (e.g. note and velocity data produced by playing the keyboard). More details on MIDI are provided on page 81.

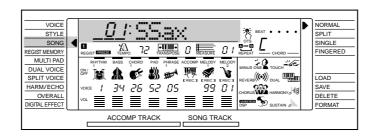


 Be sure that you do not press the pedal while turning the power ON. If you do, the ON/OFF status of the footswitch will be reversed.



## The Demonstration.

Once you've set up your PSR-620, try listening to the pre-programmed demonstration songs — they'll give you a good idea of what the PSR-620 can do! A total of 25 demo songs are provided — songs 01 through 17 have been created to demonstrate several of the instrument's voices, while songs 18 through 25 demonstrate a range of accompaniment styles.



## 1 Switch ON

Turn the power ON by pressing the [POWER] switch.



## $\it 2$ Set an Initial Volume Level....

Turn the [MASTER VOLUME] control up (clockwise) about a quarterturn from its minimum position. You can re-adjust the [MASTER VOL-UME] control for the most comfortable overall volume level after playback begins.



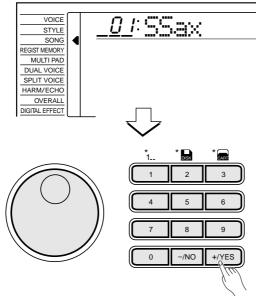
## $oldsymbol{3}$ Press the [DEMO] Button\_\_\_\_\_

Press the **[DEMO]** button to start demo playback. The PSR-620 SONG function will automatically be selected and the number and name of the first demo song will appear on the top line of the display and the SONG **[PLAY/STOP]** indicator will light. The demo will begin playing automatically. The demo songs will play in sequence, and the sequence will repeat until stopped.



## $m{4}$ Skip to the Beginning Of a Different Demo Song......

While the demonstration is playing you can select any of the 25 demo songs by using the [-/NO] and [+/YES] buttons, the number buttons or the data dial. Playback will skip to the beginning of the selected song.



## $oldsymbol{5}$ Exit When Done

Press the **[DEMO]** button, the SONG **[PLAY/STOP]** button, or the AUTO ACCOMPANIMENT **[START/STOP]** button to stop demo playback, then press the **[VOICE]** button to exit from the SONG function and return to the normal play-mode display when you've finished playing the demo songs.





- You can play along on the PSR-620 keyboard while the demonstration is playing.
- The volume bars of the song tracks at the bottom of the display will move in response to the data in each track while the demo plays.
- When playing demo songs which use the PSR-620 internal accompaniment styles:
  - \* Chord names will appear on the display and the volume bars of the accomp. tracks will move in response to the data in each track while the demo plays.
  - \* The harmony effect (see page 20) can be applied when playing along with the chord progression of the song.



 When you stop demo song sequence playback and start again by pressing the [PLAY/STOP] button, only the current song will play, then playback will stop automatically.



# **Basic Display Operation**

The PSR-620 LCD panel is a large multi-function type that simultaneously displays and provides access to a number of important parameters. Basic operation of the display as well as the CURSOR, FUNCTION, MODE, JOB SELECT and NUMBER buttons, and the meaning of the icons which appear in the display, are summarized briefly below.

#### **The Cursor Buttons**

The CURSOR buttons are used to select the various parameters which appear in the display. Depending on the selected parameter, the "cursor" may appear as an underline, or the selected icon or value may simply flash. Each CURSOR button moves the cursor in the corresponding direction. The [▲] and [▼] CURSOR buttons are also used to select functions within the function groups selected by the FUNCTION buttons in some cases.

#### **Parameter Icons**



#### DISK (Disk)

Appears when a Disk song, style, multi pad or registration is selected (page 64).



#### CART (Cartridge)

Appears when a Music Cartridge song, style, or registration memory is selected (page 60).

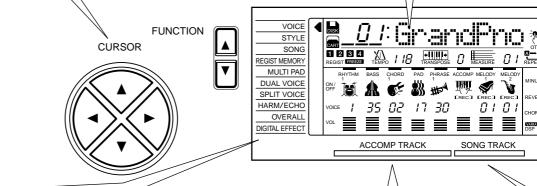
#### **BEAT**



 Flashes at the current tempo and indicates the current beat during accompaniment and song playback. (page 36)

### **The Functions**

The PSR-620 has a range of functions selected via the FUNCTION [▲] and [▼] buttons - e.g. voice selection, style selection, song number selection, etc. The currently selected function is indicated by an arrow in the display next to the function list printed immediately to the left of the display. All of the listed functions can be selected by pressing either the FUNCTION [▲] or [▼] button as many times as necessary until the arrow in the display appears next to the name of the desired function.



### **Accompaniment Track Parameters & Icons**

The PSR-620 has 8 accompaniment tracks (RHYTHM1/2, BASS, CHORD1/2, PAD, and PHRASE1/2), each with ON/OFF, voice number, and volume parameters that can be set as required (page 38). The icons, drums for RHYTHM1 and 2, an acoustic applied bass for BASS, an electric guitar for CHORD1 and 2, violins for PAD, a trumpet for PHRASE 1 and 2, will appear when the respective track is ON.





#### **OTS (One Touch Setting)**

Appears when the ONE TOUCH SETTING feature is engaged (page 42).



### **REGIST (Registration Memory)**

Indicates the currently selected REGISTRATION MEMORY number (page 45).

### **TEMPO**



Shows the current tempo of accompaniment/song playback (page 34).



#### **TRANSPOSE**

The current transpose value (page 23).

#### **MEASURE**



Indicates the current measure number during song recording and playback (page 53).

#### **REPEAT**

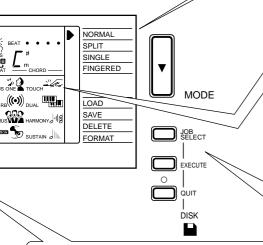


Indicates the "A" and "B" repeat points when programming a repeat section. (page 75)



#### **CHORD**

Indicates the current chord name during accompaniment/ song playback (page36)



### **Song Track Parameters & Icons**

Like the accompaniment tracks, each of the 3 song tracks has ON/OFF, voice number (MELODY tracks), and volume parameters that can be set as required (page 46). Each track has its own icon which appears when the track is ON.

ACCOMP MELODY MELODY







#### The Modes

The MODE button to the right of the display selects one of the PSR-520's four operational modes: NORMAL, SPLIT, SINGLE, and FINGERED. The currently selected mode is indicated by an arrow in the display next to the mode list printed immediately to the right of the display. All of the listed modes can be selected by pressing the MODE button as many times as necessary until the arrow in the display appears next to the name of the desired mode.

**NORMAL:** The normal play mode (page 12).

**SPLIT:** The split-keyboard mode in which different voices can

be played by the left and right hands (page 15).

**SINGLE:** The single-finger accompaniment mode which allows

fully-orchestrated accompaniment to be produced by specifying chords using only one, two or three fingers

(page 31).

FINGERED: The fingered accompaniment mode in which fully-or-

chestrated accompaniment is produced according to chords you play on the keyboard (page 31).

#### Feature On/Off Icons



#### MINUS ONE

Appears when the MINUS ONE feature is ON (page 74).



#### **REVERB**

Appears when the REVERB EFFECT is ON (page 24).



#### CHORUS

Appears when the CHORUS EFFECT is ON (page 24).



#### DOD

Appears when the DSP EFFECT is ON (page 24).



### TOUCH (Touch Response)

Appears when the TOUCH RESPONSE is ON (page 17).



#### \_\_\_\_\_\_

DUAL (Dual Voice)

Appears when the DUAL VOICE feature is ON (page 17).



#### HARMO

ılg N

Appears when the HARMONY/ECHO is ON (page 20).

#### SUSTAIN



Appears when the SUSTAIN is ON (page 22).

### **The Disk Functions**

The [JOB SELECT] button to the right of the display selects one of the PSR-620's four disk jobs: LOAD, SAVE, DELETE and FORMAT. The currently selected job is indicated by an arrow in the display next to the disk job list printed immediately to the right of the display. All of the listed jobs can be selected by pressing the [JOB SELECT] button as many times as necessary until the arrow in the display appears next to the name of the desired job.

**LOAD:** Loads data from floppy disk (page 68).

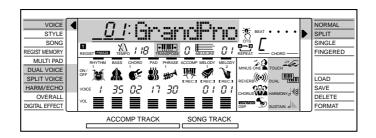
**SAVE:** Saves the specified data to floppy disk (page 66).

**DELETE:** Deletes a specified data file from the floppy disk (page 72).

FORMAT: Formats a disk for use with the PSR-620 (page 65).



# **Playing the PSR-620**

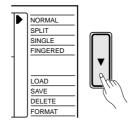


### **Selecting & Playing Voices**

The PSR-620 has 141 outstanding "pitched" voices (voice numbers 01 through 141) and 8 percussion kits (numbers 142 through 149) that you can select and play on the keyboard.

## Select the NORMAL Mode

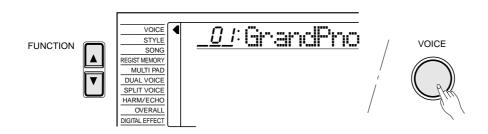
If you want to play a single voice over the entire range of the PSR-620 keyboard, you'll need to select the NORMAL mode. To do this, press the **[MODE]** button to the right of the display as many times as necessary until the arrow in the display appears next to "NORMAL" in the mode list to the right of the display. The other modes will be described later in this manual.



### $\it 2$ Select the VOICE Function ...

Before you select a voice to play, the PSR-620 voice function must be selected. The simplest way to do this is to press the **[VOICE]** button. This immediately selects the VOICE function no matter what function was previously selected.

An alternative method is to press the **[FUNCTION]** button to the left of the display as many times as necessary until the arrowhead in the display appears next to "VOICE" in the function list to the left of the display.





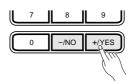
 "Kybd Vol" function (see page 77) in the OVERALL function group can be quickly selected by pressing and holding the [VOICE] button.

## 3 Select a Voice...

The PSR-620 has 149 voices that can be selected by using either the [-/NO] and [+/YES] buttons, the number buttons or the data dial. The voices are listed in the VOICE list printed at the top of the instrument's control panel. The number and name of the currently selected voice appears on the top line of the display panel while the VOICE function is selected.

### ● The [-/NO] and [+/YES] Buttons

When the VOICE function is selected these buttons step up or down through the PSR-520's voices. Press either button briefly to step to the next voice in the corresponding direction, or hold the button to scroll rapidly through the voices in the corresponding direction.



### The Number Buttons

The number buttons can be used to directly enter the number of the desired voice, thereby immediately selecting that voice without having to step through a number of other voices.

Two-digit voice numbers (i.e. "01" through "99") are selected simply by entering the two digits in sequence — e.g. to select voice number "57", briefly press the [5] buttons and then the [7] button.



Three-digit voice numbers (i.e. "100" through "149") are entered by first pressing and holding the [1] button until "1" appears in the hundreds position on the display, then press the remaining two digits in sequence.





Voice numbers 150 ~ 151 exclusively can be used as the dual voice — see page 19.

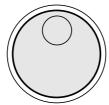


- Whenever you select a new voice, the appropriate voice-related parameters for that voice will be set automatically. This is the PSR-620 Voice Set function. The Voice Set function can be turned OFF if not required page 79.
- The stereo pan position of the voice can be set via the "Pan" function in the OVERALL function group — see page 78.

### Playing the PSR-620

#### The Data Dial

This is undoubtedly the easiest way to select a voice. Simply rotate the dial clockwise to increment or counter-clockwise to decrement.



# 4Play & Adjust Volume\_\_\_\_\_

You can now play the selected voice on the PSR-620 keyboard. Use the **[MASTER VOLUME]** control to adjust the overall volume level.



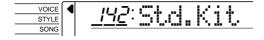
 The optimum octave settings (OVERALL function: octave=0) are set for each voice (except for the keyboard percussion voices).



 The keyboard volume can be adjusted independently from the accompaniment volume via the "Kybd Vol" function in the OVER-ALL function group — see page 77. "Kybd Vol" function can be quickly selected by pressing and holding the [VOICE] button.

### **■** Keyboard Percussion

When one of the eight PERCUSSION KIT voices are selected — voice numbers 142 through 149 — you can play drums and percussion instruments on the keyboard. The drums and percussion instruments played by the various keys are marked by symbols below the keys.



### The Percussion Kits

142	Standard Kit
143	Room Kit
144	Rock Kit
145	Electronic Kit
146	Analog Kit
147	Jazz Kit
148	Brush Kit
149	Classic Kit

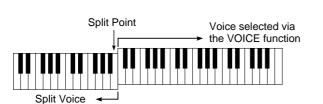
### NOTES

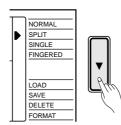
- The Harmony/Echo and Dual functions (pages 20 and 17) cannot be turned ON while a keyboard percussion voice is selected, and will automatically be turned OFF if a keyboard percussion voice is selected while they are ON.
- The TRANSPOSE parameter (page 23) has no effect on the keyboard percussion voices.
- See page 98 for a complete listing of the keyboard percussion drum instrument assignments.

### The Split Mode

The SPLIT mode lets you play different voices with the left and right hands. You could, for example, play bass with the left hand while playing piano with the right. The right-hand voice is the keyboard voice you select in the normal way (page 12), and the left hand voice is selected via the SPLIT VOICE function, described below. The "split point" is initially set at B2 (note number 59), but it can be set at any key on the keyboard.

The SPLIT mode is engaged by pressing the [MODE] button so that the arrow in the display appears next to "SPLIT" in the mode list to the right of the display.







The SPLIT mode and DUAL VOICE features (page 17) can be used at the same time. In this case the dual voice plays simultaneously with the right-hand voice only.

The SPLIT mode and DUAL VOICE features.

The SPLIT mode features.

The SPLIT mode features.

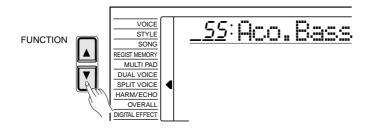
The SPLIT mode features.

Th

### **Changing the Split Voice & Related Parameters**

## 1 Select the SPLIT VOICE Function...

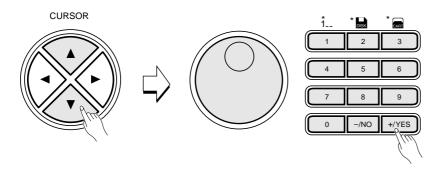
Press the **[FUNCTION]** button to the left of the display as many times as necessary until the arrowhead in the display appears next to "SPLIT VOICE" in the function list to the left of the display.



## 2Select the Function and Set As Required.

Use the cursor  $[\blacktriangle]$  and  $[\blacktriangledown]$  buttons to select the desired function, and then the [-/NO] and [+/YES] buttons, the number buttons or the data dial to set as required (the name of the selected function and its current setting appear on the top line of the display).

### Playing the PSR-620



Function	Description
Split Voice	The split voice can be changed as required while the number and name of the current split voice appear on the top line of the display.
S.Volume	Sets the volume of the split voice so you can create the optimum blend with the right-hand voice. The volume range is from "00" (no sound) to "127" (maximum split voice volume).
S.Octave	Shifts the pitch of the split voice up or down one or two octaves. "-1" is down one octave, "-2" is down two octaves; "+1" and "+2" are up one and two octaves, respectively.
S.RevLvl	Sets the reverb send level for the split voice. The reverb send level determines the amount of signal sent to the reverb effect. The range is from "00"(no effect) to "127" (maximum effect).
S.ChoLvl	Sets the chorus send level for the split voice. The chorus send level determines the amount of signal sent to the chorus effect. The range is from "00" (no effect) to "127" (maximum effect).
S.Pan	Positions the split voice in the stereo sound field. The pan range is from "-7" to "+7". "-7" is full left and "+7" is full right.
S.Split	Sets the keyboard split point — i.e. the key that separates the left- and right-hand voices (the split-point key is included in the left-hand section of the keyboard). Simply press the key you want to assign as the split point. The key number of the key you press will appear to the left of "S.Split" on the top line of the display. You can also use the [–/NO] and [+/YES] buttons, the number buttons or the data dial to enter the split point key number. The lowest key on the keyboard (C1) is key number "36", middle C (C3) is "60", and the highest key (C6) is "96". The split point can be set at any key number from 00 through 127, allowing the split point to be set outside the range of the PSR-620 keyboard for MIDI applications. The default split point is 59 (B2).

### NOTES

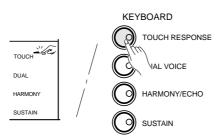
- If the Voice Set function is ON (page 79), the Split Voice parameters will change automatically whenever a different keyboard voice is selected.
- The selected Split Voice parameter can be reset to its default value by simultaneously pressing the [-/NO] and [+/YES] buttons.
- Negative "S.Octave" and "S.Pan" parameters can be entered by pressing the number buttons while holding the [-NO] button.
- Reverb and chorus return levels can be changed via "RevRtnLv" and "ChoRtnLv" in the DIGITAL EFFECT function - see pages 25 and 27.

### $oldsymbol{3}$ Exit

Press the **[VOICE]** button or select a different function to exit from the SPLIT VOICE function.

### **Touch Response**

This function turns the touch response of the keyboard ON or OFF. Use the KEYBOARD [TOUCH RESPONSE] button to turn TOUCH RESPONSE ON or OFF as required. The touch-response icon will appear next to "TOUCH" in the display when TOUCH RESPONSE is turned ON. The actual touch response sensitivity of the keyboard can be adjusted via the "TouchSns" function in the OVERALL function group (page 79). When OFF (i.e. when the touch-response icon is not showing) the same volume is produced no matter how hard you play on the keyboard. Touch response can be turned OFF to produce a more realistic effect with voices that normally do not have touch response: e.g. organ and harpsichord.



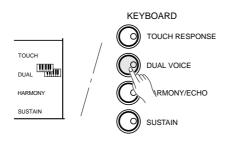


- Touch Response is turned ON whenever the power switch is turned ON.
- The "TouchSns" function in the OVERALL function group can be quickly selected by pressing and holding the [TOUCH RE-SPONSE] button.

### **Dual Voice**

When the DUAL VOICE feature is engaged you can play two voices simultaneously across the entire keyboard — the keyboard voice you select in the normal way (page 12), and a "dual" voice selected via the DUAL VOICE function.

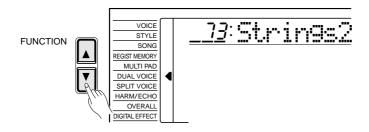
The DUAL VOICE feature is turned ON and OFF by pressing the **[DUAL VOICE]** button. The dual-voice icon (overlapping keyboards) will appear next to "DUAL" in the display when DUAL VOICE is turned ON.



### Changing the Dual Voice & Related Parameters —

## 1 Select the DUAL VOICE Function

Press the **[FUNCTION]** button to the left of the display as many times as necessary until the arrowhead in the display appears next to "DUAL VOICE" in the function list to the left of the display.

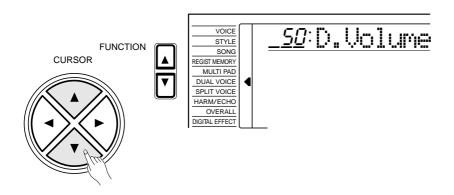


### NOTES

 "DUAL VOICE" function can be quickly selected by pressing and holding the [DUAL VOICE] button.

## $\it 2$ Select the Function and Set As Required

Use the cursor  $[\blacktriangle]$  and  $[\blacktriangledown]$  buttons to select the desired function, and then the [-/NO] and [+/YES] buttons, the number buttons or the data dial to set as required (the name of the selected function and its current setting appear on the top line of the display).



Function	Description
Dual Voice	The dual voice can be changed as required while the number and name of the current dual voice appear on the top line of the display.  The PSR-620 has 143 dual voices (voice numbers 01141 and 150151). Voice numbers 150151 exclusively can be used as the dual voice.
D.Volume	Sets the volume of the dual voice so you can create the optimum blend with the main keyboard voice. The volume range is from "00" (no sound) to "127" (maximum dual voice volume).
D.Octave	Shifts the pitch of the dual voice up or down one or two octaves. "-1" is down one octave, "-2" is down two octaves; "+1" and "+2" are up one and two octaves, respectively. The original octave of the dual voice is determined by the "Octave" function in the OVERALL function group — page 77.
D.RevLvl	Sets the reverb send level for the dual voice. The reverb send level detrmines the amount of signal sent to the reverb effect. The range is "00"(no effect) to "127"(maximum effect).
D.ChoLvl	Sets the chorus send level for the dual voice. The chorus send level determines the amount of signal sent to the chorus effect. The range is "00" (no effect) to "127" (maximum effect).
D.Pan	Positions the dual voice in the stereo sound field. The pan range is from "-7" to "+7". "-7" is full left and "+7" is full right.



- If the Voice Set function is ON (page 79), the Dual Voice parameters will change automatically whenever a different voice is selected via the VOICE function.
- Keyboard percussion voices cannot be used as the dual voice.
- The selected Dual Voice parameter can be reset to its default value by simultaneously pressing the [-/NO] and [+/YES] buttons.
- The octave of the main and dual voices can be changed via the "Octave" function in the OVER-ALL function group — page 77.
- Negative "D.Octave" and "D.Pan" parameters can be entered by pressing the number buttons while holding the [-/NO] button.
- Reverb and chorus return levels can be changed via "RevRtnLv" and "ChoRtnLv", respectively, in the DIGITAL EFFECT functionsee pages 25 and 27.

 $oldsymbol{3}$ Exit .....

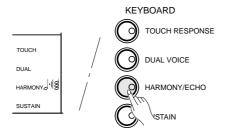
Press the **[VOICE]** button or select a different function to exit from the DUAL VOICE function.

### Harmony/Echo

The harmony effects (01...10) automatically add appropriate harmony notes to the melody line you play on the keyboard. The harmony is derived from the chords you play on the left hand parts.

The echo effects (11...22) add delay-based effects to the right hand melody parts.

Press the **[HARMONY/ECHO]** button to turn the HARMONY/ECHO effect ON or OFF. When HARMONY/ECHO is turned ON, the harmony icon will appear next to "HARMONY" in the display.



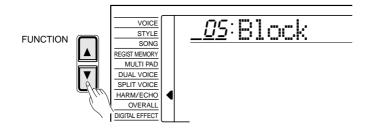


- Harmony/Echo effect can not be turned ON when a keyboard percussion kit is selected for the Voice.
- Harmony can not be used when the Auto Accompaniment Chord Cancel function (page 32) is in use.
- Harmony does not apply in the NORMAL mode.
- Harmony can be used in the SPLIT mode as well as in the SINGLE and FINGERED modes.
- The Harmony/Echo effect can not be turned ON when the FIN-GERED FULL mode (page 33) is in use and will automatically be turned OFF when the FINGERED FULL mode is selected.

### Selecting a Harmony/Echo Type

## 1 Select the Harmony/Echo Function.....

Press the **[FUNCTION]** button to the left of the display as many times as necessary until the arrowhead in the display appears next to "HARM/ECHO" in the function list to the left of the display.



You can also select the HARM/ECHO function by pressing and holding the [HARMONY/ECHO] button until the arrow jumps to the "HARM/ECHO" position and the current harmony/echo name appears in the display.

# $\it 2$ Select a Harmony/Echo Type

Use the [-/NO] and [+/YES] buttons, the number buttons or the data dial to select one of the available harmony/echo types (listed below).

### ■ The Harmony(01...10) & Echo(11...22) Types

Туре	Description		
01: Duet	This harmony type produces a duophonic melody second voice below the melody line.	with the	
02: 1+5	A parallel voice is produced a fifth above the melo	dy voice.	
03: Country	Similar to Duet, but the second voice is above the line.	melody	
04: Trio	This harmony type generates two voices in additional melody voice.	This harmony type generates two voices in addition to the melody voice.	
05: Block	Three or four notes are added to the melody to profour or five-note chords.	oduce	
06: 4WayClose1	Three harmony notes are generated to produce a chord.	four-note	
07: 4WayClose2	Similar to the preceding type, but depending on the played this type will sometimes produce a more consound.		
08: 4WayOpen	Four-note chords with open voice (large intervals between the notes). The result is a very "open" sound. Since the harmony notes can be as much as two octaves below the melody, avoid playing in the lower registers.		
09: Octave	One note is added an octave below the melody.		
10: Strum	The notes and assignments are the same as in the Block type, but the notes are arpeggiated.		
11: Echo1/4	This type creates quarter-note delayed repeats.	J	
12: Echo1/6	This type creates quarter-note triplet delayed repeats.		
13: Echo1/8	This type creates 8th-note delayed repeats.	<b>,</b>	
14: Echo1/12	This type creates 8th-note triplet delayed repeats.		



- If the VOICE SET function is ON (page 79), the harmony/echo type will change automatically whenever a different voice is selected via the VOICE function.
- The harmony/echo type can be reset to its default by simultaneously pressing the [-/NO] and [+/ YES] buttons.

### Playing the PSR-620

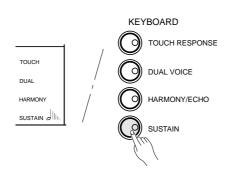
Туре	Description	
15: Tremolo1/8	This type creates 8th-note tremolos.	<b>)</b>
16: Tremolo1/12	This type creates 8th-note triplet tremolos.	
17: Tremolo1/16	This type creates 16th-note tremolos.	A
18: Tremolo1/32	This type creates 32nd-note tremolos.	,
19: Trill1/12	This type creates 8th-note triplet trilled repeats.	
20: Trill1/16	This type creates 16th-note trilled repeats.	Ą
21: Trill1/24	This type creates 16th-note triplet trilled repeats.	<b>F</b>
22: Trill1/32	This type creates 32nd-note trilled repeats.	A



Press the **[VOICE]** button or select a different function to exit from the HARM/ECHO function.

### Sustain

When the Sustain feature is ON (the sustain icon will appear next to "SUSTAIN" in the display), all notes played on the keyboard have a longer sustain. Press the [SUSTAIN] button to turn the SUSTAIN effect ON or OFF.





Sustain does not apply to some voices.

### **Transposition**

This functions allow the overall pitch of the PSR-620 to be transposed up or down by a maximum of one octave in semitone increments.

## $\emph{1}$ Move the Cursor to the Transpose Value \_\_\_\_\_

Use the **CURSOR** buttons to select the number to the right of the key-board icon labelled "TRANSPOSE" on the display (the number will flash when selected).

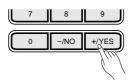


### NOTES

- Press the [-/NO] and [+/YES] buttons simultaneously to instantly reset the transpose value to "0"
- The new transpose value will apply from the next note played.

## 2Set the Transposition As Required

Use the [−/**NO**] and [+/**YES**] buttons, the number buttons or the data dial to set the desired degree of transposition. The transpose range is from −12 to +12, allowing a maximum upward or downward transposition of 1-octave. A setting of "0" produces the normal pitch.



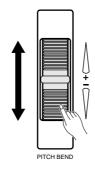
### NOTES

 Negative values can be entered by pressing the number buttons while holding the [-/NO] button.

### **Pitch Bend**

The **PITCH BEND** wheel to the left of the keyboard allows the pitch of notes played on the keyboard to be bend up or down - roll the wheel away from you to bend up, and toward you to bend down.

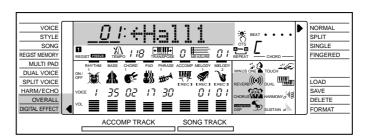
The actual pitch bend range can be adjusted via the "PBRange" function in the OVERALL function group (page 80).





# **Digital Effects**

The PSR-620 provides a variety of Digital Effects — 12 Reverb Effects, 9 Chorus Effects and 45 DSP Effects — which can add tremendous variety to your sound.



### **Using the Digital Effects**

The digital effects can be turned ON or OFF by pressing the **[RE-VERB]** button, **[CHORUS]** button and **[DSP]** button respectively. Each DSP effect has a variation which can be accessed by using the **[DSP VARIATION]** button. The appropriate icon(s) will appear in the display when the effects are turned ON.



- The [REVERB], [CHORUS] and [DSP] buttons turn the effects applied to the VOICE function voice ON or OFF.
- If the Voice Set function (page 79) is ON, the REVERB, CHORUS, and DSP VARIATION ON/OFF status will be set automatically. DSP will be turned ON whenever a different voice is selected via the VOICE function.



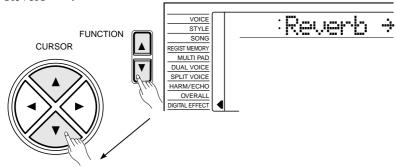


### **Changing the Reverb Effect**

### **Selecting the Reverb Effect Type**

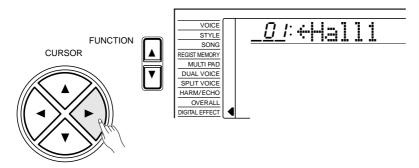
## Select the Reverb Type Function...

Press the **[FUNCTION]** button to the left of the display as many times as necessary until the arrowhead in the display appears next to "DIGITAL EFFECT" in the function list to the left of the display, and use the cursor  $[\blacktriangle]$  and  $[\blacktriangledown]$  buttons to select the Reverb Type function, "Reverb  $\rightarrow$ ".



## $\it 2$ Select the Reverb Type

Use the cursor [▶] button to enter the Reverb Type function and then select one of the 13 reverb types using the [–/NO] and [+/YES] buttons, the number buttons or the data dial. The name of the selected reverb type appears on the top line of the display.



You can also enter the Reverb Type function by pressing and holding the **[REVERB]** button until the arrow jumps to the "DIGITAL EFFECT" position and the current reverb type name appears in the display.

## $oldsymbol{3}$ Exit

Press the **[VOICE]** button or select a different function to exit from the DIGITAL EFFECT function.

### NOTES

- See page 89 for a complete listing of the reverb types.
- The default reverb type can be recalled simultaneously pressing the [-/NO] and [+/YES] buttons.
- You can return to the previous display, "Reverb→", by pressing the cursor [◄] button, and choose the CHORUS or DSP effect.
- The Reverb type will change automatically whenever a different style is selected.
- If you want to disable the reverb effect for all except the VOICE function voice, select OFF in the Type selection.

### The Reverb Types

01~04	Hall 1~4
05~08	Room 1~4
09, 10	Stage 1, 2
11, 12	Plate 1, 2
13	OFF

### **Setting the Reverb Return Level** -

The reverb return level determines the amount of "wet" (effect) signal output to the amplifier.

## Select the Reverb Return Level Function

Press the **[FUNCTION]** button to the left of the display as many times as necessary until the arrowhead in the display appears next to "DIGITAL EFFECT" in the function list to the left of the display, and use the cursor  $[\blacktriangle]$  and  $[\blacktriangledown]$  buttons to select the Reverb Return Level function.



## 2Set the Reverb Return Level

Use the [-/NO] and [+/YES] buttons, the number buttons or the data dial to set the desired reverb return level. The range is from "00" to "127".

## $oldsymbol{3}$ Exit

Press the **[VOICE]** button or select a different function to exit from the DIGITAL EFFECT function.



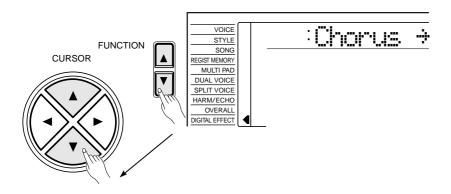
- See page 88 for more details on the Digital Effects.
- The reverb return level specified here affects the entire setting. The reverb send level, however, can be independently applied to the voice selected via the VOICE function, the split voice and the dual voice via "RevLevel" in the OVERALL function group, "S.RevLvl" in the SPLIT VOICE function, and "D.RevLvl" in the DUAL VOICE function (see pages 88, 16 and 19).
- The default reverb return level =64 can be recalled instantly by pressing both the [-/NO] and [+/ YES] buttons simultaneously.

