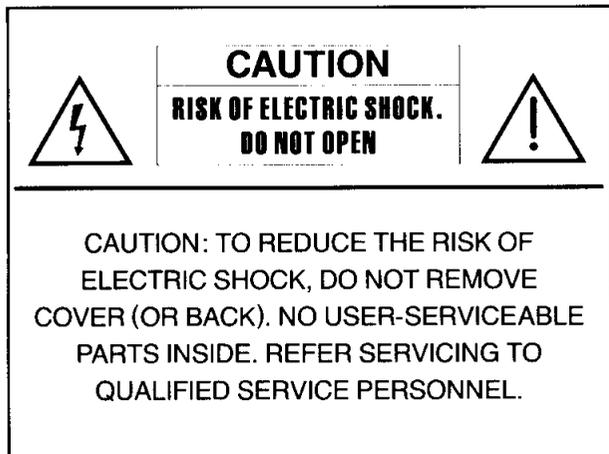YAMAHA

Clavinova.

P-500

Owner's Manual

YAMAHA

SPECIAL MESSAGE SECTION

PRODUCT SAFETY MARKINGS: Yamaha electronic products may have either labels similar to the graphics shown below or molded/stamped facsimiles of these graphics on the enclosure. The explanation of these graphics appears on this page. Please observe all cautions indicated on this page and those indicated in the safety instruction section.

⚠️ **CAUTION**
**RISK OF ELECTRIC SHOCK.
DO NOT OPEN** ⚠️

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

See bottom of keyboard enclosure for graphic symbol markings.

The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock.

IMPORTANT NOTICE: All Yamaha electronic products are tested and approved by an independent safety testing laboratory in order that you may be sure that when it is properly installed and used in its normal and customary manner, all foreseeable risks have been eliminated. DO NOT modify this unit or commission others to do so unless specifically authorized by Yamaha. Product performance and/or safety standards may be diminished. Claims filed under the expressed warranty may be denied if the unit is/has been modified. Implied warranties may also be affected.

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.

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:
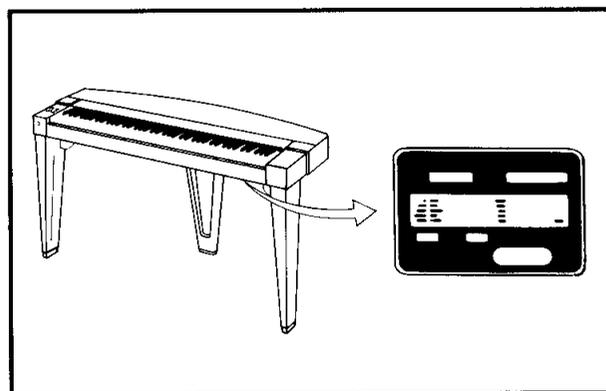
Battery Notice: This product MAY contain a small non-rechargeable battery which (if applicable) is soldered in place. The average life span of this type of battery is approximately five years. When replacement becomes necessary, contact a qualified service representative to perform the replacement.

Warning: Do not attempt to recharge, disassemble, or incinerate this type of battery. Keep all batteries away from children. Dispose of used batteries promptly and as regulated by applicable laws. Note: In some areas, the servicer is required by law to return the defective parts. However, you do have the option of having the servicer dispose of these parts for you.

Disposal Notice: 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.

NOTICE: Service charges incurred due to 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.

NAME PLATE LOCATION: The graphic below indicates the location of the name plate. 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.
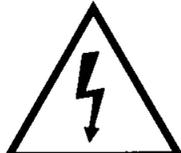
Model _____

Serial No. _____

Purchase Date _____

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APPENDIX

Congratulations and thank you for purchasing the Yamaha Clavinova P-500! You now own one of the most versatile and powerful MIDI master keyboards available.

The P-500 features authentic acoustic piano, electric piano and other stunning sounds, and provides exceptionally advanced and comprehensive MIDI control functions — making it ideal as a master keyboard for onstage or studio use. Plus, with its elegant and stylish cabinet, the P-500 looks every bit as good as it sounds.

Some of the advanced features of the P-500 include:

•High quality AWM sound sources

The P-500 features a selection of eleven voices with a maximum simultaneous output of 32-note polyphony. All voices were recorded using state-of-the-art sampling equipment and techniques, then processed using Yamaha's original AWM sound generation technology.

•Authentic piano keyboard feel

To complement the amazingly realistic and dynamic Voices, the P-500 also features a full 88-key weighted keyboard that provides extremely natural touch response — just like an acoustic piano.

•Flexible Voice control

The P-500 gives you exceptionally flexible control over the Voices. To start with, there are three keyboard modes — Single, Dual and Split — which allow you to play a single Voice, two Voices in a layer, or two Voices on separate parts of the keyboard. Other Voice controls let you change the tuning, sound envelopes, Vibrato, Pan and equalization, giving you the tools to alter the very character of the Voices themselves. The changes you make can then be stored for future recall.

•Digital signal processing

The internal Voices of the P-500 can be further processed by the advanced signal processors: Effect, Modulation and Reverb. These three contain a full array of professional quality effects — including Chorus, Phaser, Flanger, auto panning, Enhancer, Detune, Wah, and a comprehensive set of Reverb effects. The Effect section of processors even lets you simultaneously use two different Effect types on two separate Voices. Moreover, Effect, Modulation and Reverb can all be used together for true multi-effect operation.

•Comprehensive MIDI control

As stunning as the sound is, what makes the P-500 truly a remarkable instrument are its extensive MIDI functions. There are four separate MIDI Paths, letting you control four separate MIDI instruments (or sets of instruments, if you wish). Moreover, two additional Extra MIDI Paths are available for control of MIDI effect devices and signal processors.

•Eleven independent Voice/MIDI controllers

The P-500 features eleven separate controllers — two Panel Switches, two Continuous Sliders, two control Wheels, four Foot Controller inputs, and After Touch — which can be assigned to control an exceptionally wide variety of Voice and MIDI functions. Different response curves on each controller let you tailor them for specific effects and applications.

•Performance/Chain system for instant, convenient switching of settings

All Voice and MIDI settings can be stored to one of thirty-two Performances, allowing you to instantly change the sound and your entire MIDI setup. What's more, you can arrange these thirty-two Performances into a Chain, and have each Performance called up in the proper order, simply by pressing a panel button or Foot Switch — a great convenience when using the P-500 onstage.

PRECAUTIONS

The P-500 is an sophisticated electronic musical instrument and contains sensitive mechanisms and delicate digital circuitry. To ensure a long lifetime of reliable service, observe these precautions when installing, moving or handling the P-500.

•Location

Keep the P-500 away from locations where it is likely to be exposed to high temperatures (such as direct sunlight) or humidity. Also avoid locations which are subject to excessive dust accumulation or vibration which could cause mechanical damage.

•Handling

Although the P-500 has been constructed to withstand the normal rigors of stage and studio use for optimum sturdiness and reliability, avoid subjecting it to strong physical shocks (such as dropping or hitting it), since this may damage the unit. Since the P-500 is a precision-made electronic device, also avoid applying excessive force to the various controls. When moving the P-500, first unplug the AC power cord and all other cables to prevent damage to cords and jacks. When removing plugs from terminals, always grip them directly rather than pulling on the cords.

•Cleaning

Never use solvents such as benzine or thinner to clean the P-500, since these will damage the cabinet finish or dull the keys. Wipe clean with a soft, dry cloth. If necessary, use a soft, clean cloth slightly moistened with a diluted, mild detergent — making sure to wipe the case off again with a dry cloth.

•Power Supply

The power requirement of your P-500 has been set to match the mains power supply voltage in your area. Make sure that your local AC mains voltage matches the voltage specified on the name plate on the rear panel of your P-500. If you have any doubts about voltage compatibility, consult your local Yamaha dealer. If you plan to use the P-500 in an area with a different voltage, be sure to use an appropriate converter.

•Electromagnetic Interference

Avoid using the P-500 near televisions, radios or other equipment generating electromagnetic fields. Proximity to such equipment may cause the P-500 to malfunction, and may generate interference noise in the other appliance as well.

•Extended Nonuse

Since electrical storms can cause power surges which can damage the circuitry of the P-500 even when the power switch is turned off, always disconnect the power cord from the AC outlet when you will not be using the P-500 for an extended period of time.

•Service and Modification

The P-500 contains no user-serviceable parts. Never open the piano cabinet or tamper with the internal circuitry in any way, since doing so may result in electrical shock or damage to the P-500. Refer all servicing to qualified Yamaha service personnel.

•Backup Battery

The internal settings of the P-500 are preserved by a lithium backup battery which has a life of approximately five years. (The actual battery life may differ depending on how much time has elapsed between the date of manufacture and the purchase date.) When the battery charge runs low, a "REPLACE BATTERY" message will appear in the LCD display. If this happens, first save any settings you may want to keep to an external data storage device (such as the Yamaha MDF2 Data Filer), using the Send Bulk Data operation (page 88). Then contact your Yamaha dealer or service center to have the battery replaced. DO NOT ATTEMPT TO REPLACE THE BACKUP BATTERY YOURSELF!

PANEL CONTROLS AND TERMINALS

This section shows and explains all of the controls and terminals of the P-500. Since the explanations below are fairly brief, you should turn to the page references given for more information on individual buttons and features. Also, refer to this section as necessary when using the P-500, when you need specific information on a certain control or terminal.

■ TOP PANEL

C

D
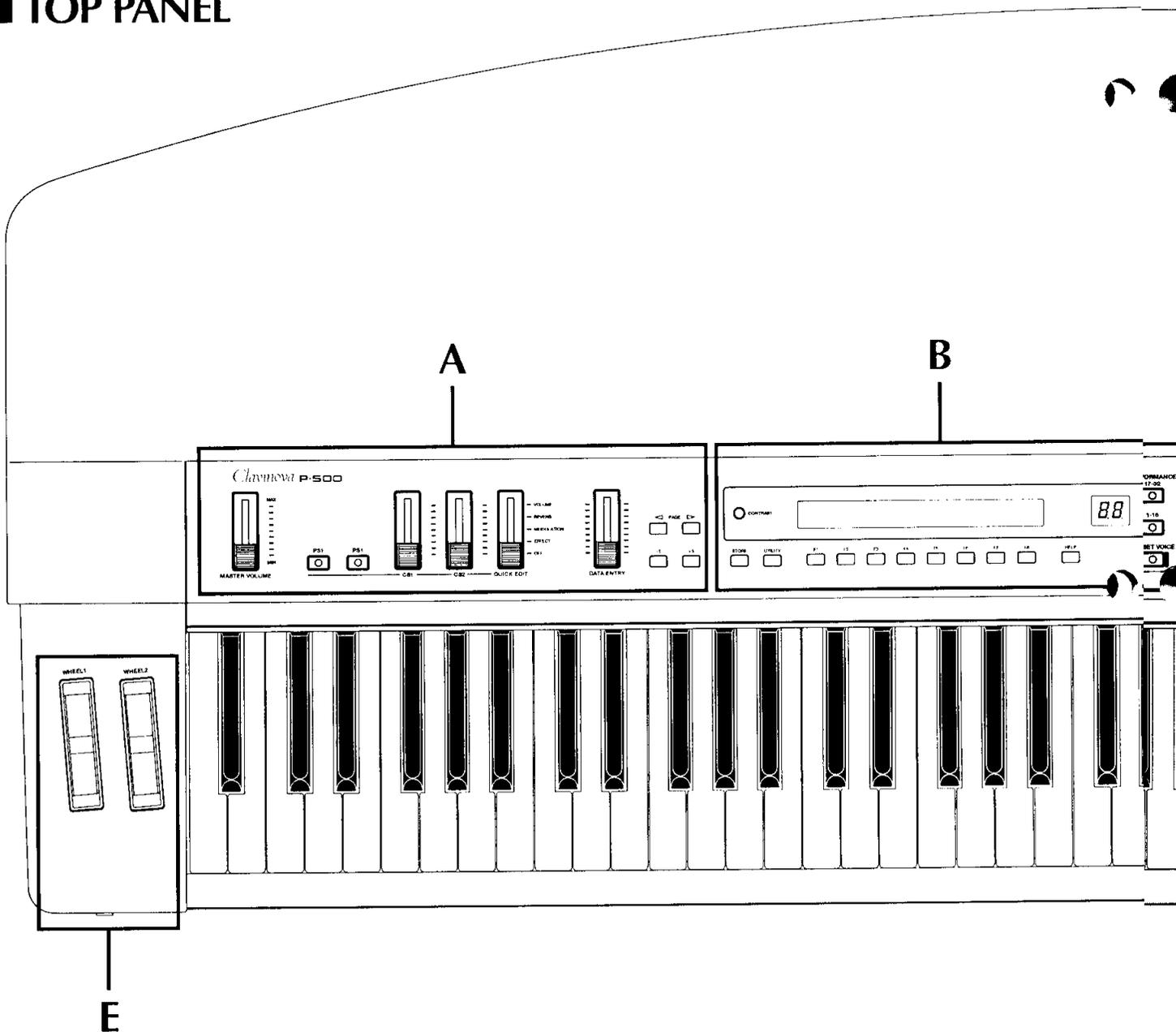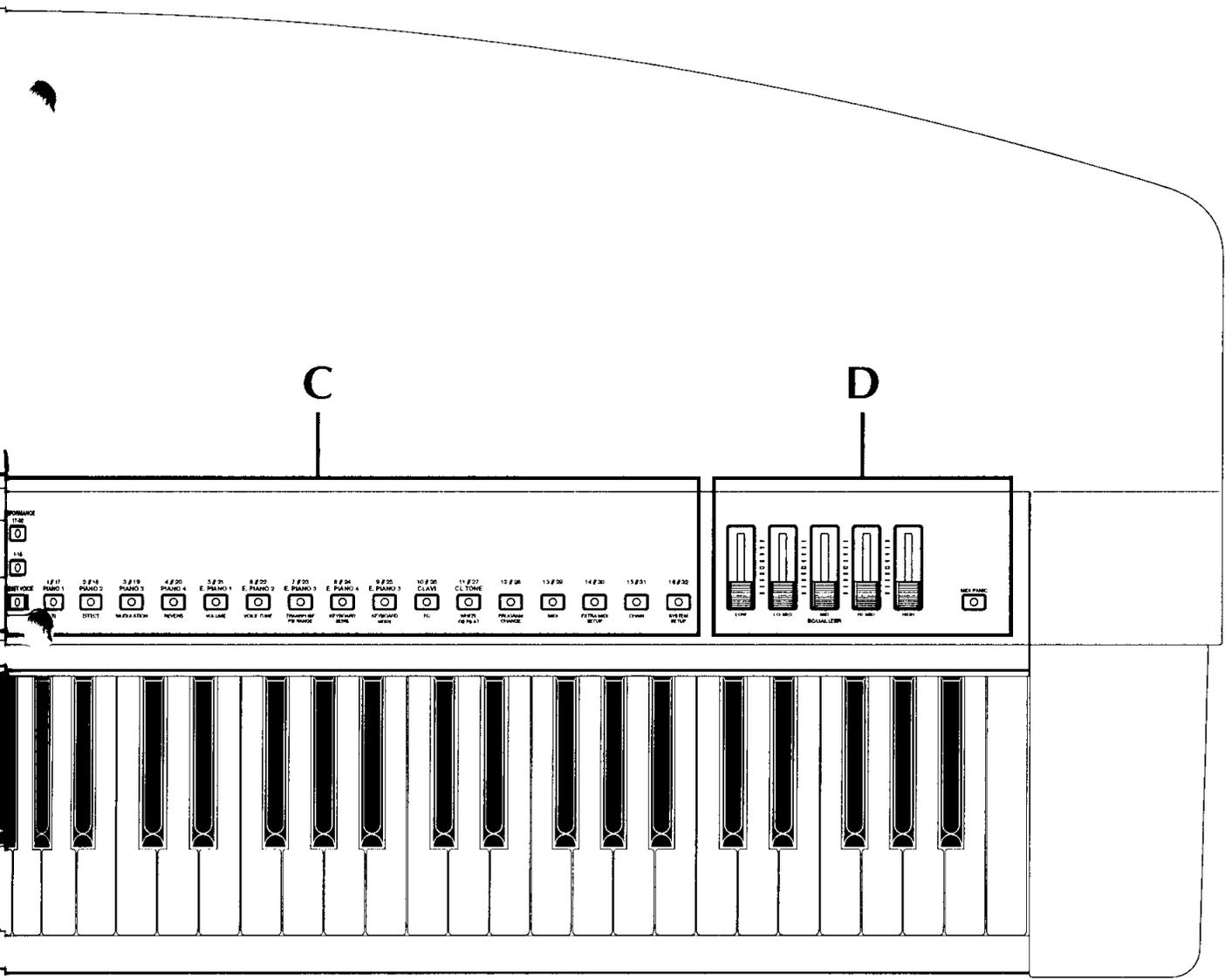
■ TOP PANEL (A)
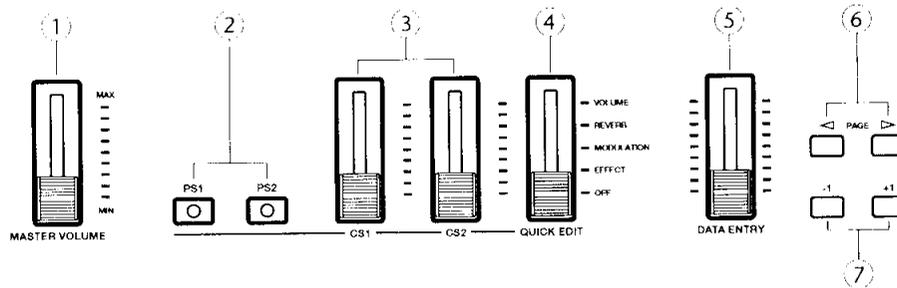
①MASTER VOLUME Slider

For controlling the overall level of the sound output via the two sets of LINE OUT terminals. This affects the only the level of the internal Voices, and not the level of any connected MIDI devices.

②PS 1, PS 2 Panel Switches

For controlling various functions of the internal Voices and connected MIDI devices, as set from the WHEEL CS PS AT pages. (See page 78.)

③CS 1, CS 2 Continuous Sliders

For controlling various functions of the internal Voices and connected MIDI devices, as set from the WHEEL CS PS AT pages. (See page 78.)

④QUICK EDIT Slider

For instantly enabling panel switch and slider (PS 1, PS 2, CS 1 and CS 2) control over the settings and parameters of Reverb, Modulation or Effect, or the Volume settings of Voices A and B. (See page 29.)

⑤DATA ENTRY Slider

For continuously scrolling through the parameter values of the currently highlighted parameter in the LCD display. (In Edit mode and Utility mode only.)

⑥PAGE ◄, ► Buttons

For reversing/advancing through the various EDIT pages of the LCD display, one page at a time. (In Edit mode only.)

⑦-1, +1 Buttons

For adjusting or selecting values, one at a time, for the currently highlighted parameter in the LCD display. Hold down either button for longer than one second to quickly and continuously scroll through the values. (In Edit mode and Utility mode only.)