### **Changing the Chorus Effect**

### - Selecting the Chorus Effect Type

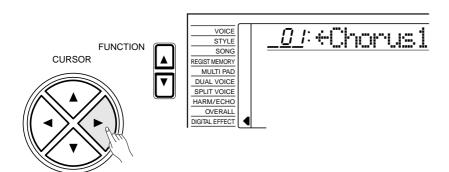
## 1 Select the Chorus Type Function

Press the **[FUNCTION]** button to the left of the display as many times as necessary until the arrowhead in the display appears next to "DIGITAL EFFECT" in the function list to the left of the display, and use the cursor  $[\blacktriangle]$  and  $[\blacktriangledown]$  buttons to select the Chorus Type function, "Chorus  $\rightarrow$ ".



## 2Select the Chorus Type .....

Use the cursor [▶] button to enter the Chorus Type function and then select one of the 10 chorus types using the [–/NO] and [+/YES] buttons, the number buttons or the data dial. The name of the selected chorus type appears on the top line of the display.



You can also enter the Chorus Type function by pressing and holding the **[CHORUS]** button until the arrow jumps to the "DIGITAL EFFECT" position and the current chorus type name appears in the display.



- See page 89 for a complete listing of the chorus types.
- The chorus type will change automatically whenever a different style is selected.
- You can return to the previous display, "Chorus→", by pressing the cursor [◀] button, and choose the REVERB or DSP effect.
- The default chorus type can be recalled by simultaneously pressing the [-/NO] and [+/YES] buttons.
- If you want to disable the chorus effect for all except the VOICE function voice, select OFF in the Type selection.

### The Chorus Types

01~05	Chorus 1~5
06~09	Flanger 1~4
10	OFF

 $oldsymbol{3}$ Exit

Press the **[VOICE]** button or select a different function to exit from the DIGITAL EFFECT function.

### **Setting the Chorus Return Level -**

The chorus return level determines the amount of "wet" (effect) signal output to the amplifier.

## 1 Select the Chorus Return Level Function

Press the **[FUNCTION]** button to the left of the display as many times as necessary until the arrowhead in the display appears next to "DIGITAL EFFECT" in the function list to the left of the display, and use the cursor  $[\blacktriangle]$  and  $[\blacktriangledown]$  buttons to select the Chorus Return Level function.



## 2Set the Chorus Return Level.....

Use the [-/NO] and [+/YES] buttons, the number buttons or the data dial to set the desired chorus return level. The range is from "00" to "127".

 $oldsymbol{\mathcal{J}}$ Exit

Press the **[VOICE]** button or select a different function to exit from the DIGITAL EFFECT function.

NOTES

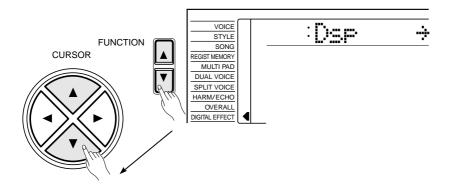
- See page 88 for more details on the Digital Effects.
- The chorus return level specified here affects the entire setting. The chorus send level, however, can be independntly applied to the voice selected via the VOICE function, the split voice and the dual voice via "ChoLevel" in the OVERALL function group, "S.ChoLvl" in the SPLIT VOICE function and "D.ChoLvl" in the DUAL VOICE function (see pages 88, 16 and 19).
- The default chorus return level = 64 can be recalled instantly by pressing both the [-/NO] and [+/ YES] buttons simultaneously.

### **Changing the DSP Effect**

### **Selecting the DSP Effect Type** -

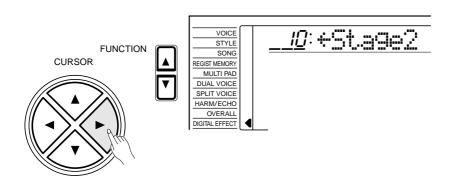
## 1 Select the DSP Type Function.....

Press the **[FUNCTION]** button to the left of the display as many times as necessary until the arrowhead in the display appears next to "DIGITAL EFFECT" in the function list to the left of the display, and use the cursor  $[\blacktriangle]$  and  $[\blacktriangledown]$  buttons to select the DSP Type function, "Dsp  $\rightarrow$ ".



## $\it 2$ Select the DSP Type...

Use the cursor [▶] button to enter the DSP Type function and then select one of the 46 DSP types using the [-/NO] and [+/YES] buttons, the number buttons or the data dial. The name of the selected DSP type appears on the top line of the display.



### The DSP Types

,			
01~04	Hall 1~4		
05~08	Room 1~4		
09, 10	Stage 1, 2		
11, 12	Plate 1, 2		
13, 14	Early Reflection 1, 2		
15	Gate Reverb		
16	Reverse Gate		
17~21	Chorus 1~5		
22~25	Flanger 1~4		
26	Symphonic		
27	Phaser		
28~32	Rotary Speaker 1~5		
33, 34	Tremolo 1, 2		
35	Guitar Tremolo		
36	Auto Pan		
37	Auto Wah		
38	Delay L, C, R		
39	Delay L, R		
40	Echo		
41	Cross Delay		
42	Distortion Hard		
43	Distortion Soft		
44	EQ Disco		
45			
.0	EQ Telephone		



- See page 89 for a complete listing of the DSP types.
- The default DSP type can be recalled by simultaneously pressing the [-/NO] and [+/YES] buttons.
- If the Voice Set function is ON (page 79) the DSP type will change automatically whenever a different voice is selected via the VOICE function.
- When Rotary Speaker 1...5 is selected, the [DSP VARIATION] button will switch the speed of the rotating speaker between fast (ON) and slow (OFF).
- You can return to the previous display, "Dsp→", by pressing the cursor [◄] button, and choose the REVERB or CHORUS effect.
- If you want to disable the DSP effect for all except the VOICE function voice, select OFF in the Type selection.

Each DSP effect has its own variation. Turn the [**DSP VARIATION**] button ON to activate each variation.

You can also select the DSP Type function by pressing and holding the **[DSP]** button until the arrow jumps to the "DIGITAL EFFECT" position and the current DSP type name appears in the display.



Press the **[VOICE]** button or select a different function to exit from the DIGITAL EFFECT function.

### Setting the DSP Return Level ——

The DSP return level determines the amount of "wet" (effect) signal output to the amplifier.

### $\emph{1}$ Select the DSP Return Level Function

Press the **[FUNCTION]** button to the left of the display as many times as necessary until the arrowhead in the display appears next to "DIGITAL EFFECT" in the function list to the left of the display, and use the cursor  $[\blacktriangle]$  and  $[\blacktriangledown]$  buttons to select the DSP Return Level function.



## 2Set the DSP Return Level \_\_\_\_\_

Use the [-/NO] and [+/YES] buttons, the number buttons or the data dial to set the desired DSP return level. The range is from "00" to "127". The DSP send level can be adjusted via the "DspLevel" function in the OVER-ALL function group-see page 78.

Press the **[VOICE]** button or select a different function to exit from the DIGITAL EFFECT function.



- See page 88 for more details on the Digital Effects.
- The DSP return level can not be changed for the insertion DSP types (see page 88). In this case, "- - -" will appear on the display.
- The default DSP return level =64 can be recalled instantly by pressing both the [-/NO] and [+/ YES] buttons simultaneously.



The PSR-620 has 100 different accompaniment "styles" that can be used to provide fully-orchestrated accompaniment. The PSR-620's sophisticated Auto Accompaniment system can provide automated bass and chord backing that is perfectly matched to the selected accompaniment style.

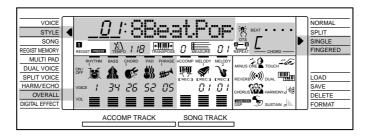


 The maximum number of notes that can be played simultaneously on the PSR-620 keyboard is reduced when the Accompaniment is used.

#### About the PSR-620 Styles and the Yamaha Style File Format

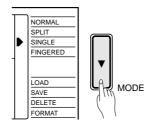
The Style File Format is Yamaha's original auto-accompaniment format which has evolved through years of development and refinement. Style File Format allows you to use exceptionally high quality accompaniments with a variety of chord types through its unique conversion system. Style File Format styles, based on GM system level 1, can be played with the GM compatible tone generator. In addition to the internal styles, the optional style disks and music cartridges let you use different shophisticated styles created with the Style File Format.

The internal PSR-620 styles conform to the Style File Format. The built-in floppy disk drive also provides full Style File Format compatibility by allowing playback of Style File Format Disk Styles.



# $\emph{1}$ Select the SINGLE or FINGERED Accompaniment Mode.....

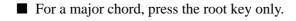
Press the [MODE] button to the right of the display as many times as necessary until the arrow in the display appears next to "SINGLE" or "FINGERED" in the mode list to the right of the display. If you select the "SINGLE" mode, accompaniment chords are played as follows:



#### SINGLE FINGER ACCOMPANIMENT

Single-finger accompaniment makes it simple to produce beautifully orchestrated accompaniment using major, seventh, minor and minor-seventh chords by pressing a minimum number of keys on the left-hand section of the keyboard. The abbreviated chord fingerings described below are used:







■ For a minor chord, simultaneously press the root key and a black key to its left.

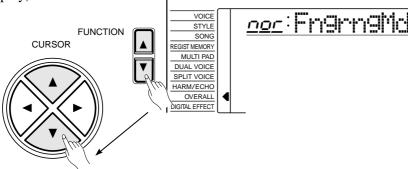


■ For a seventh chord, simultaneously press the root key and a white key to its left.

■ For a minor-seventh chord, simultaneously press the root key and both a white and black key to its left.

# 2 If the FINGERED Mode is Selected, Select the Desired Fingering Mode.....

The PSR-620 has three fingering modes for fingered accompaniment — Normal, Bass and Full. The NORMAL mode is automatically selected whenever the power is initially turned ON. To select a different fingering mode first select the OVERALL functions by pressing the [FUNCTION] button to the left of the display as many times as necessary until the arrowhead in the display appears next to "OVERALL" in the function list to the left of the display. "FngrngMd" should appear on the top line of the display (if a different OVERALL function is selected, press the cursor [▲] or [▼] button as many times as necessary until "FngrngMd" appears). Then use the [–/NO] and [+/YES] buttons and the data dial to select the desired fingering mode (the mode abbreviation appears to the left of "FngrngMd" on the display).

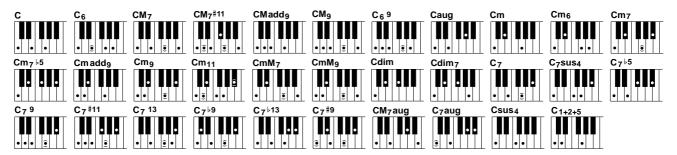


The Normal ("nor"), Bass ("bAS") and Full ("Full") fingering modes function as follows:

#### NORMAL

This is the default FINGERED accompaniment mode. The NORMAL mode lets you finger your own chords on the left-hand section of the keyboard (i.e. all keys to the left of and including the split-point key — normally 54) while the PSR-620 supplies appropriately orchestrated rhythm, bass, and chord accompaniment in the selected style. The FINGERED mode will accept the chord types listed below (notes in parentheses may be omitted).

#### Example for "C" chords



Chord Name/[Abbreviation]	Normal Voicing	Chord (C)	Display
Major [M]	1-3-5	С	С
Major sixth [6]	1-(3)-5-6	C6	C6
Major seventh [M7]	1-3-(5)-7	CM7	CM7
Major seventh sharp eleventh [M7#11]	1-(2)-3-#4-(5)-7	CM7#11	CM7(#11)
Major add ninth [Madd9]	1-2-3-5	CMadd9	CM(9)
Major ninth [M9]	1-2-3-(5)-7	CM9	CM7(9)
Major sixth add ninth [6 9]	1-2-3-(5)-6	C6 9	C6(9)
Augmented [aug]	1-3-#5	Caug	Caug
Minor [m]	1-♭3-5	Cm	Cm
Minor sixth [m6]	1-♭3-5-6	Cm6	Cm6
Minor seventh [m7]	1-♭3-(5)-♭7	Cm7	Cm7
Minor seventh flatted fifth [m7♭5]	1-43-45-47	Cm7♭5	Cm7♭5
Minor add ninth [madd9]	1-2-♭3-5	Cmadd9	Cm(9)
Minor ninth [m9]	1-2->3-(5)->7	Cm9	Cm7(9)
Minor eleventh [m11]	1-(2)-3-4-5-(7)	Cm11	Cm7(11)
Minor major seventh [mM7]	1-43-(5)-7	CmM7	CmM7
Minor major ninth [mM9]	1-2-43-(5)-7	CmM9	CmM7(9)
Diminished [dim]	1-♭3-♭5	Cdim	Cdim
Diminished seventh [dim7]	1-♭3-♭5-6	Cdim7	Cdim7
Seventh [7]	1-3-(5)-♭7	C7	C7
Seventh suspended fourth [7sus4]	1-4-5-♭7	C7sus4	C7sus4
Seventh flatted fifth [7♭5]	1-3-♭5-♭7	C7♭5	C7♭5
Seventh ninth [7 9]	1-2-3-(5)->7	C7 9	C7(9)
Seventh sharp eleventh [7#11]	1-2-3-#4-(5)-♭7 or 1-(2)-3-#4-5-♭7	C7#11	C7(#11)
Seventh thirteenth [7 13]	1-3-(5)-6-♭7 or 2-3-5-6-♭7	C7 13	C7(13)
Seventh flatted ninth [7 9]	1-♭2-3-(5)-♭7	C7♭9	C7(b9)
Seventh flatted thirteenth [7113]	1-3-5-♭6-♭7	C7♭13	C7(♭13)
Seventh sharp ninth [7#9]	(1)-#2-3-(5)-♭7	C7#9	C7(#9)
Major seventh augmented [M7aug]	1-3-#5-7	CM7aug	CM7aug
Seventh augmented [7aug]	(1)-3-#5-♭7	C7aug	C7aug
Suspended fourth [sus4]	1-4-5	Csus4	Csus4
One plus two plus five [1+2+5]	1-2-5	C1+2+5	С



- If you play any three adjacent keys (including black keys), the chord sound will be cancelled and only the rhythm instruments will continue playing (CHORD CANCEL function).
- An octave (1+8) produces accompaniment based only on the root.
- A perfect fifth (1+5) produces accompaniment based only on the root and fifth which can be used with many major and minor chords
- The chord fingerings listed are all in "root" position, but other inversions can be used — with the following exceptions:
  - \* 6 chords are only recognized in root position. All other inversions are interpreted as m7.
  - \* 6 9 chords are only recognized in root position. All other inversions are interpreted as m11.
  - \* m6 chords are only recognized in root position. All other inversions are interpreted as m7\b5.
  - \* 1+2+5 chords are only recognized in root position. All other inversions are interpreted as sus4.
  - \* With aug and dim7 chords the lowest note played is assumed to be the root.
  - \* With 7#11 and 7♭5 chords the lowest note played is assumed to be the root or ♭7.

#### BASS

This is essentially the same as the NORMAL mode, above, except that the lowest note played in the auto accompaniment section of the keyboard will be played by the bass part rather than the chord root.







### • FULL

In this mode the PSR-620 automatically differentiates between left-hand chords and right-hand melody, no matter where they are played on the keyboard. Right-hand chords with a left-hand bass line — single or octave — are also recognized. In the former case left-hand chords are recognized and accompaniment is produced in the same way as in the NOR-MAL mode, in the latter case the right-hand chords are recognized in the same way but the accompaniment bass line will be based on the left-hand bass line you play. This means you can play in just about any style anywhere on the keyboard, and the PSR-620 will automatically produce appropriate accompaniment.



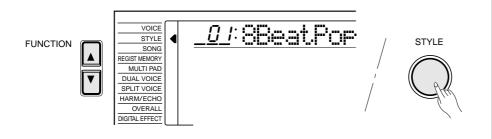
- A single note one octave lower than the lowest note of the chord is recognized as a bass note, and a single note eleven notes higher is recognized as a melody note.
- The Harmony/Echo feature (page 20) has no effect in the FULL mode.

### 3 Select the Style Function

Press the **[STYLE]** button to directly select the STYLE function. Another way to do this is to press the **[FUNCTION]** button to the left of the display as many times as necessary until the arrowhead in the display appears next to "STYLE" in the function list to the left of the display.



 The "AcompVol" function in the OVERALL function group can be quickly selected by pressing and holding the [STYLE] button.



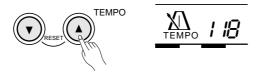
## 4 Select a Style

The PSR-620 has 100 styles that can be selected by using either the [-/NO] and [+/YES] buttons, the number buttons or the data dial (these controls function in the same way as for voice selection — see page 12). The styles are listed in the STYLE list printed at the top of the instrument's control panel. The number and name of the currently selected style appears on the top line of the display while the STYLE function is selected.

### $oldsymbol{5}$ Set the Tempo ......

When you select a different style while the accompaniment is not playing, the "default" tempo for that style is also selected, and the tempo is displayed to the right of the metronome icon "TEMPO" in quarter-note beats per minute. If the accompaniment is playing and the One Touch Setting function is OFF (page 42), the same tempo is maintained even if you select a different style.

You can change the tempo to any value between 32 and 280 beats per minute, however, by using TEMPO [ $\blacktriangle$ ] and [ $\blacktriangledown$ ] buttons. Press either button briefly to decrement or increment the tempo value by one, or hold the button for continuous decrementing or incrementing. The default tempo for the selected style can be recalled at any time by pressing both the TEMPO [ $\blacktriangle$ ] and [ $\blacktriangledown$ ] buttons simultaneously.



You can also use the **CURSOR** buttons to select the tempo value in the display, and then use the **[-/NO]** and **[+/YES]** buttons, the number buttons or the data dial to set the tempo value as required. In this case the **[-/NO]** and **[+/YES]** buttons can be pressed simultaneously to recall the default tempo. This can be done either before the accompaniment is started or while it is playing.

CURSOR





- See page 61 for details on selecting cartridge styles.
- One Style File Format disk style can be loaded into the PSR-620's user style memory location (style number 101) and used in the same way as the preset internal styles. See page 68 for instructions on loading styles from disk. You can also enter a new name for the user style as well as registration bank, user song and user pad kit (see page 44, 51 and 59).



 In this case, three-digit numbers (i.e. "100" through "280") are entered by first pressing and holding the [1] or [2] button until "1" or "2" appears in the hundreds position on the display, then pressing the remaining two digits in sequence.

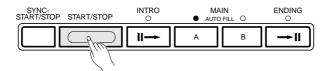
### **Using Auto Accompaniment**

## $m{ heta}$ Start the Accompaniment.....

There are several ways to start the accompaniment:

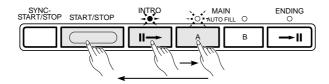
#### Straight start:

Press the **[START/STOP]** button. The rhythm will begin playing immediately without bass and chord accompaniment. The currently selected MAIN **[A]** or **[B]** section will play.



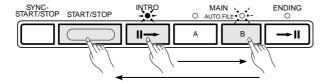
• Start with an introduction followed by the MAIN A section:

Press the **[INTRO]** button so that its indicator lights, press the MAIN **[A]** button (not necessary if its indicator is already flashing), then press **[START/STOP]** button.



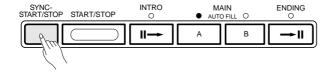
Start with an introduction followed by the MAIN B section:

Press the **[INTRO]** button so that its indicator lights, press the MAIN **[B]** button (not necessary if its indicator is already flashing), then press **[START/STOP]** button.



#### Synchronized start:

Any of the above start types can be synchronized to the first note or chord played on the left-hand section of the keyboard (i.e. keys to the left of and including the split-point key — normally 54) by first pressing the **[SYNC-START/STOP]** button.





 It is possible to select the MAIN A or B section prior to a straight start — refer to "8. Select the MAIN A and B Sections as Required," below.



 The [INTRO] button can be used to select the INTRO section even while the accompaniment is playing.



- If you press the [SYNC-START/ STOP] button while the accompaniment is playing, the accompaniment will stop and the synchro start mode will be engaged.
- The accompaniment split point can be changed via the "AccSpPnt" function in the OVERALL function group — see page 41.

### Using Auto Accompaniment \_\_\_\_

Pressing the [SYNC-START/STOP] button alone causes a straight start to occur when the first note or chord is played. Press the [SYNC-START/STOP] button and then the appropriate [INTRO] and [MAIN] buttons for a synchronized introduction start. The BEAT display will flash at the current tempo when a synchronized start mode has been selected.

The synchro start mode can be disengaged prior to actually starting the accompaniment by pressing the **[SYNC-START/STOP]** button a second time.

# Play On the Auto-accompaniment Section Of the Keyboard

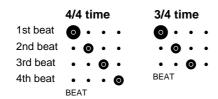
As soon as you play any fingering that the PSR-620 can "recognize" on the left-hand section of the keyboard (or anywhere on the keyboard if the FULL fingering mode is selected), the PSR-620 will automatically begin to play the appropriate bass line and chord parts along with the selected style. The accompaniment will continue playing even if you release the keys.



The chord name recognized will be shown above "CHORD" in the display.

#### The Beat Indicator

The four dots of the BEAT display provide a visual indication of the selected tempo and beat as shown below.

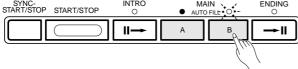




 If you press and hold the [SYNC-START/STOP] button the "InitSnd?" function will be selected — see page 85.

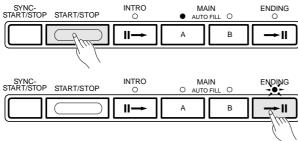
## Select the MAIN A and B Sections as Required...

The MAIN A and MAIN B sections can be selected at any time during playback by pressing the corresponding button. Whenever you press the MAIN [A] or [B] button during playback, the PSR-620 will generate an appropriate "fill-in" (one of four types) which will smoothly connect the current section to the selected section — even if it is the same section. For example, if you press the MAIN [A] button while the MAIN A section is playing, a fill-in will be produced, then the MAIN A section will continue playing. When you select a different section, the fill-in will begin immediately and the new section will actually begin playing from the top of the next measure unless the MAIN [A] or [B] button is pressed during the last beat of the measure, in which case the fill-in will begin from the first beat of the next measure.



### $g_{ m Stop}$ the Accompaniment

The accompaniment can be stopped at any time by pressing the **[START/STOP]** button. Press the **[ENDING]** button if you want to go to the ending section and then stop. The ending section will begin from the top of the next measure.



#### NOTES

- Some INTRO and ENDING sections have their own chord progressions which play in the current accompaniment key.
- If the MAIN [A] or [B] button is pressed while the ENDING section is playing, an appropriate fillin will be played, followed by a return to the MAIN A or B section
- The accompaniment volume can be adjusted independently of the main keyboard volume via the "AcompVol" function in the OVERALL function group — see page 79.

#### ■ Styles with Different Numbers of Sections

Some cartridge and disk styles (see page 61 and 34), for example, have A and B intro and ending sections as well as A and B main sections. In such a case, if the [INTRO] and MAIN [A] buttons are pressed in order to start the accompaniment with an introduction and then go to the main A section, the intro A section will play. If the [INTRO] and MAIN [B] buttons are pressed, the intro B section will play. A similar situation applies to endings: if the main A or B section is playing and the [ENDING] button is pressed, the ending A or B section will play accordingly.

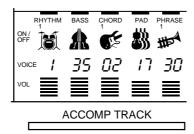
#### ■ The Stop Accompaniment Function

While the SINGLE or FINGERED mode is selected chords played in the Auto Accompaniment section of the keyboard are also detected and played by the PSR-620 Auto Accompaniment system when the accompaniment is stopped (except when the FULL FINGERED mode is engaged). In this case the bass note and chord voices are selected automatically.

### **Accompaniment Track Control**

The PSR-620 has eight accompaniment tracks — RHYTHM 1/2, BASS, CHORD 1/2, PAD, and PHRASE 1/2 — that you can control to modify the "orchestration" and therefore the overall sound of the accompaniment. When the power switch is turned ON or an accompaniment style is selected, RHYTHM 1, CHORD 1 and PHRASE 1 tracks appear on the display. RHYTHM 2, CHORD 2 and PHRASE 2 tracks can be selected by moving the cursor [◀] or [▶] button from track to track when the cursor is located at one of the track icons. If the RHYTHM 1 track is selected and the cursor is moved once to the right, for example, the cursor will not actually move but "RHYTHM 2" will appear in place of "RHYTHM 1" and the parameters for the RHYTHM 2 track can be changed as required. The same applies to the CHORD 1 and 2, and PHRASE 1 and 2 tracks.

#### What's in the Tracks



RHYTHM 1&2	Both these tracks provide the drum and/or percussion sounds.
BASS	The BASS track always plays a bass line, but the voice will change to fit the selected style acoustic bass, synth bass, tuba, etc.
CHORD 1&2	Both these tracks provide the rhythmic chordal accompaniment required by each style. You'll find guitar, piano, and other chordal instruments here.
PAD	This track plays long chords where necessary, using sustained instruments such as strings, organ, choir.
PHRASE 1&2	This is where the musical embellishments reside. The PHRASE tracks are used for punchy brass stabs, arpeggiated chords, and other extras that make the accompaniment more interesting.



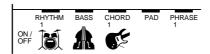
The icons for all tracks that contain data in any section will appear whenever an accompaniment style is selected.

### **Using Auto Accompaniment**

#### ■ Large/Small Accompaniment

The simplest form of accompaniment track control is provided by the [ACCOMP LARGE/SMALL] button. This button alternately turns the appropriate track (s) ON and OFF, thereby changing the number of parts in the accompaniment. When the LARGE accompaniment is selected and accompaniment tracks are ON, their respective icons will appear in the appropriate positions in the display. When the SMALL accompaniment is selected, some tracks for that style will be turned OFF and their respective icons will disappear.

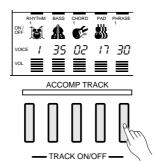




#### ■ Muting Individual Tracks.....

The PSR-620 Auto Accompaniment system includes five Track buttons which allow you to control the accompaniment arrangement in real time. The accompaniment tracks can be turned OFF (muted) or ON by pressing the corresponding TRACK buttons. The track icon will disappear when a track is muted.

For example, PHRASE 1 and 2 tracks are turned ON or OFF at the same time by pressing the PHRASE track button. The same applies to the RHYTHM 1 and 2, and CHORD 1 and 2 tracks.



Individual accompaniment tracks can also be turned OFF (muted) or ON by using the cursor buttons to select the icon of the target track (the icon and track name will flash), and then using the [-/NO] and [+/YES] buttons or the data dial to turn the track OFF or ON, respectively. In this way, RHYTHM 1 and RHYTHM 2 tracks can be independently turned OFF or ON. The same applies to the CHORD 1 and 2, and PHRASE 1 and 2 tracks.

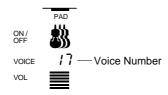


- The LARGE accompaniment is always selected whenever a new style is selected.
- Please note that the tracks used depend on the selected style and all the tracks are not always active even when the LARGE accompaniment is selected.

### Using Auto Accompaniment \_\_\_\_

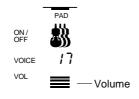
#### ■ Changing Accompaniment Track Voices.....

You can change the voice used for each track by moving the cursor buttons to select the voice number of the target track (the voice number will flash), and then using the [-/NO] and [+/YES] buttons, the number buttons or the data dial to select the desired voice number. Please note that the GM voices are used for the accompaniment instead of the panel voices. Therefore, voice numbers of the accompaniment tracks are different from the ones for the PSR-620 panel voices. Refer to the GM Voice List (see page 97) for the GM voice numbers and names. Only the numbers from 1 through 8 can be selected for the RHYTHM tracks. In this case, the numbers from 1 through 8 correspond to the PERCUSSION KIT numbers 129 through 136. Voice numbers 01 through 136 can be selected for all other tracks.



#### ■ Adjusting Accompaniment Track Volume.....

The volume of each accompaniment track can be adjusted to produce the ideal "mix" between tracks. Use the cursor buttons to select the volume bar of the target track (the volume bar will flash), and then use the [-/NO] and [+/YES] buttons and the data dial to set the maximum volume of the track as required. The shorter the bar, the lower the volume. During playback the top segment of each volume bar will remain at the maximum volume level, while the lower bars will move according to the amount of activity in each track.



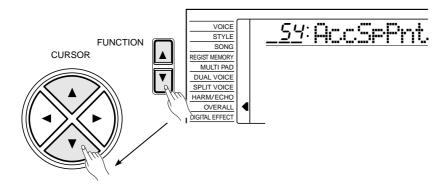


- When a different style number is selected, all accompaniment track parameters will be reset to their initial values. Use the REG-ISTRATION MEMORY — page 43 — if you want to store a particular set of settings for instant recall when needed.
- After changing the voice or volume, the [-/NO] and [+/YES] buttons can be pressed simultaneously to reset the initial values.
- The track data changed applies to all sections.
- Muting individual tracks, changing accompaniment track voices and adjusting accompaniment track volume cannot be executed during song recording.

### **Changing the Accompaniment Split Point**

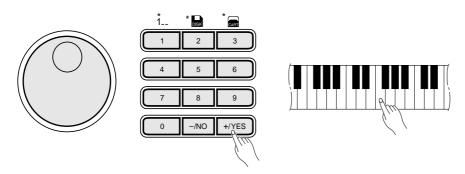
### $\emph{1}$ Select the Accompaniment Split Point Function.....

Press the **[FUNCTION]** button to the left of the display as many times as necessary until the arrowhead in the display appears next to "OVER-ALL" in the function list to the left of the display. Then use the cursor  $[\blacktriangle]$  and  $[\blacktriangledown]$  buttons to select the "AccSpPnt" function from within the OVER-ALL function list.



## $\it 2$ Set As Required

Simply press the key you want to assign as the split point. The key number of the key you press will appear to the left of "AccSpPnt" on the top line of the display. You can also use the [-/NO] and [+/YES] buttons, the number buttons or the data dial to enter the split point key number. The lowest key on the keyboard (C1) is key number "36", middle C (C3) is "60", and the highest key (C6) is "96". The split point can be set at any key number from 00 through 127, allowing the split point to be set outside the range of the PSR-620 keyboard for MIDI applications.



### $oldsymbol{\mathcal{J}}$ Exit

Press the **[VOICE]** button or select a different function to exit from the OVERALL functions.



- The split point key becomes the highest key in the Auto Accompaniment section of the keyboard.
- The default split point (54) can be instantly recalled by pressing the [-/NO] and [+/YES] buttons at the same time.

### Using Auto Accompaniment \_\_\_\_

### **One Touch Setting**

One Touch Setting lets you instantly select the appropriate panel settings suitable for the current style. Each style (100 styles) contains four variations. This means that you can freely use 400 different panel settings. The One Touch Setting feature automatically sets the following parameters:

#### One Touch Setting Parameter List

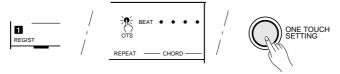
- · Voice number
- Octave
- Pan
- Dual Voice (Voice number, volume, octave, reverb level, chorus level, pan)
- Dual ON/OFF
- Split Voice (Voice number, volume, octave, reverb level, chorus level, pan, split point=59)
- · Keyboard volume
- Reverb level
- · Chorus level
- DSP level
- Harmony/Echo ON/OFF, type
- DSP type
- Sustain (Panel) ON/OFF
- Reverb ON/OFF
- Chorus ON/OFF
- DSP ON/OFF

- DSP variation ON/OFF
- · Multi Pad Kit number
- Style parameters=default
- Synchro start=ON
- Accomp volume=100
- Accomp split point=54
- · Accomp large/small=large
- Tempo=Default (for the currently selected style)
- Main A/B section

## $\emph{1}$ Turn On the One Touch Setting

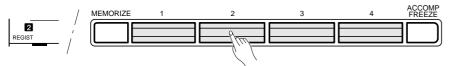
Press the **[ONE TOUCH SETTING]** button so that the "OTS" icon appears next to the BEAT display and number "1" (type1) appears above "REGIST" on the display. Panel settings suitable for the currently selected style are automatically set up for you to play.

The BEAT indicator dots flash at the current tempo and the synchro start mode is engaged.



## $\it 2$ Select another Type....

Press one of the REGISTRATION MEMORY buttons [2]~[4] to select another type. The corresponding One Touch Setting number appears above "REGIST" in the display, and the display changes to the one for the selected type.



One Touch Setting can be turned OFF by pressing the **[ONE TOUCH SET-TING]** button a second time so that the "OTS" icon disappears from the display.

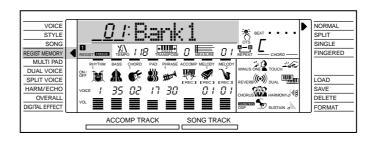


- If the One Touch Setting is turned ON when the NORMAL or SPLIT mode is selected, the FINGERED mode is automatically selected.
- You can create original setting by editing the One Touch Setting data and storing it to the Registration Memory — see page 43.
- "No OTS" will appear on the display if the optional cartridge or disk styles have no one touch setting data.

1234

# Registration Memory \_\_\_\_\_\_

The PSR-620 Registration Memory feature can be used to memorize 128 complete control-panel setups (32 banks, 4 setups each) that you can recall whenever needed.



### **Registering the Panel Settings**

### $\emph{1}$ Set Up the Controls as Required

Make the desired control settings. The following settings are memorized by the Registration Memory function:

#### Data Stored By the Registration Memory VOICE PARAMETERS

- Voice number
- · Keyboard volume
- Octave
- Pan
- Split voice (Voice number, volume, octave, reverb level, chorus level, pan, split point)
- Dual voice (Voice number, volume, octave, reverb level, chorus level, pan)
- Dual voice ON/OFF
- Touch response ON/OFF, sensitivity

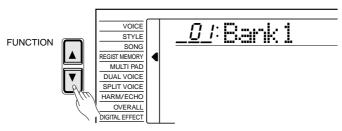
- Harmony/Echo ON/OFF, type
- DSP ON/OFF, DSP (type, return level)
- DSP variation ON/OFF
- Reverb ON/OFF
- Chorus ON/OFF
- Sustain (Panel) ON/OFF
- Reverb Level
- Chorus Level
- DSP Level
- · Pitch Bend Range

#### **ACCOMPANIMENT PARAMETERS**

- Mode (NORMAL/SPLIT/SINGLE/FINGERED)
- · Style number
- Tempo
- Split point (Accomp)
- · Fingering mode
- Accompaniment volume
- Track data (Track ON/OFF, voice, volume)
- Main A/B section
- Transpose
- Multi Pad Kit number
- Reverb (type, return level)
- Chorus (type, return level)

## 2Select a Registration Bank (if necessary)

Any of the 32 Registration Memory banks can be selected via the REGIST MEMORY function. Use the [FUNCTION] buttons to move the arrowhead next to "REGIST MEMORY" in the function list to the left of the display, then use the [-/NO] and [+/YES] buttons, the number buttons or the data dial to select the desired Registration Memory bank (01 through 32).





 The REGIST MEMORY function can be quickly selected by pressing and holding the [MEMORIZE]

 \*\*Table\*\*\*

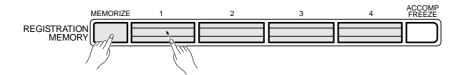
\*\*The REGIST MEMORY function\*\*

\*\*The REGIST

### **Registration Memory**

## $oldsymbol{3}$ Register the Settings

While holding the [MEMORIZE] button, press one of the REGISTRA-TION MEMORY buttons. Any data that was previously in the selected location is erased and replaced by the new settings. The corresponding Registration Memory number will appear above "REGIST" in the display.



#### Enter a New Name for the Registration Bank

If you want to enter a descriptive name for easier identification, enter your original Registration Bank name, this is recommended.

Use the cursor [▶] button to move the cursor to the first (left most) character of the Registration Bank name in the display. A Registration Bank name can consist of up to 8 characters. The position of the character you want to enter or change can be selected by moving the cursor.

Using the [-/NO] and [+/YES] buttons or the data dial, enter the desired character listed below. The number buttons can also be used to enter the number. If you want to insert an underline character at the cursor position, press the cursor [▲] button. If you want to delete a character at the cursor position, press the cursor [▼] button. When you've finished entering the Registration Bank name, move the cursor to the position other than the Registration Bank name so that the newly entered Registration Bank name will be memorized.

#### **Character List**

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 0123456789-





 Please note that anytime you store to a REGISTRATION MEMORY button, all settings previously stored in that button will be erased and replaced by the new settings.



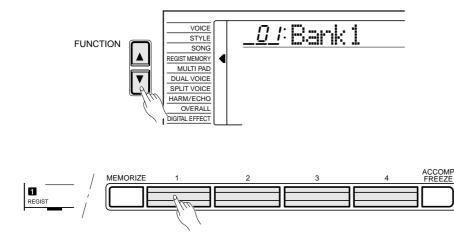
The Registration Memory data, including the registration name, is retained in memory even when the power switch is turned OFF as long as the batteries are installed or the AC adaptor is connected. It is nevertheless a good idea to save important registration data to floppy disk so you have a backup in case of accidental erasure (see page 66).

### **Recall the Registered Panel Settings**

Simply select the appropriate bank as described above, then press the desired REGISTRATION MEMORY button at any time to recall the memorized settings. The corresponding Registration Memory number will appear above "REGIST" in the display, and the appropriate setting changes will appear in the display.

The indicator of the selected REGISTRATION MEMORY will flash as soon as any change is made to the panel settings. In other words, if the REGISTRATION MEMORY indicator is flashing, the current panel settings are different from those stored in the memory.

No REGISTRATION MEMORY indicator will be showing when the PSR-620 is turned ON or a bank is selected.

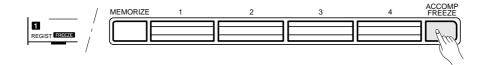




- Cartridge and disk registration settings can be recalled as described on pages 63 and 68.
- If the Accomp Freeze function is ON when a REGISTRATION MEMORY is recalled, the registration number will flash.
- Registration bank 01 can be instantly recalled by simultaneously pressing the [-/NO] and [+/ YES] buttons.
- When the One Touch Setting is ON, registration memory data can not be recalled.

### The Accomp Freeze Function

When the ACCOMP FREEZE function is engaged, the accompaniment parameters listed above will <u>not</u> be changed when a REGISTRATION MEMORY is recalled. This allows you to recall different REGISTRATION MEMORY settings while using Auto Accompaniment, without suddenly disturbing the flow of the accompaniment. The ACCOMP FREEZE function is turned ON and OFF by pressing the [ACCOMP FREEZE] button. The "FREEZE" indicator appears in the "REGIST" area in the display when it is turned ON.





- Accomp Freeze remains ON even if a different registration bank is selected.
- When you recall the REGISTRA-TION MEMORY settings while song recording or playback, only the voice parameter settings can be recalled even if the ACCOMP FREEZE function is turned OFF.

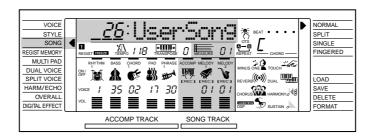


# **Song Recording**

The PSR-620 SONG TRACKS allows you to record and play back a complete song including chord sequences created using the Auto Accompaniment feature and a melody line you play on the keyboard. The SONG TRACKS include one ACCOMP track and two MELODY tracks. Song number 26 is available for recording your own songs (the "user" song). Only one song can be retained in the PSR-620 memory at a time, but your songs can be saved to floppy disk - up to 100 songs per disk (the actual number depends on the volume of the song data) - and then reloaded later whenever you want to play them (see pgae 66).



- Material recorded on the SONG TRACKs is retained in memory even when the POWER switch is turned OFF if batteries are present or an AC adaptor is connected. It is neverthless a good idea to save important song data to floppy disk so you have a backup in case of accidental erasure.
- The recorded data will be lost if the power is turned OFF, the AC adaptor is unplugged, or the batteries fail during recording.
- Up to approximately 1500 notes can be recorded to the MELODY tracks, or approximately 750 chords can be recorded to the ACCOMP track.



### **Recording a Melody Track**

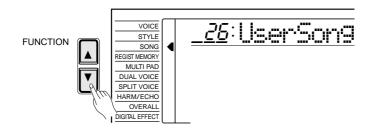
The SONG MELODY tracks record the following operations and data:

- Note ON/OFF
- Velocity
- Voice number
- Octave
- Pan
- Dual voice ON/OFF
- Dual Voice (voice number, volume, octave, reverb level, chorus level, pan)
- · Keyboard volume\*
- Pitch Bend
- Pitch Bend Range\*

- Reverb Level
- · Chorus Level
- DSP Level (MELODY 1 track only)
- Harmony/Echo ON/OFF, type
- Reverb ON/OFF
- Chorus ON/OFF
- DSP ON/OFF, DSP type (MELODY 1 track only)
- DSP variation ON/OFF (MELODY 1 track only)
- Sustain (Panel) ON/OFF (Sustain pedal ON/OFF)
- (Tempo signature common to melody & accomp tracks)\*
- Recorded only at the beginning of a song; changes cannot be made during recording.

## $\emph{1}$ Select the User Song Number

If necessary, use the **[FUNCTION]** buttons to select the SONG function, and then the **[–/NO]** and **[+/YES]** buttons, the number buttons or the data dial to select SONG number "26" (the user song number).

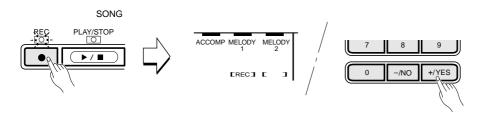


## 2Select a Voice and Set the Voice Parameters ......

Select the voice you want to record with, and set the digital effects and other parameters as required.

## $oldsymbol{3}$ Engage the MELODY Track Record Ready Mode .

Press the SONG [REC] button. The [REC] indicator will flash, and "REC" will appear in the MELODY 1 track position on the display indicating that the PSR-620 is ready to record. Flashing square brackets in both the MELODY 1 and MELODY 2 track positions indicate that either track can be selected for recording at this point — use the [-/NO] and [+/YES] buttons or the data dial to select the MELODY track to be recorded ("REC" appears in the selected track position).



The BEAT indicator dots flash at the current tempo. If the "Metronom" function in the OVERALL function group is turned ON, the metronome will also begin to sound at the currently selected tempo (page 80).



 You cannot record in the SPLIT mode — the NORMAL mode will automatically be selected when the SONG record ready mode is engaged.



- If a previously-recorded SONG ACCOMP track is ON (the SONG ACCOMP track icon is showing), it can be monitored while recording a MELODY track. If you don't want to hear the ACCOMP track while recording, move the cursor to the ACCOMP track icon and press the [-/NO] button to turn it OFF.
- If a non-user song number is selected when the record ready mode is engaged, user song number 26 will automatically be selected.
- The melody track volume is the current Keyboard Volume setting — see page 77.
- Only one melody track can be recorded at a time.
- The record-ready mode of the MELODY track can be disengaged by pressing the [REC] button.
- When the record-ready mode is engaged, the measure number resets to 01. (Recording cannot start from the specified measure.)

### Song Recording

### 4Record

Recording will begin as soon as you play a note on the keyboard or press the SONG [PLAY/STOP] button, and the BEAT indicator dots will begin to indicate the current beat as in the Auto Accompaniment mode. The MEASURE parameter will also show the current measure number. The [REC] indicator lights continuously once recording has started.





## $oldsymbol{5}$ Stop Recording...

Stop recording by pressing the SONG [PLAY/STOP] button. The [REC] indicator will go out and the MEASURE number on the display will return to "01".



The melody track voice number and volume settings will appear on the display.



- Whenever you record using the SONG MEMORY, any previously recorded material in the same track will be erased.
- If you start recording by pressing the [PLAY/STOP] button, nothing will be recorded until you begin playing on the keyboard.
- Melody Track data can be cleared by pressing the [PLAY/ STOP] button to start recording and stop it without playing the keyboard (Melody Track Data Clear).
- Recording is carried out in 1measure increments. If you stop recording in the middle of a measure, rests will automatically be recorded until the end of that measure.
- If the SONG MEMORY becomes full while recording, "Full" will appear on the display and recording will stop.
- If you want to re-record the Melody track which "Full" was shown on the display during recording, execute "Melody Track Data Clear" operation (see above) before recording.
- Only VOICE function voice numbers are shown in the melody track displays (dual voice numbers are not shown).

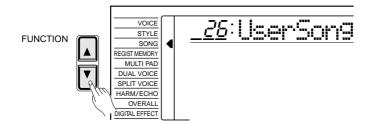
### **Recording Accompaniment With or Without a Melody**

The SONG ACCOMP track records the following operations and data:

- · Section changes
- Style number\*
- Accompaniment track changes\* (track ON/OFF, voice number, volume)
- · Accompaniment volume\*
- · Chord changes, timing
- Reverb type
- · Chorus type
  - \* Recorded only at the beginning of a song; changes cannot be made during recording.

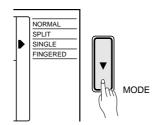
### ${\it 1}$ Select the User Song Number.

If necessary, use the FUNCTION buttons to select the SONG function, and then the [-/NO] and [+/YES] buttons, the number buttons or the data dial to select SONG number "26" (the user song number).



## 2Select the SINGLE or FINGERED Mode and a Style ......

Select the SINGLE or FINGERED mode (page 30) and an accompaniment style that is appropriate for the type of music you want to record. Also select the FINGERED fingering mode you want to use, if necessary.

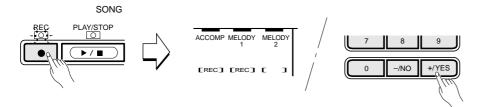


### Song Recording a

# 3 Engage the ACCOMP/MELODY Track Record Ready Mode

Press the SONG [REC] button. The [REC] indicator will flash, and "REC" will appear in the ACCOMP and MELODY 1 track positions on the display indicating that the PSR-620 is ready to record. Flashing square brackets in both the MELODY 1 and MELODY 2 track positions indicate that either track can be selected for recording at this point — use the [-/NO] and [+/YES] buttons or the data dial to select the MELODY track to be recorded, or none if you only want to record the ACCOMP track ("REC" appears in the selected track position).

The BEAT indicator dots flash at the current tempo. If the "Metronom" function in the OVERALL function group is turned ON, the metronome will also begin to sound at the currently selected tempo (page 80).



#### NOTES

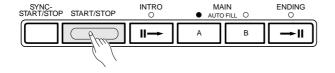
- If a previously-recorded MELODY track is turned ON (its icon is showing), it can be monitored while recording. If you don't want to hear the previous track while recording, move the cursor to the corresponding track icon and press the [-/NO] button to turn it OFF.
- The accompaniment track volume is the current Accompaniment Volume setting — see page 79.
- When the record-ready mode is engaged, the measure number resets to 01. (Recording can not start from the specified measure.)

### 4Record

Recording will begin as soon as you play a chord on the Auto Accompaniment section of the keyboard. If you've selected the MELODY track to record with the ACCOMP track, a right-hand note will also start the recording process. The [REC] indicator lights continuously once recording has started.



Recording can also be started by pressing the ACCOMPANIMENT CONTROL [START/STOP] button. In this case only the rhythm will begin without bass and chord accompaniment until you play the first chord on the Auto Accompaniment section of the keyboard.



#### NOTES

- Whenever you record using the SONG MEMORY, any previously recorded material in the same track will be erased.
- If the SONG MEMORY becomes full while recording, "Full" will appear on the display and recording will stop.
- Recording is carried out in 1measure increments. If you stop recording in the middle of a measure, rests will automatically be recorded until the end of that measure.
- If you start the ACCOMP track recording by pressing the [PLAY/ STOP] button, no chord data will be recorded until you begin playing on the keyboard.

Play the required chords in the Auto Accompaniment section of the keyboard. If you've also selected the MELODY track to be recorded, play the melody on the right-hand section of the keyboard. The MEASURE number on the display will increment as recording progresses.



### $oldsymbol{5}$ Stop Recording

Stop recording by pressing the SONG [PLAY/STOP] button, the AUTO ACCOMPANIMENT [START/STOP] button, or stop with an ending by pressing the AUTO ACCOMPANIMENT [ENDING] button. The [REC] button indicator will go out and the MEASURE number on the display will return to "01".

The ACCOMP track volume setting will appear on the display.

#### Enter a New Name for the Song

If you want to enter a descriptive name for the user song (song number "26"), enter your original song name, this is recommended.

Use the cursor [▶] button to move the cursor to the first (left most) character of the song name in the display. A song name can consist of up to 8 characters. The position of the character you want to enter or change can be selected by moving the cursor.

Using the [-/NO] and [+/YES] buttons or the data dial, enter the desired character listed below. The number buttons can also be used to enter the number. If you want to insert an underline character at the cursor position, press the cursor [▲] button. If you want to delete a character at the cursor position, press the cursor [▼] button. When you've finished entering the song name, move the cursor to the position other than the song name so that the newly entered song name will be memorized.

#### **Character List**

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 0123456789-



## $m{ heta}$ Save Your Completed Song to Floppy Disk...

When you've finished recording your song - or have recorded as much as you want to in the current session - save your song to floppy disk as described on page 66. Making this step a habit will prevent accidental loss of data.

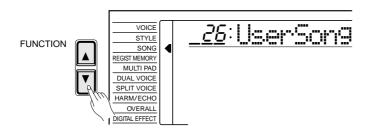


 The Song data including it's name is retained in memory even when the power switch is turned OFF, as long as the batteries are installed or the AC adaptor is connected.

### **Accompaniment and Melody Playback**

## 1 Select the User Song Number

If necessary, use the FUNCTION buttons to select the SONG function, and then the [-/NO] and [+/YES] buttons, the number buttons or the data dial to select SONG number "26" (the user song number) containing the song you have recorded.



## $\it 2$ Start Playback

Playback will begin as soon as the SONG [PLAY/STOP] button is pressed. You can turn the ACCOMP and MELODY tracks ON and OFF during playback as required.



### 3 Play Along If You Like.

Play along on the keyboard if you like. You can also change the tempo during playback.

### 4Stop Playback

Accompaniment and melody playback will stop automatically when all recorded data has been played back. You can also stop playback at any time by pressing the SONG [PLAY/STOP] button.



- You can also start playback from any specified measure (see page 53).
- Individual tracks can be turned OFF (muted) or ON by using the cursor buttons to select the icon of the target track (the icon and track name will flash), and then using the [-/NO] and [+/YES] buttons or the data dial to turn the track OFF or ON, respectively. The track icon will disappear when a track is muted.
- The NORMAL mode is automatically selected when SONG playback is started.
- Voice and volume data can be rewritten during playback — see "Voice & Volume Rewrite", below.
- When the song playback is stopped, the DSP type will compulsorily be changed according to the currently selected voice and the reverb and chorus types will be changed according to the currently selected style.
- User Song data can be loaded into the PSR-620's user song memory location (Song number 26) and played. See page 68 for instructions on loading song data from disk.

#### - Play from a Specified Measure -

You can start SONG playback from any specified measure, as long as the specified measure is within the range of measures that has already been recorded:

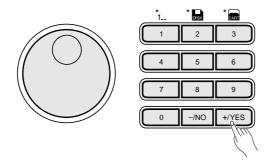
### 1 Select the MEASURE Parameter

While no recording or playback is in progress, use the CURSOR buttons to select the MEASURE parameter in the display.



## $\it 2$ Enter the Desired Measure Number

Use the [-/NO] and [+/YES] buttons, the number buttons or the data dial to enter the desired measure number.



### 3 Start Playback....

You can now start playback from the specified measure number.

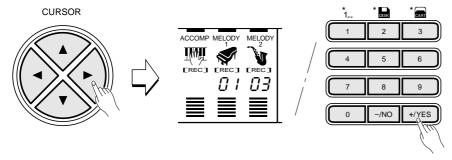


Three-digit numbers are entered by first pressing and holding the [1] or [2] button until "1" or "2" appears in the hundreds position on the display, then pressing the remaining two digits in sequence.

#### **■ Voice & Volume Rewrite**

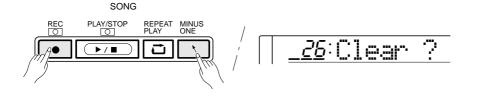
You can rewrite the last recorded voice change in any individual track during playback by using the cursor buttons to select the voice number of the target track (the voice number will flash), and then using the number buttons, the [-/NO] and [+/YES] buttons or the data dial to select the desired voice number. The data will actually be rewritten when the [PLAY/STOP] button is pressed or the end of the song is reached or the next voice change is encountered in the recorded data. The original voice number can be recalled before it is actually rewritten by simultaneously pressing the [-/NO] and [+/YES] buttons. Any other voice changes included in the recorded track data will take effect at the appropriate times.

The volume of each track can be rewritten during playback in the same way. Use the cursor buttons to select the volume bar of the target track (the volume bar will flash), and then use the [-/NO] and [+/YES] buttons or the data dial to set the maximum volume of the track as required. The shorter the bar, the lower the volume. The data will actually be rewritten when the [PLAY/STOP] button is pressed or the end of the song is reached. The original volume can be recalled before it is actually rewritten by simultaneously pressing the [-/NO] and [+/YES] buttons. The new volume data is written only at the beginning of the track and affects the entire track.



#### **■ Clearing the SONG TRACKS**

All data in the ACCOMP, MELODY 1 and MELODY 2 tracks of the user song (number 26) can be completely erased by first pressing the **[MI-NUS ONE]** button while holding the **[REC]** button, and then pressing the **[+/YES]** button in response to the "Clear?" confirmation prompt on the display (press **[-/NO]** if you decide not to erase the data).





- The dual voice will change automatically when a melody track voice is changed.
- Voice and volume data can only be rewritten in songs you have recorded yourself.



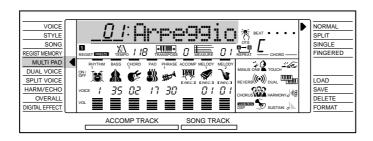
- Only songs you have recorded yourself can be cleared.
- If a non-user song number is selected when the song-clear mode is engaged, user song number 26 will automatically be selected.



## The Multi Pads

The PSR-620 MULTI PADS can be used to play 84 short pre-recorded rhythmic and melodic sequences, that can be used to add impact and variety to your keyboard performances. Some of the pad phrases simply play back as programmed, while others are "chord match" types which are automatically transposed to match chords played using the PSR-620 Auto Accompaniment feature.

The PSR-620 MULTI PADS can also be used to record short rhythmic or melodic sequences, percussion fill-ins, or single percussion sounds that can be played at any time simply by pressing the appropriate pad. Multi pad kit number 22 is available for recording your own data (the user pad kit). Only one set of MULTI PAD data can be retained in the PSR-620 memory at a time, but any number of MULTI PAD sets can be saved to floppy disk and then reloaded later when needed (see page 66).

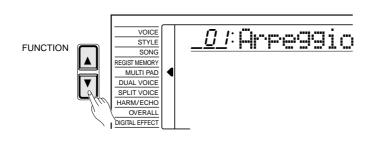


### **Playing the MULTI PADS**

The PSR-620 has 21 multi pad kits, each containing a complete set of 4 MULTI PAD phrases — 84 phrases in all. Before using the MULTI PADS, select the MULTI PAD kit containing the phrases you want to use as follows:

### Select the MULTI PAD Function....

To select a multi pad kit, first select the MULTI PAD function by pressing one of the [FUNCTION] buttons until the arrowhead in the display appears next to "MULTI PAD" in the function list to the left of the display.



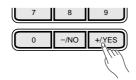


- See page 56 for a complete listing of the Multi Pad assingnments.
- The MULTI PAD function can be quickly selected by pressing and holding the [REC/END] button.

#### The Multi Pads

## $\it 2$ Select a Multi Pad Kit Number

Use the [-/NO] and [+/YES] buttons, the number buttons or the data dial to select one of the 21 available multi pad kits.



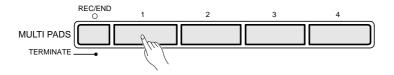
## $oldsymbol{\mathcal{J}}$ Play the Multi Pad .....

Simply tap any of the MULTI PADS at any time to play back the corresponding phrase. MULTI PAD playback begins as soon as the button is pressed. You can even play two, three, or four MULTI PADS at the same time. Also, you can create "retriggered sample" effects by repeatedly pressing a pad before its contents are completely played back.

The MULTI PAD voices are independent from the voices you have currently selected for keyboard performance. You could, for example, play piano on the keyboard while a MULTI PAD plays a brass chord stab.

When a "chord match" type MULTI PAD phrase is played, the phrase will be automatically transposed to match chords played using the PSR-620 Auto-accompaniment feature.

MULTI PAD playback can be terminated by pressing the MULTI PADS [TERMINATE] button.



#### NOTES

 One set of MULTI PAD data can be loaded into the PSR-620's user pad kit memory location (Multi Pad kit number 22) and used in the same way as the 21 preset internal multi pad kits. See page 68 for instructions on loading multi pad data from disk.



 MULTI PAD playback speed is determined by the current TEMPO setting.

#### The Multi Pad Kits

	Chord Match			
Kit	Pad 1	Pad 2	Pad 3	Pad 4
01 Arpeggio	0	0	0	0
02 Brass Hit	0	0	0	0
03 Synth Arpeggio	0	0	0	0
04 Pianist	0	0	0	0
05 Fanfare	_	_	_	0
06 Synth SFX	0	0	0	0
07 Wet Synth	0	0	0	0
08 Synth Sound	0	0	0	0
09 Human Vox	0	0	0	0
10 Twinkle	0	0	0	0
11 Open Air	_	_	_	_

	Chord Match			
Kit	Pad 1	Pad 2	Pad 3	Pad 4
12 Guitar Play	0	0	0	0
13 Drum Flam1	_	_	_	_
14 Drum Flam2	_	_	_	_
15 Drum Kit	_	_	_	_
16 Conga & Vibraslap	_	_	_	_
17 Timbales	_	_	_	_
18 Latin Percussion1	_	_	-	_
19 Rock Drum	_	_	_	_
20 Latin Percussion2	_	_	_	_
21 Drum Fill	_	_	_	_

### **Recording the MULTI PADS**

The MULTI PADS record the following data:

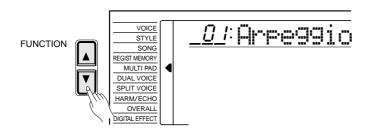
- Note ON/OFF
- Velocity
- · Voice number
- Octave
- Pan
- Dual voice ON/OFF, Dual voice (voice number, volume, octave, reverb level, chorus level, pan)
- Keyboard volume\*
- · Reverb Level
- · Chorus Level
- Harmony/Echo ON/OFF, type
- Reverb ON/OFF
- Chorus ON/OFF
- · Pitch Bend
- Pitch Bend Range\*
- Sustain (Panel) ON/OFF (Sustain pedal ON/OFF)
  - \* Recorded only at the beginning of a phrase; changes cannot be made during recording.



- Material recorded on the MULTI PADS (user pad data) is retained in memory even when the POWER switch is turned OFF if batteries are present or an AC adaptor is connected.
- The recorded data will be lost if the power is turned OFF, the AC adaptor is unplugged, or the batteries fail during recording.
- Up to approximately 200 notes (for User Pad Kit) can be recorded in the PSR-620.

## Select the MULTI PAD Function

To select a multi pad kit, first select the MULTI PAD function by pressing one of the FUNCTION buttons until the arrowhead in the display appears next to "MULTI PAD" in the function list to the left of the display.



## $\it 2$ Select the User Multi Pad Kit

Use the [-/NO] and [+/YES] buttons, the number buttons or the data dial to select multi pad kit number "22" (the user pad kit).





 The MULTI PAD function can be quickly selected by pressing and holding the [REC/END] button.

## $\it 3$ Select a Voice and Other Parameters \_\_\_\_\_

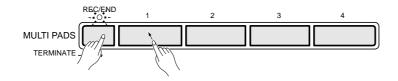
Select a voice and related parameters you want to record on the MULTI PADS. You might also want to set a tempo that will be easy to record at.

If you select a pitched voice to record, the data will automatically be transposed to match the chords played by the Auto Accompaniment feature ("chord match").

## $m{4}$ Engage the MULTI PAD Record Ready Mode

Press one of the MULTI PAD buttons - [1] through [4] - while holding the [REC/END] button. The [REC/END] indicator will flash to indicate that the record ready mode is engaged.

The four dots of the BEAT display flash at the current tempo. If the "Metronom" function in the OVERALL function group is turned ON, the metronome will begin to sound at the currently selected tempo.



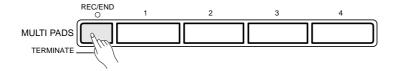
### $oldsymbol{\mathcal{J}}$ Record

Play a short sequence. The **[REC/END]** indicator will light during recording, and the BEAT indicator dots will indicate the current beat.

If you want to play back the recorded data as the "chord match" type, record all the phrases on CM7. The sound will be properly transposed when used with the Auto Accompaniment feature.

## $oldsymbol{ heta}$ Stop Recording

Stop recording by pressing the **[REC/END]** button. The **[REC/END]** button indicator will go out.



#### NOTES

- You cannot record in the SPLIT/ SINGLE/FINGERED mode - the NORMAL mode will automatically be selected when the MULTI PAD record ready mode is engaged.
- If a non-user multi pad kit number is selected when the record ready mode is engaged, user multi pad kit number 22 will automatically be selected.
- The recorded multi pad volume depends on the current Keyboard Volume setting — see page 77.
- [DSP] button is disabled when the MULTI PAD is in record ready mode and record mode. Also, DSP will automatically be turned OFF when the MULTI PAD record ready mode is engaged.



- Whenever you record to a MULTI PAD, all previous data in the same pad will be completely erased and replaced by the new material.
- If the MULTI PAD memory becomes full while recording, "Full" will appear on the display and recording will stop.

## Play the Multi Pads

Tap any of the MULTI PADS. Your recorded data will be played in exactly the same way as the preset data.

#### Enter a New Name for the Multi Pad Kit

If you want to enter a descriptive name for the user pad kit (multi pad kit number "22"), enter your original multi pad kit name, this is recommended.

Use the cursor [▶] button to move the cursor to the first (left most) character of the multi pad kit name in the display. A multi pad kit name can consist of up to 8 characters. The position of the character you want to enter or change can be selected by moving the cursor.

Using the [-/NO] and [+/YES] buttons or the data dial, enter the desired character listed below. The number buttons can also be used to enter the number. If you want to insert an underline character at the cursor position, press the cursor [▲] button. If you want to delete a character at the cursor position, press the cursor [▼] button. When you've finished entering the multi pad kit name, move the cursor to the position other than the multi pad kit name so that the newly entered multi pad kit name will be memorized.

#### **Character List**

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 0123456789-



## Save Your MULTI PAD Data to Floppy Disk

When you've finished recording your MULTI PAD data save it to floppy disk as described on page 66. Making this step a habit will prevent accidental loss of data.