■ TOP PANEL (B)
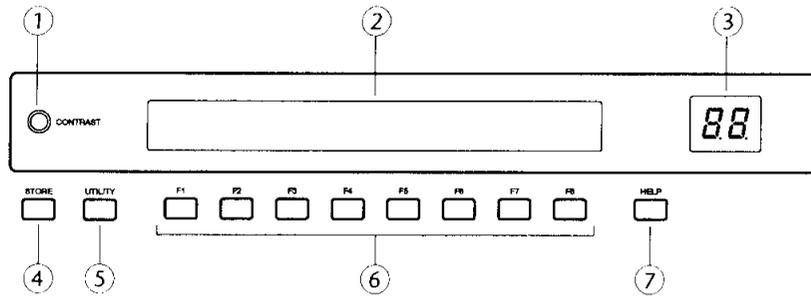
①CONTRAST Dial

For adjusting the contrast of the LCD display. Adjust this as necessary for optimum visibility. (At extreme settings, the display may not be readable.)

②LCD Display

This back-lit display shows the various messages and operating status of the P-500.

③LED Display

This illuminated two-digit display indicates the selected Voice, Performance or Chain number. Two dots also appear in the display when a Performance or Chain has been selected for playing or editing.

④STORE Button

During editing only, pressing this calls up the Store menu, allowing you to save your edits. (See pages 38, 41.)

⑤UTILITY Button

For calling up the various Utility functions. (See page 86.)

⑥Function Buttons ([F1] - [F8])

For selecting specific menus, pages or parameters, when more than one are available from a display page. The menu or page that corresponds to each Function button is indicated in the LCD display; parameters are selected by pressing the Function button directly below the desired parameter. These are also used to call up the various displays of the View function. (See page 46.)

⑦HELP Button

When held down, this displays a short, explanatory messsage in the LCD display describing the currently selected function or operation. (See page 10.)

■ TOP PANEL (C)
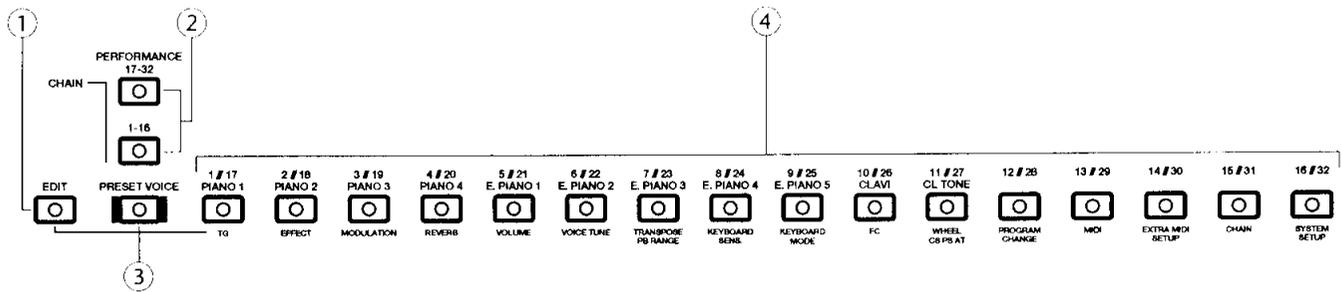
① EDIT Button

Pressing this in the Voice Play and Performance Play modes calls up the corresponding Edit mode, in which Voice and Performance parameters can be edited. (See pages 33, 40.) When the **EDIT** lamp is lit or flashing, the Voice/Performance Select buttons function as Edit page selectors, corresponding to the green-labeled functions under each button.

Pressing this in the Chain Play mode calls up the Chain Edit mode. (See page 43.)

② 17-32, 1-16 Buttons

Pressing either of these buttons enables selection from one of the corresponding banks of Performances, 1-16 or 17-32. (Actual selection of Performances is done with the Voice/Performance Select buttons.) (See page 27.)

Pressing both of these buttons simultaneously enables selection of Chains. (Actual selection of Chains is done with the Voice/Performance Select buttons.) (See page 28.)

In the Performance Edit mode, the lamp of the last selected button will flash, indicating that Performance editing can be done. In the Chain Edit mode both lamps will flash, indicating that Chain editing can be done.

③ PRESET VOICE Button

For enabling selection of the preset Voices. (Actual selection of Voices is done with the Voice/Performance Select buttons.) (See page 24.)

In the Voice Edit mode, the lamp of the button will flash, indicating that Voice editing can be done.

④ Voice/Performance Select Buttons

For selection of Voices (after pressing **PRESET VOICE**), Performances (after pressing **1-16** or **17-32**), or Chains (after simultaneously pressing both **1-16** and **17-32**).

These buttons also function as Edit page selectors after the EDIT button has been pressed, and correspond to the green-labeled functions under each button. (See page 51.) Since each Edit page selector may contain several different pages, the P-500 conveniently "remembers" the last page selected for each button, making it easy for you to return to specific pages during editing.

■ TOP PANEL (D)
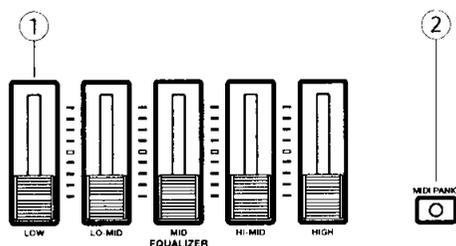
①EQUALIZER Sliders

For adjusting equalization of the overall sound of the internal Voices. Five separate bands of equalization are provided: Low, Lo-Mid, Mid, Hi-Mid, and High. (See page 45.)

②MIDI PANIC Button

For instantly sending note off and other messages to all connected MIDI devices. This is commonly used to cancel MIDI "stuck notes" in case of transmission/reception problems. (See page 50.)

■ TOP PANEL (E)
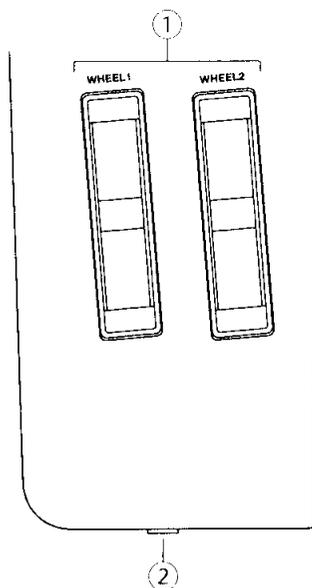
①WHEEL 1, WHEEL 2

For controlling various functions of the internal Voices and connected MIDI devices, as set from the WHEEL CS PS AT pages. (See page 77.) WHEEL 1 is spring-loaded with a center return and is generally used for Pitch Bend. WHEEL 2 is generally used as a Modulation Wheel controller for applying Vibrato or other effects to the sound.

②PHONES Jack

For connection to a set of stereo headphones. The sound of the internal Voices is output normally through the LINE OUT jacks even when headphones are connected.

■ LEFT PANEL
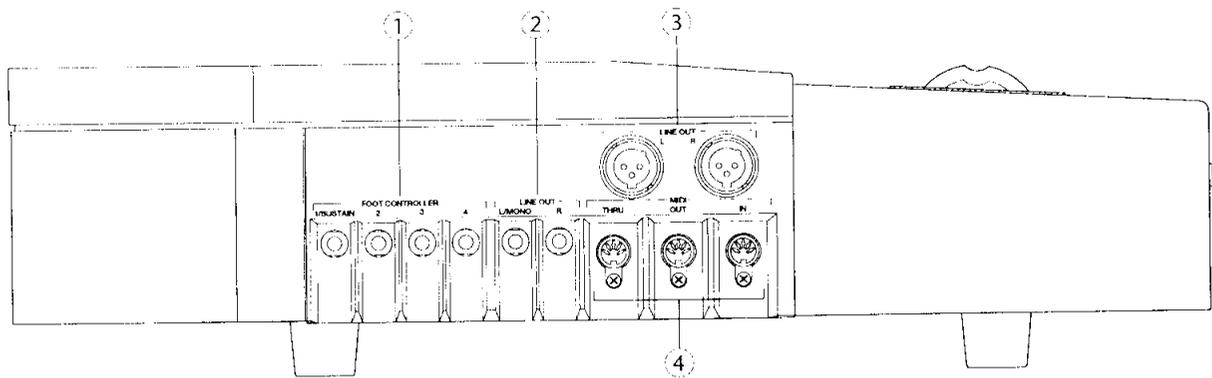
① FOOT CONTROLLER Jacks (1/SUSTAIN, 2, 3, 4)

For connection of Footswitches (such as the optional Yamaha FC4 or FC5) or Foot Controllers (such as the optional Yamaha FC7). These can be used to control various functions of the internal Voices and connected MIDI devices, as set from the Foot Controller pages. (See page 72.)

② LINE OUT Jacks
(L/MONO, R; Unbalanced, 1/4" phone)

For mono or stereo output of the internal Voices. Connect these to inputs on a keyboard mixer or amplifier. When only the L/MONO jack is connected, a mono mix of both left and right outputs is output through the jack.

③ LINE OUT Jacks (L, R; Balanced, XLR)

For stereo output to balanced XLR inputs on mixing consoles and other professional-level audio equipment.

④ MIDI Terminals (IN, OUT, THRU)

For connecting the P-500 with other MIDI devices — such as synthesizers, tone generators, sequencers, effect devices, and data storage devices — for communication with those devices. (See pages 14, 90.) The MIDI THRU terminal simply relays the MIDI data received at MIDI IN, and is used mainly to connect multiple MIDI devices in "daisy chain" fashion.

■ RIGHT PANEL
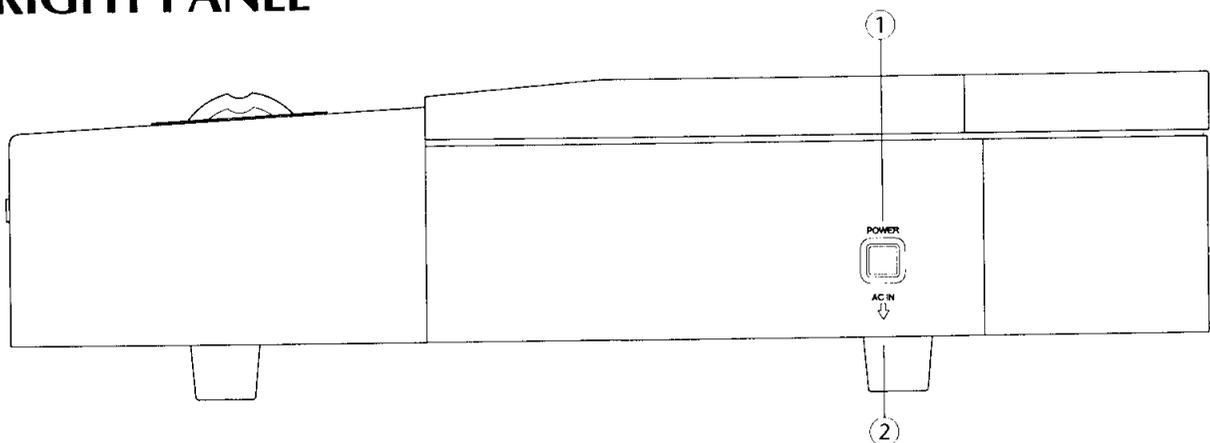
① POWER Switch

Press this switch to turn the power on. The switch remains in the recessed position when power is on.

② AC IN Terminal

For connection of the included Power Cord. Connect the other end of the cord to a suitable AC electrical outlet.

SETTING UP AND PLAYING YOUR P-500

This short section shows you how to set up your P-500 with the included stands and accessories, connect it to other equipment, such as an amplifier/speaker system and MIDI devices, and start playing it.

■ Assembling Your P-500

Carefully follow the instructions below in the order given.
● Make sure to use the correct parts and correct positioning, as shown in the illustrations.
● At least two people are necessary for assembly. Do not try to assemble the unit alone.

1 Before assembly, check that all the necessary parts shown below have been included.

Attachment for Extra Keyboard

Keyboard Unit

Center Leg

Left Leg (and Cord Cover)

Right Leg (and Cord Cover)

Top Frame

Pedal Unit

Power Cord
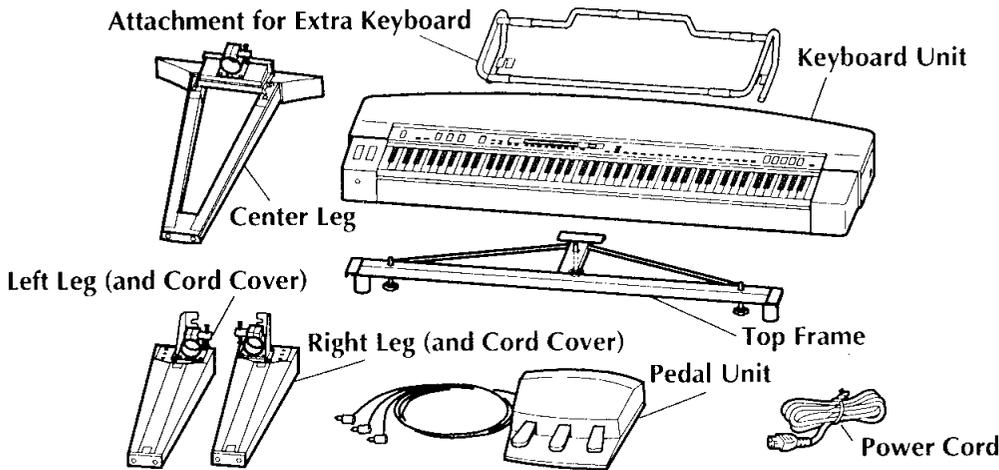
NOTE

The Attachment for Extra Keyboard has already been mounted onto the P-500, as shipped from the factory.

2 Assemble the stand.

First, gently lay the Top Frame upside down on the floor, so that the three pegs at the points face up. Next, align the clamps on each of the legs to the appropriate pegs on the Top Frame and carefully slide them in place, as shown below. Finally, firmly tighten the Hand Screws and the Handles of the Clamps on each leg. (Make sure that the Hand Screw shafts fit inside the notches on the brace of each leg, as shown in the illustration.)

Right Leg   Center Leg   Left Leg

Handle   Clamp

Peg

Hand Screw

Front side of the Top Frame
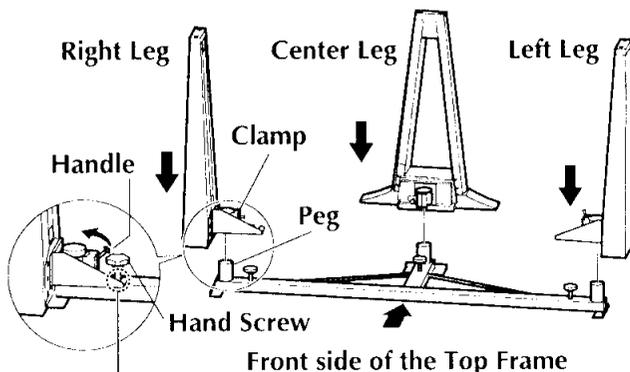
Make sure that the Hand Screw shaft fits inside the notch.

3 Set the assembled stand upright.

4 Attach the Keyboard Unit to the stand.

Gently lower the Keyboard Unit onto the assembled stand, aligning the screw holes on the bottom of the Keyboard Unit with the three large Hand Screws on the Top Frame. Fix the Keyboard Unit to the stand by firmly tightening these screws.

Keyboard Unit

Hand Screws

Stand
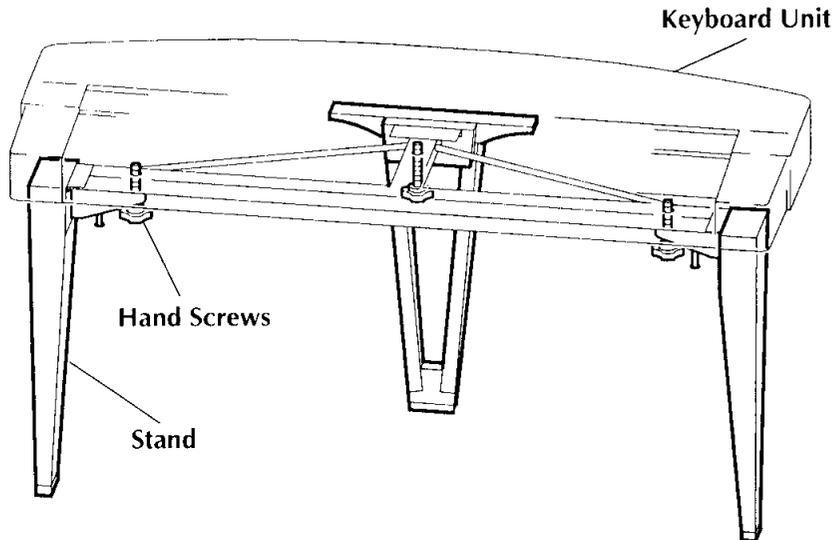
5 Connect the Pedal Unit.

Connect the three plugs of the Pedal Unit to the appropriate FOOT CONTROLLER jacks on the side panel of the Keyboard Unit, matching the gray plug with the gray jack on the far left and connecting the other plugs in order.