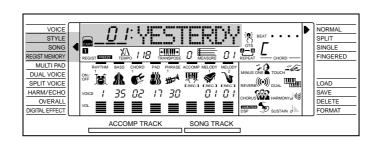


 The user pad kit data including it's name is retained in memory even when the power switch is turned OFF, as long as the batteries are installed or the AC adaptor is connected.



# **Using Music Cartridges**

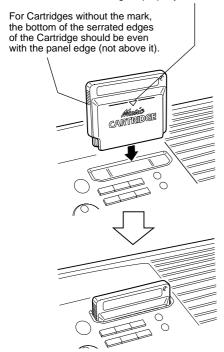
The PSR-620 features a cartridge slot which accepts pre-programmed Yamaha Music Cartridges containing style, song and/or registration data. One sample Music Cartridge is supplied with the PSR-620. Others are available from your Yamaha dealer.



#### ■ Inserting a Music Cartridge

With the power OFF, insert the Music Cartridge into the cartridge slot as shown, and press down firmly until the Cartridge is seated properly (as shown in the illustration). The Cartridge is shaped so that it will only fit in the slot one way - don't try to force it in the wrong way. Turn the power back ON again after inserting.

The triangular mark on the front of the Cartridge should be completely below the panel edge when the Cartridge is properly seated.



#### **■ Music Cartridge Handling Precautions**

- Do not leave Music Cartridges in locations which are subject to excessive heat or humidity.
- Do not drop Music Cartridges or subject them to strong shock.
- Do not disassemble Music Cartridges.
- Do not directly touch the Music Cartridge's electrical contacts. Persistently touching it may cause to break electrical contacts or generate static electricity. Static electric charges can cause loss of data and unreliable operation.
- Do not insert objects or cartridges other than Yamaha Music Cartridges in the PortaTone cartridge slot.
   Doing so can result in serious damage to the instrument.
- Never attempt to insert or remove a cartridge when the power switch is ON. Doing so can result in loss of the PSR-620 memory data or complete lack of control.
- The Music Cartridge data may not be selected or played back correctly, if the electrical contacts on the Music Cartridge are affected with dust. If this happens, insert and remove the Music Cartridge several times. This may solve the problem. If the problem still happens, wipe and clean the electrical contacts on the Music Cartridge with a dry soft cloth.



 Be sure to insert the applicable Music Cartridge when you recall the registration settings based on the cartridge data or playback the song based on the cartridge data. Otherwise, "No Cart (Cartridge)" or "WrongCrt (Cartridge)" will appear on the display.

### Cartridge Accompaniment Styles

The Music Cartridge supplied with the PSR-620 provides an extra 8 accompaniment styles that can be used in the same way as the internal accompaniment styles.

### - Selecting Cartridge Styles

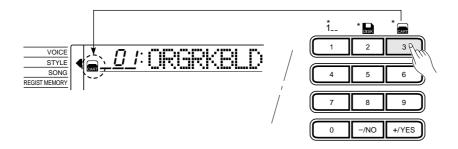
### $\emph{1}$ Select the Style Function

Press the **[STYLE]** button to directly select the STYLE function, or press the **[FUNCTION]** button to the left of the display as many times as necessary until the arrowhead in the display appears next to "STYLE" in the function list to the left of the display.

## **2**Select and Use a Cartridge Style.....

To select a cartridge style, first press and hold the number [3] button (below the cartridge icon on the panel) until the cartridge icon appears to the left of the style name in the display, then enter the number of the cartridge style you want to select via the number buttons in the normal way (2 digits). The cartridge styles can also be selected by using the [-/NO] and [+/YES] buttons or the data dial to go beyond the highest internal style numbers or the lowest disk style numbers — e.g. pressing the [+/YES] button while internal style number 00 (or user style number 101) is selected will select cartridge style number 01 (the cartridge icon will appear).

The cartridge styles are used in exactly the same way as the internal accompaniment styles (page 34).





 "No OTS" will appear on the display if the optional cartridge styles have no one touch setting data.

### **Using Music Cartridges**

### **Cartridge Songs**

Using Yamaha Music Cartridges (the one supplied with the PSR-620 includes 8 songs, others are available from your Yamaha dealer), the PSR-620 will let you enjoy listening to automated performances, or function as your "private music tutor," allowing you to practice various parts of a piece while the others are played automatically.

#### **Cartridge Song Playback**

### 1 Select the SONG Function

Use the FUNCTION  $[\blacktriangle]$  and  $[\blacktriangledown]$  buttons to select the SONG function.

## $\it 2$ Select a Cartridge Song Number

To select a cartridge song, first press and hold the number [3] button (below the cartridge icon on the panel) until the cartridge icon appears to the left of the song name in the display, then enter the number of the cartridge song you want to select via the number buttons in the normal way. The cartridge songs can also be selected by using the [-/NO] and [+/YES] buttons or the data dial to go beyond the highest internal song numbers or the lowest disk song numbers — e.g. pressing the [+/YES] button while internal song number 26 is selected will select cartridge song number 01 (the cartridge icon will appear).



## $oldsymbol{3}$ Start Playback

Playback will begin as soon as the SONG [PLAY/STOP] button is pressed.

Playback can be stopped at any time by pressing the SONG [PLAY/STOP] button.



- Playback can be started from any measure — page 53.
- The volume bars of the song tracks at the bottom of the display will move in response to the data in each track while the cartridge song plays.
- When playing cartridge songs which use the cartridge accompaniment styles:
  - \* Chord names will appear on the display and the volume bars of the accomp. tracks will move in response to the data in each track, while the cartridge song plays.
  - \* The harmony effect(see page 20) can be applied when playing along with the chord progression of the song.
- The playback tempo can be changed freely as required.
- Cartridge song track voice and volume data cannot be rewritten.

### **Cartridge Registration Presets**

The Music Cartridge supplied with the PSR-620 provides 8 banks of preset registration settings (8 banks x 4 registration memories = 32 total) that provide a number of useful registration setups (refer to page 43 for details on the registration memory).

### - Selecting Cartridge Registration

### $\emph{1}$ Select the Regist Memory Function

Press either of the **[FUNCTION]** buttons to the left of the display as many times as necessary until the arrowhead in the display appears next to "REGIST MEMORY" in the function list to the left of the display.

## $\it 2$ Select and Use a Cartridge Registration....

To select a cartridge registration memory, first press and hold the number [3] button (below the cartridge icon on the panel) until the cartridge icon appears to the left of the registration bank number in the display, then enter the number of the bank you want to select via the number buttons in the normal way (page 43). The cartridge registration memories can also be selected by using the [-/NO] and [+/YES] buttons or the data dial to go beyond the highest internal bank numbers or the lowest disk bank numbers — e.g. pressing the [+/YES] button while internal bank number 32 is selected will select cartridge registration bank number 01 (the cartridge icon will appear).

The individual cartridge registration memories are recalled via the REG-ISTRATION MEMORY buttons and used in exactly the same way as the internal registration memories (page 45).





- Original data cannot be stored in the cartridge registration memory.
- The voices recalled by a cartridge registration are not the PSR-620 panel voices but the GM voices. When you select a cartridge registration, GM voices will be used. As a result, the voice number "- - -" and GM voice name will appear on the display.

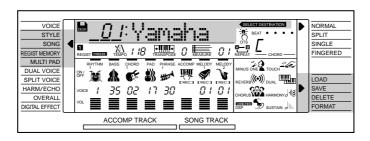
The GM voices can also be played on the keyboard and can be recorded to the SONG MEMORY or the MULTI PADS.



# **Using Floppy Disks**

The PSR-620 features a floppy disk drive that allows virtually unlimited storage of User Songs, User Pad kits (that you have recorded yourself), User Styles (loaded from Style File Format Style Disks) and Registration Memory data. PSR-620 disk data can be selected in the same way as the internal data via the appropriate function display.

The disk drive also allows the PSR-620 to play standard MIDI music files (format 0) and Yamaha Disk Orchestra Collection disks.



#### **■ Floppy Disk Handling Precautions**

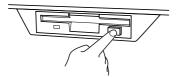
Floppy disks are an inexpensive, convenient, and reliable way to store your music data. They are not indestructable, however, and should be handled with care. Observe the following points to ensure the long-term safety of your disks and data.

#### Type of Disk

 Use only double-sided double density (2DD) 3.5-inch floppy disks with the PSR-620.

#### **Taking Care of Your Floppy Disks**

- Never attempt to eject a disk during a read or write operation (i.e. while the disk drive is operating). Doing so can damage both the disk and the drive.
- Never turn the power ON or OFF while a disk is in the drive.
   Always eject the disk before turning the power OFF.
- To eject a floppy disk from the disk drive press the eject button slowly as far as it will go. Then when the disk is fully ejected, remove it by hand. The disk may not be ejected properly if the eject button is pressed too quickly or if it is not pressed in far enough (the eject button may become stuck halfway with the disk extending from the slot by only a few millimeters). If this is the case, do not attempt to pull out the partially ejected disk. Doing so may damage the disk drive mechanism and/or the floppy disk. To remove a partially ejected disk, try pressing the eject button once again or push the disk back into the slot, then repeat the eject procedure carefully.



- Do not insert anything but floppy disks into the disk drive.
   Other objects can damage the disk drive or floppy disk.
- Never open the disk shutter by hand or touch the internal surface of the disk. Dirt, dust, or grease on the disk's magnetic surface can cause data errors.
- Never leave disks near a speaker, TV, or other device that emits a strong magnetic field. Strong magnetic fields can partially erase the data on the disk.

- Do not store disks in places exposed to direct sunlight or other sources of heat. The acceptable storage temperature range is approximately 4° to 53° C (39° to 127° F).
- Do not store disks in areas subject to extreme dryness or humidity. The acceptable relative humidity range is approximately 8 to 90%.
- Do not store disks in areas contaminated with dust, sand, smoke, etc.
- Do not place heavy objects such as books on top of a disk.
- Avoid getting floppy disks wet, particularly with oily or sticky fluids. A disk that has been wet with water should be allowed to dry naturally before use. Disks contaminated by other fluids can cause damage to the disk drive and should be discarded.
- Be sure to apply the disk label at the proper position. When changing the label never cover the old label with a new label; always remove the old label first.

#### **Head Cleaning**

 With extended use the read/write head of the disk drive will pick up dust and other particles that will eventually cause data errors. If this occurs, clean the head with a 3.5 inch head cleaning disk available from most computer supply stores.

#### **Data Backup**

 For maximum data security we strongly recommended that you keep two copies of important data on separate floppy disks.
 These disks should ideally be stored in separate locations. This gives you a backup if one disk is lost or damaged.

#### **Protecting Your Data (Write Protect Tab)**

 To prevent accidental erasure of important data, slide the disk's write-protect tab to the "protect" position (tab open). If you attempt to modify the disk when the write-protect tab is set to ON position, "Protected" will appear on the display indicating that the operation is not possible.







Write protect tab ON (locked-write protected)

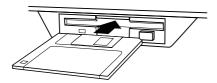
Write protect tab OFF (unlocked- write enabled)

### Formatting a New Floppy Disk

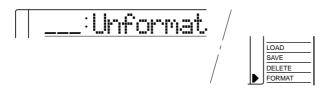
The PSR-620 uses only 3.5" 2DD floppy disks. Before you can use a new disk for saving data, the disk must be "formatted" as described below.

### Insert the Disk to Be Formatted

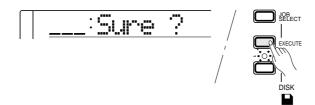
Make sure that the disk's write protect tab is set to the "write" position (tab closed), and insert the new disk into the disk drive unit with the sliding shutter facing the drive slot and the label side of the disk facing upward. The disk should click securely into place.



When an unformatted disk is properly loaded, the FORMAT job is automatically selected. "Unformat" will appear on the display and the **[EX-ECUTE]** indicator will flash.

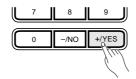


Press the [EXECUTE] button. "Sure?" will appear on the display



### 2 Format

Press the [+/YES] button to execute the format operation (or eject the disk to cancel). "Formatng" will appear on the display during formatting. When the disk has been formatted, the [EXECUTE] indicator will go out.





- Be careful not to format a disk that already contains data you want to keep. The format operation erases all data on the floppy disk!
- Never remove the disk or turn the power OFF while the "Formating" display is showing.
- The "Unformat" display will also appear if you insert a disk the PSR-620 cannot read.
- When an unformatted writeprotected disk is loaded, "Unformat" will be displayed. If you press the [EXECUTE] button, "Protcted" will appear on the display. Make sure the disk's write-protect tab is set to the OFF position before formatting.
- · When you want to re-format a formatted disk, press the [JOB SELECT] button to the right of the display as many times as necessary until the arrowhead in the display appears next to "FORMAT" in the disk job list to the right of the display. The [EXECUTE] indicator will flash and "Format?" will appear on the display. To execute the format operation, press the [EXECUTE] button. "Sure?" will appear on the display and the format is executed by pressing the [+/YES] button.

### Using Floppy Disks \_\_\_\_

### Saving, Loading, & Deleting Disk Files

#### - Saving to Disk —

A single floppy disk can hold up to 100 separate files (depending on the file size). Each file on a disk has a unique file number (01 through 00) and file name. You can specify both the file number and file name you want to save to.

When saving data to disk you must also specify a file type according to the type of data you want to save. The file types are listed below.

Туре	File Extension	Data Saved
Song	.SGD	User song data
Style	.STY	User style data
Multi Pad	.MPD	User multi pad data : pads [1] through [4]
Registration Memory	.SRD	The currently selected registration bank data: registration memory settings [1] through [4]
	.RAL	All registration bank data

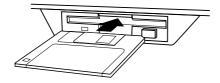
<sup>\*</sup> The "file extension" is a period and three-character suffix attached to the end of each file name to identify the file type.



- The user style data is loaded from disk to the style memory area of the PSR-620 (style number 101).
- Each file type corresponds to a PSR-620 function.

## Insert a Formatted Disk

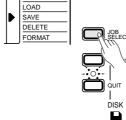
If an appropriate disk is not already in the drive, insert the disk you want to save the data to. If necessary format the disk as described in the previous section before proceeding.



## $\it 2$ Select the SAVE Job

Press the **[JOB SELECT]** button to the right of the display as many times as necessary until the arrowhead in the display appears next to "SAVE" in the disk job list in the right of the display.

The STYLE function will automatically be selected and the user style number "101" (even if the user style number "101" has no data) will appear on the display.

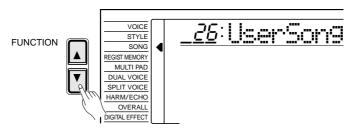


If the selected data number contains data, the [EXECUTE] indicator will flash.

## $oldsymbol{3}$ Select a Data Type (if necessary)\_\_\_\_\_

Any of the four data types — style, song, registration memory and multi pad — can be selected.

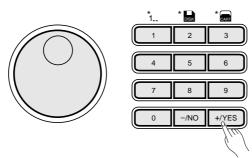
If you select the data type other than style, press the [FUNCTION] button to the left of the display as many times as necessary until the arrowhead in the display appears next to "SONG", "REGIST MEMORY" or "MULTI PAD" in the function list to the left of the display.



## $m{4}$ Select a Data Number (if necessary)

When you select the STYLE, SONG or MULTI PAD function, user style number "101", user song number "26" or user pad kit number "22" automatically be selected.

When you save the registration memory data, select the desired Registration Memory Bank (01 through 32) by using the [-/NO] and [+/YES] buttons, the number buttons or the data dial. If you want to save all PSR-620 registration memory data at once, select "33: AllBank" in the REGIST MEMORY function.





- No disk job can be selected even if you press the [JOB SELECT] button if no disk is inserted in the PSR-620 disk drive.
- If the user style number "101" contains no data, "\*\*\*\*\*\*\*" will appear to the right of the data number in the display.
- When one of the disk jobs is selected by pressing the [JOB SELECT] button, operations other than the disk related ones can not be performed.
- The [JOB SELECT] button cannot be used under the following conditions: while playing Song, Style or Multi Pad; while recording Song or Multi Pad; while the recordready mode is engaged.

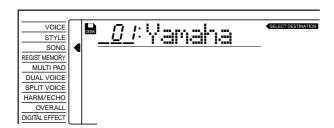


The PSR-620 automatically creates a file name which is the same as the name of the data you save. If you name the file (this is recommended), enter your original data name (see pages 44, 51 and 59) before executing the save operation.

### Using Floppy Disks \_\_\_\_

## $oldsymbol{\mathcal{J}}$ Press the [EXECUTE] Button

Press the **[EXECUTE]** button. The "SELECT DESTINATION" indicator appears above the beat indicator in the display.



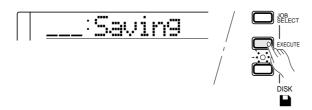
## $m{ heta}$ Select a Destination File in the Disk .....

Select the file number you want to save the data to via the [-/NO] and [+/YES] button, the number buttons or the data dial.

## Zexecute the Save Operation

Press the **[EXECUTE]** button again to execute the save operation. "Saving" will appear on the display while the data is being saved and the **[EXECUTE]** indicator will light. When the data has been saved, the **[EXECUTE]** indicator will go out.

The save operation can be canceled by pressing the **[QUIT]** button while the **[EXECUTE]** indicator is flashing.



#### NOTES

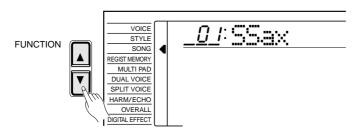
- Never remove the disk or turn the power OFF while the "Saving" display is showing.
- When a file is selected "\*\*\*\*\*\*\*" will appear to the right of the file number in the display if the file contains no data.
- If you select a file number that already contains data and execute the save operation, the PSR-620 will ask "Overwr?" for confirmation. If you're sure to overwrite press the [+/YES] button. The original data will be erased and replaced by the new data!
- If the disk becomes full when you try to save, "DiskFull" will appear on the display and the save operation cannot be done. Either delete unwanted data from the disk to make more room, or use a different disk.
- Duplicate file names of the same file type are not allowed. "SameName" will be briefly displayed and the file which name as same file type already exists on the disk will automatically be selected as the destination file. If you execute the save operation for the file, press the [EXECUTE] button (Press the [QUIT] button if you want to cancel). The PSR-620 will ask "Overwr?" for confirmation. If you're sure you want to write of the existing data, press the [+/YES] button.
- If an error occurs while saving data to the disk, "WriteErr" will appear on the display. Try the operation again. If the error persists there could be something wrong with the floppy disk. Try a different disk.

#### — Loading From Disk

## 1 Select a Data Type

Any of the four data types — style, song, registration memory and multi pad — can be selected.

Press the **[FUNCTION]** button to the left of the display as many times as necessary until the arrowhead in the display appears next to "STYLE", "SONG", "REGIST MEMORY" or "MULTI PAD" in the function list to the left of the display.



## 2 Select a File...

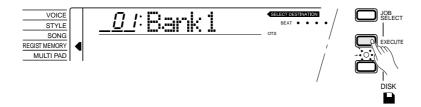
To select the file number you want to load, first press and hold the number [2] button (below the disk icon on the panel) until the disk icon appears to the left of the style, song, registration bank or multi pad kit name in the display, then enter the number of the disk file you want to select via the number buttons in the normal way (2 digits). Disk files can also be selected by using the [-/NO] and [+/YES] buttons or the data dial to go beyond the highest cartridge data numbers or the lowest internal data numbers. If the selected file is loadable, the LOAD job is automatically selected and the [EXECUTE] indicator will flash.



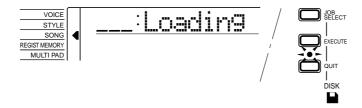
## $oldsymbol{3}$ Execute the Load Operation .....

When the desired file has been specified, press the **[EXECUTE]** button. If you have selected a STYLE, SONG or MULTI PAD data file, the file data will automatically be loaded into the user style number "101", user song number "26" or user multi pad kit number "22".

If you have selected a REGISTRATION data file, the "SELECT DESTINATION" indicator will appear above the beat indicator in the display. Select a destination registration memory bank (01 through 32) via the [-/NO] and [+/YES] buttons, the number buttons or the data dial. When the destination registration memory bank has been specified, press the [EXECUTE] button again.



"Loading" will appear on the display while the data is being loaded. When the data has been loaded the **[EXECUTE]** indicator will go out.



The load operation can be canceled by pressing the **[QUIT]** button while the **[EXECUTE]** indicator is flashing.

#### NOTES

- If the selected song can be played via Quick Play feature, the LOAD job will not automatically be selected and the [EXECUTE] indicator will not flash.
- Selecting a file on the disk may not be possible, immediately after the floppy disk is inserted and while the PSR-620 is reading the disk data.
- If the PSR-620 RAM memory becomes full or there is something wrong with the floppy disk or the data on the disk is corrupted when you try to load, "Load Err" will appear on the display.



- Never remove the disk or turn the power OFF while the "Loading" display is showing.
- Please note that when you load data from disk the loaded data will replace any current data of the same type in the PSR-620 memory.
- You can also select the LOAD job by pressing the [JOB SELECT] button before selecting the file you want to load.

  When you select the LOAD job by pressing the [JOB SELECT] button, the file number "01" will appear on the display. Select the file you want to load by using the [-/NO] and [+/YES] buttons, the number buttons or the data dial.
- If you select the file containing all the registration data from 1 through 32 and execute the load operation, "AllBank?" will appear on the display. If you're sure to load all the data, press the [+/YES] button. All current PSR-620 registration data will be erased and replaced by the new data.

#### The Referred File

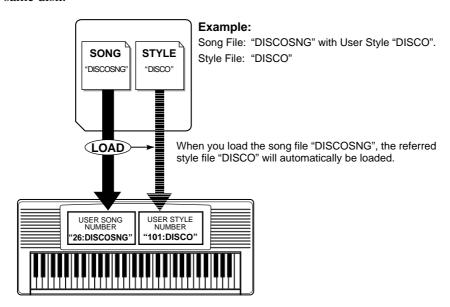
Some song and registration files have "referred" file(s).

If, for example, a loaded song file was recorded with a user style, the song file will not play correctly if the user style file has not also been loaded. Also, if a registration setup includes a user style and/or user pad data, the user style and/or user pad file must also be loaded if the registration setup is to function properly.

When you record a song with a user style data or you memorize a registration with a user style and/or a user pad data, the user style and/or user pad data is registered as the "referred" file(s) for the song or registration. If you save the song or registration data with the referred file(s) to disk, be sure to save the referred file(s) (the user style and/or the user pad data) to the same disk without changing the data name that was registered as the referred file(s).

#### ■ User Style Files Referred to by a Song File.....

→ When you load the song file, the referred user style file will automatically be loaded if both files exist on the same disk.



- → When the [PLAY/STOP] button is pressed to play the song, or the [REC] button is pressed to re-record the song, "RefLoad?" will appear on the display and the [EXECUTE] indicator will flash if the inserted disk includes the style file referred to by the song file and the style file has not been loaded. Press the [EXECUTE] button to load the referred file. When the referred style file has been loaded, song playback will start automatically or the record ready mode will be engaged.
- → When the [PLAY/STOP] button is pressed to play a song or the [REC] button is pressed to re-record the song, "WrongDsk" or "No Disk" will appear on the display if the inserted disk does not include the user style file or the applicable disk is not inserted in the disk drive. Insert the applicable disk and execute the load operation for the user style file.

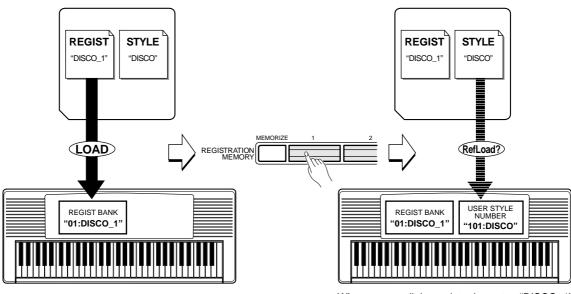
# ■ User Style or User Pad Files Referred to by a Registration File.....

→ When recalling a registration setup with referred user style and/or user pad file(s), the **[EXECUTE]** indicator will flash and "RefLoad?" will appear on the display if the inserted disk includes the user style and/or user pad file(s) and the file(s) have not been loaded. Press the **[EXECUTE]** button to load them.

#### Example:

 $\label{eq:RegistrationFile: "DISCO\_1" with User Style "DISCO".}$ 





When you recall the registration setup "DISCO\_1", "RefLoad?" will appear on the display if the referred style file "DISCO" exists on the inserted disk and has not been loaded.

→ When the REGISTRATION MEMORY [1]~[4] button is pressed to recall a registraion setup, "WrongDsk" or "No Disk" will appear on the display if the inserted disk does not include the user style and/or user pad file(s) or the applicable disk is not inserted in the disk drive. Insert the applicable disk and execute the load operation for the user style and/or user pad file(s).

# ■ Registration File Referred to by a User Style File ......

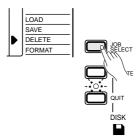
If a registration file has the same name as a user style file, the registration file is treated as the One Touch Setting data for the user style file.

→ When you load the user style file, the referred registration file (One Touch Setting data) will automatically be loaded if both files exist on the same disk.

# **Deleting a Disk File** —

# $\emph{1}$ Select the DELETE Job

Press the **[JOB SELECT]** button to the right of the display as many times as necessary until the arrowhead in the display appears next to "DE-LETE" in the disk job list to the right of the display.



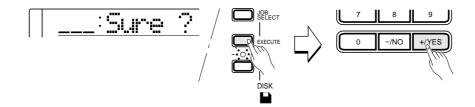
# 2Select the File to Be Deleted

Select a file number to be deleted by using the [-/NO] and [+/YES] buttons, the number buttons or the data dial. If the selected file can be deleted, the [EXECUTE] indicator will flash.

# $oldsymbol{3}$ Execute the Delete Operation

Press the **[EXECUTE]** button. "Sure?" will appear on the display. Press the **[+/YES]** button to delete the selected file or **[-/NO]** button to cancel the delete operation.

"Deleting" will appear on the display for a few seconds while the data is being deleted. When the data has been deleted, the **[EXECUTE]** indicator will go out.





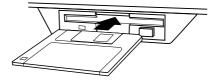
- The delete operation can be canceled by pressing the [QUIT] button while the [EXECUTE] indicator is flashing.
- Never remove the disk or turn the power OFF while the "Deleting" display is showing.

# Quick Play: Disk Orchestra Collection & -Standard MIDI File Disks

In addition to playing files recorded on the PSR-620, the PSR-620 can play back pre-recorded Yamaha Disk Orchestra Collection music disks, Yamaha Disklavier PianoSoft, ESEQ files and Standard MIDI File (file format 0) disks recorded on other equipment.

# Insert the Disk

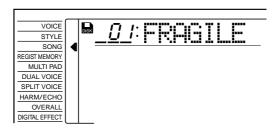
Insert the Disk Orchestra Collection, PianoSoft, or Standard MIDI File disk.



# $\it 2$ Select a Song Number

Use the FUNCTION [▲] and [▼] buttons to select the SONG function. To select a disk song, first press and hold the number [2] button (below the disk icon on the panel) until the disk icon appears to the left of the song number in the display, then enter the number of the disk song you want to select via the number buttons in the normal way. The disk songs can also be selected by using the [-/NO] and [+/YES] buttons or the data dial to go beyond the highest cartridge song numbers or lowest internal song numbers.

If the selected song can be played via the Quick Play feature, the LOAD job will not automatically be selected (if the selected song can be loaded, the LOAD job will automatically be selected).



# $oldsymbol{3}$ Start Playback....

Playback will begin as soon as the SONG [PLAY/STOP] button is pressed.

Playback can be stopped at any time by pressing the SONG [PLAY/STOP] button.



# NOTES

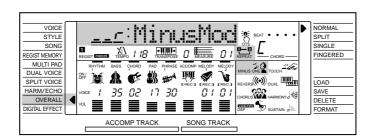
 Selecting a song on the disk may not be possible, immediately after the floppy disk is inserted and while the PSR-620 is reading the disk data.

- During Quick Play you can adjust the tempo of playback. (see page 34)
- In the case of Disk Orchestra
   Collection or Disklavier PianoSoft
   disks, the minus-one left and
   right hand parts will be set auto matically. (see page 80)



# **Practice Features**

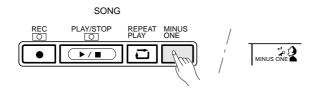
The PSR-620 includes two features that can be a great aid in learning to play and practicing on the keyboard.



# The Minus One Mode

When the Minus One mode is engaged, the left-hand, right-hand, or both keyboard parts of a song —internal demo, Music Cartridge or Disk — are turned OFF so you can practice them on the PSR-620 keyboard. The "MinusMod" function in the OVERALL function group determines which part or parts are turned OFF when the Minus One mode is engaged.

To turn the Minus One function ON, thus cancelling the specified parts, press the [MINUS ONE] button. The MINUS ONE icon will appear in the display when the Minus One function is engaged.



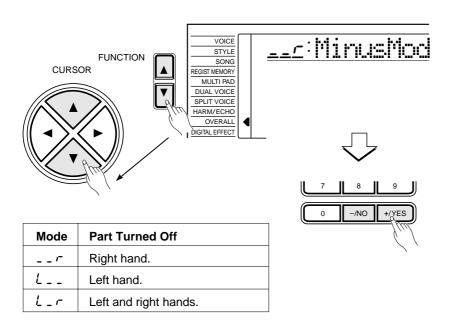
# ■ Specifying the Part (s) to Be Turned On or Off ...

To specify the right-hand, left-hand, or both parts to be turned OFF when the Minus One mode is engaged, first select the OVERALL functions by pressing either of the [FUNCTION] buttons to the left of the display as many times as necessary until the arrowhead in the display appears next to "OVERALL" in the function list to the left of the display. Then use the cursor [▲] and [▼] buttons to locate the "MinusMod" function. Finally use the [-/NO] and [+/YES] buttons or the data dial to select the desired Minus One mode.



- See page 80 for information on using the Minus One mode with the specified channel.
- With songs you record yourself, the MELODY 1 track corresponds to the right-hand part and the MELODY 2 track is the lefthand part.
- The "MinusMod" function in the OVERALL function group can be quickly selected by pressing and holding the [MINUS ONE] button.
- "\_\_ r" (Right hand) is selected whenever the power switch is turned ON.

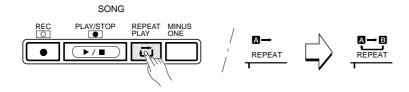
# **Practice Features**



# **Repeat Play**

This function allows you to specify any section of a song — cartridge, disk or internal — for continuous repeat playback.

While the song is playing, press the [REPEAT PLAY] button once at the beginning of the section to be repeated (the "A" repeat icon will appear on the display) and again at the end of the section to be repeated (the "B" repeat icon will appear). Repeat playback will begin automatically from the A point as soon as the B point has been specified, and will continue until either the [REPEAT PLAY] button is pressed again to cancel the repeat function, or until song playback is stopped.



It is also possible to specify the repeat section while playback is stopped. First use the MEASURE parameter to specify the A point, then press the [REPEAT PLAY] button. Next specify the B measure number and press [REPEAT PLAY] again. The specified A-B section will play repeatedly when the [PLAY/STOP] button is pressed.

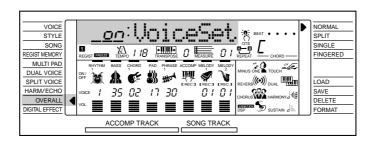


- When only the A point is specified, playback will repeat from the A point to the end of the song.
- If you specify, for example, measure number 8 for A point and measure number 2 for B point, playback will repeat from measure number 2 to 8.
- The end point B tempo or your manually adjusted tempo will be used during repeat playback.