Pedal Unit
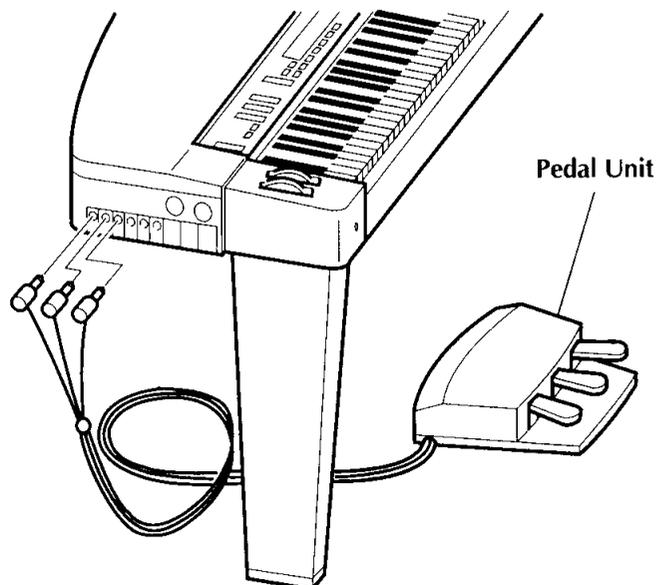
6 Remove the Cord Cover of the Left Leg, and fit the Foot Controller cords along the groove inside the leg, as shown below. Replace the Cord Cover after inserting the cords.
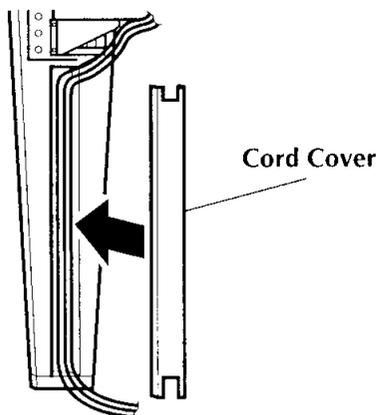
Cord Cover

7 Firmly connect the female end of the Power Cord to the AC IN terminal on the underside of the Keyboard Unit, as shown in the illustration.
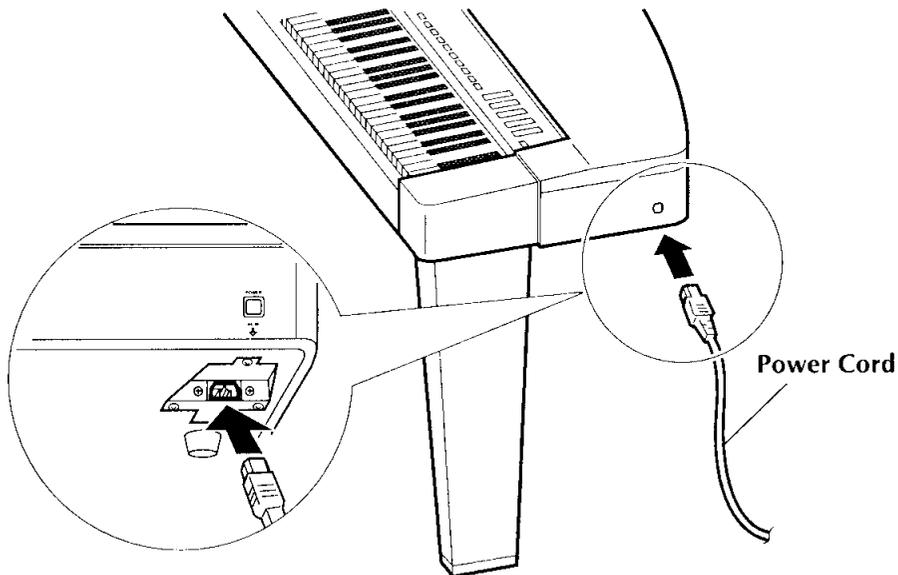
Power Cord

8 Remove the Cord Cover of the Right Leg and fit the Power Cord along the groove inside the leg. Replace the Cord Cover after inserting the cord.

Cord Cover
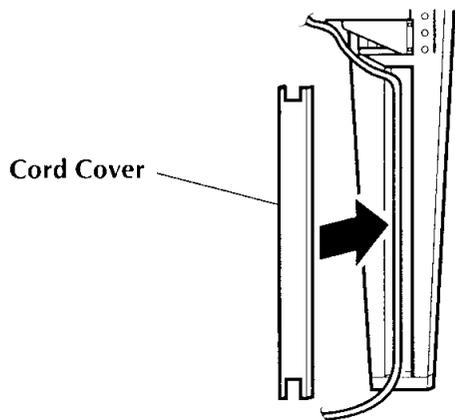
9 Insert the plug on the other end of the Power Cord into a suitable electrical outlet.

Electrical Outlet

Power Cord
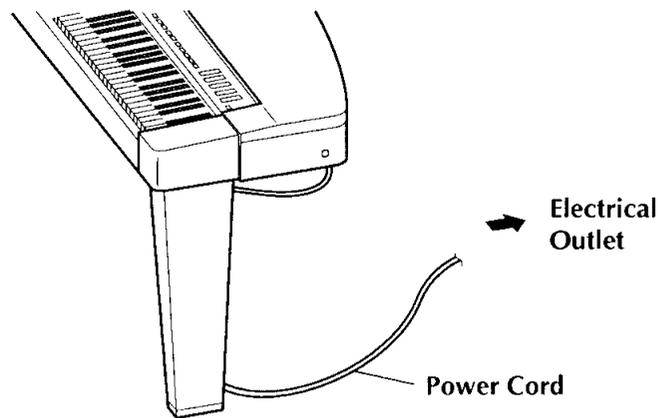
■ Attachment for Extra Keyboard

If you want to set a second keyboard on top of the P-500, use the included Attachment for Extra Keyboard.

Removing the Attachment for Extra Keyboard

To remove the Attachment for Extra Keyboard, loosen the Hand Screws under the Keyboard Unit and slide it out. To replace it, slide it back in place, between the screw handles and the Keyboard Unit bottom. Make sure that the Hand Screw shafts fit inside the notches on the bottom of the Attachment for Extra Keyboard.

Attachment for Extra Keyboard
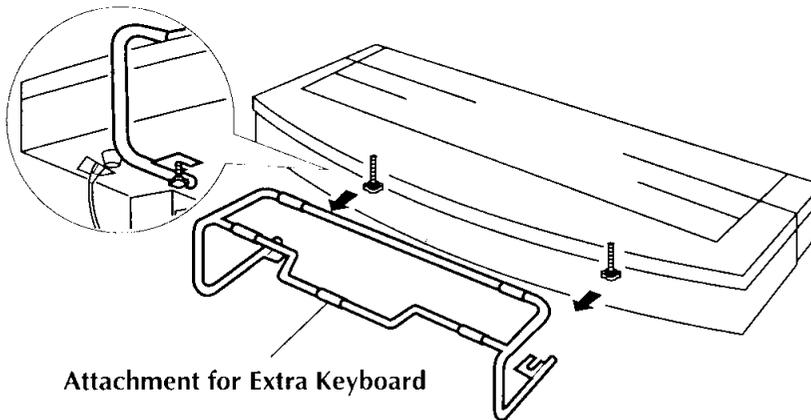
NOTE

The Attachment for Extra Keyboard is designed to hold conventional synthesizer keyboards. Do not attempt to put anything heavier than 20 kg (44 lbs.) or larger than 1300mm(Width)×410 mm(Depth) ×125 mm(Height)(51"×16"×5") on the assembled stand.

● When using headphones, connect the headphones to the PHONES jack on the front panel.

PHONES Jack
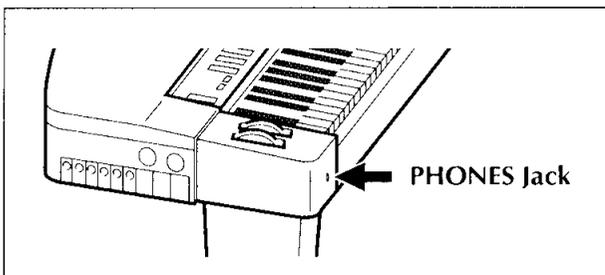
● Refer to the section on setup and connections (page 5) for connecting the P-500 to an external sound system and other MIDI devices.

■ Making Audio Connections

Connect the audio output(s) of the P-500 to an external mono or stereo amplifier/ speaker system, as shown below. (Since the P-500 has many sophisticated stereo functions, we recommend that you use a stereo amplifier/speaker system.)

```
        MS60S                                      MS60S
       ┌─────┐                                   ┌─────┐
       │     │                                   │     │
       └─────┘                                   └─────┘

   L/MONO ─────────────────────      R
   (Use this when
   connecting to
   a mono system;
   stereo signals
   are mixed and
   output here
   when this is
   connected.)
                        P-500
```
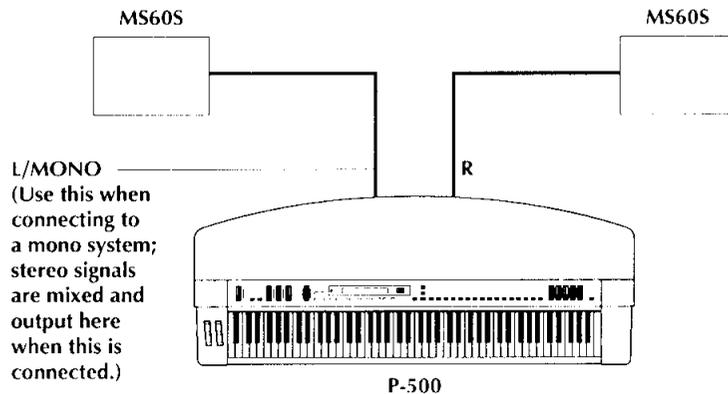
For professional applications, such as studio recording or providing a balanced stereo output to a mixer in a live performance, use the balanced XLR connectors.

You can also listen to the sound of the P-500 through a set of stereo headphones. Connect them to the PHONES jack on the front left side of the instrument.

NOTE

Connecting a set of headphones does **not** disable the normal audio output of the P-500.

■ Making MIDI Connections

If you intend to use other MIDI instruments with your P-500, you'll have to connect them properly. (For more information on MIDI and MIDI connections, refer to the **GUIDED TOUR** section on page 14, and the **MIDI BASICS AND APPLICATIONS** section on page 90.)

```
         MIDI IN  ┌──────────────────┐
                  │MIDI OUT  MIDI IN │ MIDI OUT

         P-500                  MIDI Keyboard (synthesizer, etc.)
```
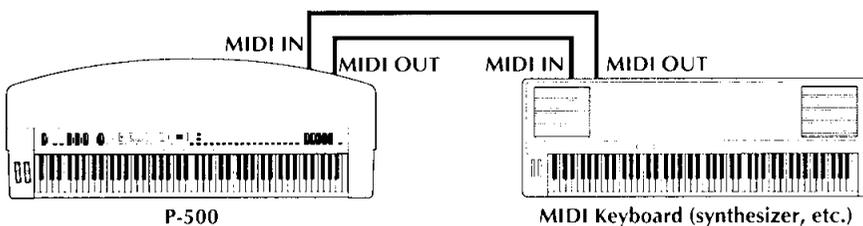
Connect the MIDI OUT terminal of one instrument with the MIDI IN of the other.

■ Playing the P-500

Now that you've properly connected your P-500 to your system, you're ready to turn it on and begin playing it.

Before you turn the P-500 on, however, make sure that all other connected audio equipment is also turned off, and that all volume settings (including the **MASTER VOLUME** slider on the P-500) are set to zero or minimum.

1 Press the **POWER** switch to turn on the P-500.

POWER

AC IN

The follwing LCD display appears briefly:

```
**********      YAMAHA      **********
**********  Clavinova  P-500  **********
```

After that, the following LCD display appears:

```
VOICE          PIANO 1
single
```

                                                                    | 1 |

2 Turn on the connected amplifier/speaker system.

3 Turn up the volume control(s) on the connected amplifier/speaker system.

4 Finally, set the **MASTER VOLUME** slider to an appropriate level, and begin playing.

MAX

MIN

MASTER VOLUME
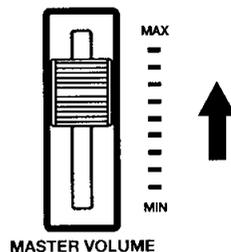
If no sound results:
- Check the cord connections between the P-500 and your amplifier/speaker system.
- Check all volume settings, both on the amplifier/speaker system and the P-500.
- Check that the **CS 1** slider of the P-500 is fully up (maximum). If this has no effect, set the **QUICK EDIT** slider to VOLUME and move the **CS 1** slider to the maximum position. (Do this even if the slider is at maximum.)

■ Selecting Voices

The P-500 has eleven preset Voices. Though you'll learn more about these Voices later on, try playing some of them now. To select a Voice:

1 Press the **PRESET VOICE** button, making sure that the lamp of the button is either lit continuously or flashing. (The PRESET VOICE button may already be selected and its lamp may be lit when the power is turned on.)

PRESET VOICE

2 Press one of the Voice/Performance Select buttons (**1 - 11**).

Voice/Performance Select buttons

1 / 17 PIANO 1	2 / 18 PIANO 2	3 / 19 PIANO 3	4 / 20 PIANO 4	5 / 21 E. PIANO 1	6 / 22 E. PIANO 2	7 / 23 E. PIANO 3	8 / 24 E. PIANO 4	9 / 25 E. PIANO 5	10 / 26 CLAVI	11 / 27 CL TONE
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
TG	EFFECT	MODULATION	REVERB	VOLUME	VOICE TUNE	TRANSPOSE PB RANGE	KEYBOARD SENS.	KEYBOARD MODE	FC	WHEEL CS PS AT
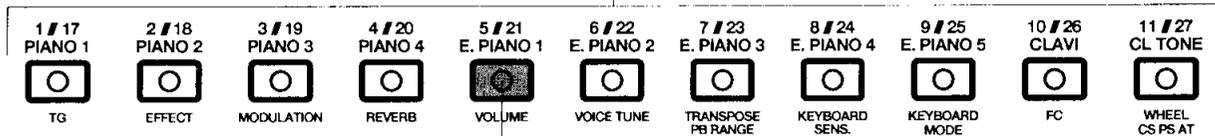
Press this button; lamp lights.

Shows currently selected Voice name and number.   Shows Voice number

| VOICE   E. PIANO1   ‡ | 5 |
| single   (DG) |
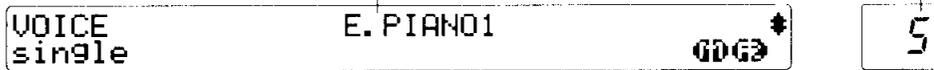
Try selecting other Voices in the same way, and play them to hear how they sound. If you've connected the Pedal Unit properly, you can also use its three pedals (in their default settings) — Soft, Sostenuto and Damper — just as you would with an acoustic piano. (Other various functions can be assigned to these pedals; for more information about using the Pedal Unit, see page 72.)

Pedal Unit

Soft | Damper
Sostenuto
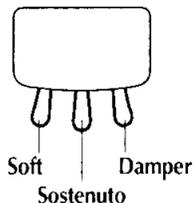
About the LCD Display Icons:

In the Voice and Performance Play modes, special icons appear in the right side of the LCD display to indicate the status of various functions for the selected Voice (or Performance).

Voice B Effect is on.
Voice A Effect is on. ⎤ Quick Edit is active.

⊟⊟‡
⏛⏛

Modulation is on.
Reverb is on.
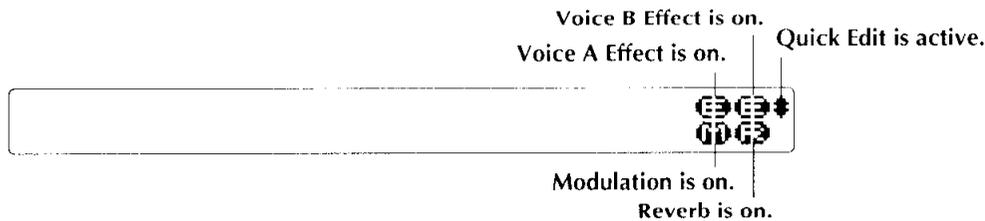
‡ — This icon appears when the QUICK EDIT slider is set to a position other than OFF, indicating that the Quick Edit function is active. (See page 29.)

⊟ (Effect)
⏛ (Modulation) ⎤— Each of these icons appears when the respective function is applied to the selected
⏛ (Reverb) ⎦   Voice (or Performance).

GUIDED TOUR

Now that you've completely set up your P-500 and started playing it, let's take a closer look at what the P-500 is and what it can do. In this section, you'll learn about the structure of the P-500, it's various modes, how you can use it in a MIDI system, and other helpful information.

■ What is the P-500?

By now, you're probably aware that the P-500 is an exceptionally sophisticated keyboard instrument, featuring both authentic instrument sounds and extensive MIDI control, for playing and interfacing with other MIDI instruments.

The realistic piano and other keyboard Voices — not to mention the elegant appearance of the instrument itself — make it ideal for performances where a piano is required but unavailable. The P-500 also functions as an advanced, comprehensive MIDI controller, perfect for demanding live and studio applications where multiple MIDI instruments and devices must be controlled easily and quickly.

■ Modes

The operation of the P-500 is organized into three basic modes: **Play mode, Edit mode** and **Utility mode**.
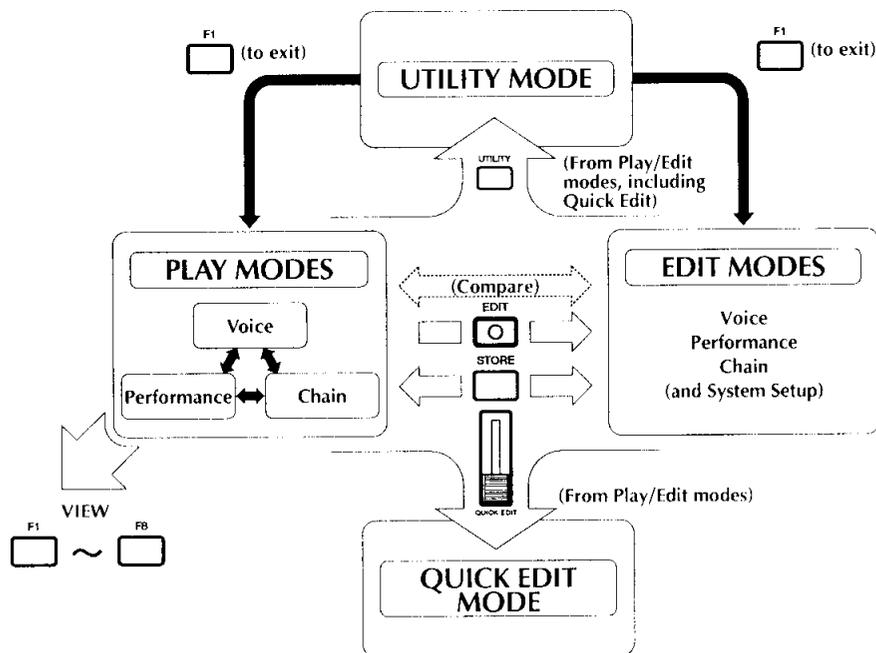
As you can see from the illustration above, switching among the three modes is fairly straightforward. Pressing the **EDIT** button allows you to enter the Edit mode, while pressing **STORE** lets you save your settings and go to the Play mode, or return to the Edit mode for further editing. Pressing **EDIT** from within the Edit mode lets you use a convenient Compare function (see page 37), allowing you to compare your edited Voice or Performance with the original. Pressing the **UTILITY** button calls up the Utility mode from any of the other modes. Also shown above is the Quick Edit mode, which can be called up from any of the Play or Edit modes by using the **QUICK EDIT** slider (or the **PS 1, PS 2, CS 1** and **CS 2** controls, as we'll see later).

Play Modes

The Play mode is itself made up of three separate modes: **Voice Play, Performance Play,** and **Chain Play.** These correspond to the three basic "programs" of the P-500 — **Voices, Performances** and **Chains** — which we'll learn more about later.

The **1-16** and **17-32** buttons and the **PRESET VOICE** button are used to switch among the three Play modes. (For actual operation, see pages 24, 27, 28) As the name implies, the Play modes are used simply for playing; none of the settings within each Voice, Performance or Chain can be changed.
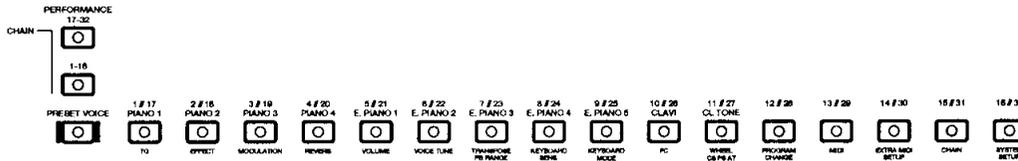
Edit Modes

To actually change (or **edit**) the settings, you must use one of the Edit modes.* These include **Quick Edit, Voice Edit, Performance Edit, Chain Edit,** and special **System Setup** settings which affect the entire system of the P-500.

*Strictly speaking, two of the Utility mode functions, Copy and Swap, can also be used to change settings; however, all other editing is done from the Edit modes.

The individual settings that you edit — such as the MIDI Program Change settings of a Performance or the Pan position of a Voice — are called **parameters.** After editing these parameters, you can **store** or save your edits to the appropriate Voice, Performance, or Chain. (For more information on storing edits, see the **Memory Structure** section on page 23.)

IMPORTANT

Though all Voice-related parameters can be stored to a Performance, not all Performance parameters can be stored to a Voice. Refer to pages 32, 38 for more information on restrictions in the Voice Edit mode.

■ Other Functions

Before we go into greater detail about Voices, Performances and Chains, let's take a quick look at some other functions of the P-500.

Panel Equalizer Controls

The P-500 also features five-band EQUALIZER controls on the top panel. These are convenient for adjusting the timbre of the sound as you play, without having to enter any Edit mode. (For more information, see page 45.)
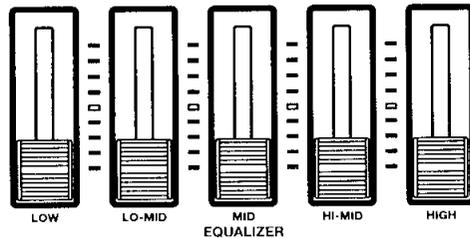
View Function

View lets you quickly and easily check the settings of certain important functions, without having to go into any of the Edit modes. The View screens can be called up to the LCD display from any of the Play modes by holding down the appropriate Function buttons ([F1] - [F8]). (For more information, see page 46.)
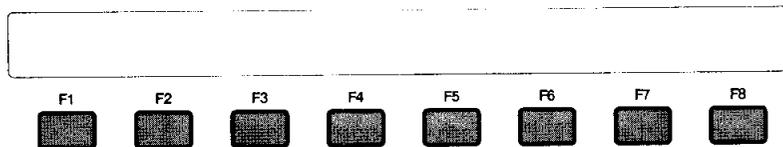
Help Messages

The **Help** function provides context-sensitive Help messages for virtually every function and parameter. No matter which mode you've entered or which function you are operating, you can call up the relevant Help message for that function by holding down the **HELP** button.
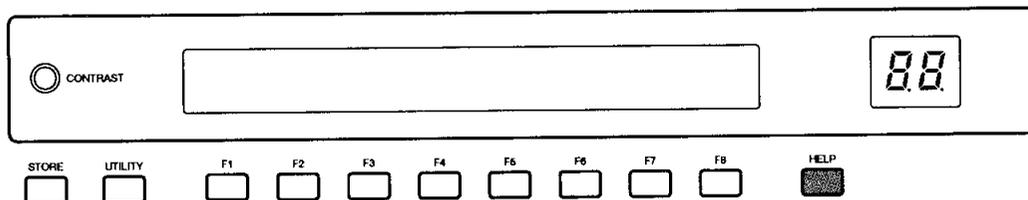
Battery Backup

One small, but nice feature of the P-500 is that it remembers all current settings, even after you've turned off the power. This is especially helpful in editing, if the power switch is inadvertently turned off before you've stored your edits. When you turn the power back on, the P-500 automatically returns to the last selected condition. Nevertheless, we strongly recommend that you properly store your edits and back up all your valuable data to an external data storage device.

■ Voices

The eleven **Voices** are the heart of the P-500 and they include four different acoustic piano sounds as well as other popular electronic keyboard Voices. Each Voice has a distinct sound source or **Wave** that is used to generate the sound for the Voice. The Voices of the P-500 can be used in one of three different playing modes: Single, Dual, and Split.

Single Mode

When you played the Voices in the **SETTING UP AND PLAYING YOUR P-500** section on page 7, you were using the Single mode. In the Single mode, one Voice is played over the entire range of the keyboard.
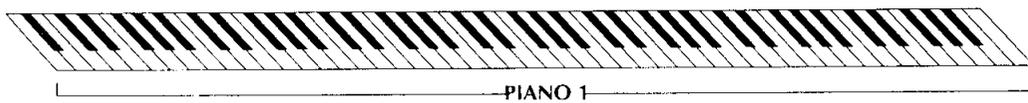
The Piano 1 Voice can be played over the full keyboard range.

Dual Mode

The Dual mode allows you to play two different instrument Voices in a layer. In other words, each key that you play on the P-500 keyboard sounds two different Voices together.
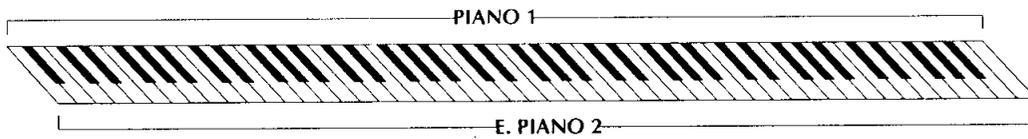
The PIANO 1 and E. PIANO 1 Voices can be played together over the full keyboard range.

To select two Voices for playing in the Dual mode:

1 Make sure that you are in the Voice Play mode. To do this, press **PRESET VOICE** so that the lamp of the button either lights continuously or flashes.

PRESET VOICE

2 While holding down the Voice/Performance Select button corresponding to one of the desired Voices (in this case, **PIANO 1**), as Voice A and simultaneously press the button for the other Voice (**E.PIANO 1**), as Voice B.

**While holding
this button down...   ...press this button.**

1/17	2/18	3/19	4/20	5/21	6/22	7/23	8/24	9/25	10/26	11/27	12/28	13/29	14/30	15/31	16/32
PIANO 1	PIANO 2	PIANO 3	PIANO 4	E. PIANO 1	E. PIANO 2	E. PIANO 3	E. PIANO 4	E. PIANO 5	CLAVI	CL. TONE					
TG	EFFECT	MODULATION	REVERB	VOLUME	VOICE TUNE	TRANSPOSE PB RANGE	KEYBOARD SENS.	KEYBOARD MODE	FC	WHEEL C3 PS AT	PROGRAM CHANGE	MIDI	EXTRA MIDI SETUP	CHAIN	SYSTEM SETUP

Shows the selected Voice A number.

```
VOICE          A:PIANO 1
dual           B:E.PIANO1          G3          1
```

Shows that Dual mode is active.

Notice that the Voice of the first button you pressed is assigned to Voice A and that of the second button is assigned to Voice B.

Split Mode

In the **Split mode**, you can play two Voices at once from separate sides of the keyboard. For example, the Clavinova Tone (CL TONE) Voice could be played from the left-hand side of the keyboard while PIANO 1 could be played from the right. The point at which the two Voices are separated is assignable and is called the Split Point. The Clavinova Tone Voice can be played with the left hand (below the Split Point), while PIANO 1 is played with the right.

```
|———— Clavinova Tone ————|———————— PIANO 1 ————————|
                          ↑
                      Split Point
```
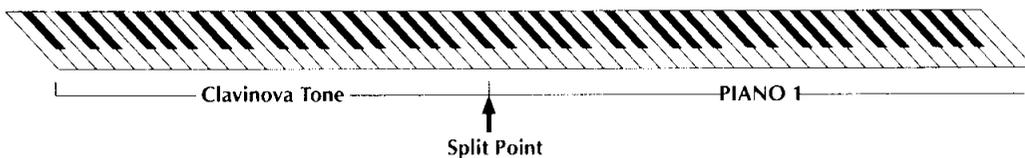
The Split mode cannot be selected directly from the Voice Play mode. (We'll see later how to create a split on page 40, in the **Performance Edit Mode** section.)

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■ Voice Edit Mode

A preset Voice contains much more than just the sound of an instrument. Voices also have settings for controlling the volume and the pitch, and signal processing (Effect, Modulation and Reverb) for enhancing or changing the character of the sound. Voices also contain settings for controlling external instruments via MIDI. These settings are all made in the **Voice Edit mode**. These settings can be memoried to each Voice for future recall. (You can NOT designate the Voice destination.)

IMPORTANT

In the Voice Edit mode, the parameters that enhance or "color" the sound of a Voice (such as Volume, Transpose, Effect, etc.) can be stored to a Voice. However, other parameters, including those related to the basic character of a Voice (such as the basic Wave of the Voice, EG, etc.) cannot be stored to a Voice. These can only be stored to a Performance.

■ Quick Edit Mode

The Quick Edit mode is a special mode for letting you edit important parameters as you play. You can enter the Quick Edit mode from any of the Play or Edit modes by moving the **QUICK EDIT** slider to a setting other than OFF.
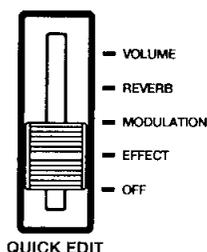
QUICK EDIT

When the desired Quick Edit function — Volume, Reverb, Modulation or Effect — is chosen, **PS 1** and **PS 2** switches and the **CS 1** and **CS 2** sliders can be used to change specific parameters. For example, you can change the amount of Reverb that is applied to a Voice by setting the **QUICK EDIT** slider to REVERB and moving the **CS 1** slider.

The new settings that you make here can also be saved to a Voice or Performance; for more information, see **QUICK EDIT MODE**, page 29.

■ Performances

Performances are the next step up in the P-500 hierarchy. You can edit the settings of a preset Performance to suit your own applications, replacing that preset Performance with your own original Performance settings. Simply put, a Performance can contain the settings of two different Voices, plus virtually all of the MIDI-related settings of the P-500. By selecting and playing a Performance, in other words, you can instantly change and control not only two different Voices on the P-500, but also the various sounds and programs on all your connected MIDI instruments.

13

Performance Voice Controls

Performances give you an even more comprehensive set of tools for changing and processing the sound of the internal Voices. These include all of the controls that are included with a single Voice — volume, pitch and signal processing — as well as envelopes (EG) for shaping the sound in time, Vibrato, Pan and five-band equalization. Moreover, the basic sounds (or Waves) of two different Voices can be stored to a Performance, as Voice A and Voice B. The pitch of each Wave can be independently set with the Tuning controls. (For more information on each control, refer to the page numbers given in the illustration below.)
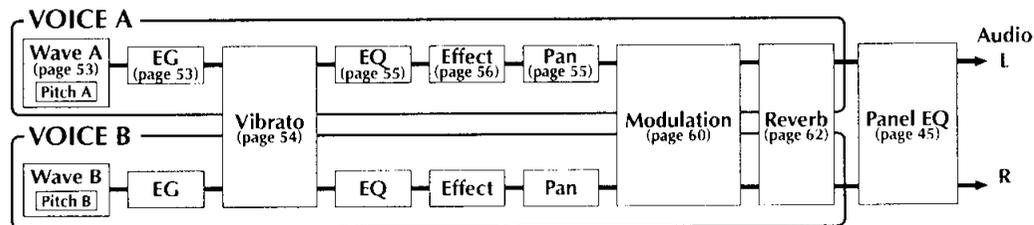
The pitch of each Voice's Wave is set with the Tuning Controls: Voice Tune (page 65), Piano Tune (page 65), Microtune (page 66), and Transpose (page 67).
The basic Vibrato, Modulation and Reverb effects are common to both Voices; however, certain parameters of these effects (such as Depth and Speed) can be independently set for each Voice.

The panel **EQUALIZER** controls are separate from the Voices' internal EQ controls, and they are applied equally to both Voices.

Performance MIDI Controls

In addition to controlling the internal Voices, Performances can also be used for sophisticated control of connected MIDI instruments, such as other keyboards, synthesizers, tone generators, samplers, and effect units.

Though a more detailed discussion of the principles and applications of MIDI appears elsewhere (see page 90), a brief explanation of MIDI is in order here to help you better understand the function of Voices and Performances in MIDI control.

About MIDI

MIDI (Musical Instrument Digital Interface) is a worldwide standard that is built into most electronic musical instruments and other digital music related devices, allowing them to be connected to and "communicate" with each other.

For two MIDI instruments to communicate with each other, they must be connected by MIDI cables. In a very basic MIDI example, the **MIDI IN** and **MIDI OUT** terminals of the P-500 could be connected, respectively, to the MIDI OUT and MIDI IN terminals of another MIDI keyboard.

The instruments communicate with each other by sending **"messages"** or **MIDI data**. The sending instrument usually assigns the data to one of sixteen different **MIDI channels**, then transmits it over the MIDI cable. The cable itself, however, is not divided up into sixteen channels. Just as with a television set that receives programs on various different channels, it is up to the receiving instrument to "tune into" the proper MIDI channel. If the sending and receiving channels on the respective instruments do not match, the receiving instrument may not understand or respond to the one sending.

How can MIDI be Used?

One of the most important and common applications of MIDI "communication" is in using the keyboard of one instrument to play the sounds of another instrument. In this simple example of MIDI control (using the Split mode described on page 12), the P-500 could be used to play the Piano 1 preset Voice above the split point while the MIDI tone generator's voice would be played below the split point. (For details on using the Split mode, see page 17.)

|——————— Strings ———————| |——————— PIANO 1 ———————|

(on connected MIDI tone generator)　　　　**(on P-500)**
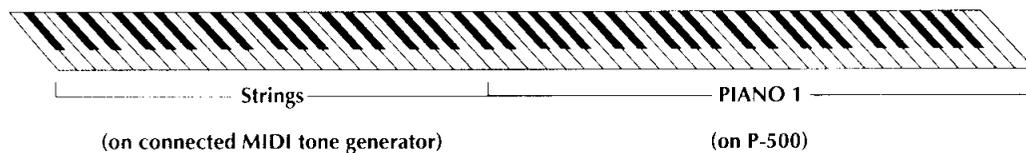
There are a variety of other even more complex ways of controlling the preset Voices and the connected MIDI instruments. For more information about the vast potential of the P-500's MIDI functions and some other example applications, refer to the **MIDI BASICS AND APPLICATIONS** section on page 90.

How is MIDI used in a Performance?

A single Performance, as we saw before, contains both Voice controls and MIDI controls. The MIDI controls are arranged in different **Paths**, each Path being used to communicate with a different MIDI instrument. Each Performance has six separate Paths for controlling six different MIDI instruments (or groups of instruments): **Voice A, Voice B, MIDI A, MIDI B, Extra MIDI A** and **Extra MIDI B**.
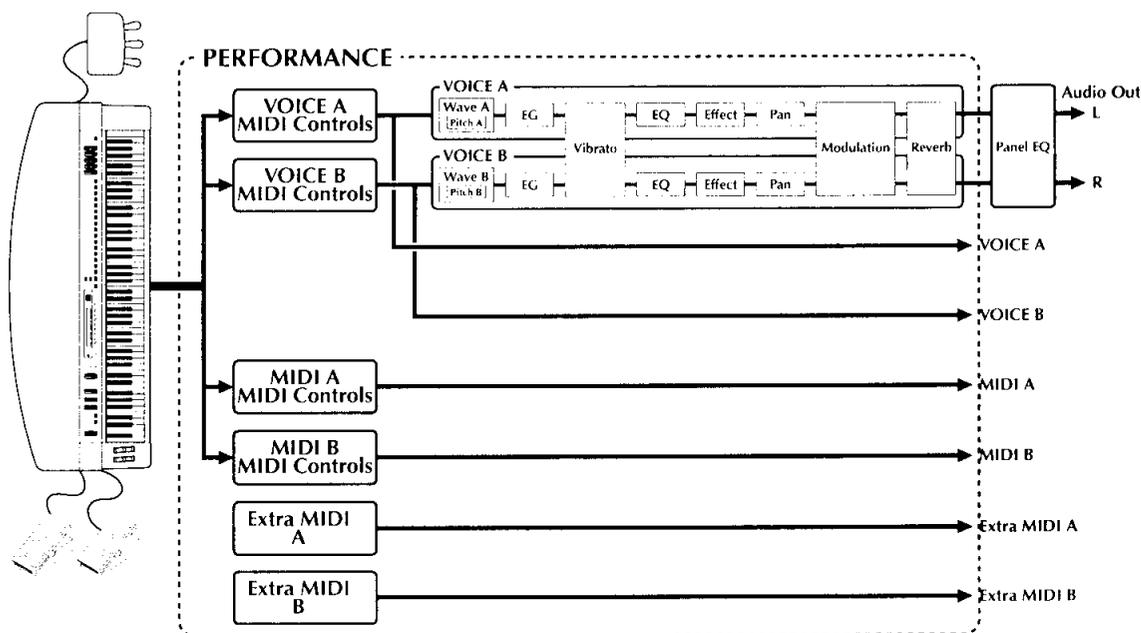
The Extra MIDI Paths do not carry performance data from the keyboard and controllers. These are basically used to change programs and make initial volume settings on other MIDI devices, such as effect units. (See page 83.)

Keep in mind that the Paths of a Performance are not separate hardware connections, but are simply internal ways of organizing the MIDI data. (There are no jacks for each Path on the P-500.) Paths are kept separate only in regard to the MIDI channel settings. In other words, to have a different MIDI instrument respond on each MIDI Path, set each Path to a different MIDI transmit channel.

■ Performance Edit Mode

All the Performance settings that we briefly looked at before can be edited in the **Performance Edit mode**. As with preset Voices, edited Performances can be stored to memory, and called up from the Voice/Performance Select buttons.

For more information about the specific parameters and settings that can be contained in and stored to a Performance, see **PERFORMANCE EDIT MODE**, page 40.

Assigning Two Voices to a Split

Let's try entering the Performance Edit mode and work through a simple specific editing example. Here, we'll create a new Performance by setting up two different Voices to be played in the Split mode. After we've created the Performance, we'll see how to store it to memory, or return to the Play mode without storing.

Operation—

1 Before entering the Performance Edit mode, we'll have to select a Performance. For this example, select Performance 17.

First, press the **17-32** button.

PERFORMANCE
17-32

CHAIN ———

Lamp flashes.

1-16
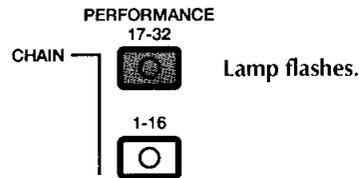
2 Press Voice/Performance Select button **1/17** to select Performance 17.
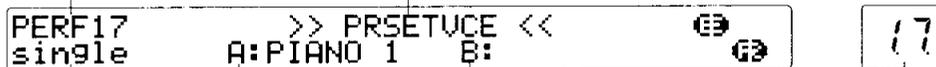
PERFORMANCE 17-32

CHAIN

1-16

—— **Both buttons' lamps are lit continuously.**

Current Performance number.   Current Performance name.

```
PERF17        >> PRSETUCE <<        🖾
single     A:PIANO 1   B:           🖾
```

```
 17
```

Current Voice   **Voice A.**   **Voice B.**   **Performance number.**
mode (Single,   **The spaces indicate**   **(Dots indicate that this**
Dual or Split).   **that Voice B is inactive.**   **is a Performance and**
                                                    not a Voice.)