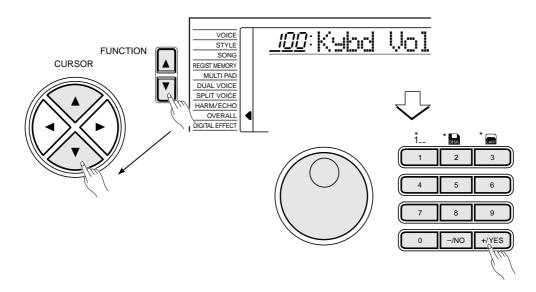
# **Overall Functions**

Some of the functions in the OVERALL function group have already been described in appropriate sections of this manual. Others will be introduced for the first time in this section. Refer to the chart below for the page numbers on which each function is described. The chart also lists the full name of each function, the abbreviated name which appears on the display, and the available settings or range of settings. Ranges are indicated by two or more values separated by ellipses (...).



Function	Display	Settings	Page
Keyboard Volume	Kybd Vol	00 127	77
Octave	Octave	-2 0 2	77
Reverb Level	RevLevel	00 127	78
Chorus Level	ChoLevel	00 127	78
DSP Level	DspLevel	00 127	78
Pan	Pan	-7 0 <b>7</b>	78
Voice Set	VoiceSet	oFF, on	79
Fingering	FngrngMd	nor, bAS, Full	31
Accompaniment Volume	AcompVol	00 127	79
Accompaniment Split Point	AccSpPnt	00 127	41
Touch Sensitivity	TouchSns	00 127	79
Minus-one Mode	MinusMod	r, L, L_r	74
Minus-one Right-hand Channel	MinusChR	01 16	80
Minus-one Left-hand Channel	MinusChL	01 16	80
Pitch Bend Range	PBRange	01 12	80
Metronome	Metronom	oFF, on	80
Tuning	Tuning	-100 100	80
Remote Channel	RemoteCh	oFF, 01 16	83
Keyboard Out	Kybd0ut	oFF, on	83
Song Out	SongOut	oFF, on	83
Accompaniment Out	AcompOut	oFF, on	84
Local Control	Local	oFF, on	84
External Clock	ExtClock	oFF, on	85
Initial Data Send	InitSnd?	None	85

To access an OVERALL function press either of the [FUNCTION] buttons to the left of the display as many times as necessary until the arrowhead in the display appears next to "OVERALL" in the function list to the left of the display. Then use the cursor [▲] and [▼] buttons to select the desired function from within the OVERALL function list. Once the function has been selected, use the [–/NO] and [+/YES] buttons or the data dial (or number buttons, where applicable) to set the function as required.



# **General Functions**

# **■** Keyboard Volume ....

Sets the volume of the keyboard sound (including dual and split voices) in relation to the accompaniment and song playback sound. The range is from "00" to "127". A setting of "00" produces no sound. "127" produces maximum volume.



## Octave

Shifts the right-hand keyboard voice (including the dual voice) up or down by one or two octaves. "-1" is down one octave, "-2" is down two octaves; "+1" and "+2" are up one and two octaves, respectively.



## NOTES

- The "Kybd Vol" function can be quickly selected by pressing and holding the [VOICE] button.
- The default setting =100 can be recalled by pressing the [-/NO] and [+/YES] buttons simultaneously.

- Negative values can be entered by pressing the number buttons while holding the [–/NO] button.
- The default setting =0 can be recalled by pressing the [-/NO] and [+/YES] buttons simultaneously.

# Overall Functions \_\_\_\_\_\_

### ■ Reverb Level

Sets the reverb send level for the voice selected via the VOICE function. The reverb send level determines the amount of signal sent to the reverb effect. The range is from "00" to "127". The reverb return level can be adjusted via the "RevRtnLv" function in the DIGITAL EFFECT function group — see page 25.



### ■ Chorus Level

Sets the chorus send level for the voice selected via the VOICE function. The chorus send level determines the amount of signal sent to the chorus effect. The range is from "00" to "127". The chorus return level can be adjusted via the "ChoRtnLv" function in the DIGITAL EFFECT function group — see page 27.



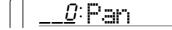
#### ■ DSP Level

Sets the DSP send level for the voice selected via the VOICE function. The DSP send level determines the amount of signal sent to the DSP effect. The range is from "00" to "127". The DSP return level can be adjusted via the "DspRtnLv" function in the DIGITAL EFFECT function group — see page 29.



#### ■ Pan

Sets the stereo pan position of the right-hand keyboard voice (selected in the VOICE function). The pan range is from "-7" (full left) to "+7" (full right).



## NOTES

- See page 88 for more details on the Digital Effects.
- The default setting can be recalled by pressing the [-/NO] and [+/YES] buttons simultaneously.
- If the Voice Set function is ON (page 79), the Reverb Level will change automatically whenever a different voice is selected via the VOICE function.



- See page 88 for more details on the Digital Effects.
- The default setting can be recalled by pressing the [-/NO] and [+/YES] buttons simultaneously.
- If the Voice Set function is ON (page 79), the Chorus Level will change automatically whenever a different voice is selected via the VOICE function.

# NOTES

- See page 88 for more details on the Digital Effects.
- The defalut setting can be recalled by pressing the [-/NO] and [+/YES] buttons simultaneously.
- If the Voice Set function is ON (page 79), the DSP Level will change automatically whenever a different voice is selected via the VOICE function.
- The DSP send level cannot be changed for the insertion DSP types (see page 88). In this case, "- - -" will appear on the display.

- If the Voice Set function is ON, the pan setting = 0 will be selected automatically whenever a different voice is selected via the VOICE function.
- The defalut setting can be recalled by pressing the [-/NO] and [+/YES] buttons simultaneously.
- Negative values can be entered by pressing the number buttons while holding the [-/NO] button.

Overall Functions

### Voice Set

The VOICE SET feature brings out the best in each individual voice by automatically setting a range of important voice-related parameters whenever a voice is selected. The parameters that may be set by the VOICE SET feature are listed below. This function lets you turn VOICE SET ON or OFF, as required. The Voice Set function is turned ON whenever the power switch is turned ON.

- Pan=0
- Reverb Level
- · Chorus Level
- DSP Level
- Dual voice (voice number, volume, octave, reverb level, chorus level, pan=0)
- Split voice (voice number, volume, octave, reverb level, chorus level, pan)
- Harmony/Echo type
- DSP type
- Reverb ON/OFF
- Chorus ON/OFF
- DSP=ON
- DSP variation ON/OFF

\_<u>oo</u>:VoiceSet

# ■ Accompaniment Volume

Sets the volume of the accompaniment sound in relation to the keyboard and song melody track sound. The range is from "00" to "127". A setting of "00" produces no sound. "127" produces maximum volume.

*\_100*: Acompuo 1

## ■ Touch Sensitivity.....

This function sets the keyboard touch sensitivity when the TOUCH RE-SPONSE function (page 17) is ON. The range is from "00" to "127". The higher the value the higher the sensitivity.

<u> 100</u>: TouchSns



- The "AccompVol" function can be quickly selected by pressing and holding the [STYLE] button.
- The default setting=100 can be recalled by pressing the [-/NO] and [+/YES] buttons simultaneously.

- The default setting=100 can be recalled by pressing the [-/NO] and [+/YES] button simultaneously.
- The "TouchSns" function can be quickly selected by pressing and holding the [TOUCH RE-SPONSE] button.

# Overall Functions --

# ■ Minus-one Right/Left-hand Channel

You can practice the specified part (in the Minus One mode) by selecting the internal demo, cartridge or disk song you want to practice and by assigning the appropriate channel to the desired part.

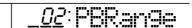
Any channel —1 through 16 — can be selected. The default setting "01" for the right-hand channel, "02" for the left-hand channel recalled by pressing the [-/NO] and [+/YES] buttons simultaneously.



\_*02*:MinusChL

# ■ Pitch Bend Range.....

Sets the pitch bend range. The pitch bend range value is displayed in semitone ("01" through "12" i.e. one octave).



## Metronome \_\_\_\_\_

Turns the metronome function ON or OFF. The metronome will sound during accompaniment/song playback and song/multi pad recording when turned ON.



## ■ Tuning

Sets the pitch of the PSR-620 to match other instruments. Tuning can be accomplished over a  $\pm 100$  cent range (that's 200 cents total, or a tone). The tuning range is from "-100" to "+100". "00" is the "normal" tuning value.



## NOTES

- · The channel for the specified part will automatically be selected if the selected song contains the Minus-one (Right-/Left-hand) channel settings. In this case, "- - -" will appear on the display and you can not change it.
- · Regardless of the Minus-one channel settings, with songs you record yourself, the MELODY 1 track corresponds to the righthand part and the MELODY 2 track is the left-hand part. While playing songs you record yourself, "- - -" will appear on the display and you cannot change the Minus-One channel settings.

## NOTES

The default pitch bend range=02 can be instantly recalled by pressing the [-/NO] and [+/YES] buttons simultaneously.

### NOTES

- The metronome function is turned OFF whenever the power switch is turned ON.
- · While playing demo songs in sequence, the metronome function cannot be used.

## NOTES

• The normal tuning value=00 can be recalled instantly by pressing both the [-/NO] and [+/YES] buttons simultaneously.

# **MIDI Functions**

MIDI, the Musical Instrument Digital Interface, is a world-standard communication interface that allows MIDI-compatible musical instruments and equipment to share musical information and control one another. This makes it possible to create "systems" of MIDI instruments and equipment that offer far greater versatility and control than is available with isolated instruments.

#### The MIDI Connectors

The **MIDI IN** connector receives MIDI data from an external MIDI device which can be used to control the PSR-620. The **MIDI OUT** connector transmits MIDI data generated by the PSR-620 (e.g. note and velocity data produced by playing the keyboard).



## **● Simple MIDI Control**

Most MIDI keyboards (including the PSR-620, of course) transmit note and velocity (touch response) information via the **MIDI OUT** connector whenever a note is played on the keyboard. If the **MIDI OUT** connector is connected to the **MIDI IN** connector of a second keyboard (synthesizer, etc.) or a tone generator (essentially a synthesizer with no keyboard), the second keyboard or tone generator will respond precisely to notes played on the original transmitting keyboard. The result is that you can effectively play two instruments at once, providing thick multi-instrument sounds. The PSR-620 also transmits "program change" data when one of its voices is selected. Depending on how the receiving device is set up, the corresponding voice will be automatically selected on the receiving keyboard or tone generator whenever a voice is selected on the PSR-620.



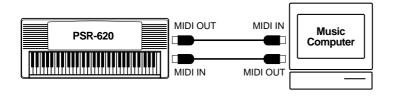
# **Overall Functions**

The PSR-620 is capable of receiving the same MIDI data, so a second MIDI keyboard connected to the PSR-620 **MIDI IN** connector can be used to remotely play the PSR-620 and select voices as required.



## MIDI Sequence Recording

Although the PSR-620 features a built-in "sequencer" (the SONG recorder is a type of sequencer), the same type of musical information transfer described above can be used for more sophisticated MIDI sequence recording using an external sequencer or music computer. A MIDI sequence recorder or music computer can be used to "record" MIDI data received from a PSR-620, for example. When the recorded data is played back, the PSR-620 automatically "plays" the recorded performance in precise detail.

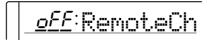




 Never use MIDI cables longer than about 15 meters. Cables longer than this can pick up noise which can cause data errors.

## ■ Remote Channel

Sets the MIDI channel on which data from a remote keyboard will be received. Any of the standard MIDI channels — 1 through 16 — can be specified. The remote keyboard must be set up to transmit on the specified remote channel, and the keyboard's **MIDI OUT** connector must be connected to the PSR-620 **MIDI IN** connector via a standard MIDI cable. Refer to the "MIDI Implementation Chart" section (page 100) for technical details. When set to OFF data is received on all 16 MIDI channels. The default setting — OFF — can be recalled by pressing the [-/NO] and [+/YES] buttons simultaneously.



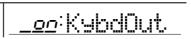
## NOTES

- Remote Channel is automatically turned OFF when a MIDI "GM ON" message is received.
- The Remote channel setting is retained in memory even when the power switch is turned OFF, as long as batteries are installed or an AC adaptor is connected.

# ■ Keyboard Out.....

Determines whether keyboard data will or will not be transmitted via the **MIDI OUT** connector. Keyboard data is transmitted when this function is turned ON (default). When set to ON the keyboard data is transmitted on the following MIDI channels:

Voice	Channel
Right-hand main voice	1
Dual voice	11
Left-hand voice (Split voice)	2



# NOTES

 Keyboard Out setting is retained in memory even when the power switch is turned OFF, as long as batteries are installed or an AC adaptor is connected.

# ■ Song Out.....

Determines whether song data (Melody track/s only) will or will not be transmitted via the **MIDI OUT** connector. Song data is transmitted when this function is turned ON. The default setting is OFF. When set to ON the song data is transmitted on the following MIDI channels:

Track/voice	Channel
Melody 1/main voice	13
Melody 1/dual voice	14
Melody 2/main voice	15
Melody 2/dual voice	16





- Song Out setting is retained in memory even when the power switch is turned OFF, as long as batteries are installed or an AC adaptor is connected.
- Only the user song you recorded can be transmitted.
- If you want to transmit all the song data (including Accomp track), set "Song Out" and "Accompaniment Out" to ON.

# Overall Functions

# ■ Accompaniment Out

Determines whether auto-accompaniment data will or will not be transmitted via the **MIDI OUT** connector. Accompaniment data is transmitted when this function is turned ON. The default setting is OFF. When set to ON the accompaniment data is transmitted on the following MIDI channels:

Track	Channel
Rhythm 1	9
Rhythm 2	10
Bass	3
Chord 1	4
Chord 2	5
Pad	6
Phrase 1	7
Phrase 2	8



# ■ Local Control

"Local Control" refers to the fact that, normally, the PSR-620 keyboard controls the internal tone generator, allowing the internal voices to be played directly from the keyboard. This situation is "Local Control ON" since the internal tone generator is controlled locally by its own keyboard. Local control can be turned OFF, however, so that the keyboard does not play the internal voices, but the appropriate MIDI information is still transmitted via the MIDI OUT connector when notes are played on the keyboard. At the same time, the internal tone generator can respond to MIDI information received via the MIDI IN connector. This means that while an external MIDI sequencer, for example, plays the PSR-620 internal voices, an external tone generator can be played from the PSR-620 keyboard. The default Local Control setting is ON.

\_*\_\_\_*:Loc.a1

NOTES

 Accompaniment Out setting is retained in memory even when the power switch is turned OFF, as long as batteries are installed or an AC adaptor is connected.

## ■ External Clock

Reception of an external MIDI clock signal can be enabled or disabled as required. When disabled (OFF), all of the time-based functions (Auto Accompaniment, SONG recording and playback, etc.) are controlled by its own internal clock. When MIDI clock reception is enabled (ON), however, all timing is controlled by an external MIDI clock signal received via the **MIDI IN** terminal. The default setting is OFF.



### ■ Initial Data Send

Transmits all current panel settings to a MIDI data storage device before actually recording your performance. With the "InitSnd?" function selected, press the [+/YES] button to start transmission. When the data has been transmitted, "End" will appear momentarily on the display and return to the "InitSnd?".





- If the External Clock function is turned ON but the external clock signal is interrupted for more than 400 milliseconds, the internal clock is re-selected automatically.
- External Clock setting is retained in memory even when the power switch is turned OFF, as long as batteries are installed or an AC adaptor is connected.
- When the External Clock is turned ON, the song recording/ playback will be controlled by the external device.



- The song data will not be played back correctly, if the panel settings for the song has not been recorded in advance. To record the panel settings to an external device, engage the external device in the record mode and execute the Initial Data Send operation.
- The "InitSnd?" function can be quickly selected by pressing and holding the [SYNC-START/ STOP] button.

# Appendix: PSR-620 Function Tree \_\_\_\_\_

ICTION	Display	Description	
VOICE	GrandPno (Voice Name)	Selecting Voicespage	e 12
STYLE	8BeatPop (Style Name)	Selecting Accompaniment Stylespage	e 33
SONG	SSax (Song Name)	Selecting Songspage	e 47
REGIST MEMORY	——— Bank1	Selecting Registration Bankspage	e 43
MULTI PAD	——— Arpeggio (Multi Pad Kit Name)	Selecting Multi Pad Kitspage	e 55
DUAL VOICE	Strings2	Selecting Dual Voicespage	e 18
	D.Volume	Changing Dual Voice Volumepage	e 18
	D.Octave	Changing Dual Voice Octavepage	e 18
	D.RevLvl	Changing Dual Voice Reverb Send Levelpage	e 18
	D.ChoLvl	Changing Dual Voice Chorus Send Levelpage	e 18
	D.Pan	Changing Dual Voice Panningpage	e 18
SPLIT VOICE	Aco.Bass (Split Voice Name)	Selecting Split Voicespage	e 15
	S.Volume	Changing Split Voice Volumepage	e 15
	S.Octave	Changing Split Voice Octavepage	e 15
	S.RevLvl	Changing Split Voice Reverb Send Levelpage	e 15
	S.ChoLvl	Changing Split Voice Chorus Send Levelpage	e 15
	S.Pan	Changing Split Voice Panningpage	e 15
	S.Split	Changing Split Point (Split mode)page	e 15
HARMONY/ECHO	Block (Harmony/Echo Type	Selecting Harmony/Echo typespage	e 20
OVERALL			

# Appendix: PSR-620 Function Tree

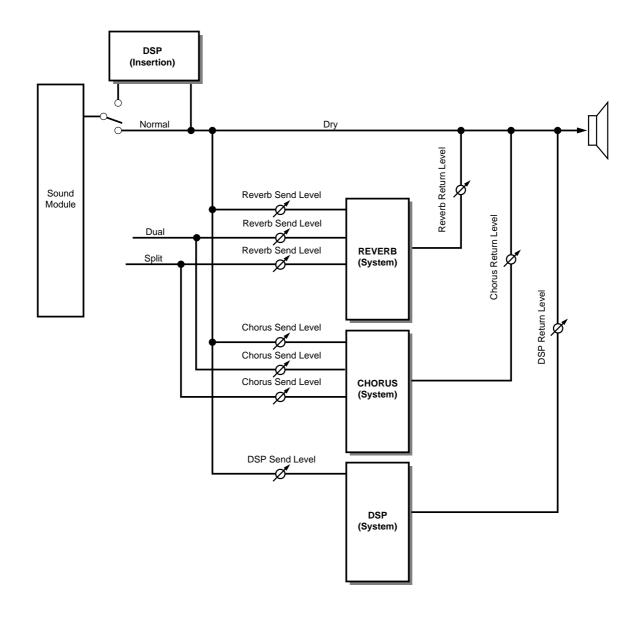
	Kybd Vol	Changing Keyboard volume	page //
	Octave	Changing Octave (VOICE function voice and dual voice)	page 77
-	RevLevel	Changing Reverb Send Level (VOICE function voice)	page 78
-	ChoLevel	Changing Chorus Send Level (VOICE function voice)	page 78
-	DspLevel	Changing DSP Send Level (VOICE function voice)	page 78
-	Pan	Stereo Panning (VOICE function voice)	page 78
-	VoiceSet	Turning Voice Set ON/OFF	page 79
-	FngrngMd	Selecting Fingering mode (Fingered mode)	page 31
$\vdash$	AcompVol	Setting Accompaniment Volume	page 79
-	AccSpPnt	Changing Accompaniment Split Point (Accomp mode)	page 41
-	TouchSns	Setting Touch Sensitivity	page 79
-	MinusMod	Selecting Minus One Mode	page 74
$\vdash$	MinusChR	Selecting Minus One Right-hand Channel	page 80
-	MinusChL	Selecting Minus One Left-hand Channel	page 80
-	PBRange	Setting Pitch Bend Range	page 80
-	Metronom	Metronome ON/OFF	page 80
$\vdash$	Tuning	Fine Tuning	page 80
-	RemoteCh	Setting Remote Keyboard Channel	page 83
-	KybdOut	Transmitting Keyboard Data	page 83
		Transmitting Song data (Melody track/s)	2000
	SongOut	3 - 3 - 3 - 4 - 7 - 4 - 7	page 63
	SongOut  AcompOut	Transmitting Auto-accompaniment data	
			page 84
	AcompOut Local	Transmitting Auto-accompaniment data	page 84 page 84
	AcompOut Local	Transmitting Auto-accompaniment data  Local Control ON/OFF	page 84 page 84 page 85
	AcompOut Local ExtClock	Transmitting Auto-accompaniment data  Local Control ON/OFF  External Clock ON/OFF	page 84 page 84 page 85
	AcompOut Local ExtClock	Transmitting Auto-accompaniment data  Local Control ON/OFF  External Clock ON/OFF	page 84 page 84 page 85
	AcompOut Local ExtClock InitSnd?	Transmitting Auto-accompaniment data  Local Control ON/OFF  External Clock ON/OFF	page 84 page 84 page 85 page 85
	AcompOut Local ExtClock InitSnd?	Transmitting Auto-accompaniment data  Local Control ON/OFF  External Clock ON/OFF  Sending Initial Data  ÷Hall1 Selecting Reverb Types	page 84 page 84 page 85 page 85 page 24
	AcompOut Local ExtClock InitSnd?	Transmitting Auto-accompaniment data  Local Control ON/OFF  External Clock ON/OFF  Sending Initial Data  ÷Hall1  (Reverb Type Name)  Selecting Reverb Types	page 84 page 85 page 85 page 24 page 25
	AcompOut Local ExtClock InitSnd? Reverb ÷	Transmitting Auto-accompaniment data  Local Control ON/OFF  External Clock ON/OFF  Sending Initial Data	page 84 page 85 page 85 page 24 page 25 page 26
	AcompOut Local ExtClock InitSnd? Reverb ÷	Transmitting Auto-accompaniment data  Local Control ON/OFF  External Clock ON/OFF  Sending Initial Data	page 84 page 85 page 85 page 24 page 25 page 26 page 27

# Digital Effect Configuration

The PSR-620 features three types of digital effectors: Reverb, Chorus and DSP. Reverb and Chorus effectors are exclusively used for enhancing and varying their respective effect types. On the contrary the DSP effector can be used to select a variety of effect types such as Distortion, Equalizer, Reverb and Chorus.

All the digital effects are connected or routed in one of two ways: System or Insertion. All types of Reverb and Chorus effects classified as System effects. DSP, on the other hand, can be configured as either System or Insertion effects. DSP configuration varies depending on the type selected: System or Insertion illustrated below.

Each digital effect can be applied to the performance and incoming performance data through MIDI IN, accompaniment and song playback. Each effect send level can independently be set for each voice (Reverb and Chorus for the VOICE function voice, Dual voice and Split voice. DSP for the VOICE function voice only), while each effect return level affects entire system.



# The Digital Effect List

No.	Effect Type		Features	
REVERB				
01~04	Hall1~4	System	Concert hall reverb.	
05~08	Room1~4	System	Small room reverb.	
09, 10	Stage1, 2	System	Reverb for solo instruments.	
11, 12	Plate1, 2	System	Simulated steel plate reverb.	
13	OFF	_	No effect.	
CHORUS				
01~05	Chorus1~5	System	Conventional chorus program with rich, warm chorusing.	
06~09	Flanger1~4	System	Pronounced three-phase modulation with a slight metallic sound.	
10	OFF	_	No effect.	
DSP				
01~04	Hall1~4	System	Concert hall reverb.	
05~08	Room1~4	System	Small room reverb.	
09, 10	Stage1, 2	System	Reverb for solo instruments.	
11, 12	Plate1, 2	System	Simulated steel plate reverb.	
13, 14	Early Reflection1, 2	System	Early reflections only.	
15	Gate Reverb	System	Gated reverb effect, in which the reverberation is quickly cut off for special effects.	
16	Reverse Gate	System	Similar to Gate Reverb, but with a reverse increase in reverb.	
17~21	Chorus1~5	System	Conventional chorus program with rich, warm chorusing.	
22~25	Flanger1~4	System	Pronounced three-phase modulation with slight metallic sound.	
26	Symphonic	System	Exceptionally rich & deep chorusing.	
27	Phaser	System	Pronounced, metallic modulation with periodic phase change.	
28~32	Rotary Speaker 1~5	Insertion	Rotary speaker simulation.	
33, 34	Tremolo 1, 2	Insertion	Rich Tremolo effect with both volume and pitch modulation.	
35	Guitar Tremolo	Insertion	Simulated electric guitar tremolo.	
36	Auto Pan	Insertion	Several panning effects that automatically shift the sound position (left, right, front, back).	
37	Auto Wah	Insertion	Repeating filter sweep "wah" effect.	
38	Delay L, C, R	System	Three independent delays, for the left, right and center stereo positions.	
39	Delay L, R	System	Initial delay for each stereo channel, and two separate feedback delays.	
40	Echo	System	Stereo delay, with independent Feedback Level controls for each channel.	
41	Cross Delay	System	Complex effect that sends the delayed repeats "bouncing" between the left and right channels.	
42	Distortion Hard	Insertion	Hard-edge distortion.	
43	Distortion Soft	Insertion	This type is not so hard compared with Distortion Hard.	
44	EQ Disco	Insertion	Discotype equalizer program to boost high and low frequencies.	
45	EQ Telephone	Insertion	Equalizer program which eliminates higher and lower frequencies to simulate the sounds through telephone.	
46	OFF	_	No effect.	

# **Appendix: Troubleshooting**

Something not working as it should? In many cases what appears to be a malfunction can be traced to a simple error that can be remedied immediately. Before assuming that your PSR-620 is faulty, please check the following points.

PROBLEM	POSSIBLE CAUSE/SOLUTION
The speakers produce a "pop" sound whenever the power is turned ON or OFF.	This is normal and is no cause for alarm.
No second orbits of the book and in placed	Turn the power OFF and turn the power ON again. The default setting "Local ON" is automatically selected.
No sound when the keyboard is played.	The Local Control function could be turned OFF. Make sure Local Control is turned ON (page 84).
Not all simultaneously-played notes sound.	You are probably exceeding the maximum polyphony of the PSR-620. The PSR-620 can play up to 32 notes at the same time — including split, dual, auto-accompaniment, song memory, and multi pad notes. Notes exceeding this limit will not sound.
	Auto accompaniment won't sound right if you're using SINGLE FINGER type fingering when the SINGLE FINGER mode is not selected (page 31).
Auto accompaniment won't function properly. No lower keyboard sound.	Are you sure you're playing in the Auto-Accompaniment section of the keyboard?
	Are you playing chords that the PSR-620 can recognize (see chord types on page 32)?
The selected voice does not sound	Make sure that the Keyboard Volume, Split Voice Volume, and/or Dual Voice Volume parameters are set at an appropriate level (pages 77, 15, and 18).
when the keyboard is played.	Turn the power OFF and turn the power ON again. The appropriate default volume setting for the voice is automatically selected.
Rhythm doesn't sound when started.	Some sections of some styles do not use the accompaniment rhythm track.
Operation of the sustain pedal is reversed.	Sustain pedal operation will be reversed if you turn ON the power or plug in the pedal while pressing the pedal. For normal operation turn OFF the power then turn it back ON while the pedal is <u>not</u> pressed.
The desired parameter cannot be edited.	The cursor is not located at the parameter to be edited. Make sure that the cursor is located at the parameter to be edited (the parameter should be flashing).
	Make sure that the accompaniment tracks you want to hear are not muted (page 39), and that the Accomp Volume parameter is turned up to a reasonable level (page 79).
Accompaniment does not play properly.	Turn the power OFF and turn the power ON again. The appropriate default track setting for the style and the default accompaniment volume is automatically selected.
The Harmony/Echo and/or Dual Voice	Neither of these functions can be turned ON if a percussion kit voice is selected.  Make sure a voice between number 01 and 141 is selected.
function will not turn ON.	The Harmony/Echo effect cannot be turned ON when the FINGERED FULL mode is in use. Select another fingering mode (page 31).

# Appendix: Troubleshooting / Data Backup & Initialization

PROBLEM	POSSIBLE CAUSE/SOLUTION
The reverb and chorus types can not be changed by changing the registration memory number.	ACCOMP FREEZE function is turned ON. The reverb and chorus types are memoried as accompaniment parameter. Press the [ACCOMP FREEZE] button to turn OFF it.
	Make sure that an appropriate Yamaha Music Cartridge is properly plugged into the cartridge slot (page 60)
Cartridge data cannot be selected or cannot be played back correctly.	The electrical contacts on the Music Cartridge are affected with dust. Insert and remove the Music Cartridge several times. This may solve the problem. If the problem still happens, wipe and clear the electrical contacts on the Music Cartridge with a dry soft cloth.

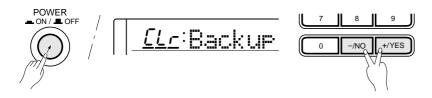
# Appendix: Data Backup & Initialization

Except for the data listed below, all PSR-620 panel settings are reset to their initial settings whenever the power is turned ON. The data listed below are backed up — i.e. retained in memory — as long as an AC adaptor is connected or a set of batteries is installed.

- Registration Memory data
- User Song data
- User Style data
- User Pad Kit data
- Remote Channel
- Keyboard Out
- Song Out
- Accomp Out
- External Clock

## ■ Data Initialization...

All data can be initialized and restored to the factory preset condition by turning ON the power while holding the [-/NO] and [+/YES] buttons. "CLr: Backup" will appear briefly on the display.





- All registration, song, style and multi pad memory data, plus the other settings listed above, will be erased and/or changed when the data initialization procedure is carried out.
- If the PSR-620 has been "locked up" due to static electricity or other causes, turn the PSR-620 OFF and execute the initialize operation.

# Voice List

The PSR-620 is provided with the Panel Voices (voice numbers 01~151) and GM Voices (voice numbers 01~136). GM Voices are used for the accompaniment. Refer to the GM Voice List on page 95 for the accompaniment track voice editing.

## **Polyphony**

The PSR-620 can play up to 32 individual notes at the same time (i.e. it has a maximum "polyphony" of 32). This number includes all voices used: dual, split, auto accompaniment, song, and multi pads. If the maximum polyphony of the PSR-620 is exceeded, the excess notes will be truncated (they will not sound).

Another feature affecting polyphony is the fact that some PSR-620 voices actually use two voices at once, as shown in the voice list below. The effective maximum polyphony of the PSR-620 is correspondingly reduced when these voices are used.

- The voice list includes the MIDI program numbers and MIDI bank select numbers (Panel Voice List only) that control each voice when the PSR-620 is played from an external MIDI device.
- Panel voice number 113/GM voice number 110 (Bagpipe) uses only one voice above A#2.

## **Panel Voice List**

Voice	Bank	Select	MIDI	Voice Name	Number		
Number	MSB	LSB	Program Number	Voice Name	of Notes Used		
Piano							
01	0	0	0	Grand Piano	1		
02	0	0	1	Bright Piano	1		
03	0	0	2	Honky-tonk Piano	2		
04	0	0	3	Funky Electric Piano	2		
05	0	0	4	DX Electric Piano	2		
06	0	0	5	Midi Grand Piano	2		
07	0	0	6	Hyper Electric Piano	2		
80	0	0	7	Dream Electric Piano	2		
09	0	0	8	Bell Electric Piano	2		
10	0	0	9	Ice Electric Piano	2		
11	0	0	10	Tremolo Electric Piano	2		
12	0	0	11	Harpsichord	1		
13	0	0	12	Harpsichord Coupled	2		
14	0	0	13	Clavi	2		
15	0	0	14	Wah Clavi	2		
16	0	0	15	Celesta	2		
			N	Mallets			
17	0	0	16	Vibraphone	2		
18	0	0	17	Marimba	2		
19	0	0	18	Glockenspiel	1		
20	0	0	19	Xylophone	1		
21	0	0	20	Tubular Bells	1		
22	0	0	21	Timpani	1		
23	0	0	22	Steel Drums	2		
24	0	0	23	Dulcimer	2		
25	0	0	24	Music Box	2		
26	0	0	25	Kalimba	1		
				Organ	_		
27	0	0	26	Jazz Organ 1	2		
28	0	0	27	Jazz Organ 2	2		
29	0	0	28	Drawbar Organ	2		
30	0	0	29	Full Organ	2		
31	0	0	30	Click Organ	2		
32	0	0	31	Rock Organ 1	2		
33	0	0	32	Rock Organ 2	2		
34	0	0	33	16'+2' Organ	2		
35	0	0	34	16'+4' Organ	2		
36	0	0	35	Church Organ	2		
37	0	0	36	Reed Organ	2		
38	0	0	37	Musette Accordion	2		
39	0	0	38	Traditional Accordion	2		
40	0	0	39	Soft Accordion	2		
41	0	0	40	Tango Accordion	2		
42	0	0	41	Bandoneon	2		

Voice	Bank	Select	MIDI Program	Voice Name	Number of Notes
Number	MSB	LSB	Number	Voice Name	Used
			(	Guitar	
43	0	0	42	Classical Guitar	1
44	0	0	43	Folk Guitar	2
45	0	0	44	12Strings Guitar	2
46	0	0	45	Jazz Guitar	2
47	0	0	46	Octave Guitar	2
48	0	0	47	Hawaiian Guitar	2
49	0	0	48	Clean Guitar	2
50	0	0	49	Tremolo Guitar	2
51	0	0	50	Muted Guitar	2
52	0	0	51	Guitar Harmonics	1
53	0	0	52	Overdriven Guitar	2
54	0	0	53	Distortion Guitar	2
				Bass	
55	0	0	54	Acoustic Bass	1
56	0	0	55	Finger Bass	1
57	0	0	56	Pick Bass	1
58	0	0	57	Fretless Bass	2
59	0	0	58	Slap Bass	2
60	0	0	59	Synth Bass 1	2
61	0	0	60	Synth Bass 2	2
62	0	0	61	Techno Bass	2
		,		Strings	
63	0	0	62	Violin	1
64	0	0	63	Viola	1
65	0	0	64	Cello	1
66	0	0	65	Contrabass	1
67	0	0	66	Banjo	1
68	0	0	67	Shamisen	1
69	0	0	68	Koto	1
70	0	0	69	Harp	2
71	0	0	70	Sitar	2
			Er	nsemble	
72	0	0	71	Strings 1	2
73	0	0	72	Strings 2	2
74	0	0	73	Chamber Strings	2
75	0	0	74	Synth Strings	2
76	0	0	75	Slow Strings	2
77	0	0	76	Tremolo Strings	2
78	0	0	77	Violin w/Strings	2
79	0	0	78	Pizzicato Strings	2
80	0	0	79	Choir	2
81	0	0	80	Choir Aahs	2
82	0	0	81	Choir Oohs	2
83	0	0	82	Synth Choir	2
84	0	0	83	Voyager	2
		-	2.4	- 79	<del></del>

Orchestra Hit

Voice	Bank	Select	MIDI Program	Voice Name	Number of Notes			
Number	MSB	LSB	Number	Voice Name	Used			
Brass								
86	0	0	85	Trumpet	2			
87	0	0	86	Flugel Horn	2			
88	0	0	87	Muted Trumpet	2			
89	0	0	88	Trombone	2			
90	0	0	89	Trombone Section	2			
91	0	0	90	French Horn	1			
92	0	0	91	Tuba	1			
93	0	0	92	Brass Section	2			
94	0	0	93	Brass+Sax	2			
95	0	0	94	Brass+Trombone	2			
96	0	0	95	Brass+Trumpet	2			
97	0	0	96	Synth Brass 1	2			
98	0	0	97	Synth Brass 2	2			
		•		Reed	·			
99	0	0	98	Soprano Sax	2			
100	0	0	99	Alto Sax	1			
101	0	0	100	Breathy Alto Sax	2			
102	0	0	101	Tenor Sax	1			
103	0	0	102	Breathy Tenor Sax	2			
104	0	0	103	Baritone Sax	2			
105	0	0	104	Sax + Clarinet	2			
106	0	0	105	Sax+Trombone	2			
107	0	0	106	Oboe	1			
108	0	0	107	English Horn	1			
109	0	0	108	Bassoon	1			
110	0	0	109	Clarinet	1			
111	0	0	110	Harmonica	1			
112	0	0	111	Shanai	1			
113	0	0	112	Bagpipe	2			
				Pipe				
114	0	0	113	Piccolo	2			
115	0	0	114	Flute	2			
116	0	0	115	Pan Flute	2			
117	0	0	116	Recorder	1			
118	0	0	117	Blown Bottle	2			
119	0	0	118	Shakuhachi	1			
120	0	0	119	Whistle	1			
121	0	0	120	Ocarina	1			

Voice	Bank	Select	MIDI Program	Voice Name	Number of Notes					
Number	MSB	LSB	Number	Voice Hame	Used					
Synth Lead										
122	0	0	121	Square Lead	2					
123	0	0	122	Sawtooth Lead	2					
124	0	0	123	Voice Lead	2					
125	0	0	124	Crystal	2					
126	0	0	125	Brightness	2					
127	0	0	126	Sub Aqua	2					
128	0	0	127	Analog Lead	2					
129	0	1	0	Rain Hold	2					
130	0	1	1	70's Lead	2					
131	0	1	2	Synth Clavi	2					
			Sy	nth Pad						
132	0	1	3	Fantasia	2					
133	0	1	4	Bell Pad	2					
134	0	1	5	Xenon Pad	2					
135	0	1	6	Angels	2					
136	0	1	7	Transform	2					
137	0	1	8	Atmosphere	2					
138	0	1	9	Shining	2					
139	0	1	10	Dark Moon	2					
140	0	1	11	Cyber Pad	2					
141	0	1	12	Sci-Fi	2					
			Dr	um Kits						
142	127	0	0	Standard Kit	1					
143	127	0	8	Room Kit	1					
144	127	0	16	Rock Kit	1					
145	127	0	24	Electronic Kit	1					
146	127	0	25	Analog Kit	1					
147	127	0	32	Jazz Kit	1					
148	127	0	40	Brush Kit	1					
149	127	0	48	Classic Kit	1					
			Di	ıal Only						
150	0	1	13	Organ Harmonics 51/3	1					
151	0	1	14	Organ Harmonics 51/3+ 22/3	2					

## **GM Voice List**

Voice Number	MIDI Program Number	Voice Name	Number of Notes Used	Voice Number	MIDI Program Number	Voice Name	Number of Notes Used	Voice Number	MIDI Program Number	Voice Name	Number of Notes Used
		Piano		45	44	Tremolo Strings	2	91	90	Pad 3 (polysynth)	2
01	0	Acoustic Grand Piano	1	46	45	Pizzicato Strings	2	92	91	Pad 4 (choir)	2
02	1	Bright Acoustic Piano	1	47	7 46 Orchestral Harp 1		93	92	Pad 5 (bowed)	2	
03	2	Electric Grand Piano	2	48	47	Timpani	1	94	93	Pad 6 (metallic)	2
04	3	Honky-tonk Piano	2			Ensemble		95	94	Pad 7 (halo)	2
05	4	Electric Piano 1	2	49	48	Strings Ensemble 1	1	96	95	Pad 8 (sweep)	2
06	5	Electric Piano 2	2	50	49	Strings Ensemble 2	1			Synth Effects	
07	6	Harpsichord	1	51	50	Synth Strings 1	2	97	96	FX 1 (rain)	2
08	7	Clavi	1	52	51	Synth Strings 2	2	98	97	FX 2 (soundtrack)	2
	Chr	omatic Percussion		53	52	Choir Aahs	2	99	98	FX 3 (crystal)	2
09	8	Celesta	1	54	53	Voice Oohs	1	100	99	FX 4 (atmosphere)	2
10	9	Glockenspiel	1	55	54	Synth Voice	1	101	100	FX 5 (brightness)	2
11	10	Music Box	2	56	55	Orchestra Hit	1	102	101	FX 6 (goblins)	2
12	11	Vibraphone	1		'	Brass		103	102	FX 7 (echoes)	2
13	12	Marimba	1	57	56	Trumpet	1	104	103	FX 8 (sci-fi)	2
14	13	Xylophone	1	58	57	Trombone	1			Ethnic	
15	14	Tubular Bells	1	59	58	Tuba	1	105	104	Sitar	1
16	15	Dulcimer	2	60	59	Muted Trumpet	1	106	105	Banjo	1
		Organ		61	60	French Horn	1	107	106	Shamisen	1
17	16	Drawbar Organ	1	62	61	Brass Section	1	108	107	Koto	1
18	17	Percussive Organ	1	63	62	Synth Brass 1	2	109	108	Kalimba	1
19	18	Rock Organ	2	64	63	Synth Brass 2	2	110	109	Bagpipe	2
20	19	Church Organ	2			Reed		111	110	Fiddle	1
21	20	Reed Organ	1	65	64	Soprano Sax	1	112	111	Shanai	1
22	21	Accordion	2	66	65	Alto Sax	1			Percussive	
23	22	Harmonica	1	67	66	Tenor Sax	1	113	112	Tinkle Bell	2
24	23	Bandoneon	2	68	67	Baritone Sax	1	114	113	Agogo	1
		Guitar	_	69	68	Oboe	1	115	114	Steel Drums	2
25	24	Acoustic Guitar (nylon)	1	70	69	English Horn	1	116	115	Woodblock	1
26	25	Acoustic Guitar (steel)	1	71	70	Bassoon	1	117	116	Taiko Drum	1
27	26	Electric Guitar (jazz)	1	72	71	Clarinet	1	118	117	Melodic Tom	1
28	27	Electric Guitar (clean)	2			Pipe		119	118	Synth Drum	1
29	28	Electric Guitar (muted)	1	73	72	Piccolo	1	120	119	Reverse Cymbal	1
30	29	Overdriven Guitar	1	74	73	Flute	1	120	l l	Sound Effects	
31	30	Distortion Guitar	1	75	74	Recorder	1	121	120	Guitar Fret Noise	1
32	31	Guitar Harmonics	1	76	75	Pan Flute	1	122	121	Breath Noise	1
52	- 51	Bass	'	77	76	Blown Bottle	2	123	122	Seashore	2
33	32	Acoustic Bass	1	78	77	Shakuhachi	1	123	123	Bird Tweet	2
34	33	Electric Bass (finger)	1	79	78	Whistle	1	125	123		
						Ocarina	1		124	Telephone Ring Helicopter	1
35	34	Electric Bass (pick)	1	80	79		1	126		<u> </u>	2
36	35	Fretless Bass	1	0.4	00	Synth Lead		127	126	Applause	2
37	36	Slap Bass 1	1	81	80	Lead 1 (square)	2	128	127	Gunshot	1
38	37	Slap Bass 2	1	82	81	Lead 2 (sawtooth)	2	100		Drum Kits	
39	38	Synth Bass 1	1	83	82	Lead 3 (calliope)	2	129	0	Standard Kit	1
40	39	Synth Bass 2	1	84	83	Lead 4 (chiff)	2	130	8	Room Kit	1
	4.5	Strings		85	84	Lead 5 (charang)	2	131	16	Rock Kit	1
41	40	Violin	1	86	85	Lead 6 (voice)	2	132	24	Electronic Kit	1
42	41	Viola	1	87	86	Lead 7 (fifth)	2	133	25	Analog Kit	1
43	42	Cello	1	88	87	Lead 8 (bass+Lead )	2	134	32	Jazz Kit	1
44	43	Contrabass	1			Synth Pad		135	40	Brush Kit	1
				89	88	Pad 1 (new age)	2	136	48	Classic Kit	1
				90	89	Pad 2 (warm)	2				

# Percussion Kit List \_

- -" indicates the content is the same as that of Standard Kit.
- \* The number in parentheses () after the percussion kit name is the MIDI program number.

  \* The corresponding MIDI note numbers for the notes listed in the chart below are actually one octave lower. For example, the MIDI note number for note #36 (C1) in the chart is note #24 (C0).
- \* Each drum/percussion voice uses one note.
- \* The drum and percussion voices in same alternate group \*1–6 can not be played at the same time.

  \* GM voice numbers 129 through 136 correspond to the panel voice numbers 142 through 149 respectively.

Note#	Note	142: Standard Kit (0)	143: Room Kit (8)	144: Rock Kit (16)	145: Electronic Kit (24)
25	C#0	Surdo Mute	<	<	<
26	D0	Surdo Open	<	<	<
27	D#0	Hi Q	<	<	<
28	E0	Whip Slap	<	<	<
29	F0	Scratch H	<	<	<
30	F#0	Scratch L	<	<	<
31	G0	FingerSnap	<	<	<
32	G#0	Click Noise	<	<	<
33	A0	Metronome Click	<	<	<
34	A#0	Metronome Bell	<	<	<
35	B0	Click L (Square wave)	<	<	<
36	C1	Click H (Square wave)	<	<	<
37	C#1	Brush Tap	<	<	<
38	D1	Brush Swirl	<	<	<
39	D#1	Brush Slap	<	<	<
40	E1	Brush Swirl W/Attack	<	<	Reverse Cymbal
41	F1	Snare Roll	<	<	<
42	F#1	Castanet	<	<	Hi-Q
43	G1	Snare H Soft	Snare Room L	Snare Rock L	Snare Gate L
44	G#1	Sticks	<	<	<
45	A1	Bass Drum H Soft	Bass Drum Room L	Bass Drum Rock L	Bass Drum Gate L
46	A#1	Open Rim Shot	Open Rim Room	<	<
47	B1	Bass Drum L	Bass Drum Room M	Bass Drum Rock M	Bass Drum Gate M
48	C2	Bass Drum H Hard	Bass Drum Room H	Bass Drum Rock H	Bass Drum Gate H
49	C#2	Closed Rim Shot	Closed Rim Room	<	<
50	D2	Snare L	Snare Room M	Snare Rock M	Snare Gate M
51	D#2	Hand Clap	<	<	<
52	E2	Snare H Hard	Snare Room H	Snare Rock H	Snare Gate H
53	F2	Floor Tom L	Room Tom 1	Rock Tom 1	Electronic Tom 1
54	F#2	Hi-Hat Closed *1	<	<	<
55	G2	Floor Tom H	Room Tom 2	Rock Tom 2	Electronic Tom 2
56	G#2	Hi-Hat Pedal *1	<	<	<
57	A2	Low Tom	Room Tom 3	Rock Tom 3	Electronic Tom 3
58	A#2	Hi-Hat Open *1	<	<	<
59	B2	Mid Tom L	Room Tom 4	Rock Tom 4	Electronic Tom 4
60	C3	Mid Tom H	Room Tom 5	Rock Tom 5	Electronic Tom 5
61	C#3	Crash Cymbal 1	<	<	<
62	D3	High Tom	Room Tom 6	Rock Tom 6	Electronic Tom 6
63	D#3	Ride Cymbal 1	<	<	<
64	E3	Chinese Cymbal	<	<	<
65	F3	Ride Cymbal Cup	<	<	<
66	F#3	Tambourine	<	<	<
67	G3	Splash Cymbal	<	<	<
68	G#3	Cowbell	<	<	<
69	A3	Crash Cymbal 2	<	<	<
70	A#3	Vibraslap	<	<	<
71	В3	Ride Cymbal 2	<	<	<
72	C4	Bongo H	<	<	<
73	C#4	Bongo L	<	<	<
74	D4	Conga H Mute	<	<del></del>	<
75	D#4	Conga H Open	<	<	<
76	E4	Conga L	<	<	<
77	F4	Timbale H	<	<del></del>	<
78	F#4	Timbale L	<	<del></del>	<
79	G4	Agogo H	<	<	<
80	G#4	Agogo L	<	<	<
81	A4	Cabasa	<	<	<
82	A#4	Maracas	<	<	<
83	B4	Samba Whistle H	<	<	<
84	C5	Samba Whistle L	<	<	<
85	C#5	Guiro Short	<	<	<
86	D5	Guiro Long	<	<	<
87	D#5	Claves	<	<	<
88	E5	Wood Block H	<del>-</del>	<	<
89	F5	Wood Block L	<del>-</del>	<del></del>	<u> </u>
90	F#5	Cuica Mute	<u> </u>	<u> </u>	Scratch H
91	G5	Cuica Mule Cuica Open	<del></del>	<del></del>	Scratch L
92	G#5	Triangle Mute *2	\	<	<
93	A5	Triangle Open *2	\	<	<
93	A5 A#5	Shaker		<	<
95	B5	Jingle Bell	<del></del>		<
			<	<	
96	C6	Bell Tree	<	<	<

25 26 27 28 29 30 31 32 33 34 35 36 37	C#0 D0 D#0 E0 F0 F#0	<	<b>←</b>	<	<
27 28 29 30 31 32 33 34 35 36 37	D#0 E0 F0		<	1 -	
28 29 30 31 32 33 34 35 36 37	E0 F0	<		<	<
29 30 31 32 33 34 35 36 37	F0		<	<	<
30 31 32 33 34 35 36 37		<	<	<	<
31 32 33 34 35 36 37	F#0	<	<	<	<
32 33 34 35 36 37		<	<	<	<
32 33 34 35 36 37	G0	<	<	<	<
33 34 35 36 37	G#0	<del>&lt;</del>	<	<	<
34 35 36 37	A0	<	·	<del>-</del>	<del>-</del>
35 36 37	A#0	<del></del>	·	<del>-</del>	<u> </u>
36 37	Β0	<del></del>	\	<del></del>	<del></del>
37	C1	<del></del>	\	<u> </u>	<u> </u>
	C#1				
00		<	<	<	<
38	D1	<	<	<	<
39	D#1	<	<	<	<
40	E1	Reverse Cymbal	<	<	<
41	F1	<del>&lt;</del>	<	<	<
42	F#1	Hi-Q	<	<	<
43	G1	Snare Analog L	Jazz Snare L	Brush Slap L	Snare Classic L
44	G#1	<	<	<	<
45	A1	Bass Drum Analog L	<del></del>	<del></del>	Gran Casa L
46	A#1	<	·	<	<
47	B1	Bass Drum Analog M	\	<u> </u>	Gran Casa M
48	C2	Bass Drum Analog H	\ \	<	Gran Casa M
49	C#2			<u> </u>	Gian Casa H
		Closed Rim Shot Analog	<		
50	D2	Snare Analog M	<	Brush Slap H	Snare Classic M
51	D#2	<	<	<	<
52	E2	Snare Analog H	<	Brush Tap	Snare Classic H
53	F2	Analog Tom 1	Natural Tom 1	Brush Tom 1	Natural Tom 1
54	F#2	Analog Hi-hat Closed 1 *3	Dark Hi-Hat Closed *4	Dark Hi-Hat Closed *5	Dark Hi-Hat Closed *6
55	G2	Analog Tom 2	Natural Tom 2	Brush Tom 2	Natural Tom 2
56	G#2	Analog Hi-hat Closed 2 *3	Dark Hi-Hat Pedal *4	Dark Hi-Hat Pedal *5	Dark Hi-Hat Pedal *6
57	A2	Analog Tom 3	Natural Tom 3	Brush Tom 3	Natural Tom 3
58	A#2	Analog Hi-hat Open *3	Dark Hit Hat Open *4	Dark Hit Hat Open *5	Dark Hit Hat Open *6
59	B2	Analog Tom 4	Natural Tom 4	Brush Tom 4	Natural Tom 4
60	C3	Analog Tom 5	Natural Tom 5	Brush Tom 5	Natural Tom 5
61	C#3	Analog Cymbal	<	<	Hand Cymbal Long L
62	D3	Analog Tom 6	Natural Tom 6	Brush Tom 6	Natural Tom 6
63	D#3	<	<	<	Hand Cymbal Short L
64	E3	<del>&lt;</del>	<	<	<
65	F3	<	<	<	<
66	F#3	<	<	<	<
67	G3	<	<	<	<
68	G#3	Analog Cowbell	<	<	<
69	A3	<	<	<	Hand Cymbal Long H
70	A#3	<del>&lt;</del>	<	<	·—
71	B3	<del></del>	<u> </u>	<del>-</del>	Hand Cymbal Short H
72	C4	<u> </u>	\ \	<u> </u>	<
73	C#4	<del></del>	<del></del>	<del></del>	<del></del>
74	D4	Analog Conga H	<	<	<
75	D#4	Analog Conga M	<	<	<
76	E4	Analog Conga L	<	<	<del></del>
77	F4	<	<	<	<
78	F#4	<del>&lt;</del>	<	<	<
79	G4	<del></del>	<	<	<
80	G#4	<	<		<
81	A4	<	<	<	<
82	A#4	<	<	<	<
83	B4	<	<	<	<del></del>
84	C5	<	<	<	<
85	C#5	<del>\</del>	· -	-	· -
86	D5	<del></del>	<— <—		
87	D#5		<u> </u>		
		<	<		<u></u>
88	E5	<	<	<del></del>	<
89	F5	<	<	<	<
90	F#5	Scratch H	<	<	<
91	G5	Scratch L	<	<	<
92	G#5	<	<	<	<
93	A5	<	<	<	<
94	A#5	<del></del>	<	<	<
95	B5	<	\ \		<
96	C6	<del></del>	<u> </u>	<	<del></del>

# **MIDI Implementation Chart**

[Portable Keyboard] Date: 1995. 5. 18

Model: PSR-620 MIDI Implementation Chart Version: 1.00

Fu	unction	Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1~16 CH 1~16 CH	1~16 CH (*1) 1~16 CH (*1)	
Mode	Default Messages Altered	Mode 3 × ***********************************	(*1) × ×	
Note Number	: True voice	0~127 ********	0~127 0~127	
Velocity	Note on Note off	○ 9nH, v=1~127 × 9nH, v=0	○ 9nH, v=1~127 × 9nH, v=0 or 8nH	
After Touch	key's Ch's	× ×	×	
Pitch Ben	der	0	0	
Control C  Program Change	6, 38 7 10 11 64 66 67 71 72 73 74 84 91 93 96, 97 98, 99 100, 101 120	(*3) (*3) (*3) (*3) (*3) (*3) (*3) (*3) (*3) (*3) (*3) (*6) (*6)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Bank select MSB, LSB (*2) Modulation Data entry MSB, LSB Volume Pan Expression Sustain Sostenuto Soft pedal Harmonic content Release time Attack time Brightness Portamento control Reverb send level Chorus send level DSP send level Data increment, decrement NRPN LSB, MSB (*4) RPN LSB, MSB (*5) All sound off Reset all controllers (*7)
System E		0	0	(*10)
System  Common	: Song Position : Song Select : Tune	× × ×	× × ×	
System Real Time	: Clock e: Commands	0	○ (*9) ○ (*9)	Start, stop
Aux Messages	: Local ON/OFF : All Notes Off s: Active Sense : Reset	× × O ×	× O O ×	

Mode 1: OMNI ON, POLY Mode 3: OMNI OFF, POLY Mode 2: OMNI ON, MONO Mode 4: OMNI OFF, MONO O: Yes X: No

# **MIDI Implementation Chart**

\*1 PSR-620 ordinarily functions as 16 MIDI channel multi-timbral tone generator controlled by MIDI reception data. Panel voices and the other panel settings are not affected by the MIDI message, excepting the followings:

MIDI Master Tuning

System Exclusive Message for controlling Reverb, Chorus and Dsp

The Remote Channel can be designated by the panel settings. The designated channel on the PSR-620 can be controlled by an external device and receive all the data excepting the following control change data:

Data entry, MSB, LSB Portamento control Data increment Data decrement NRPN LSB, MSB RPN LSB, MSB

#### \*2 Bank Select MSB

The bank select MSB is used for melody voice and rhythm voice switching.

MSB 00H: Melody voice. MSB 7FH: Rhythm voice.

Transmission: Transmitted when changing the voice, style and song.

Reception: All channels except10 channel receive this message. (10 channel is fixed at rhythm voice.). But when 10 channel is set for the remote channel or receives XG System On message, 10 channel receives this message and the rhythm voice can change to the melody voice.

#### Bank Select LSB

This message is used to correspond to the panel voice numbers higher than 128.

Bank Select LSB=00H: program change numbers 0~127 correspond to the panel voice numbers 1~128.

Bank Select LSB=01H: program change numbers  $0\sim12$  correspond to the panel voice numbers  $129\sim141$ .

Transmission: Transmitted when changing the voice, style and song.

Reception: This message can be received only at the channel designated as the remote channel or the panel voice.

No voice change will occur when only a bank select is received. When a program change is received the latest bank select value is used.

\*3 These Control Change messages are not transmitted by the PSR-620 panel operation, but may be transmitted by the accompaniment style playing. \*4 NRPN transmission/reception The following parameters are supported.