IMPORTANT

Depending on the selected Performance, the Voice B location in the LCD display may be empty. Notice that Voice B cannot be selected in the Single mode. Voice B can only be selected from the Dual or Split modes.

IMPORTANT

The LCD display shown in the illustration above may differ from that actually called up on your P-500. However, the procedure for selecting Voices for the Split mode will be the same. Keep in mind that you can also change the Performance and Voice names that are displayed. (See pages 53, 71.)

3 Press the **EDIT** button to enter the Performance Edit mode.
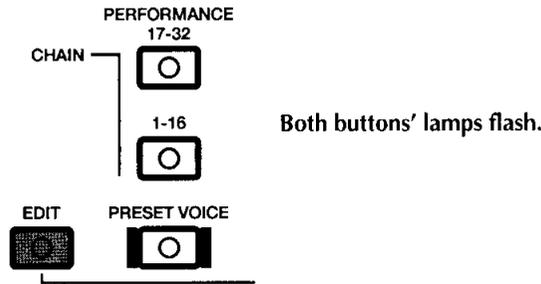
PERFORMANCE
17-32

CHAIN

1-16

Both buttons' lamps flash.

EDIT   PRESET VOICE

```
EDIT MODE <PAGE> : Page Slide
         1 - 16 : Page Jump Menus
```

4 While holding down Voice/Performance Select button **9/25** (the button labeled **KEYBOARD MODE** in green), press Function button **[F1]**.

9/25
E. PIANO 5

While holding this...

KEYBOARD
MODE

F1

...press this.
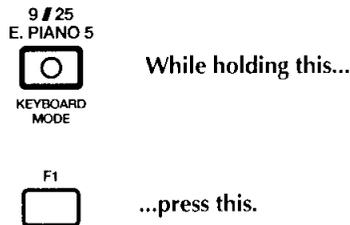
When you release both buttons, the **Voice Keyboard Mode** page appears:

```
VOICE       Type      Assign    Point
KBD-MODE    single    A         ---
```

5 Press **[F3]** to select the **Type** parameter. (The selected parameter's setting appears in a flashing highlight. The Type parameter may be selected in this case.)

Selected parameter setting flashes.

```
VOICE       Type      Assign    Point
KBD-MODE    single    A         ---
```

F1 F2 F3 F4 F5 F6 F7 F8
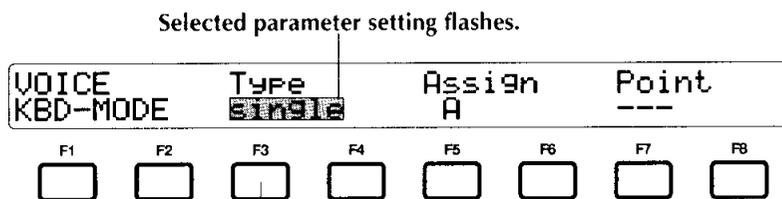
[F3] corresponds to parameter shown above it.

6 Press the **+1** button twice to set **Type** to **split**. (You can also set this by moving the **DATA ENTRY** slider.)

```
┌─────────────────────────────────────────────────┐
│VOICE      Type       Assign    Point             │
│KBD-MODE   split       B|A       C 2              │
└─────────────────────────────────────────────────┘
```

These parameters will automatically be displayed when selecting the split mode.

7 Press **[F5]** to select the **Assign** parameter. This determines how Voice A and/or Voice B will be assigned to the keyboard.

8 Use the **-1/+1** buttons or the **DATA ENTRY** slider to set Assign to **A | B**.

```
┌─────────────────────────────────────────────────┐
│VOICE      Type       Assign    Point             │
│KBD-MODE   split       A|B       C 2              │
└─────────────────────────────────────────────────┘
```

The **A | B** setting assigns Voice A to the lower section of the keyboard and Voice B to the upper.

9 Press **[F7]** to select the **Point** parameter. This determines the Split Point, or the key on the keyboard which separates the two Voices. (No sound is output from the P-500 when Point is selected.)

10 Press middle C on the keyboard. This automatically sets the Split Point to **C3**.

Voice A   Voice B
Press middle C.

```
┌─────────────────────────────────────────────────┐
│VOICE      Type       Assign    Point             │
│KBD-MODE   split       A|B       C 3              │
└─────────────────────────────────────────────────┘
```
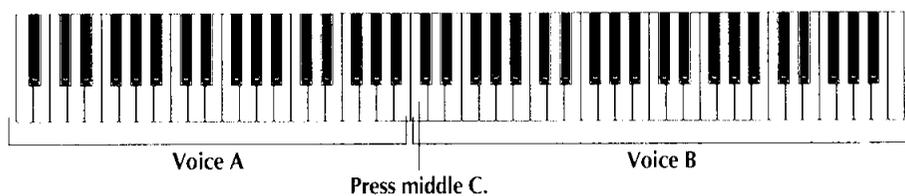
In this setting, Voice A will sound for all lower keys up to B3, and Voice B will sound for all upper keys starting with C3.

11 While holding down Voice/Performance Select button **1/17** (the button labeled **TG** in green), press **[F1]**.

```
1 / 17
PIANO 1
┌─────┐
│  ◯  │   While holding this...
└─────┘
  TG


  F1
┌─────┐
│     │   ...press this.
└─────┘
```

When you release both buttons, the **Wave/Name** page appears:

NOTE
You can give an eight-character name to your newly edited Performance. See page 71 for more information.

```
┌──────────────────────────────────────────────────┐
│WAVE/NAME Voice A    Name Voice B      Name│
│  [◄]   [►] PIANO1........E.PIANO1........│
└──────────────────────────────────────────────────┘
```

12 Press **[F3]** to select the **Voice A** parameter. This determines the particular Voice that will be assigned to Voice A.

IMPORTANT

Voices for the Split mode can only be selected from the TG page's Wave/Name parameter, described here.

---

13 Use the **-1/+1** buttons or the **DATA ENTRY** slider to set Voice A to **CLTONE**.

```
┌──────────────────────────────────────────────────┐
│WAVE/NAME Voice A    Name Voice B      Name│
│  [◄]   [►] CLTONE........E.PIANO1........│
└──────────────────────────────────────────────────┘
```

14 Press **[F6]** to select the **Voice B** parameter. This determines the Voice that will be assigned to Voice B.

15 Use the **-1/+1** buttons or the **DATA ENTRY** slider to set Voice B to **PIANO1**.

```
┌──────────────────────────────────────────────────┐
│WAVE/NAME Voice A    Name Voice B      Name│
│  [◄]   [►] CLTONE........ PIANO 1 ........│
└──────────────────────────────────────────────────┘
```

Now, try playing the keyboard. If you've followed the above steps carefully, you'll be able to hear the Clavinova Tone Voice when you play below middle C and the PIANO 1 Voice when you play above middle C.

You now have two choices. You can either cancel the changes that you've made and return to the Performance Play mode, or store this newly created Performance to memory.

To cancel the edits and return to Performance Play mode:

1 After editing the Performance as above, press the **1-16** or **17-32** button.

2 From the display that appears, press **[F1]** to select **[quit]**.
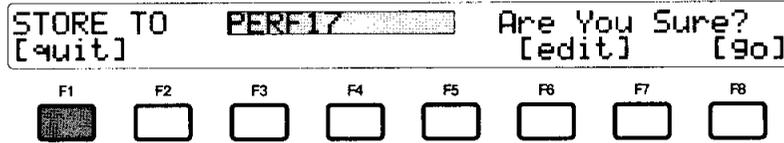
```
STORE TO     PERF17        Are You Sure?
[quit]                      [edit]    [go]
 F1    F2    F3    F4    F5    F6    F7    F8
 ■    ☐    ☐    ☐    ☐    ☐    ☐    ☐
```

A "Store Canceled" message appears in the LCD display, and operation returns to the Performance Play mode, with the original Performance 17 selected.

To store the new Performance to Performance 17:

1 After editing the Performance as above, press the **STORE** button.

2 From the display that appears, press **[F8]** to select **[go]**.
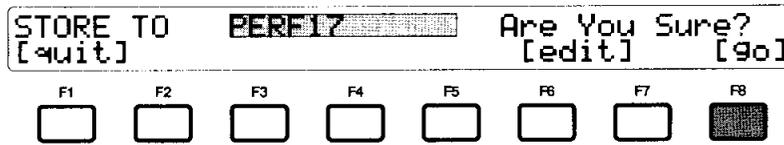
```
STORE TO     PERF17        Are You Sure?
[quit]                      [edit]    [go]
 F1    F2    F3    F4    F5    F6    F7    F8
 ☐    ☐    ☐    ☐    ☐    ☐    ☐    ■
```

A "Store Completed" message appears in the LCD display, and operation returns to the Performance Edit mode. You can continue editing, or return to the Performance Play mode.

To return to the Performance Play mode, press the **1-16** or **17-32** button. The newly created Performance will now be stored to Performance 17 and is ready to play.

```
PERF17           >> PRSETVCE <<        ⬢
split(C 3) A:CLTONE     B:PIANO 1        ⬢
```

Indicates the newly set Split mode
and the current Split Point.

The new Voices assigned to Voices A
and B are shown here.

Restoring the Original Factory Settings

You can easily replace your new settings with the original factory settings by using the INIT (Initialize) function in the Utility mode. See page 89 for more information.

GUIDED TOUR

■ Chains

As the highest level in the structure of the P-500, Chains contain no sound or MIDI controls themselves but are just ways of organizing and selecting multiple Performances.

A single Chain has space for organizing and ordering as many as thirty-two different Performances. Up to sixteen Chains can be stored to the memory of the P-500. Once the order of the Performances has been set, a simple press of a button or Foot Switch advances to the next Performance in the Chain.
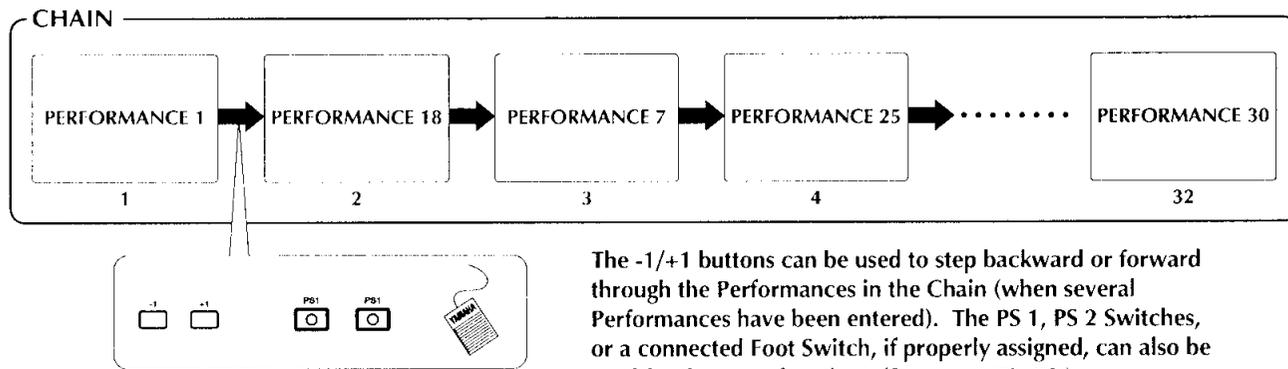
The -1/+1 buttons can be used to step backward or forward through the Performances in the Chain (when several Performances have been entered). The PS 1, PS 2 Switches, or a connected Foot Switch, if properly assigned, can also be used for the same function. (See pages 72, 78.)

Chains are particularly convenient when playing on stage, especially if you have to quickly select several different Performances in succession within a single song. In this way, you can instantly select preset Voices, change programs and basic settings on the instruments in your MIDI setup, as well as change the way the P-500's keyboard affects all of the sounds — all without having to keep track of Performance numbers and press different buttons. (See page 28 for more information.)

■ Memory Structure

As you saw above, any editing that you do to the Voices, Performances, or Chains can be saved to the memory of the P-500. For Voices and Performances, this is done with the **Store** operation (see pages 38, 41). (Chains, on the other hand, are automatically saved as they are being edited.)

The P-500 has memory space for a total of eleven Voices, thirty-two Performances, and sixteen Chains, as shown below. Performances can be given names before being stored to memory. (For details on naming of Performances, see page 71.)
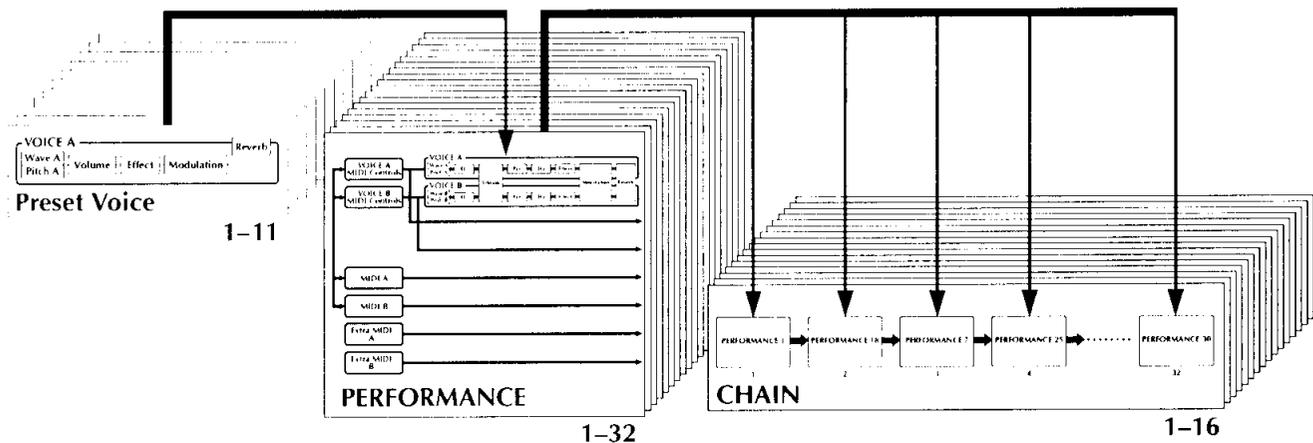
■ Utility Mode

The **Utility mode** contains operations related to the overall system of the P-500, rather than a specific Voice, Performance or Chain. In the Utility mode, you can do things like copy or swap Voices/Performances, initialize data to the original factory settings, restore data that existed before editing, send data to another MIDI instrument, and check the flow of MIDI data to and from the P-500. (For more information on the Utility mode, see page 86.)

■ System Setup

Like the Utility mode, the **System Setup** parameters are related to the P-500 as a whole. They include the Master Tune and Transpose settings for the P-500, bypass settings for the Effect, Modulation and Reverb signal processors, and other global parameters. (For more information on System Setup, see page 84.)

THE MODES OF THE P-500

The operations of the P-500 are divided into three basic modes: Play, Edit and Utility. The following sections describe the basic functions of each mode and provide instructions on how to enter each.

PLAY MODES

■ VOICE PLAY MODE

The Voice Play mode is for selecting and playing the eleven preset Voices.

Each of the preset Voices has a maximum simultaneous output of 32-note polyphony. (This is reduced to 16 when using two Voices together in the Dual or Split modes.)

Preset Voices

1	PIANO 1	Acoustic grand piano, ideal for jazz and classical.
2	PIANO 2	Bright acoustic grand piano, ideal for rock, jazz and playing in large ensembles.
3	PIANO 3	Bright piano, with a tighter, more focused sound than PIANO 2.
4	PIANO 4	Bright electric grand piano, with clear bell-like tone.
5	E.PIANO1 (ELECTRIC PIANO1)	Conventional all-purpose electric piano.
6	E.PIANO2 (ELECTRIC PIANO2)	Bright electric piano, with emphasized "tine" sound.
7	E.PIANO3 (ELECTRIC PIANO3)	Bright DX-type electric piano, with long sustain.
8	E.PIANO4 (ELECTRIC PIANO4)	Bright DX-type electric piano, with deep bass and crystalline bell tone.
9	E.PIANO5 (ELECTRIC PIANO5)	Classic electric piano sound, used in old R&B and 60's rock.
10	CLAVI	Classic electronic keyboard, with lots of bite and instant release — used in funk and R&B.
11	CL TONE (CLAVINOVA TONE)	Luscious, mellow blend of harp and strings.

Also, remember that Voices can contain data other than the basic sounds. They also can have volume and transposition settings, signal processing (Effect, Modulation and Reverb), and settings for controlling external instruments via MIDI. (For details on what kinds of data can be saved to a preset Voice, see **VOICE EDIT MODE**, page 32.)

Selecting a Voice — Single Mode

Operation—

1 Press **PRESET VOICE**. (The button's lamp is lit or flashes.)

2 Press the Voice/Performance Select button (**1 - 11**) corresponding to the desired Voice. The lamps of both **PRESET VOICE** and the selected Voice's button light continuously.

①   ②   ④

```
┌─────────────────────────────────────────┐     ┌─────┐
│ VOICE          PIANO 1                   │     │   ! │
│ single                                   │     │     │
└─────────────────────────────────────────┘     └─────┘
```

③
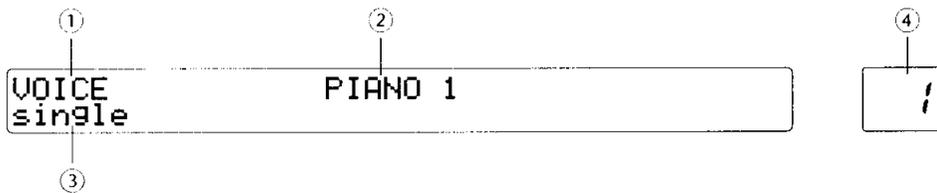
①Indicates that a preset Voice has been selected and the Voice Play mode is active.
②Current Voice for Voice A.
③Current Voice mode (Single or Dual).
④Voice number. (Voice numbers are displayed without dots in the LED.)

Here, Single mode has been selected, allowing you to play one Voice over the entire range of the keyboard. You can also set a Voice to be played in the Single mode from the Performance Edit mode. (See page 70.)

HINT

When you switch directly between the Voice Play and Performance Play modes, the **PRESET VOICE** button can be used to quickly recall the last selected Voice. For example, if you are in the Performance Play mode (or the Performance Edit mode, **before** making any edits), you can instantly call up the last preset Voice you were playing by pressing **PRESET VOICE** twice.

NOTE

Voices can also be selected by program messages received from a connected MIDI device. Make sure that the Program Change Receive Switch (page 79) is set to on and that the MIDI Receive Channel (page 81) matches the transmit channel of the connected device.

NOTE

You can use After Touch to change the sound as you play by pressing down hard on the keyboard. After Touch is set to **off** as the factory default setting. Turn it on and set it to the desired function in the **WHEEL CS PS AT** pages. (See page 77.)

Selecting Two Voices — Dual Mode

The Dual mode allows you to play any two of the P-500's Voices simultaneously in a layer. For example, you could combine an acoustic piano sound with one of the electric piano sounds for an interesting hybrid, or use two of the acoustic piano sounds at once for an especially rich piano sound, or play two different Voices with different Transpose settings for special musical effects.

Operation—

1   Make sure that you are in the Voice Play mode. To do this, press **PRESET VOICE** so that the lamp of the button either lights continuously or flashes.

PRESET VOICE

2   While holding down the Voice/Performance Select button corresponding to one of the desired Voices (in this case, **PIANO 1**), as Voice A and simultaneously press the button for the other Voice (**E.PIANO 1**), as Voice B.

**While holding
this button down...   ...press this button.**

Shows the selected Voice A number.
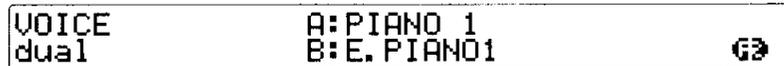
VOICE	A:PIANO 1	
dual	B:E.PIANO1	G3

Shows that Dual mode is active.

Notice that the Voice of the first button you pressed is assigned to Voice A and that of the second button is assigned to Voice B.

You can also set two Voices to be played in the Dual mode from the Performance Edit mode. (See page 70.)

NOTE

You can use After Touch to change the sound as you play by pressing down hard on the keyboard. After Touch is set to off as the factory default setting. Turn it on and set it to the desired function in the **WHEEL CS PS AT** pages. (See page 77.)

■ PERFORMANCE PLAY MODE

The Performance Play mode is for selecting and playing the thirty-two Performances.

Performances contain the data of up to two different Voices, including various controls for shaping, processing and changing the character of the Voices. You can also set up Voices to be played in Single, Dual or Split mode. Moreover, each Performance has up to six different MIDI Paths over which you can control various MIDI instruments.

Selecting a Performance

(Operation—)

1 Press either **1-16** or **17-32**, depending on the number of the desired Performance. (The button's lamp flashes.)

2 Press the Voice/Performance Select button corresponding to the desired Performance. The lamps of both **1-16** (or **17-32**) and the selected Performance's button light continuously.

Current Performance number.   Current Performance name.

```
┌─────────────────────────────────────────────────┐  ┌─────┐
│PERF17          >> PRSETVCE <<        ⊞           │  │ /7 │
│single      A:PIANO 1    B:              ⊞        │  └─────┘
└─────────────────────────────────────────────────┘
```

Current Voice   Voice A.   Voice B.   Performance number.
mode (Single,   The spaces indicate (Dots indicate that this
Dual or Split).   that Voice B is inactive. is a Performance and
                                                   not a Voice.)

IMPORTANT

Depending on the selected Performance, the Voice B location in the LCD display may be empty. Notice that Voice B cannot be selected in the Single mode. Voice B can only be selected from the Dual or Split modes.

IMPORTANT

The LCD display shown in the illustration above may differ from that actually called up on your P-500. Keep in mind that you can also change the Performance name that is displayed. (See page 71.)

Preset Performances

The preset Performances have been programmed for various applications. Performances numbered 1 through 11 are based on the corresponding Voice numbers and are programmed for general use. Performances 12 through 16 use the Dual mode, while Performances 17 through 32 have various special usages. Select some of these Performances on your own, and explore their effects and settings.

NOTE

The thirty-two Performances are divided into two banks: 1 through 16, and 17 through 32. Select the desired Performance number by first pressing the PERFORMANCE button corresponding to the bank (1-16 or 17-32), then pressing the appropriate Voice/Performance Select button.

HINT

When you switch directly between the Performance Play and Voice Play modes, you can use the **1-16** button or **17-32** button to quickly recall the last selected Performance. For example, if you are in the Voice Play mode (or the Voice Edit mode, before making any edits), you can instantly call up the last preset Performance you were playing by pressing **1-16** (or **17-32**) twice.

NOTE

Performances can also be selected by program change messages from an external MIDI device. Make sure that the Receive Channel (in System Setup — Performance Change, page 85) matches the transmit channel on the other device.

THE MODES OF THE P-500

■ CHAIN PLAY MODE

The Chain Play mode is for selecting and playing the sixteen Chains.

Chains are used to organize the Performances in a user-programmed order, making it quick and easy to select the Performances you need. Once the order of the Performances has been set, a simple press of a button or Foot Switch advances to the next Performance in the Chain.

Selecting and Using a Chain

(Operation—)

1 First, enter the Chain Play mode by pressing the **1-16** and **17-32** buttons simultaneously. You can enter the Chain Play mode from any of the other Play modes.
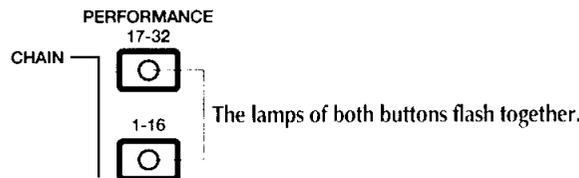
PERFORMANCE
17-32

CHAIN ─┐ [O]
       │   The lamps of both buttons flash together.
       │ 1-16
       └ [O]

2 Select the desired Chain with the Voice/Performance Select buttons.

```
(1)
CHAIN06        >> PRSETVCE <<      (E)
[01/01]                            (G)          .6.

(2) (3)                                      (4)
```

(1) Indicates the selected Chain, and that the Chain Play mode is active.
(2) Indicates the Current position.
(3) Indicates how many Performances (steps) the Chain number 6 contains.
(4) Chain number. The number is displayed with dots, to distinguish Chains from Voices (which do not have dots in the LED).

3 Press the **+1** button to select the next Performance in the Chain. (The **-1** button can be used to select the previous Performance, when at some point other than the beginning of the Chain.)

PERFORMANCE
17-32

CHAIN ─┐ [O]
       │   -1   +1
       │ 1-16   [   ] [███]──── Pressing this advances to the next
       └ [O]   Performance.
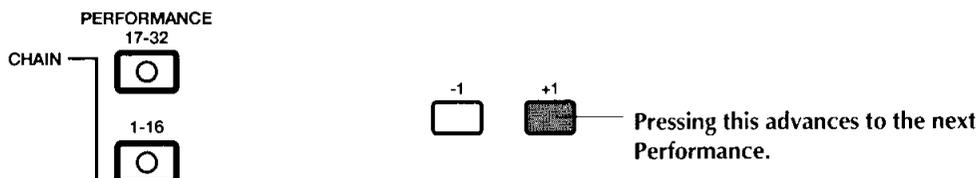
In addition to the **-1/+1** buttons, other controls can be used to select Performances in a Chain. The **PS 1, PS 2** Switches, or a connected Foot Switch, can also be used for the same function, if properly assigned. (See **FC** and **WHEEL CS PS AT**, on pages 72, 78.)

EDIT MODES

■ QUICK EDIT MODE

The P-500's convenient Quick Edit mode lets you make broad changes in the sound in realtime, without having to go through conventional and time-consuming editing routines. This is especially ideal for changing the sound onstage during a performance, even as you play.

Quick Edit lets you use the **PS 1** and **PS 2** switches and the **CS 1** and **CS 2** sliders to control certain settings and parameters of Reverb, Modulation or Effect, or the Volume of Voices A and B.

Using Quick Edit

Quick Edit can be accessed from any of the P-500's Play or Edit modes. (The only mode it cannot be entered from is Utility.)

(Operation—)

1   Move the **QUICK EDIT** slider to the aspect of the sound you wish to control: VOLUME, REVERB, MODULATION, or EFFECT. (Selecting OFF disables the Quick Edit feature, and returns to the previous condition.) The slider is detented and slightly clicks as each position is selected.

```
        ┌───┐
        │ ┃ │  — VOLUME
        │ ┃ │  — REVERB
        │ ┃ │  — MODULATION
        │▓▓▓│  — EFFECT
        │ ┃ │  — OFF
        └───┘
      QUICK EDIT
```
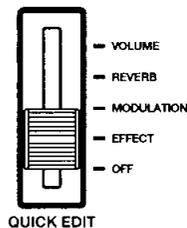
```
┌──────────────────────────────────────────────┐
│EFFECT      Type A      Type B    DptA          │
│QUICK-EDIT WAH>LFO     ----------  16▪ ---      │
└──────────────────────────────────────────────┘
```

The current values of the selected Quick Edit parameter page are shown in the LCD display. The page remains in the display for approximately five seconds, then changes to the previously selected display page.

HINT

Even though the Quick Edit display changes back to the previous condition after about five seconds, as long as the **QUICK EDIT** slider remains in one of the four Quick Edit positions, Quick Edit is still active. If the LCD display changes before you have time to view the entire contents or make a setting, you can easily return to Quick Edit by pressing the **PS 1** or **PS 2** switch. Doing this once doesn't change any of the values, but simply restores the relevant Quick Edit display. (The **CS 1** and **CS 2** sliders can also be used to restore the Quick Edit display; however, moving them also changes the parameter values.)

---

2   As you play the Voice, press the **PS 1** and **PS 2** switches and/or move the **CS 1** and **CS 2** sliders, and listen for changes in the sound. (The correspondence between the switches/sliders and the parameters in the various pages is shown below.)

THE MODES OF THE P-500

Slider Settings:

OFF

When OFF is selected, the **PS 1/PS 2** switches and **CS 1/CS 2** sliders function as they are assigned in the Edit mode. (See **WHEEL CS PS AT**, page 78.)

EFFECT

PS1
[○] Selects the Effect Type for Voice A.
(Effect is off when set to *off*.)

PS2
[○] Selects the Effect Type for Voice B.
(Effect is off when set to *off*.)

```
EFFECT      Type A    Type B   DptA SnsB
QUICK-EDIT  WAH>LFO   ENH>SHARP 16■  16■
```

Depending on the selected
effect type, this sets Effect
B's first or second parameter.
CS1

Depending on the selected
effect type, this sets Effect
A's first or second parameter.
CS2

For more information on Effect and its types and parameters, see page 56.

MODULATION

PS1
[○] Turns Modulation on/off for the corresponding Voice A/B Paths.
(Each press of the switch toggles through the four settings: *on - on,
off - off, on - off,* and *off - on.*)

PS2
[○] Selects Modulation Type.

```
MOD.        SwA  SwB  Type      Dpt  Spd
QUICK-EDIT  on   on   CHO>WIDE  16■  16■
```

Sets Modulation Depth.
CS1

Sets Modulation
Speed, or Mix when
CHO)DETUNE is selected.
CS2
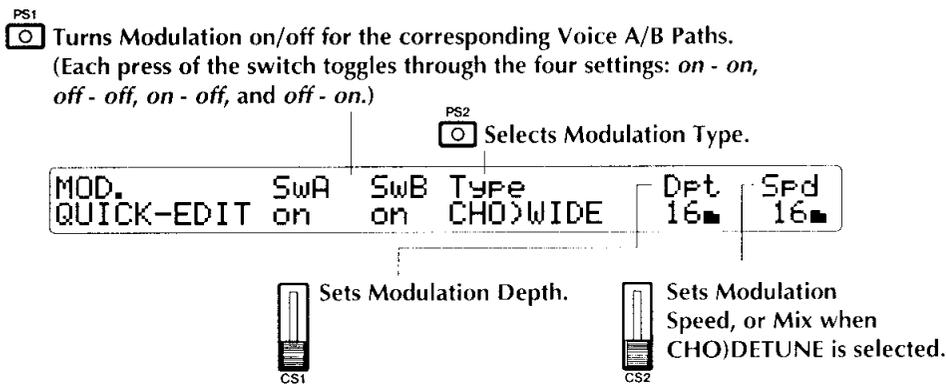
For more information on Modulation and its types and parameters, see page 60.

REVERB

PS1
[○] Turns Reverb on and off.

PS2
[○] Selects Reverb Type.

```
REVERB      Sw   Type          DptA DptB
QUICK-EDIT  on   LARGE-HALL     16■  16■
```

Sets Reverb Depth
for Voice A Path.
CS1

Sets Reverb Depth for
Voice B Path.
CS2
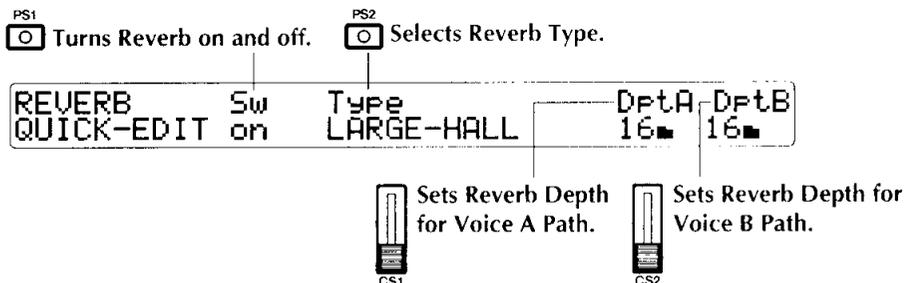
For more information on Reverb and its types and parameters, see page 63.

VOLUME

PS1
[○] Turns Volume
control for Voice A on and off.

PS2
[○] Turns Volume
control for Voice B on and off.

```
VOLUME      Sw A        Sw B       VceA VceB
QUICK-EDIT  on          on         127  127
```

Sets Volume
for Voice A Path.
CS1

Sets Volume
for Voice B Path.
CS2
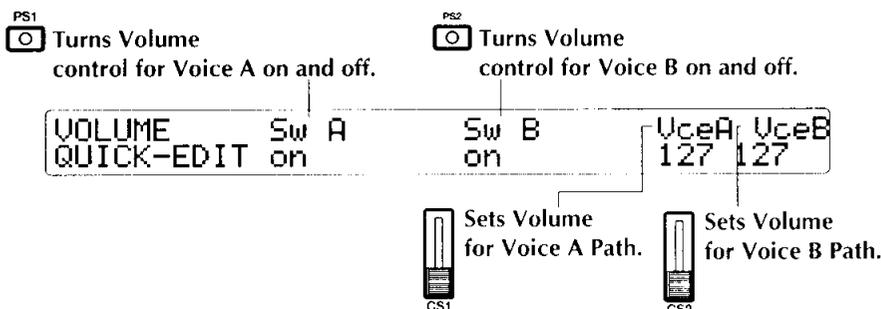
For more information on Volume and its parameters, see page 64.

3 Since the changes made with the Quick Edit function are temporary, you may wish to save them. To do so, press the **STORE** button. Depending on the current mode (Play or Edit), one of the following displays appears:

From Play modes:

```
STORE TO    PERF01        Are You Sure?
[quit]                             [go]
```

F1   F2   F3   F4   F5   F6   F7   F8

☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐

From Edit modes:

Destination for storing.

```
STORE TO    PERF01        Are You Sure?
[quit]                    [edit]    [go]
```

F1   F2   F3   F4   F5   F6   F7   F8

☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐
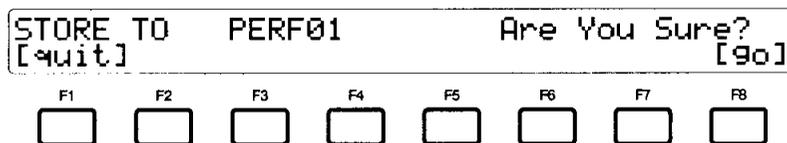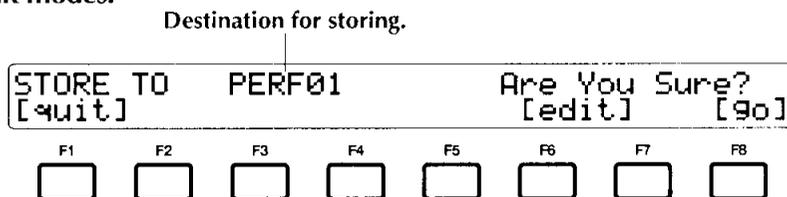
Use the **DATA ENTRY** slider or the **-1/+1** buttons to select the destination: PresetVoices or Perf01 - 32.

The destination for storing differs depending on the current mode. If you use Quick Edit in the Voice Play or Voice Edit modes, you can store the edits to the currently selected preset Voice or to Performances 1 - 32. If you use Quick Edit in the Performance Play or Performance Edit modes, you can store the edits to Performances 1 - 32, but not a preset Voice.

Press **[F1]** (**[quit]**) to exit the operation without storing, and return to the previous Play mode. (A "Store Canceled" message appears.)
Press **[F8]** (**[go]**) to store the edits and return to the previous Play mode. (A "Store Completed" message appears.)
When in Voice Edit mode or Performance Edit mode, pressing **[F6]** (**[edit]**) returns directly to the previous edit condition without storing.

Remember that the edits you make to Voices/Performances with Quick Edit are temporary and are lost when you select another Voice or Performance. You can, however, recall these changes by using the Recall/Revert function (see page 88).

4 To exit the Quick Edit function and restore the **PS 1/PS 2** switches and **CS 1/ CS 2** sliders to their normal functions, move the **QUICK EDIT** slider to **OFF**.

― VOLUME
― REVERB
― MODULATION
― EFFECT
― OFF

QUICK EDIT
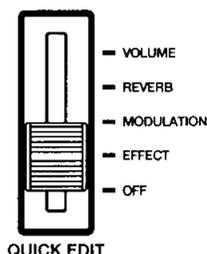
■ VOICE EDIT MODE

In the Voice Edit mode you can edit certain settings of a single Voice, and store them to the Voice number, or to a part of a Performance.

IMPORTANT

In general, the Voice Edit mode is used to edit/store parameters that enhance or "color" the sound (such as Volume, Transpose, Effect, Modulation, Reverb, Velocity Curve, etc.), and cannot be used to edit/store parameters that determine the basic character of the Voice (such as the TG page parameters: Wave, EG, etc.). Voice Edit can also be used only for a single Voice (Voice A); the Keyboard Mode's Dual and Split settings cannot be used. Voice Edit is also for editing/storing parameters related to the MIDI A path; however, Voice A MIDI controls are not available. This lets you have the Voice A controls affect only the internal Voice, while using MIDI A to control a connected MIDI instrument.

The Voice parameters are basically a subset of the Performance parameters. However, only Voice-related parameters (as described above) can be stored to a Voice; on the other hand, all parameters can be stored to a Performance. (Refer to EDIT PARAMETERS, page 52, for indications of specific Voice-only parameters.)

Some very crucial things to remember about the Voice and Performance Edit modes:

- Once you edit a Performance-only parameter from the Voice Edit mode, your edits can be stored to a Performance but not to a Voice. In other words, if you edit Performance-only parameters, you are entering the Performance Edit mode, and it is impossible to return to the Voice Edit mode and store Voice parameter edits to a Voice. Keep in mind that you may inadvertently enter the Performance Edit mode from the Voice Edit mode.

- Though you can enter the Performance Edit mode from the Voice Edit mode, the only way to enter the Voice Edit mode is to first select a preset Voice (as detailed in the Operation steps below).

Entering the Voice Edit Mode

(Operation—)

1 First, select a preset Voice while in the Voice Play mode (press **PIANO 3** in this example).

IMPORTANT

The Voice you select here is the one that you will be editing, and it is the **only** one to which the edits can be stored.

---

2 Press **EDIT** to enter the Voice Edit mode.

EDIT   PRESET VOICE   **In Voice Play mode → Press EDIT.**
█████   █ O █   **The EDIT and PRESET VOICE**
                          lamps flash.