MSB LSB         MSB LSB         Parameter Name/Range         Default           01H 08H mmH         Vibrato Rate         40H           01H 09H mmH         Vibrato Depth mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           01H 0AH mmH         Vibrato Delay mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           01H 20H mmH         Filter Cutoff Freq. mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           01H 21H mmH         Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           01H 63H mmH         EG Attack Time mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           01H 64H mmH         EG Decay Time mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           01H 66H mmH         EG Release Time mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           14H rrh mmH         Drum Filter Cutoff Freq. mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           15H rrh mmH         Drum Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           15H rrh mmH         Drum Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           17H rrh mmH         Drum EG Attack Rate mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           17H rrh mmH         Drum Instrument Pitch Course mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           17H rrh mmH         Drum Instrument Pitch Frie mm	NRPN	Data entry		
Mm : 00H - 40H - 7FH (-64 - 0 - +63)	MSB LS	B MSB LSB	Parameter Name/Range	
01H 09H mmH         Vibrato Depth mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH - 40H mmH - 7FH (-64 - 0 - +63)           01H 20H mmH         Fitter Cutoff Freq. mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH - 40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           01H 21H mmH         Fitter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm - 40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           01H 63H mmH         EG Attack Time mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           01H 66H mmH         EG Release TIme mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           01H 67H mmH         Drum Filter Cutoff Freq. mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           01H 68H mmH         Drum Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           01H 69H mmH         Drum Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           01H 69H mmH         Drum Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           01H 69H mmH         Drum Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           01H 69H mmH         Drum Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           01H rid minstrum	01H 08	H mmH		40H
mm : 00H - 40H - 7FH (-64 - 0 - +63)			` ,	
01H 0AH mmH         Vibrato Delay mm : 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           01H 20H mmH         Filter Cutoff Freq. mm : 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           01H 21H mmH         Filter Resonance mm : 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           01H 63H mmH         EG Attack Time mm : 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           01H 64H mmH         EG Decay Time mm : 00H - 40H - 7FH (-64 - 0 - +63)         40H mm : 00H - 40H - 7FH (-64 - 0 - +63)           01H 66H mmH         EG Release Time mm : 00H - 40H - 7FH (-64 - 0 - +63)         40H mm : 00H - 40H - 7FH (-64 - 0 - +63)           14H rrH mmH         Drum Filter Cutoff Freq. mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm : 00H - 40H - 7FH (-64 - 0 - +63)           15H rrH mmH         Drum Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           16H rrH mmH         Drum EG Attack Rate mm: 00H - 40H - 7FH (-64 - 0 - +63)         Drum EG Decay Rate         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           17H rrH mmH         Drum Instrument Pitch Course mm: 00H - 40H - 7FH (-64 - 0 - +63)         Drum Instrument Pitch Fine mm: 00H - 40H - 7FH (-64 - 0 - +63)         Drum Instrument Pitch Fine mm: 00H - 40H - 7FH (-64 - 0 - +63)         Drum Instrument Level mm: 00H - 40H - 7FH (-64 - 0 - +63)         Depends on note mm: 00H - 40H - 7FH (-64 - 0 - +63)         Depends on note mm: 00H - 40H - 7FH (-64 - 0 - +63)	01H 09	H mmH		40H
mm : 00H - 40H - 7FH (-64 - 0 - +63)			mm : 00H - 40H - 7FH (-64 - 0 - +63)	
01H 20H mmH         Filter Cutoff Freq. mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           01H 21H mmH         Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           01H 63H mmH         EG Attack Time mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           01H 64H mmH         EG Decay Time mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           01H 66H mmH         EG Release TIme mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           14H rrH mmH         Drum Filter Cutoff Freq. mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           15H rrH mmH         Drum Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           16H rrH mmH         Drum EG Attack Rate mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           17H rrH mmH         Drum EG Decay Rate mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           18H rrH mmH         Drum Instrument Pitch Course mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           19H rrH mmH         Drum Instrument Pitch Fine mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           19H rrH mmH         Drum Instrument Pitch Fine mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H	01H 0A	ιΗ mmH	Vibrato Delay	40H
mm : 00H - 40H - 7FH (-64 - 0 - +63)			mm: 00H - 40H - 7FH (-64 - 0 - +63)	
01H 21H mmH         Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           01H 63H mmH         EG Attack Time mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           01H 64H mmH         EG Decay Time mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           01H 66H mmH         EG Release Time mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           14H rrH mmH         Drum Filter Cutoff Freq. mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           15H rrH mmH         Drum Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           16H rrH mmH         Drum Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H            17H rrH mmH         Drum EG Attack Rate mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           17H rrH mmH         Drum EG Decay Rate mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           17H rrH mmH         Drum Instrument Pitch Course mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           18H rrH mmH         Drum Instrument Pitch Fine mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           19H rrH mmH         Drum Instrument Pitch Fine mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           10H rrH mmH         Drum Instrument Level mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H           10H rrH mmH         Drum Instrument Pitch Fine mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H	01H 20	H mmH	Filter Cutoff Freq.	40H
Mm : 00H - 40H - 7FH (-64 - 0 - +63)			mm: 00H - 40H - 7FH (-64 - 0 - +63)	
01H 63H mmH         EG Attack Time mm : 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH 40H - 7FH (-64 - 0 - +63)           01H 64H mmH         EG Decay Time mm : 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH 40H mm : 00H - 40H - 7FH (-64 - 0 - +63)           01H 66H mmH         EG Release TIme mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           14H rrH mmH         Drum Filter Cutoff Freq. mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           15H rrH mmH         Drum Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           16H rrH mmH         Drum EG Attack Rate mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           17H rrH mmH         Drum Instrument Pitch Course mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           18H rrH mmH         Drum Instrument Pitch Fine mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           19H rrH mmH         Drum Instrument Pitch Fine mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           12H rrH mmH         Drum Instrument Pitch Fine mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           12H rrH mmH         Drum Instrument Pitch Fine mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)	01H 21	H mmH	Filter Resonance	40H
Mm   OOH - 40H - 7FH (-64 - 0 - +63)			mm: 00H - 40H - 7FH (-64 - 0 - +63)	
01H 64H mmH         EG Decay Time mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           01H 66H mmH         EG Release Time mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           14H rrH mmH         Drum Filter Cutoff Freq. mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           15H rrH mmH         Drum Filter Resonance mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           16H rrH mmH         Drum EG Attack Rate mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           17H rrH mmH         Drum EG Decay Rate mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           18H rrH mmH         Drum Instrument note number mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           19H rrH mmH         Drum Instrument Pitch Course mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           19H rrH mmH         Drum Instrument Pitch Fine mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           12H rrH mmH         Drum Instrument Level mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           12H rrH mmH         Drum Instrument Pitch Fine mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           12H rrH mmH         Drum Instrument Level mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH           12H rrH mmH         Drum Instrument Reverb Send Level mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mmH	01H 63	H mmH	EG Attack Time	40H
mm: 00H - 40H - 7FH (-64 - 0 - +63)  01H 66H mmH -			mm: 00H - 40H - 7FH (-64 - 0 - +63)	
01H 66H mmH         EG Release TIme mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           14H rrH mmH         mm: 00H - 40H - 7FH (-64 - 0 - +63)         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           15H rrH mmH         prum Filter Resonance         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           16H rrH mmH         prum EG Attack Rate         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           17H rrH mmH         prum EG Decay Rate         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           18H rrH mmH         prum Instrument Pitch Course         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           18H rrH mmH         prum Instrument Pitch Fine         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           19H rrH mmH         prum Instrument Pitch Fine         40H mm: 00H - 40H - 7FH (-64 - 0 - +63)           19H rrH mmH         prum Instrument Level         pepends on note           11H rrH mmH         prum Instrument Level         pepends on note           11H rrH mmH         prum Instrument Panpot         pepends on note           11H rrH mmH         prum Instrument Reverb Send Level         pepends on note           11H rrH mmH         prum Instrument Reverb Send Level         pepends on note           11H rrH mmH         prum Instrument Chorus Send Level         pepends on note	01H 64	H mmH	EG Decay Time	40H
mm: 00H - 40H - 7FH (-64 - 0 - +63)  14H rrH mmH rr: drum instrument note number 15H rrH mmH rr: drum instrument note number 16H rrH mmH rr: drum instrument note number 17H rrH mmH rr: drum instrument note number 18H rrH mmH rr: drum instrument note number 18H rrH mmH rr: drum instrument note number 19H rrH mmH rr: drum instrument note number 12H rrH mmH rr: drum instrument note number 15H rrH mmH rr: drum instrument note number 17H mmH rr: drum instrument note number 17H mmH rr: drum instrument note number 17H mmH 17H mm instrument note number 17H mmH 17H mmH 17H mmH 17H mm instrument note number 18H rrH mmH 18H rrH mmH 19H rrH mmH			mm : 00H - 40H - 7FH (-64 - 0 - +63)	
14H rrH mmH rr: drum instrument note number 15H rrH mmH rr: drum instrument note number 16H rrH mmH rr: drum instrument note number 17H rrH mmH rr: drum instrument note number 18H rrH mmH rr: drum instrument note number 18H rrH mmH rr: drum instrument note number 19H rrH mmH rr: drum instrument note number 19H rrH mmH rr: drum instrument note number 11CH rrH mmH rr: drum instrument note number 11CH rrH mmH rr: drum instrument note number 11CH rrH mmH 11CH rrH mrH 11CH rrH rrH rrH rrH rrH rrH rrH rrH rrH r	01H 66	H mmH	EG Release TIme	40H
rr: drum instrument note number 15H rrH mmH 17I: drum instrument note number 16H rrH mmH 17I: drum instrument note number 16H rrH mmH 17I: drum instrument note number 17H rrH mmH 17I: drum instrument note number 17H rrH mmH 17I: drum instrument note number 18H rrH mmH 18H rrH mmH 17I: drum instrument note number 18H rrH mmH 17I: drum instrument note number 19H rrH mmH 17I: drum instrument note number 1AH rrH mmH 17I: drum instrument note number 1CH rrH mmH 17I: drum instrument note number 1CH rrH mmH 1CH rrd minstrument note number 1CH rrH mmH 1CH rrH mrH 1CH rrH mmH 1CH rrH mrH 1CH rrH mmH 1CH rrH mrH 1CH rrH rrH rrH rrH rrH rrH rrH rrH rrH r			mm: 00H - 40H - 7FH (-64 - 0 - +63)	
15H rrH mmH rr: drum instrument note number 17H rrH mmH rr: drum instrument note number 17H rrH mmH rr: drum instrument note number 18H rrH mmH rr: drum instrument note number 18H rrH mmH rr: drum instrument note number 18H rrH mmH rr: drum instrument note number 19H rrH mmH rr: drum instrument note number 1AH rrH mmH rr: drum instrument note number 1CH rrH mmH 1C	14H rrF	H mmH	Drum Filter Cutoff Freq.	40H
rr: drum instrument note number 16H rrH mmH 17H rrH mmH 17H rrH mmH 18H rrH mmH 18H rrH mmH 19H rrH mm mm mm: 00H - 7FH (-64 - 0 - +63) 19H rrH mm: 00H - 7FH (-64 - 0 - +63) 19H rrH mm: 00H - 7FH (-64 - 0 - +63) 19H rrH mm: 00H - 7FH (-64 - 0 - +63) 19H rrH mm: 00H - 7FH (-64 - 0 - +63) 19H rrH mm: 00H - 7FH (-64 - 0 - +63) 19H rrH mm: 00H - 7FH (-64 - 0 - +63) 19H rrH mm: 00H - 7FH (-64 - 0 - +63) 19H rrH mm: 00H - 7FH (-64 - 0 - +63) 19H rrH mm: 00H - 7FH (-64 - 0 - +63) 19H rrH mm: 00H - 7FH (-64 - 0 - +63) 19H rrH mm: 00H - 7FH (-64 - 0 - +63) 19H rrH mm: 00H - 7FH (-64 - 0 - +63) 19H rrH mm: 00H - 7FH (-64 - 0 - +63) 19H rrH mm: 00H - 7FH	rr: drum i	instrument note number	mm: 00H - 40H - 7FH (-64 - 0 - +63)	
16H rrH mmH rr: drum instrument note number 17H rrH mmH rr: drum instrument note number 18H rrH mmH rr: drum instrument note number 19H rrH mmH rr: drum instrument note number 18H rrH mmH rr: drum instrument note number 19H rrH mmH rr: drum instrument note number 1AH rrH mmH rr: drum instrument note number 1CH rrH mmH Tr: drum instrument note number 1CH rrH mrH Tr: drum instrument note number 1CH rrH mrH Tr: drum instrument note number 1CH rrH mmH Tr: drum instrument note number 1CH rrH mrH Tr: drum i	15H rrF	H mmH	Drum Filter Resonance	40H
rr: drum instrument note number 17H rrH mmH 18H rrH mmH 19H rrH mmH 17H rrd minstrument note number 19H rrH mmH 19H rrH mmH 19H rrd minstrument note number 11CH rrd minstrument note number 11CH rrd minstrument note number 11CH rrd mmH 11CH rrd minstrument note number 11CH rrd minstrument note num	rr: drum i	instrument note number	mm: 00H - 40H - 7FH (-64 - 0 - +63)	
17H rrH mmH rr: drum instrument note number 18H rrH mmH rr: drum instrument note number 19H rrH mmH rr: drum instrument note number 1AH rrH mmH rr: drum instrument note number 1CH rrH mmH 1C	16H rrF	H mmH	Drum EG Attack Rate	40H
rr: drum instrument note number 18H rrH mmH 17r: drum instrument note number 19H rrH mmH 17r: drum instrument note number 14H rrH mmH 15H rrich rrich rrich rich rich rich rich r	rr: drum i	instrument note number	mm: 00H - 40H - 7FH (-64 - 0 - +63)	
18H rrH mmH rr: drum instrument note number 19H rrH mmH rr: drum instrument note number 1AH rrH mmH rr: drum instrument note number 1CH rrH mmH Tr: drum i	17H rrF	H mmH	Drum EG Decay Rate	40H
18H rrH mmH rr: drum instrument note number 19H rrH mmH rr: drum instrument note number 1AH rrH mmH rr: drum instrument note number 1CH rrH mmH Tr: drum i	rr: drum i	instrument note number	mm: 00H - 40H - 7FH (-64 - 0 - +63)	
19H rrH mmH rr: drum instrument note number 1CH rrH mmH rr: drum instrument note number 1CH rrH mmH rr: drum instrument note number 1DH rrH mmH rr: drum instrument note number 1CH rrH mmH 1CH rrH			,	40H
rr: drum instrument note number  1AH rrH mmH  rr: drum instrument note number 1CH rrH mmH  rr: drum instrument note number 1DH rrH mmH  rr: drum instrument note number 1DH rrH mmH  rr: drum instrument note number 1DH rrH mmH  rr: drum instrument note number 1EH rrH mmH  rr: drum instrument note number	rr: drum i	instrument note number	mm: 00H - 40H - 7FH (-64 - 0 - +63)	
1AH rrH mmH rr: drum instrument note number 1CH rrH mmH rr: drum instrument note number 1DH rrH mmH rr: drum instrument note number 1DH rrH mmH rr: drum instrument note number 1EH rrH mmH rr: drum instrument note number 1rr: orum instrument Level 1rr: 01-127 1rr:	19H rrF	H mmH	Drum Instrument Pitch Fine	40H
1AH rrH mmH rr: drum instrument note number 1CH rrH mmH rr: drum instrument note number 1DH rrH mmH rr: drum instrument note number 1DH rrH mmH rr: drum instrument note number 1EH rrH mmH rr: drum instrument note number 1rr: orum instrument Level 1rr: 01-127 1rr:	rr: drum i	instrument note number	mm: 00H - 40H - 7FH (-64 - 0 - +63)	
rr: drum instrument note number 1CH rrH mmH 1DH rrH mmH 1DH rrH mmH 1r: drum instrument note number 1CH rrH mmH 1C			,	Depends on note
1CH rrH mmH rr: drum instrument note number 1DH rrH mmH rr: drum instrument note number 1CH rrH mmH mmH 1CH rrH mmH mmH mmH mmH mmH mmH mmH mmH mm	rr: drum i	instrument note number		
rr: drum instrument note number  1DH rrH mmH rr: drum instrument note number  1EH rrH mmH rr: drum instrument note number			` ,	Depends on note
1DH rrH mmH rr: drum instrument note number 1EH rrH mmH rr: drum instrument note number	rr: drum i	instrument note number	·	.,
rr: drum instrument note number mm: 00H - 7FH (0 - 127)  1EH rrH mmH Drum Instrument Chorus Send Level Depends on note rr: drum instrument note number mm: 00H - 7FH (0 - 127)			,	Depends on note
1EH rrH mmH Drum Instrument Chorus Send Level Depends on note rr: drum instrument note number mm: 00H - 7FH (0 - 127)	rr: drum i	instrument note number		
rr: drum instrument note number mm: 00H - 7FH (0 - 127)			` ,	Depends on note
, ,				
	1FH rrh		Drum Instrument DSP Send Level	7FH
rr: drum instrument note number mm : 00H - 7FH (0 - 127)				

Data entry LSB is ignored.

# \*5 RPN transmission/reception The following parameters are supported.

RPN	Data entry		
MSB LSB	MSB LSB	Parameter Name/Range	Default
00H 00H	mmH	Pitch bend Sensitivity	02H
		mm: 00H - 02H - 0CH (0 - 2 - 12)	
00H 01H	mmH	Fine Tuning	40H
		mm: 00H - 40H - 7FH (-64 - 0 - +63)	
00H 02H	mmH	Course Tuning	40H
		mm: 00H - 40H - 7FH (-64 - 0 - +63)	
7FH 7FH		RPN Null	
		Clears current RPN and NRPN number settings.	

Data entry LSB is ignored.

- \*6 Not transmitted when Song and Accompaniment is playing.
- \*7 Pitch Bend, modulation, expression, sustain, sostenuto and softpedal are returned to their defult values. Clears current RPN and NRPN number settings. Resets portament source note number.
- \*8 129~141 voice numbers are selectable through an appropriate Bank Select setting (Refer to \*2).
- \*9 When the External Clock is turned ON by PSR-620 panel setting, Clock, Start/Stop message will be received. The start/stop of the song recording and playback will be controlled by the external device. The initial set up data is transmitted before

the song playback, so that the start may be delayed.

# **MIDI Implementation Chart**

#### \*10 Exclusive

The following system exclusive parameters are supported.

<GM system ON> F0H, 7EH, 7FH, 09H, 01H, F7H

All parameters except MIDI master Tuning and Dsp setting are reset to their default values.

Remote Channel setting is canceled.

This message requires approximately 50ms to execute, so sufficient time should be allowed before the next message is sent

<DISK ORCHESTRA ON> F0H, 43H, 73H, 01H, 14H, F7H

This message switches PSR-620 to Disk Orchestra defualt settings.

Remote Channel setting is canceled.

This message requires approximately 50ms to execute, so sufficient time should be allowed before the next message is sent.

<DISK ORCHESTRA OFF> F0H, 43H, 73H, 01H, 13H, F7H This message switches Disk Orchestra ON to OFF.

All parameters except MIDI master Tuning are reset to their

This message requires approximately 50ms to execute, so sufficient time should be allowed before the next message is cont

<MIDI Master Volume> F0H, 7FH, 7FH, 04H, 01H, II, mm, F7H Allows the volume of all channels to be changed simultaneously.

"mm" is used as the MIDI Master Volume value ("II" is ignored). The defalut value for "mm" is 7FH.

<MIDI Master Tuning>

F0H, 43H, 1nH, 27H, 30H, 00H, 00H, mm, II, cc, F7H "mmll" is used as the MIDI Master Tuning value.

The tuning value is represented as follows:

T=M-128 (28<=M<=228), T=-100 (M<28), T=100 (M>228)

Where T is the actual tuning value in cents.

M is decimal value represented by 1-byte using bits 0..3 of "mm" as the MSB and bits 0..3 of "ll" as the LSB.

The default values of "mm" and "II" are 08H and 00H resprectively.

n and cc are also recognized.

This value is not reset by a GM System ON or Reset All Controllers message.

This value affects not only MIDI reception part but the entire system of the PSR-620.

<Panel Voice> F0H, 43H, 76H, 1BH, cc, vv, F7H

This message alternately selects Panel voice or GM voice.

cc: MIDI channel

vv: 00=GM voice mode/01=Panel voice mode

GM voice mode is defalut.

This message is ignored by the remote channel.

<XG System On> F0H, 43H, 1nH, 4CH, 00H, 00H, 7EH, 00H, F7H n: device number (transmission: n=0, reception: n is ignored.)

All parameters except MIDI master Tuning are reset to their default values.

Remote Channel setting is canceled.

This message requires approximately 50ms to execute, so sufficient time should be allowed before the next message is sent

<XG Parameter Change>

F0H, 43H, 1nH, 4CH, aaH, bbH, ccH, ddH.......F7H n: device number(transmission: n=0, reception: n is ignored.) aa,bb,cc: address High, Mid, Low (see below) dd: data (succesive transmission and reception are possible

within the amount of data shown in the following Table-1)

Note: PSR-620 corresponds to XG parameters in the Table-1. But this is a part of XG parameters, PSR-620 does not perfectly correspond to XG format.

# ■ GM System Level 1

The existing MIDI protocol allows performance and other data to be transferred between different instruments, even if they are from different manufacturers. This means, for example, that sequence data that was originally created to control a tone generator from manufacturer A can also be used to control a different tone generator from manufacturer B. Since the voice allocation in different devices from different manufacturers is usually different, however, appropriate program change data must be transmitted to select the right voices.

The General MIDI protocol was developed to minimize confusion and the need for re-programming when playing software created by one MIDI device on another. This has been achieved by defining a standard voice allocation in which the same or similar voices are accessed by the same program change numbers or MIDI channels. The current standard recognized by the International MIDI Association is known as "GM System Level 1." The PSR-620 voice allocation complies with the GM System Level 1 standard.

# MIDI Data Format \_\_\_\_\_

## <Table-1> Parameter Change

SYSTEM					
Address	Size	Data	Parameter	Description	Default
(H)	(H)	(H)			value(H)
00 00 0	0 4	0000 - 07FF	MASTER TUNE	-102.4 - +102.3[cent]	00 04 00 00
0	1			1st bit3-0 → bit15-12	
0	2			2nd bit3-0 → bit11-8	
0	3			3rd bit3-0 $\rightarrow$ bit7-4	
				4th bit3-0 → bit3-0	
0	4 1	00 - 7F	MASTER VOLUME	0 - 127	7F
0	6 1	28 - 58	TRANSPOSE	-24 - +24[semitone]	40
7	D 1	00 - 01	DRUM SETUP RESET	00: Drum setup 1	_
				01: Drum setup 2	
7	E 1	00	XG SYSTEM ON		_
7	F 1	00	ALL PARAMETER RESET		_
-					

Addres	s	Size	Data	Parameter	Description	Default
(H)		(H)	(H)			value(H)
02 01	00	2	00-7F	REVERB TYPE MSB	Refer to Table-2	01(=HALL1)
			00-7F	REVERB TYPE LSB	Refer to Table-2	00
	02	1	00-7F	REVERB PARAMETER 1	Refer to Table-3	Depends on reverb type
	03	1	00-7F	REVERB PARAMETER 2	Refer to Table-3	Depends on reverb type
	04	1	00-7F	REVERB PARAMETER 3	Refer to Table-3	Depends on reverb type
	05	1	00-7F	REVERB PARAMETER 4	Refer to Table-3	Depends on reverb type
	06	1	00-7F	REVERB PARAMETER 5	Refer to Table-3	Depends on reverb type
	07	1	00-7F	REVERB PARAMETER 6	Refer to Table-3	Depends on reverb type
	08	1	00-71 00-7F	REVERB PARAMETER 7	Refer to Table-3	Depends on reverb type
	09	1	00-71 00-7F	REVERB PARAMETER 8	Refer to Table-3	Depends on reverb type
	09 0A	1	00-71 00-7F	REVERB PARAMETER 9	Refer to Table-3	Depends on reverb type
	0B	1	00-7F 00-7F	REVERB PARAMETER 10	Refer to Table-3	
						Depends on reverb type
	OC	1	00-7F	REVERB RETURN	-∞dB0dB+6dB(064127)	40
	0D	1	01-7F	REVERB PAN	L63CR63(164127)	40
02 01	10	1	00-7F	REVERB PARAMETER 11	Refer to Table-3	Depends on reverb type
	11	1	00-7F	REVERB PARAMETER 12	Refer to Table-3	Depends on reverb type
	12	1	00-7F	REVERB PARAMETER 13	Refer to Table-3	Depends on reverb type
	13	1	00-7F	REVERB PARAMETER 14	Refer to Table-3	Depends on reverb type
	14	1	00-7F	REVERB PARAMETER 15	Refer to Table-3	Depends on reverb type
	15	1	00-7F	REVERB PARAMETER 16	Refer to Table-3	Depends on reverb type
02 01	20	2	00-7F	CHORUS TYPE MSB	Refer to Table-2	41(=CHORUS1)
			00-7F	CHORUS TYPE LSB	Refer to Table-2	00
	22	1	00-7F	CHORUS PARAMETER 1	Refer to Table-3	Depends on chorus type
	23	1	00-7F	CHORUS PARAMETER 2	Refer to Table-3	Depends on chorus type
	24	1	00-7F	CHORUS PARAMETER 3	Refer to Table-3	Depends on chorus type
	25	1	00-7F	CHORUS PARAMETER 4	Refer to Table-3	Depends on chorus type
	26	1	00-7F	CHORUS PARAMETER 5	Refer to Table-3	Depends on chorus type
	27	1	00-7F	CHORUS PARAMETER 6	Refer to Table-3	Depends on chorus type
	28	1	00-7F	CHORUS PARAMETER 7	Refer to Table-3	Depends on chorus type
	29	1	00-7F	CHORUS PARAMETER 8	Refer to Table-3	Depends on chorus type
	2A	1	00-7F	CHORUS PARAMETER 9	Refer to Table-3	Depends on chorus type
	2B	1	00-7F	CHORUS PARAMETER 10	Refer to Table-3	Depends on chorus type
	2C	1	00-7F	CHORUS RETURN	-∞dB0dB+6dB(064127)	40
	2D	1	00-71 01-7F	CHORUS PAN	L63CR63(164127)	40
	2E	1	00-7F	SEND CHORUS TO REVERB	-∞dB0dB+6dB(064127)	00
00 0:					,	
02 01		1	00-7F	CHORUS PARAMETER 11	Refer to Table-3	Depends on chorus type
	31	1	00-7F	CHORUS PARAMETER 12	Refer to Table-3	Depends on chorus type
	32	1	00-7F	CHORUS PARAMETER 13	Refer to Table-3	Depends on chorus type
	33	1	00-7F	CHORUS PARAMETER 14	Refer to Table-3	Depends on chorus type
	34	1	00-7F	CHORUS PARAMETER 15	Refer to Table-3	Depends on chorus type
	35	1	00-7F	CHORUS PARAMETER 16	Refer to Table-3	Depends on chorus type
02 01	40	2	00-7F	VARIATION TYPE MSB	Refer to Table-2	05(=DELAY L,C,R)
			00-7F	VARIATION TYPE LSB	Refer to Table-2	00
	42	2	00-7F	VARIATION PARAMETER 1 MSB	Refer to Table-3	Depends on variation ty
			00-7F	VARIATION PARAMETER 1 LSB	Refer to Table-3	Depends on variation ty
	44	2	00-7F	VARIATION PARAMETER 2 MSB	Refer to Table-3	Depends on variation ty
	• •	_	00-7F	VARIATION PARAMETER 2 LSB	Refer to Table-3	Depends on variation ty
	46	2	00-71 00-7F	VARIATION PARAMETER 3 MSB	Refer to Table-3	Depends on variation ty
	+0	-	00-71 00-7F	VARIATION PARAMETER 3 MSB	Refer to Table-3	Depends on variation ty
	48	2	00-7F 00-7F	VARIATION PARAMETER 3 LSB VARIATION PARAMETER 4 MSB	Refer to Table-3	Depends on variation ty
					DEIEL IO TADIE-3	

Address	Address Size Data Parameter		Parameter	Description Default		
(H)		(H)	(H)			value(H)
	4A	2	00-7F	VARIATION PARAMETER 5 MSB	Refer to Table-3	Depends on variation type
	00-7F VARIATION PARAMETER 5 LSB		Refer to Table-3	Depends on variation type		
	4C	2	00-7F	VARIATION PARAMETER 5 MSB	Refer to Table-3	Depends on variation type
			00-7F	VARIATION PARAMETER 6 LSB	Refer to Table-3	Depends on variation type
	4E	2	00-7F	VARIATION PARAMETER 7 MSB	Refer to Table-3	Depends on variation type
			00-7F	VARIATION PARAMETER 7 LSB	Refer to Table-3	Depends on variation type
	50	2	00-7F	VARIATION PARAMETER 8 MSB	Refer to Table-3	Depends on variation type
			00-7F	VARIATION PARAMETER 8 LSB	Refer to Table-3	Depends on variation type
	52	2	00-7F	VARIATION PARAMETER 9 MSB	Refer to Table-3	Depends on variation type
			00-7F	VARIATION PARAMETER 9 LSB	Refer to Table-3	Depends on variation type
	54	2	00-7F	VARIATION PARAMETER 10 MSB	Refer to Table-3	Depends on variation type
			00-7F	VARIATION PARAMETER 10 LSB	Refer to Table-3	Depends on variation type
	56	1	00-7F	VARIATION RETURN	-∞dB0dB+6dB(064127)	40
	57	1	01-7F	VARIATION PAN	L63CR63(164127)	40
	58	1	00-7F	SEND VARIATION TO REVERB	-∞dB0dB+6dB(064127)	00
	59	1	00-7F	SEND VARIATION TO CHORUS	-∞dB0dB+6dB(064127)	00
	5A	1	00-01	VARIATION CONNECTION	"0:INSERTION,1:SYSTEM"	00
	5B	1	00-01	VARIATION PART	00H~0FH: Ch1~16 7F: Off	7F
02 01	70	1	00-7F	VARIATION PARAMETER 11	Refer to Table-3	Depends on variation type
	71	1	00-7F	VARIATION PARAMETER 12	Refer to Table-3	Depends on variation type
	72	1	00-7F	VARIATION PARAMETER 13	Refer to Table-3	Depends on variation type
	73	1	00-7F	VARIATION PARAMETER 14	Refer to Table-3	Depends on variation type
	74	1	00-7F	VARIATION PARAMETER 15	Refer to Table-3	Depends on variation type
	75	1	00-7F	VARIATION PARAMETER 16	Refer to Table-3	Depends on variation type

<sup>\*</sup> VARIATION means PSR-620 Dsp effect.

			-	
M	IJL	. 1 1	PA	۱RT

Address (H)		Size (H)	Data (H)	Parameter	Description	Default value(H)
08 nn	07	1	00 - 05	PART MODE	00: NORMAL 01: Preset Drum Setup 02: Drum Setup 1 03: Drum Setup 2	00 (except 10Ch)/02 (10Ch)
nn	11	1	00 - 7F	DRY LEVEL	0 - 127	7F
nn	41	1	00 - 7F	SCALE TUNING C	-64 - +63[cent]	40
nn	42	1	00 - 7F	SCALE TUNING C#	-64 - +63[cent]	40
nn	43	1	00 - 7F	SCALE TUNING D	-64 - +63[cent]	40
nn	44	1	00 - 7F	SCALE TUNING D#	-64 - +63[cent]	40
nn	45	1	00 - 7F	SCALE TUNING E	-64 - +63[cent]	40
nn	46	1	00 - 7F	SCALE TUNING F	-64 - +63[cent]	40
nn	47	1	00 - 7F	SCALE TUNING F#	-64 - +63[cent]	40
nn	48	1	00 - 7F	SCALE TUNING G	-64 - +63[cent]	40
nn	49	1	00 - 7F	SCALE TUNING G#	-64 - +63[cent]	40
nn	4A	1	00 - 7F	SCALE TUNING A	-64 - +63[cent]	40
nn	4B	1	00 - 7F	SCALE TUNING A#	-64 - +63[cent]	40
nn	4C	1	00 - 7F	SCALE TUNING B	-64 - +63[cent]	40

<sup>\*</sup> nn: MIDI Channel(00-0F)

### **DRUM SETUP**

Address	Size	Data	Parameter	Description	Default
(H)	(H)	(H)			value(H)
3n rr 00	) 1	00 - 7F	PITCH COARSE	-64 - +63[semitone]	40
3n rr 01	1 1	00 - 7F	PITCH FINE	-64 - +63[cent]	40
3n rr 02	2 1	00 - 7F	LEVEL	0 - 127	Depends on note
3n rr 04	4 1	00 - 7F	PAN	1(Left)-64(Center)-127(Right)	Depends on note
3n rr 05	5 1	00 - 7F	REVERB SEND	0 - 127	Depends on note
3n rr 06	5 1	00 - 7F	CHORUS SEND	0 - 127	7F
3n rr 07	7 1	00 - 7F	VARIATION SEND	0 - 127	7F
3n rr 0E	3 1	00 - 7F	FILTER CUTOFF FREQUENCY	-64 - 63	40
3n rr 00	2 1	00 - 7F	FILTER RESONANCE	-64 - 63	40
3n rr 0[	) 1	00 - 7F	EG ATTACK	-64 - 63	40
3n rr 0E	≣ 1	00 - 7F	EG DECAY1	-64 - 63	40

<sup>\*</sup> n:Drum setup number (0H or 1H) rr:note number(18H to 54H)

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## <Table-2> Effect map

The following types in the boxes can be controlled by the PSR-620 settings. The numbers in the brackets are PSR-620 panel effect numbers. The blank indicates the content is the same as that of 00H.

#### **REVERB TYPE**

LSB MSB	00H	01H	02H	08H	09H	0AH	овн	0CH
00H	NO EFFECT							
01H	[1]HALL1	HALL5		[2]HALL2	[3]HALL3	[4]HALL4		
02H	ROOM5	ROOM6	ROOM7	[5]ROOM1	[6]ROOM2	[7]ROOM3	[8]ROOM4	
03H	STAGE3	STAGE4		[9]STAGE1	[10]STAGE2			
04H	PLATE3			[11]PLATE1	[12]PLATE2			
05H	NO EFFECT							
:	:							
7FH	NO EFFECT							

#### **CHORUS TYPE**

LSB MSB	00Н	01H	02H	08H	09H	0AH	овн	осн
00H	NO EFFECT							
01H	NO EFFECT							
:	:							
40H	NO EFFECT							
41H	CHORUS6	CHORUS7	[5]CHORUS5					
42H	CELESTE1	[4]CHORUS4	CELESTE2	[2]CHORUS2	[3]CHORUS3	[1]CHORUS1		
43H	FLANGER 5	[9]FLANGER4		[6]FLANGER1	[7]FLANGER2	[8]FLANGER3		
44H	NO EFFECT							
:	:							
7FH	NO EFFECT							

### **VARIATION TYPE**

LSB MSB	00H	01H	02H	08H	09H	0AH	овн	0CH
00H	NO EFFECT							
01H	[1]HALL1	HALL2		[2]HALL2	[3]HALL3	[4]HALL4		
02H	ROOM5	ROOM6	ROOM7	[5]ROOM1	[6]ROOM2	[7]ROOM3	[8]ROOM4	
03H	STAGE3	STAGE4		[9]STAGE1	[10]STAGE2			
04H	PLATE3			[11]PLATE1	[12]PLATE2			
05H	DELAY L,C,R2			[38]DELAY LCR				
06H	[39]DELAY L,R							
07H	[40]ECHO							
08H	[41]CROSS DELAY							
09H	[13]EARLY REF1	[14]EARLY REF2						
0AH	[15]GATE REVERB							
0BH	[16]REVERSE GATE							
0CH	NO EFFECT or THRU*							
:	:							
3FH	NO EFFECT or THRU*							
40	THRU							
41	CHORUS6	CHORUS7	[21]CHORUS5					
42	CELESTE1	[20]CHORUS4	CELESTE2	[18]CHORUS2	[19]CHORUS3	[17]CHORUS1	[32]ROTARY SP5	
43	FLANGER 5	[25]FLANGER4		[22]FLANGER1	[23]FLANGER2	[24]FLANGER3		
44	SYMPHONIC2			[26]SYMPHONIC				
45	ROTARY SP6			[28]ROTARY SP1				
46	TREMOLO3			[33]TREMOLO1		[31]ROTARY SP4		
47	AUTO PAN2			[36]AUTO PAN	[29]ROTARY SP2	[30]ROTARY SP3	[34]TREMOLO2	[35]GTR TREMOLO
48	[27]PHASER							
49	DISTORTION							
4A	OVER DRIVE							
4B	AMP SIMULATOR			[42]DIST.HARD	[43]DIST.SOFT			
4C	3-BAND EQ			[44]EQ DISCO	[45]EQ TEL			
4D	2-BAND EQ							
4E	AUTO WAH2			[37]AUTO WAH				
4F	THRU							
:	:							
7F	THRU							

<sup>\*</sup>No effect or Thru is determined by either Variation connection is system or insertion.

### <Table-3> Effect Parameter List

Only the following parameter numbers are effective.

Parameter values consists of 2-bytes. Enter 00H for MSB and appropriate value for LSB. \* Parameter number 10 Dry/Wet is effective only when Variation connection is insertion.