Editing a Voice

In this short section, you'll learn the basics of editing a Voice. Though the data stored is different, the instructions for editing apply to the Performance Edit mode as well. Once you've learned this general procedure, you'll be able to easily select and edit any of the P-500's many parameters. (For details on individual parameters, refer to the EDIT PARAMETERS section, page 52.)

1 Selecting an Edit Page

From the Voice Edit mode, select the Edit page group that contains the parameters you wish to edit. You can do this by using the Voice/Performance Select buttons along with the Function buttons, as well as the **PAGE ◀/▶** buttons.

Operation—

1 With the **EDIT** button lamp lit or flashing, press the appropriate Voice/Performance Select button (labeled **REVERB** in green).

For example, if you wish to edit the Reverb parameters, press **REVERB (4/20)** button.

4 / 20
PIANO 4

[O]

REVERB

Pressing REVERB (4/20) lights up the button's lamp and calls up the first Edit page of the Reverb parameters.

```
REVERB        Sw  Type          DptA DptB Time
 Page1        off LARGE-HALL 16■  --- 1.90s
```

2 Select other pages in the parameter group by simultaneously holding down the same Voice/Performance Select button and pressing the Function button corresponding to the desired Edit page in the LCD display.

For example, if you wish to edit the Reverb Page 2 parameters, simultaneously hold down the **REVERB** button and press **[F2]** (REVERB-Page 2).

4 / 20
PIANO 4

[O]

REVERB

1) Simultaneously hold this down to display REVERB page menu...

```
F1: REVERB-Page1 *
F2: REVERB-Page2 *
```

F1   F2   F3   F4   F5   F6   F7   F8

[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

2) ...and press [F2] to call up Reverb Page 2.

```
REVERB        High ModIn Tempo         Decay
 Page2         16■  ---- -------------- ---
```

You can also use the **PAGE ◄/►** buttons, either by themselves or alternately with the Voice/Performance Select buttons, to select the various Edit pages. Notice that as you repeatedly press one of the **PAGE ◄/►** buttons, the Edit pages change one by one, and the lamps of the Voice/Performance Select buttons light in turn, depending on which Edit page is currently selected.

Use the **PAGE ◄/►** buttons now to return to Reverb Page 1. If you get lost, you can press **REVERB** to return to the Reverb pages.

2 Selecting and Editing a Parameter

Now, from the Edit page you selected above (Reverb Page 1), let's select one of the parameters displayed in the page and edit it.

Operation—

1 First, let's turn on the Reverb (if it isn't already on). Press **[F3]**.

```
REVERB      Sw  Type        DptA DptB Time
 Page1      off LARGE-HALL  16■  ---  1.90s
```

F1 F2 F3 F4 F5 F6 F7 F8
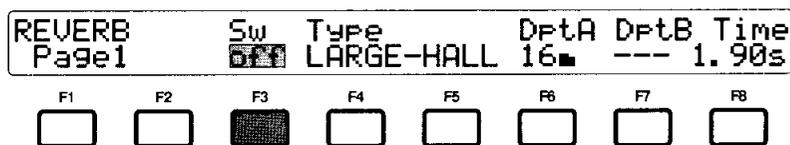
2 Press the **+1** button (or use the **DATA ENTRY** slider) to switch the flashing **off** in the LCD display to **on**.

-1 +1

```
REVERB      Sw  Type        DptA DptB Time
 Page1      on  LARGE-HALL  16■  ---  1.90s
```

3 Now that Reverb has been turned on, let's edit some of its parameters. First, we'll change the Reverb Type. Press **[F4]** or **[F5]**, which are directly underneath **Type** in the LCD display.

The parameter value flashes, indicating it can be changed.

```
REVERB      Sw  Type        DptA DptB Time
 Page1      on  LARGE-HALL  16■  ---  1.90s
```

F1 F2 F3 F4 F5 F6 F7 F8
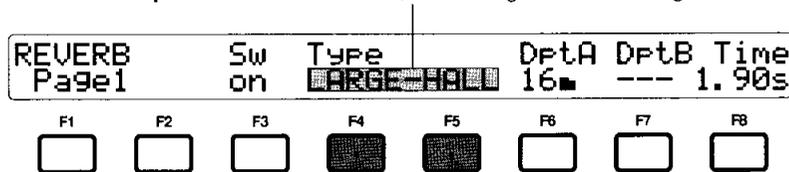
Press [F4] or [F5], both of which correspond to the Type parameter directly above them in the LCD display.

NOTE
The dashes (—) in the LCD display at the **DptB** parameter, indicate that the parameter is inactive. In this case, since Voice B is not active, all parameters related to Voice B (such as DptB) are disabled.

4 With the desired parameter's value (**LARGE-HALL**) now flashing, use the **-1/+1** buttons to step through the available values or use the **DATA ENTRY** slider to quickly scroll to the desired setting/value. Holding down either of the **-1/+1** buttons for longer than one second also quickly scrolls through the values.

For stepping through the values one by one.
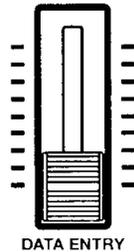
For quickly scrolling through the values.

DATA ENTRY

For this example, try selecting **PLATE**.

```
REVERB     Sw  Type        DptA DptB Time
 Page1     on  PLATE       20   --- 2.90s
```

Using the same editing techniques described above — pressing a Function button to select a parameter and using the **DATA ENTRY** slider or **-1/+1** buttons to change the value — try editing the **DptA** and **Time** parameters as well.

Reset
The P-500 also has a convenient **Reset** function that allows you to instantly restore the default value of a selected parameter or parameters. To restore the Reset value, simultaneously press both the **-1/+1** buttons. (Most, but not all, parameters have Reset values.)

For details on individual parameters, refer to the EDIT PARAMETERS section, page 52.

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3 Parameter Grouping

Parameter grouping is a convenient function that lets you change the values of two or
more parameters simultaneously.

Let's continue with our editing example from above and try it out.

Operation—

1 While holding down **VOLUME (5/21)**, press **[F1]** to select **VOLUME**.

```
   5 / 21
 E. PIANO 1
  ┌─────┐
  │  O  │        1) While holding down VOLUME...
  └─────┘
  VOLUME

    F1
  ┌─────┐
  │     │        2) ...press [F1].
  └─────┘
```

```
┌──────────────────────────────────────────────┐
│VOLUME      Voice A MIDI A Voice B MIDI B│
│[off][on]   127▪    127▪   ----    ----  │
└──────────────────────────────────────────────┘
```

2 Press **[F3]** or **[F5]** to select the Volume parameter, then use the **-1/+1** buttons to
set the Volume to a suitable level.

```
┌──────────────────────────────────────────────┐
│VOLUME      Voice A MIDI A Voice B MIDI B│
│[off][on]   127▪    127▪   ----    ----  │
└──────────────────────────────────────────────┘
```

Turn the Volume on by first pressing **[F2] (on)**, if necessary.

3 Now, let's select the Voice A and MIDI A parameters for simultaneous editing.
Press **[F3]** and **[F5]** simultaneously. (The Voice A and MIDI A values both flash.)

```
┌──────────────────────────────────────────────┐
│VOLUME      Voice A MIDI A Voice B MIDI B│
│[off][on]   127▪    127▪   ----    ----  │
└──────────────────────────────────────────────┘
```

4 Use **DATA ENTRY** slider or **-1/+1** buttons to change the values. Notice that
both parameter's values change together.

```
┌──────────────────────────────────────────────┐
│VOLUME      Voice A MIDI A Voice B MIDI B│
│[off][on]   093▪    093▪   ----    ----  │
└──────────────────────────────────────────────┘
```

HINT — Using Reset with Parameter Grouping

You can also use the Reset function (pressing both **-1/+1** buttons simultaneously) with
parameter grouping to change all selected parameters back to their Reset values.

HINT — Jumping Between Parameter Pages

The P-500 conveniently "remembers" the last selected parameter page. This means that you
can use the **EDIT** buttons **1-16** to jump quickly among several often-selected pages.

4 Compare Function

The P-500 also has a convenient Compare function that lets you switch between the current edits of a Voice and its original pre-edit state. In other words, you can hear the changes you've made to a Voice and compare them with the sound of the original Voice. To use Compare, you must be in the Edit mode, and you must have made at least one change to a parameter.

(Operation—)

1 While still in the Effect parameter page (from above), play the keyboard and listen to the sound of the Voice.

2 Press the **EDIT** button to enable Compare.

EDIT

[○]

The *EDIT* button's lamp flashes green, and "COMPARE" appears in the LCD display.

NOTE

While Compare is active, no other parameters can be selected or changed, and no other parameter pages can be called up. However, controllers (such as **WHEEL 1**, or the pedals of the Pedal Unit) can be used normally.

3 Play the keyboard again. Compare is now in effect, and you can hear the sound of the original Voice.

4 To return to the editing condition, press the **EDIT** button again.

You can continue editing other parameters, using the **EDIT** button as needed to compare the sound of your edited Voice with that of the original. (Pressing **EDIT** toggles between the original Voice and the edited Voice.)

Initialize

The P-500 also has an Initialize function (in the Utility mode) which allows you to restore the original factory settings of a Voice. (See page 89.)

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5 Storing the New Voice

Now that you have edited a Voice, you will want to store it to memory, so that you can select it again when you need it.

IMPORTANT

There are some important things you should bear in mind when storing edits to a preset Voice location:

• Storing a Voice replaces the original settings.
Keep in mind that when you store newly edited settings to each Voice number, the settings that were originally at that number are automatically replaced. You can, however, restore the original factory settings of a Voice by using the Initialize function in the Utility mode (see page 86). To avoid permanently losing your own original settings, though, you should make a habit of backing up your valuable data to some kind of MIDI data storage device, by using the Bulk Send function (see page 88).

• Be aware of what mode you are in — Voice Edit or Performance Edit.
In our editing examples above, you have been editing in the Voice Edit mode, and all parameters have been Voice parameters. However, if you've gone on to edit some Performance-only parameters, you have entered the Performance Edit mode and none of your edits (Voice or Performance) can be stored to a Voice. If you intend to store edits to a Voice, be careful to only edit Voice-related parameters.

For more information, refer back to the introductory part to Voice Edit Mode on page 32; for indications of specific Voice-only parameters, see **EDIT PARAMETERS** on page 52.)

• When storing edits to a Voice, only the original number can be used.
Remember that the Voice you've selected in Voice Play is the Voice to which the newly edited data will be stored. For example, if you've selected preset Voice 6 (E.PIANO 2) before editing, the edited settings can only be stored to Voice 6, or one of the Performance numbers.

Remember that in the Voice Edit mode, you can edit/store parameters that enhance the sound of a Voice, but NOT those parameters that determine the basic character of the Voice itself.

Here's how to store a newly edited Voice.

(Operation—)

1 Press the **STORE** button.

Destination for storing.

```
STORE TO    PresetVoices  Are You Sure?
[quit]                     [edit]    [go]
```

```
F1    F2    F3    F4    F5    F6    F7    F8
☐     ☐     ☐     ☐     ☐    ·☐     ☐     ☐
```
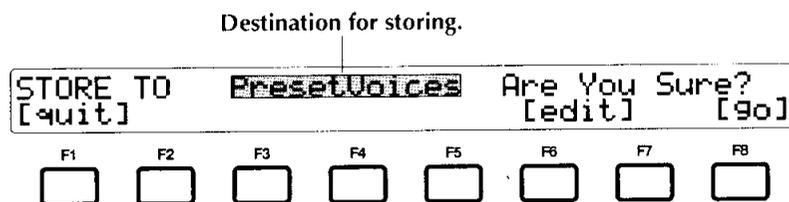
2 Use the **DATA ENTRY** slider or the **-1/+1** buttons to select the destination. The settings are:

PresetVoices — Stores to the currently selected preset Voice number.

Perf01 - Perf32 — Stores to the corresponding Performance number. Any edits can be stored to perf 01-32.

IMPORTANT

The "PresetVoices" destination may not appear in the LCD display, if you have gone on to edit non-Voice (Performance-only) parameters. In this case, you have entered the Performance Edit mode, and CANNOT return to the Voice Edit mode to store your Voice parameter edits. (See page 32 for more information.)

---

3 Press one of the three Function buttons, according to the desired function.

Press **[F1]** (**[quit]**) to exit the operation without storing, and return to the previous Play mode. (A "Store Canceled" message appears.)
Press **[F6]** (**[edit]**) to return directly to the previous edit condition without storing.
Press **[F8]** (**[go]**) to store the edits and return to the previous editing condition.
(A "Store Completed" message appears.)

An Alternate Store Operation
The P-500 also features a "safety net" store operation, which is called up automatically whenever you attempt to leave the Voice Edit mode before storing your edits. After you've made edits to a Voice, pressing **PRESET VOICE, 1-16** or **17-32** automatically displays the same Store operation message described above. (Performing this alternate Store operation automatically exits from the Edit mode, once the operation is completed.)

■ PERFORMANCE EDIT MODE

In the Performance Edit mode you can edit the settings of a selected Performance, and store them to any of the Performance numbers.

Entering the Performance Edit Mode

(Operation—)

1 First, select a Performance while in the Performance Play mode.

2 Press **EDIT** to enter the Performance Edit mode.

```
              PERFORMANCE
                 17-32
     CHAIN ──┐  ┌──────┐
             │  │  O   │
             │  └──────┘
             │   1-16
             │  ┌──────┐
             │  │  O   │
             │  └──────┘
      EDIT      PRESET VOICE
     ┌──────┐  ┌──────────┐
     │▓▓▓▓▓▓│  │    O     │
     └──────┘  └──────────┘
```
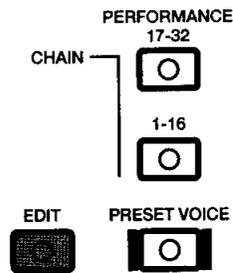
In Performance Play mode → Press EDIT.
The lamps of EDIT and the selected 1-16 or
17-32 button both flash.

Editing a Performance

The operations and functions in editing a Performance are identical to those in editing a Voice. Refer to the relevant sections in the VOICE EDIT MODE:

For details on individual parameters, refer to the EDIT PARAMETERS section, page 52.

Naming a Performance

You can give a name to your newly edited Performance. It can be up to eight characters in length, and it will automatically be displayed whenever you select the Performance — either in the Performance Play or Chain Play modes.

1 From the Performance Edit mode, simultaneously hold down **KEYBOARD MODE** and press **[F3]**. This calls up the Performance Name parameter in the Keyboard Mode pages.

```
PERF NAME   PERFORMANCE
   [◄]  [►]  ▯RSETUCE
```
| F1 | F2 | F3 | F4 | F5 | F6 | F7 | F8 |

Flashes to indicate cursor position.

2 Use **[F1]** and **[F2]** to move the flashing cursor to the desired position in the name.

3 With the cursor in position, use the **DATA ENTRY** slider or **-1/+1** buttons to change the character at the cursor.
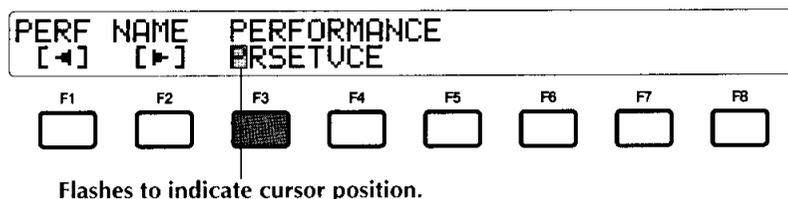
All letters of the alphabet, in both upper and lower case, all numbers from 0 to 9, and a variety of miscellaneous characters can be used. (For a list of the available characters, see page 53.)

Storing Performance Data

Once you have edited a Performance, you can store it to one of the thirty-two Performance numbers.

IMPORTANT

Storing a Performance replaces the original settings.
Keep in mind that when you store newly edited settings to a Performance number, the settings that were originally at that number are automatically replaced. You can, however, restore the original factory settings of a Performance (or part of a Performance) by using the Initialize function in the Utility mode (see page 86). To avoid permanently losing your own original settings, though, you should make a habit of backing up your valuable data to some kind of MIDI data storage device, by using the Bulk Send function (see page 88).

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Here's how to store a newly edited Performance.

Operation—

1 Press the **STORE** button.

Destination for storing.

```
STORE TO    PERF01          ARE YOU SURE?
[quit]                      [edit]    [go]
```

F1 F2 F3 F4 F5 F6 F7 F8
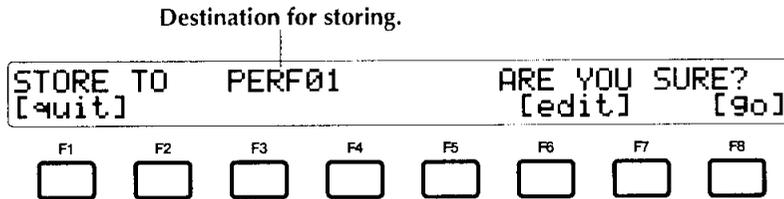
The Performance number that you selected in the Performance Play mode is automatically called up here as the destination.

2 Use the **DATA ENTRY** slider or the **-1/+1** buttons to select a different destination, if desired. The settings are:

Perf01 - Perf32 — Stores to the corresponding Performance number.

3 Press one of the three Function buttons, according to the desired function.

Press **[F1]** (**[quit]**) to exit the operation without storing, and return to the Performance Play mode. (A "Store Canceled" message appears.)
Press **[F6]** (**[edit]**) to return directly to the previous edit condition without storing.
Press **[F8]** (**[go]**) to store the edits and return to the previous editing condition. (A "Store Completed" message appears.)

An Alternate Store Operation
As in the Voice Edit mode, the Performance Edit mode also features an alternate store operation, which is called up automatically whenever you attempt to leave the Performance Edit mode before storing your edits. After you've made edits to a Performance, pressing **PRESET VOICE, 1-16** or **17-32** automatically displays the same Store operation message described above. (Performing this alternate Store operation automatically exits from the Edit mode, once the operation is completed.)

■ CHAIN EDIT MODE

In the Chain Edit mode you can create your own Chains or edit already existing ones. Chains are automatically stored to memory as you edit them, so there is no Store operation for Chains.

Entering the Chain Edit Mode

(Operation—)

From the Chain Play mode, press the **EDIT** button.

EDIT
[O] **In Chain Play mode→ Press EDIT.**

Selecting a Chain for Editing

Since Chains are automatically stored to memory as you edit them, you should always select an expendable Chain (one that you wouldn't mind editing over).