02 03	HALL ROOM STAGE PLATE	1 2	Reverb Time	0.00	0.0.00.0-	MSB(H)	
03	STAGE	2		0-69	0.3~30.0s	09	EARLY
			Diffusion	0-10			
04	DI ATE	3	Initial Delay	0-63	0.0~99.3ms		
	FLAIL	4	HPF Cutoff	0-52	Thru~8.0kHz		
		5	LPF Cutoff	34-60	1.0k~Thru		
		10*	Dry/Wet	1-127	D63>W ~ D=W ~ D <w63< td=""><td></td><td></td></w63<>		
		11	Rev Delay	0-63	0.0~100.0ms		
		12	Density	0-4			
		13	Rev/Er Balance	1-127	R <e63 r="E" r63="" ~="">E</e63>		
		15	Feedback Level	1-127	-63~+63		
05	DELAY L,C,R	1	Lch Delay	1-7200	0.1~720.0ms		
		2	Rch Delay	1-7200	0.1~720.0ms	0A	GATE RI
		3	Cch Delay	1-7200	0.1~720.0ms	0B	REVERS
		4	Feedback Delay	1-7200	0.1~720.0ms		
		5	Feedback Level	1-127	-63~+63		
		6	Cch Level	0-127			
		7	High Damp	1-10	0.1~1.0		
		10*	Dry/Wet	1-127	D63>W ~ D=W ~ D <w63< td=""><td></td><td></td></w63<>		
		13	EQ Low Frequency	8-40	50Hz~2.0kHz		
		14	EQ Low Gain	52-76	-12~+12dB		
		15	EQ High Frequency	28-58	500Hz~16.0kHz		
		16	EQ High Gain	52-76	-12~+12dB		
06	DELAY L,R	1	Lch Delay	1-7200	0.1~720.0ms	41	CHORL
		2	Rch Delay	1-7200	0.1~720.0ms	42	CELES
		3	Feedback Delay 1	1-7200	0.1~720.0ms		
		4	Feedback Delay 2	1-7200	0.1~720.0ms		
		5	Feedback Level	1-127	-63~+63		
		6	High Damp	1-10	0.1~1.0		
		10*	Dry/Wet	1-127	D63>W ~ D=W ~ D <w63< td=""><td></td><td></td></w63<>		
		13	EQ Low Frequency	8-40	50Hz~2.0kHz		
		14	EQ Low Gain	52-76	-12~+12dB		
		15	EQ High Frequency	28-58	500Hz~16.0kHz		
		16	EQ High Gain	52-76	-12~+12dB	43	FLANG
07	ECHO	1	Lch Delay1	1-3600	0.1~360.0ms	43	FLANG
		2	Lch Feedback Level	1-127	-63~+63		
		3	Rch Delay1	1-3600	0.1~360.0ms		
		4	Rch Feedback Level	1-127	-63~+63		
		5	High Damp	1-10	0.1~1.0		
		6	Lch Delay2	1-3600	0.1~360.0ms		
		7	Rch Delay2	1-3600	0.1~360.0ms		
		8	Delay2 Level	0-127			
		10*	Dry/Wet	1-127	D63>W ~ D=W ~ D <w63< td=""><td></td><td></td></w63<>		
		13	EQ Low Frequency	8-40	50Hz~2.0kHz		
		14	EQ Low Gain	52-76	-12~+12dB		
		15	EQ High Frequency	28-58	500Hz~16.0kHz	44	SYMPH
		16	EQ High Gain	52-76	-12~+12dB	''	
08	CROSS DELAY	1	L->R Delay	1-3600	0.1~360.0ms		
			R->L Delay	1-3600	0.1~360.0ms		
		3	Feedback Level	1-127	-63~+63		
		4	Input Select	0-2	L,R,L&R(L,R is mono mix)		
		5	High Damp	1-10	0.1~1.0		
		10*	Dry/Wet	1-127	D63>W ~ D=W ~ D <w63< td=""><td>45</td><td>DOTA</td></w63<>	45	DOTA
		13	EQ Low Frequency	8-40	50Hz~2.0kHz	45	ROTAR
		14	EQ Low Gain	52-76	-12~+12dB		SPEAK
		15	EQ High Frequency	28-58	500Hz~16.0kHz		
		16	EQ High Gain	52-76	-12~+12dB		

	TYPE MSB(H)	Туре	Parameter Number	Parameter	Value	Description
	09	EARLY REF	1	Туре	0-5	S-H, L-H, Rdm, Rvs, Plt, Spr
			2	Room Size	0-127	
			3	Diffusion	0-10	0~10
			4	Initial Delay	0-127	0.0~200.0ms
			5	Feedback Level	1-127	-63~+63
			6	HPF Cutoff	0-52	Thru~8.0kHz
			7	LPF Cutoff	34-60	1.0k~Thru
			10*	Dry/Wet	1-127	D63>W ~ D=W ~ D <w63< td=""></w63<>
			11	Liveness	0-10	
			12	Density	0-3	
			13	High Damp	1-10	0.1~1.0
	0A	GATE REVERB	1	Туре	0-1	TypeA, TypeB
	0B	REVERSE GATE	2	Room Size	0-127	
			3	Diffusion	0-10	
1			4	Initial Delay	0-127	0.0~200.0ms
1			5	Feedback Level	1-127	-63~+63
1			6	HPF Cutoff	0-52	Thru~8.0kHz
1			7	LPF Cutoff	34-60	1.0k~Thru
1			10*	Dry/Wet	1-127	D63>W ~ D=W ~ D <w63< td=""></w63<>
1			11	Liveness	0-10	
1			12	Density	0-3	
ł			13	High Damp	1-10	0.1~1.0
1			- 13	g 2 ap		110
ł	41	CHORUS	1	LFO Frequency	0-127	0.00~39.7Hz
ł	42	CELESTE	2	LFO PM Depth	0-127	0.00 00.7712
ł	**	OLLLOIL	3	Feedback Level	1-127	-63~+63
ł			4	Delay Offset	0-127	0.0~50.0ms
1				·		50Hz~2.0kHz
1			6	EQ Low Frequency	8-40	
-			7	EQ Low Gain	52-76	-12~+12dB
1			8	EQ High Frequency	28-58	500Hz~16.0kHz
1			9	EQ High Gain	52-76	-12~+12dB
			10*	Dry/Wet	1-127	D63>W ~ D=W ~ D <w63< td=""></w63<>
			15	Input Mode	0-1	mono/stereo
l				. = - =		
ļ	43	FLANGER	1	LFO Frequency	0-127	0.00~39.7Hz
l			2	LFO Depth	0-127	
			3	Feedback Level	1-127	-63~+63
			4	Delay Offset	0-127	0.0~50.0ms
			6	EQ Low Frequency	8-40	50Hz~2.0kHz
			7	EQ Low Gain	52-76	-12~+12dB
			8	EQ High Frequency	28-58	500Hz~16.0kHz
			9	EQ High Gain	52-76	-12~+12dB
			10*	Dry/Wet	1-127	D63>W ~ D=W ~ D <w63< td=""></w63<>
			14	LFO Phase Difference	4-124	-180°~+180° (resolution 3°)
			15	Input Mode	0-1	mono/stereo
1	44	SYMPHONIC	1	LFO Frequency	0-127	0.00~39.7Hz
1			2	LFO Depth	0-127	
1			3	Delay Offset	0-127	0.0~50.0ms
1			6	EQ Low Frequency	8-40	50Hz~2.0kHz
1			7	EQ Low Gain	52-76	-12~+12dB
1			8	EQ High Frequency	28-58	500Hz~16.0kHz
1			9	EQ High Gain	52-76	-12~+12dB
1			10*	Dry/Wet	1-127	D63>W ~ D=W ~ D <w63< td=""></w63<>
1				21,71101		200711 2-11 211100
1	45	ROTARY	1	LFO Frequency	0-127	0.00~39.7Hz
1	-	SPEAKER	2	LFO Depth	0-127	
1			6	EQ Low Frequency	8-40	50Hz~2.0kHz
1			7	EQ Low Frequency EQ Low Gain	52-76	-12~+12dB
1						500Hz~16.0kHz
J			8	EQ High Frequency	28-58	
	1		9	EQ High Gain	52-76	-12~+12dB
	!		40+	Dry/Mot		
			10*	Dry/Wet	1-127	D63>W ~ D=W ~ D <w63< td=""></w63<>

	_				I
TYPE	Туре	Parameter	Parameter	Value	Description
MSB(H)	TDEMOLO	Number 1	LEO Francisco	0.407	0.00~39.7Hz
46	TREMOLO		LFO Frequency	0-127	0.00~39.7Hz
		2	AM Depth	0-127	
		3	PM Depth EQ Low Frequency	0-127	FOLI- 2 OLLI-
		7	. ,	8-40 52-76	50Hz~2.0kHz
		8	EQ Low Gain EQ High Frequency	28-58	-12~+12dB 500Hz~16.0kHz
		9	EQ High Gain	52-76	-12~+12dB
		14	LFO Phase Difference	4-124	-180°~+180° (resolution 3°)
		15	Input Mode	0-1	mono/stereo
		13	input wode	0-1	mono/stereo
47	AUTO PAN	1	LFO Frequency	0-127	0.00~39.7Hz
		2	L/R Depth	0-127	
		3	F/R Depth	0-127	
		4	PAN Direction	0-5	L<->R, L->R, L<-R,
					Lturn, Rturn, L/R
		6	EQ Low Frequency	8-40	50Hz~2.0kHz
		7	EQ Low Gain	52-76	-12~+12dB
		8	EQ High Frequency	28-58	500Hz~16.0kHz
		9	EQ High Gain	52-76	-12~+12dB
48	PHASER	1	LFO Frequency	0-127	0.00~39.7Hz
		2	LFO Depth	0-127	
		3	Phase Shift Offset	0-127	
		4	Feedback Level	1-127	-63~+63
		6	EQ Low Frequency	8-40	50Hz~2.0kHz
		7	EQ Low Gain	52-76	-12~+12dB
		8	EQ High Frequency	28-58	500Hz~16.0kHz
		9	EQ High Gain	52-76	-12~+12dB
		10*	Dry/Wet	1-127	D63>W ~ D=W ~ D <w63< td=""></w63<>
		11	Stage	6-10	
49	DISTORTION	1	Drive	0-127	
4A	OVERDRIVE	2	EQ Low Frequency	8-40	50Hz~2.0kHz
		3	EQ Low Gain	52-76	-12~+12dB
		4	LPF Cutoff	34-60	1.0k~Thru
		5	Output Level	0-127	
		7	EQ Mid Frequency	28-54	500Hz~10.0kHz
		8	EQ Mid Gain	52-76	-12~+12dB
		9	EQ Mid Width	10-120	1.0~12.0
		10*	Dry/Wet	1-127	D63>W ~ D=W ~ D <w63< td=""></w63<>
		11	Edge(Clip Curve)	0-127	0:Mild ~ 127:Sharp
4B	AMP	1	Drive	0-127	
	SIMULATOR	2	AMP Type	0-3	Off,Stack,Combo,Tube
		3	LPF Cutoff	34-60	1.0k~Thru
		4	Output Level	0-127	
		10*	Dry/Wet	1-127	D63>W ~ D=W ~ D <w63< td=""></w63<>
		11	Edge(Clip Curve)	0-127	0:Mild ~ 127:Sharp
	0.04		501 0:	FC - '	10 10 '-
4C	3-BAND EQ	1	EQ Low Gain	52-76	-12~+12dB
		2	EQ Mid Frequency	28-54	500Hz~10.0kHz
		-	EO MILO:	-c - :	
1		3	EQ Mid Gain	52-76	-12~+12dB
		4	EQ Mid Width	10-120	1.0~12.0
		4 5	EQ Mid Width EQ High Gain	10-120 52-76	1.0~12.0 -12~+12dB
		4 5 6	EQ Mid Width EQ High Gain EQ Low Frequency	10-120 52-76 8-40	1.0~12.0 -12~+12dB 50Hz~2.0kHz
		4 5	EQ Mid Width EQ High Gain	10-120 52-76	1.0~12.0 -12~+12dB
45	a DANIS FO	4 5 6 7	EQ Mid Width EQ High Gain EQ Low Frequency EQ High Frequency	10-120 52-76 8-40 28-58	1.0~12.0 -12~+12dB 50Hz~2.0kHz 500Hz~16.0kHz
4D	2-BAND EQ	4 5 6 7	EQ Mid Width EQ High Gain EQ Low Frequency EQ High Frequency EQ Low Frequency	10-120 52-76 8-40 28-58	1.0~12.0 -12~+12dB 50Hz~2.0kHz 500Hz~16.0kHz 50Hz~2.0kHz
4D	2-BAND EQ	4 5 6 7 1 2	EQ Mid Width EQ High Gain EQ Low Frequency EQ High Frequency EQ Low Frequency EQ Low Gain	10-120 52-76 8-40 28-58 8-40 52-76	1.0~12.0 -12~+12dB 50Hz~2.0kHz 500Hz~16.0kHz 50Hz~2.0kHz -12~+12dB
4D	2-BAND EQ	4 5 6 7 1 2 3	EQ Mid Width EQ High Gain EQ Low Frequency EQ High Frequency EQ Low Frequency EQ Low Gain EQ High Frequency	10-120 52-76 8-40 28-58 8-40 52-76 28-58	1.0~12.0 -12~+12dB 50Hz~2.0kHz 500Hz~16.0kHz 50Hz~2.0kHz -12~+12dB 500Hz~16.0kHz
4D	2-BAND EQ	4 5 6 7 1 2	EQ Mid Width EQ High Gain EQ Low Frequency EQ High Frequency EQ Low Frequency EQ Low Gain	10-120 52-76 8-40 28-58 8-40 52-76	1.0~12.0 -12~+12dB 50Hz~2.0kHz 500Hz~16.0kHz 50Hz~2.0kHz -12~+12dB
		4 5 6 7 1 2 3 4	EQ Mid Width EQ High Gain EQ Low Frequency EQ High Frequency EQ Low Frequency EQ Low Gain EQ High Frequency EQ High Frequency	10-120 52-76 8-40 28-58 8-40 52-76 28-58 52-76	1.0~12.0 -12~+12dB 50Hz~2.0kHz 500Hz~16.0kHz 50Hz~2.0kHz -12~+12dB 500Hz~16.0kHz -12~+12dB
4D 4E	2-BAND EQ AUTO WAH	1 2 3 4	EQ Mid Width EQ High Gain EQ Low Frequency EQ High Frequency EQ Low Frequency EQ Low Gain EQ High Frequency EQ High Frequency EQ High Frequency	10-120 52-76 8-40 28-58 8-40 52-76 28-58 52-76	1.0~12.0 -12~+12dB 50Hz~2.0kHz 500Hz~16.0kHz 50Hz~2.0kHz -12~+12dB 500Hz~16.0kHz
		1 2 3 4	EQ Mid Width EQ High Gain EQ Low Frequency EQ High Frequency EQ Low Frequency EQ Low Gain EQ High Frequency EQ High Frequency EQ High Gain LFO Frequency LFO Depth	10-120 52-76 8-40 28-58 8-40 52-76 28-58 52-76 0-127	1.0~12.0 -12~+12dB 50Hz~2.0kHz 50Hz~16.0kHz 50Hz~2.0kHz -12~+12dB 500Hz~16.0kHz -12~+12dB 0.00~39.7Hz
		1 2 3 4 1 2 3 3	EQ Mid Width EQ High Gain EQ Low Frequency EQ High Frequency EQ Low Gain EQ High Frequency EQ Low Gain EQ High Frequency EQ High Gain LFO Frequency LFO Depth Cutoff Frequency Offset	10-120 52-76 8-40 28-58 8-40 52-76 28-58 52-76 0-127 0-127	1.0–12.0 -12–+12dB 50Hz–2.0kHz 50Hz–16.0kHz 50Hz–2.0kHz -12–+12dB 500Hz–16.0kHz -12–+12dB 0.00~39.7Hz 50Hz–14.0kHz
		4 5 6 7 1 2 3 4 1 1 2 3 4	EQ Mid Width EQ High Gain EQ Low Frequency EQ High Frequency EQ Low Gain EQ Low Gain EQ High Frequency EQ High Frequency EQ High Gain  LFO Frequency LFO Depth Cutoff Frequency Offset Resonance	8-40 52-76 8-40 28-58 8-40 52-76 28-58 52-76 0-127 0-127 0-127 10-120	1.0~12.0 -12~+12dB 50Hz~2.0kHz 50Hz~16.0kHz 50Hz~2.0kHz 50Hz~2.0kHz -12~+12dB 500Hz~16.0kHz -12~+12dB 0.00~39.7Hz 50Hz~14.0kHz 1.0~12.0
		4 5 6 7 1 2 3 4 1 1 2 3 4	EQ Mid Width EQ High Gain EQ Low Frequency EQ High Frequency EQ Low Gain EQ High Frequency EQ Low Gain EQ High Gain LFO Frequency LFO Depth Cutoff Frequency Offset Resonance EQ Low Frequency	8-40 52-76 8-40 28-58 8-40 52-76 28-58 52-76 0-127 0-127 0-127 10-120 8-40	1.0~12.0 -12~+12dB 50Hz~2.0kHz 50Hz~16.0kHz 50Hz~2.0kHz -12~+12dB 50Hz~16.0kHz -12~+12dB 0.00~39.7Hz 50Hz~14.0kHz 1.0~12.0 50Hz~2.0kHz
		4 5 6 7 1 2 3 4 1 1 2 3 4 7	EQ Mid Width EQ High Gain EQ Low Frequency EQ High Frequency EQ Low Gain EQ High Frequency EQ Low Gain EQ High Frequency EQ High Gain  LFO Frequency LFO Depth Cutoff Frequency Offset Resonance EQ Low Frequency EQ Low Gain	8-40 52-76 8-40 28-58 8-40 52-76 28-58 52-76 0-127 0-127 0-127 10-120 8-40 52-76	1.0~12.0 -12~+12dB 50Hz~2.0kHz 500Hz~16.0kHz 50Hz~2.0kHz -12~+12dB 500Hz~16.0kHz -12~+12dB 0.00~39.7Hz 50Hz~14.0kHz 1.0~12.0 50Hz~2.0kHz -12~+12dB
		4 5 6 7 1 2 3 4 1 2 3 4 6 6 7	EQ Mid Width EQ High Gain EQ Low Frequency EQ High Frequency EQ Low Gain EQ Low Gain EQ High Frequency EQ High Frequency EQ High Frequency EQ High Gain  LFO Frequency LFO Depth Cutoff Frequency Offset Resonance EQ Low Frequency EQ Low Frequency EQ Low Gain EQ High Frequency	8-40 52-76 8-40 28-58 8-40 52-76 28-58 52-76 0-127 0-127 10-120 8-40 52-76 28-58	1.0~12.0 -12~+12dB 50Hz~2.0kHz 500Hz~16.0kHz 50Hz~2.0kHz -12~+12dB 500Hz~16.0kHz -12~+12dB 0.00~39.7Hz 50Hz~14.0kHz 1.0~12.0 50Hz~2.0kHz -12~+12dB
		4 5 6 7 1 2 3 4 1 1 2 3 4 7	EQ Mid Width EQ High Gain EQ Low Frequency EQ High Frequency EQ Low Gain EQ High Frequency EQ Low Gain EQ High Frequency EQ High Gain  LFO Frequency LFO Depth Cutoff Frequency Offset Resonance EQ Low Frequency EQ Low Gain	8-40 52-76 8-40 28-58 8-40 52-76 28-58 52-76 0-127 0-127 0-127 10-120 8-40 52-76	1.0~12.0 -12~+12dB 50Hz~2.0kHz 500Hz~16.0kHz 50Hz~2.0kHz -12~+12dB 500Hz~16.0kHz -12~+12dB 0.00~39.7Hz 50Hz~14.0kHz 1.0~12.0 50Hz~2.0kHz -12~+12dB

# **Specifications**

#### Keyboards:

61 standard-size keys (C1~C6) with touch response.

#### Display:

Large multi-function LCD display

#### Setup:

Power: ON/OFF

Master Volume: MIN-MAX

#### Control & Ten Keys:

 $\mathsf{CURSOR} \blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright, \mathsf{FUNCTION} \blacktriangle \blacktriangledown, \mathsf{MODE} \blacktriangledown, [0] \sim [9], [+/\mathsf{YES}],$ 

[-/NO], Data dial

#### **Cartridge Slot**

#### Demo:

Voice Demo:17 songs Style Demo:8 songs

#### Mode:

NORMAL, SPLIT, SINGLE, FINGERED

#### Voice:

AWM 141 voices+8 Keyboard Percussion Kits

Polyphony: 32

Split Voice: Volume, Octave, Reverb Level, Chorus Level, Pan,

Split Point

Dual Voice: Volume, Octave, Reverb Level, Chorus Level, Pan

Touch Response: Touch Sensitivity

Harmony/Echo: 22 types

Sustain

Others: Keyboard Volume, Octave, Reverb Level, Chorus Level,

DSP Level, Pan

#### **Auto Accompaniment:**

100 styles

Accomp Track: RHYTHM1/2, BASS, CHORD1/2, PAD,

PHRASE1/2

ACCOMP LARGE/SMALL

Accomp Track Settings: ON/OFF, Voice, Volume

Accompaniment Control: SYNC-START/STOP, START/STOP,

INTRO, MAIN A/B (AUTO FILL), ENDING

Tempo

Fingering (FINGERED Mode): Normal, Bass, Full

Accompaniment Volume
Accompaniment Split Point

#### One Touch Setting:

400 One Touch Settings

#### **Overall Controls:**

Transpose, Metronome, Tuning

#### Pitch Bend Wheel:

Pitch Bend Range

#### **Digital Effect:**

Reverb:12 types, Reverb Return Level Chorus: 9 types, Chorus Return Level DSP: 45 types, DSP Return Level

**DSP** Variation

#### **Registration Memory:**

32 Registration Bank, 1~4, Accomp Freeze

#### **Multi Pads:**

21 Preset Multi Pad Kits+1 User Multi Pad Kit 4 Pads+Terminate

#### Song:

Song: 1 User Song

Recording Tracks: ACCOMP, MELODY 1,2 Edit: Volume, Voice (MELODY TRACK), Song Clear

Minus One: 3 Modes

Minus One Right-hand Channel, Minus One Left-hand Channel

Repeat

#### Disk:

Disk Job: Load, Save, Delete, Format

Quick Play

#### MIDI:

Remote Channel, Keyboard Out, Song Out, Accompaniment Out, External Clock, Local Control, Initial Data Send

#### **Auxiliary Jacks:**

DC IN 10-12V, PHONES, SUSTAIN, AUX OUT R and L+R/L, MIDI IN/OUT

#### **Amplifiers:**

6.0 W + 6.0 W (when using PA-5B AC Power adaptor)

4.5 W + 4.5 W (when using batteries) Phones output:  $75\Omega \pm 5\%$  Impedance

#### Speakers:

12cm (4-3/4") x 2

#### **Power Consumption:**

26 W (when using PA-5B AC power adaptor)

#### **Batteries:**

Six SUM-1, "D" size, R-20 or equivalent batteries

#### Rated Voltage:

DC 10-12V

#### **Dimensions (WxDxH):**

973 x 397 x 146 mm (38-1/4" x 15-5/8" x 5-3/4")

#### Weight:

7.8 kg (17.1 lbs.) excluding batteries

#### **Supplied Accessories:**

- Music Cartridge
- Music Stand
- Owner's Manual

#### **Optional Accessories:**

Headphones HPE-3, HPE-150
AC Power Adaptor PA-5, PA-5B, PA-5C

• Footswitch FC4, FC5

Music Cartridge

<sup>\*</sup> Specifications subject to change without notice.

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Data initialization Delete Demo DSP level DSP return level DSP type Digital effect Digital effect type Disk Disk Style Dual voice chorus level Dual voice pan Dual voice reverb level Dual voice volume  E  Electrical interference Ending (accompaniment section) External clock control Echo	91 72 78 78 29 28 88 24, 89 64 30, 34 17 19 19 19 37 37 85	Minus one right-hand channel  Mode  Multi pad kit  Multi pad kit list (preset)  Multi pads  Music cartridge  Music stand  N  Naming (multi pad)  Naming (song)  Naming (registration)  Normal (fingered)  Normal (mode)  Number buttons  O  Octave  One touch setting  Overall function  P  Pad (accompaniment track)  Pan	80 11 55 56 55 60 5 59 51 44 32 12 12 9, 13	Split voice pan Split voice reverb level Split voice volume Start/stop Stop accompaniment function Straight start Style Disk Style File Format Style selection Sustain (panel) Sustain (pedal) Synchro start System (digital effect)  T Tempo control Touch response Touch sensitivity Tracks (auto accompaniment) Transpose Troubleshooting Tuning	16 16 35, 37 35 30 32 7 35 35 35 32 7 35 38 34 37 38 38
Data initialization  Delete  Demo  DSP level  DSP return level  DSP type  Digital effect  Digital effect type  Disk  Disk Style  Dual voice  Dual voice chorus level  Dual voice pan  Dual voice reverb level  Dual voice volume  E  Electrical interference  Ending (accompaniment section)  External clock control  Echo  Fill in (accompaniment section)	91 72 78 78 29 28 88 24, 89 64 30, 34 17 19 19 19 37 37	Minus one right-hand channel  Mode  Multi pad kit  Multi pad kit list (preset)  Multi pads  Music cartridge  Music stand  N  Naming (multi pad)  Naming (song)  Naming (registration)  Normal (fingered)  Normal (mode)  Number buttons  O  Octave  One touch setting  Overall function  Pad (accompaniment track)  Pan  Panel controls	80 11 55 56 55 60 5 59 51 44 32 12 9, 13	Split voice pan Split voice reverb level Split voice volume Start/stop Stop accompaniment function Straight start Style Disk Style File Format Style selection Sustain (panel) Sustain (pedal) Synchro start System (digital effect)  T Tempo control Touch response Touch sensitivity Tracks (auto accompaniment) Transpose Troubleshooting Tuning V Voice list (GM voice)	16 16 35, 37 35 34 30 22 7 35 38 22 7 35 88 34 17 79 38 23 90 80
Data initialization  Delete  Demo  DSP level  DSP return level  DSP type  Digital effect  Digital effect type  Disk  Disk Style  Dual voice  Dual voice chorus level  Dual voice pan  Dual voice reverb level  Dual voice volume  E  Electrical interference  Ending (accompaniment section)  External clock control  Echo  Fill in (accompaniment section)  Fingered (mode)	91 72 78 78 78 29 28 88 24, 89 64 30, 34 17 19 19 19 37 37 30	Minus one right-hand channel  Mode  Multi pad kit  Multi pad kit list (preset)  Multi pads  Music cartridge  Music stand  N  Naming (multi pad)  Naming (song)  Naming (registration)  Normal (fingered)  Normal (mode)  Number buttons  O  Octave  One touch setting  Overall function  P  Pad (accompaniment track)  Pan	80 11 55 56 55 60 5 59 51 44 32 12 9, 13	Split voice pan Split voice reverb level Split voice volume Start/stop Stop accompaniment function Straight start Style Disk Style File Format Style selection Sustain (panel) Sustain (pedal) Synchro start System (digital effect)  T Tempo control Touch response Touch sensitivity Tracks (auto accompaniment) Transpose Troubleshooting Tuning V Voice list (GM voice) Voice list (panel voice)	16 16 37 35 30 33 22 7 35 38 28 39 38 23 90 80
Data initialization  Delete  Demo  DSP level  DSP return level  DSP type  Digital effect  Digital effect type  Disk  Disk Style  Dual voice  Dual voice chorus level  Dual voice pan  Dual voice reverb level  Dual voice volume  E  Electrical interference  Ending (accompaniment section)  External clock control  Echo  Fill in (accompaniment section)	91 72 78 78 78 29 28 88 24, 89 64 30, 34 77 19 19 19 19 20 37 37 30 31	Minus one right-hand channel  Mode  Multi pad kit  Multi pad kit list (preset)  Multi pads  Music cartridge  Music stand  N  Naming (multi pad)  Naming (song)  Naming (registration)  Normal (fingered)  Normal (mode)  Number buttons  O  Octave  One touch setting  Overall function  Pad (accompaniment track)  Pan  Panel controls	80 11 55 56 55 60 5 59 51 44 32 12 9, 13	Split voice pan Split voice reverb level Split voice volume Start/stop Stop accompaniment function Straight start Style Disk Style File Format Style selection Sustain (panel) Sustain (pedal) Synchro start System (digital effect)  T Tempo control Touch response Touch sensitivity Tracks (auto accompaniment) Transpose Troubleshooting Tuning V Voice list (GM voice)	16 16 37 35 30 32 7 35 38 22 7 35 88 34 17 79 38 23 90 80

# Limited Warranty

90 DAYS LABOR 1 YEAR PARTS

Yamaha Corporation of America, hereafter referred to as Yamaha, warrants to the original consumer of a product included in the categories listed below, that the product will be free of defects in materials and/or workmanship for the periods indicated. This warranty is applicable to all models included in the following series of products:

#### PSR SERIES OF PORTATONE ELECTRONIC KEYBOARDS

If during the first 90 days that immediately follows the purchase date, your new Yamaha product covered by this warranty is found to have a defect in material and/or workmanship, Yamaha and/or its authorized representative will repair such defect without charge for parts or labor.

If parts should be required after this 90 day period but within the one year period that immediately follows the purchase date, Yamaha will, subject to the terms of this warranty, supply these parts without charge. However, charges for labor, and/or any miscellaneous expenses incurred are the consumers responsibility. Yamaha reserves the right to utilize reconditioned parts in repairing these products and/or to use reconditioned units as warranty replacements.

THIS WARRANTY IS THE ONLY EXPRESS WARRANTY WHICH YAMAHA MAKES IN CONNECTION WITH THESE PRODUCTS. ANY IMPLIED WARRANTY APPLICABLE TO THE PRODUCT, INCLUDING THE WARRANTY OF MERCHANT ABILITY IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY. YAMAHA EXCLUDES AND SHALL NOT BE LIABLE IN ANY EVENT FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow limitations that relate to implied warranties and/or the exclusion of incidental or consequential damages. Therefore, these limitations and exclusions may not apply to you.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

#### **CONSUMERS RESPONSIBILITIES**

If warranty service should be required, it is necessary that the consumer assume certain responsibilities:

- 1. Contact the Customer Service Department of the retailer selling the product, or any retail outlet authorized by Yamaha to sell the product for assistance. You may also contact Yamaha directly at the address provided below.
- Deliver the unit to be serviced under warranty to: the retailer selling the product, an authorized service center, or to Yamaha with an explanation of the problem. Please be prepared to provide proof purchase date (sales receipt, credit card copy, etc.) when requesting service and/or parts under warranty.
- 3. Shipping and/or insurance costs are the consumers responsibility.\* Units shipped for service should be packed securely.
  - \*Repaired units will be returned PREPAID if warranty service is required within the first 90 days.

**IMPORTANT:** Do NOT ship anything to ANY location without prior authorization. A Return Authorization (RA) will be issued that has a tracking number assigned that will expedite the servicing of your unit and provide a tracking system if needed.

4. Your owners manual contains important safety and operating instructions. It is your responsibility to be aware of the contents of this manual and to follow all safety precautions.

#### **EXCLUSIONS**

This warranty does not apply to units whose trade name, trademark, and/or ID numbers have been altered, defaced, exchanged removed, or to failures and/or damages that may occur as a result of:

- 1. Neglect, abuse, abnormal strain, modification or exposure to extremes in temperature or humidity.
- 2. Improper repair or maintenance by any person who is not a service representative of a retail outlet authorized by Yamaha to sell the product, an authorized service center, or an authorized service representative of Yamaha.
- 3. This warranty is applicable only to units sold by retailers authorized by Yamaha to sell these products in the U.S.A., the District of Columbia, and Puerto Rico. This warranty is not applicable in other possessions or territories of the U.S.A. or in any other country.

Please record the model and serial number of the product you have purchased in the spaces provided below.

Model	Serial #	Sales Slip #
Purchased from(Retailer)		Date

YAMAHA CORPORATION OF AMERICA

Electronic Service Division 6600 Orangethorpe Avenue Buena Park, CA 90620

**KEEP THIS DOCUMENT FOR YOUR RECORDS. DO NOT MAIL!** 