(Operation—)

1 From within the Chain Edit mode, press and hold down the **CHAIN** button. The display below appears:

```
CHAIN_MENU  F1-F8: Select Chain
  1/9 2/10 3/11 4/12 5/13 6/14 7/15 8/16
```

2 While holding down **CHAIN**, press the Function button corresponding to the desired Chain number.

Selects Chain 2 or 10. Selects Chain 4 or 12. Selects Chain 6 or 14. Selects Chain 8 or 16.

```
F1-F8:  CHAIN
  1/9 2/10 3/11 4/12 5/13 6/14 7/15 8/16
```

F1 F2 F3 F4 F5 F6 F7 F8
[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
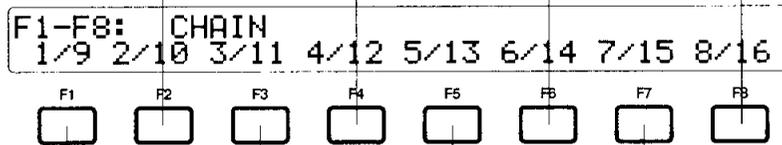
Selects Chain 1 or 9. Selects Chain 3 or 11. Selects Chain 5 or 13. Selects Chain 7 or 15.

Each Function button is used to select one of the two Chain numbers above it in the LCD display. Each press of the button toggles between the two displayed numbers.

For example, to select Chain number 11, press **[F3]** once or twice (until the flashing cursor highlight is at **11**).

3 When you've selected the desired Chain, release the **CHAIN** button. The following display appears:

```
CHAIN11-01 1:#>01>#
  [◄] [►] [▲] [▼] [ins][del] <locked>
```

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4 In order to begin editing the selected Chain, you have to "unlock" it. If **<locked>** is shown in the bottom right of the LCD display, press **[F7]** or **[F8]** to turn the Lock function off and enable editing of the Chain.
The Performance name (in this case, PRSETVCE) appears in the LCD display.
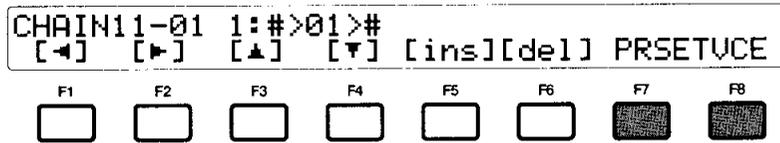
```
CHAIN11-01 1:#>01># 
  [◄]   [►]   [▲]   [▼] [ins][del] PRSETVCE
```

F1 F2 F3 F4 F5 F6 **F7** **F8**

5 Edit the Chain by using the various controls, as described for the example Chain below:

```
①        ②  ③                                    ④
CHAIN11-14 2:#>05>11>03>19>29>⊠# 
  [◄]   [►]   [▲]   [▼] [ins][del] PRSETVCE
```

F1 F2 F3 F4 F5 F6 F7 F8
⑤   ⑥   ⑦   ⑧   ⑨   ⑩   ⑪

① **Chain number.**
② **Current position number in Chain.**
③ **Current row of Performance numbers in Chain. (A Chain can have up to four of these rows, each with up to eight Performance numbers.)**
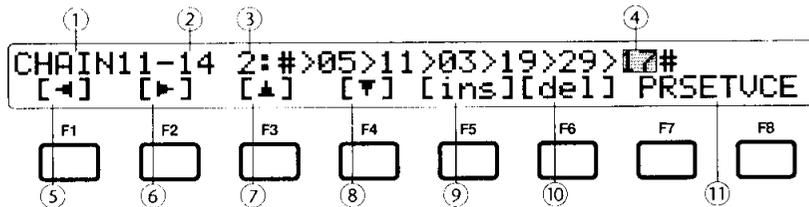④ **Performance number for current position. (Cursor flashes.)**
⑤ **Move cursor to previous position.**
⑥ **Move cursor to next position.**
⑦ **Move cursor up to previous Performance number row.**
⑧ **Move cursor down to previous Performance number row.**
⑨ **Inserts a new Performance number at the current position.**
⑩ **Deletes a Performance number at the current position.**
⑪ **Performance name at current position.**

To change the Performance number at the cursor position:
Use the **DATA ENTRY** slider or **-1/+1** buttons.

To enter or insert a new Performance number at the cursor position:
Press **[F5]** (**[INS]**). This effectively copies the current Performance number and advances to the next position in the Chain.

To move (left or right) to another Performance position in the Chain:
Use **[F1]** (**[◄]**) or **[F2]** (**[►]**).

To move (up or down) to another Performance number row in the Chain:
Use **[F3]** (**[▲]**) or **[F4]** (**[▼]**). (These can only be used when the Chain has nine or more Performance numbers entered. Each "row" can contain up to eight Performance numbers.)

Once you've created a Chain, you can select it in the Chain Play mode. The LCD display of the created Chain will look something like this:
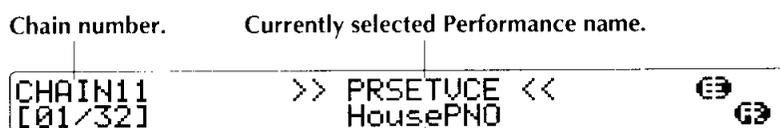
Chain number.   Currently selected Performance name.

```
CHAIN11        >> PRSETVCE <<        ⊞
[01/32]            HousePNO             ⊞
```

Total number of   Indicates next
Performances in Chain.   Performance (name).

Current position in Chain.

OTHER FUNCTIONS AND CONTROLS

The P-500 is equipped with a variety of convenient functions and controls that can be used while playing (or editing) the instrument.

■ REALTIME PERFORMANCE CONTROLS

Panel EQUALIZER Controls

The five **EQUALIZER** controls on the top panel let you adjust the output of the P-500 in five frequency ranges: Low, Low-Mid, Mid, High-Mid and High. This Equalizer is independent of the **GEQ** controls for Voices A and B (see page 55), and it is applied to both Voices equally. For best results, set the GEQ parameters for each Voice, then use the panel EQUALIZER controls to adjust the overall sound.
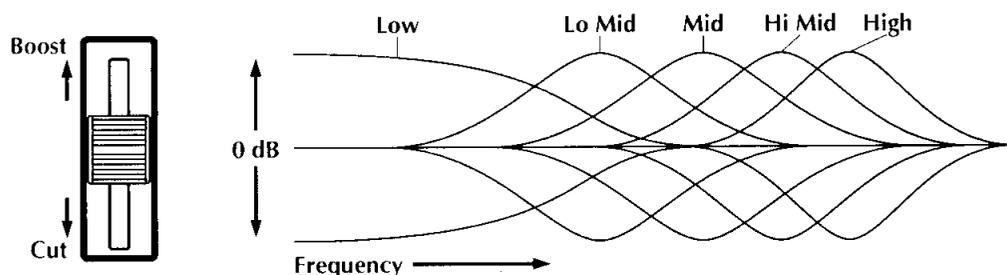
Move each slider up to boost the level of the respective band range, and down to decrease or cut the level.

Pedal Unit

Designed to be connected to the first three FOOT CONTROLLER jacks on the left panel, the **Pedal Unit** provides Soft, Sostenuto and Damper control — just like the pedals on a real acoustic piano. Pressing the left (Soft) pedal makes the sound softer, or decreases the level. Pressing the right pedal (Damper) sustains the notes that you play. The middle (Sostenuto) pedal sustains only those notes that are played and held when the pedal is pressed. This allows you, for example, to hold a chord and play staccato notes over it.

On most of the preset Performances, the Pedal Unit normally controls the above functions. However, it can be set to control other functions as well. These can be set in the **FC** pages (see page 72).

Foot Switches, Foot Controllers

Four **FOOT CONTROLLER jacks** are provided on the left panel of the P-500 for use with on/off Foot Switches (such as those of the Pedal Unit mentioned above) or continuous Foot Controllers. The functions that can be assigned to these controllers are set in the **FC** pages (see page 72).

PS 1/2 Switches, CS 1/2 Sliders

In addition to their use in the Quick Edit mode, the **PS 1/2** Panel Switches and the **CS 1/2** Continuous Sliders provide realtime control over a variety of different functions, both on the P-500 itself and the connected MIDI devices. These functions can be assigned from the **WHEEL CS PS AT** pages (see page 78).

WHEEL 1, WHEEL 2

WHEEL 1 is almost always used to control Pitch Bend, although it can be used for realtime control over a variety of functions as well. **WHEEL 2** is generally used as a Modulation Wheel controller for applying Vibrato or other effects to the sound, but can also control different functions. The functions for the two controllers are assigned from the **WHEEL CS PS AT** pages (see page 77).

■ VIEW

The **View** function of the P-500 lets you check some of the main settings of the currently selected Voice or Performance, without having to enter one of the Edit modes. This would come in handy, for instance, when you need to quickly see which MIDI channels the P-500 is transmitting on for each of the MIDI Paths.

Parameter settings that can be viewed include MIDI transmit and receive channels for all Paths, volume and program change settings for all Paths, as well as Keyboard Mode settings. The View screens can be called up to the LCD display with the Function buttons, while in the Voice Play, Performance Play or Chain Play modes.

(Operation—)

1 Make sure that one of the Play modes (Voice Play, Performance Play, or Chain Play) is selected. The View screens **cannot** be called up from the Utility and Store functions **nor** from any of the editing modes (except Quick Edit, and only then within one of the Play modes).

2 From the condition above, press and hold the Function button corresponding to the type of settings you wish to view.

The Function buttons and their corresponding View screens are:
[F1] — Transmit Channels
[F2] — Receive Channels
[F3] — Volume
[F4] — Bank/Program Change, Path A
[F5] — Bank/Program Change, Path B
[F6] — Signal Path
[F7] — Keyboard Mode
[F8] — PC (Program Change) Sender

The appropriate View display will remain as long as the Function button is held down. Release the button to return to the previous condition.

[F1] Transmit Channels

Display

Voice A | MIDI A | Extra MIDI A | Voice B | MIDI B | Extra MIDI B | Performance Change

```
TXCH A:(Vce MIDI Ex) B:(Vce MIDI Ex)Perf
VIEW     01   03   06       02   04   07   12
```

F1 F2 F3 F4 F5 F6 F7 F8
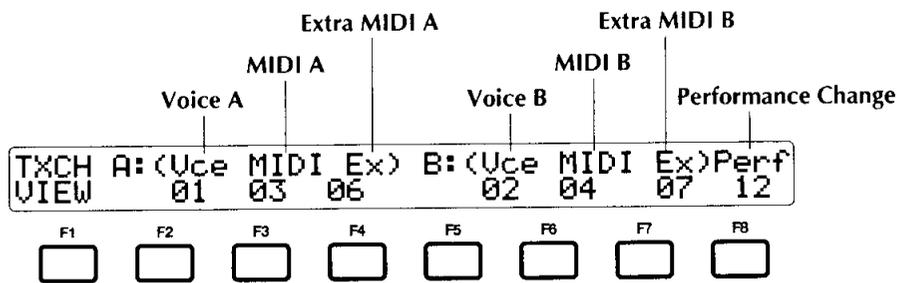
[F2] Receive Channels

Display

Voice A | Voice B | Performance Change

```
RXCH        Voice A   Voice B   Performance
VIEW          01        02          11
```

F1 F2 F3 F4 F5 F6 F7 F8

[F3] Volume

Display

Voice A | MIDI A | Extra MIDI A | Voice B | MIDI B | Extra MIDI B

```
VOL  A:(Vce MIDI Ex) B:(Vce MIDI Ex)
VIEW    127  127 off     127  127 off
```

F1 F2 F3 F4 F5 F6 F7 F8
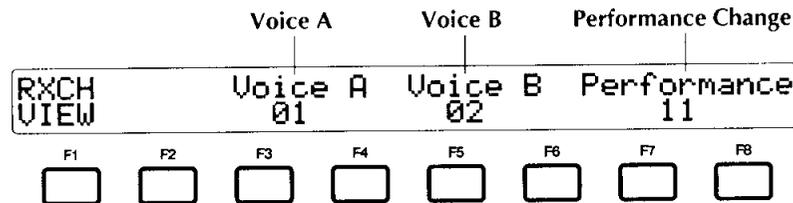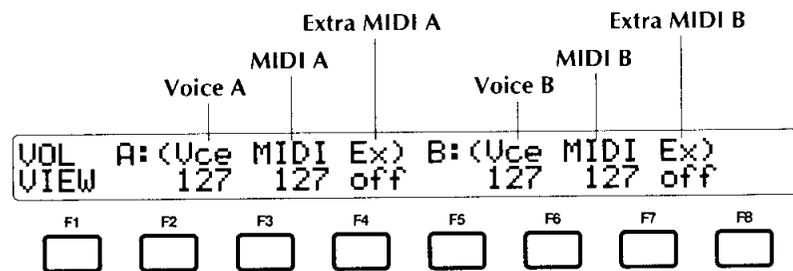
[F4] Bank/Program Change, Path A

Display

Voice A Program Number | MIDI A Program Number | Extra MIDI A Program Number

```
A:PC-> VoiceA:  1 MIDI A:  1 ExtraA: 17
BANK->         off    001-003        off
```

F1 F2 F3 F4 F5 F6 F7 F8

Voice A Bank Number | MIDI A Bank Number | Extra MIDI A Bank Number
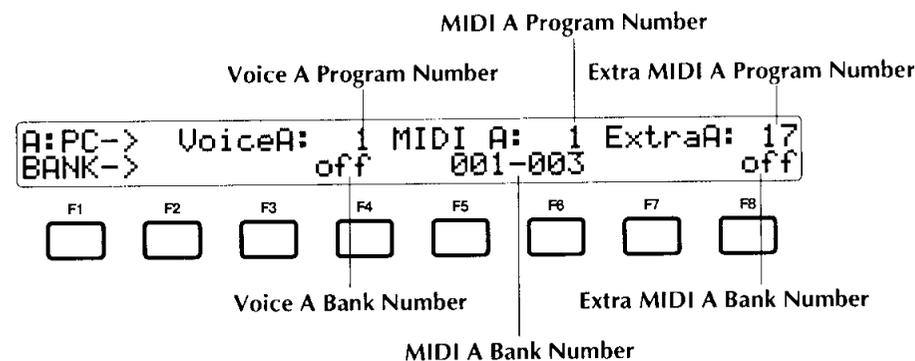
[F5] Program Change, Path B

Display

MIDI B Program Number

Voice B Program Number | Extra MIDI B Program Number

```
B:PC->  VoiceB:  1 MIDI B:  5 ExtraB: 27
BANK->          off          Off         off
```

F1 F2 F3 F4 F5 F6 F7 F8

Voice B Bank Number | Extra MIDI B Bank Number

MIDI B Bank Number
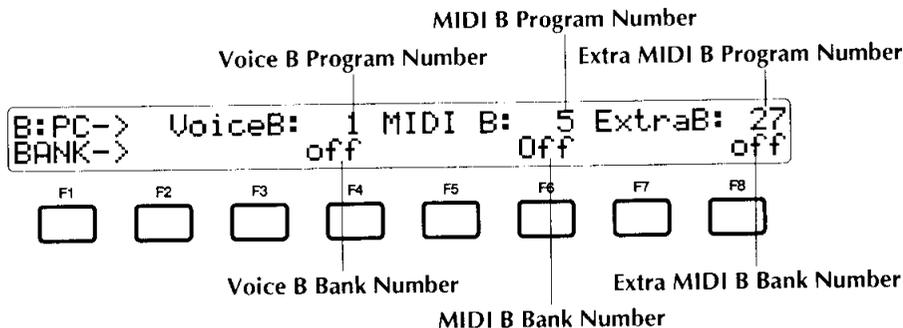
[F6] Signal Path

Shows the currently selected signal processors (including the programmable Equalizers) in their signal path configuration. This example LCD display indicates that the following are set: two Voices (in Split or Dual), Effect A and B, Modulation, and Reverb (with the ModIn parameter set to 0%).
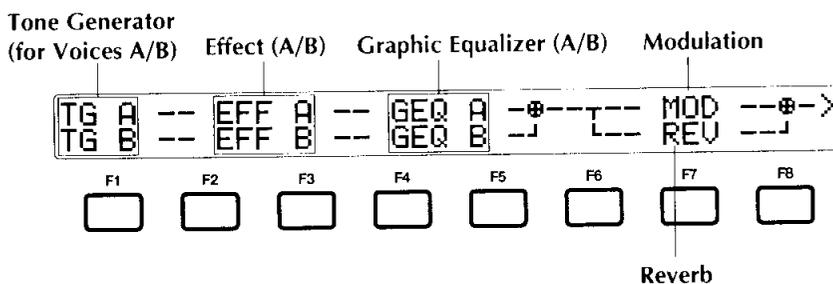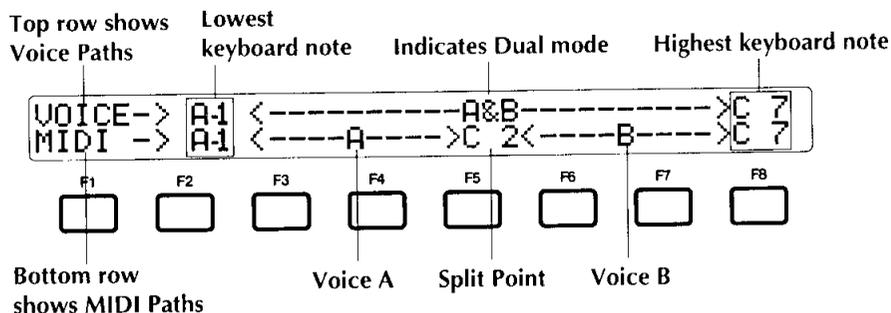
Display

Tone Generator
(for Voices A/B)   Effect (A/B)   Graphic Equalizer (A/B)   Modulation

```
TG A -- EFF A -- GEQ A -⊕--┬-- MOD --⊕->
TG B -- EFF B -- GEQ B -┘  └-- REV --┘
```

F1 F2 F3 F4 F5 F6 F7 F8
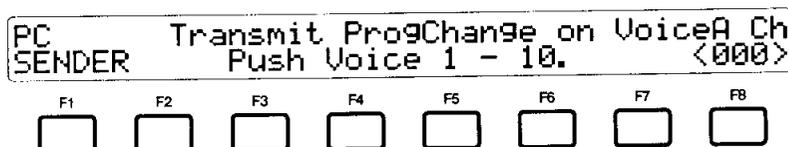
Reverb

[F7] Keyboard Mode

This example LCD display indicates that the Voice Keyboard Mode is set to Dual, and the MIDI Keyboard Mode is set to Split, with MIDI A assigned to the lower half of the keyboard and MIDI B to the upper. The Split Point is at C2.

Display

Top row shows   Lowest
Voice Paths   keyboard note   Indicates Dual mode   Highest keyboard note

```
VOICE->  A-1 <----------A&B---------->C 7
MIDI ->  A-1 <----A---->C 2<----B---->C 7
```

F1 F2 F3 F4 F5 F6 F7 F8

Bottom row   Voice A   Split Point   Voice B
shows MIDI Paths

[F8] PC (Program Change) Sender

Display

```
PC       Transmit ProgChange on VoiceA Ch
SENDER      Push Voice 1 - 10.        <000>
```

F1 F2 F3 F4 F5 F6 F7 F8

■ PC (PROGRAM CHANGE) SENDER FUNCTION

PC Sender is a convenient function that allows you to directly send a program change message to a connected MIDI device. This can be done from the Voice Play or Performance Play modes, without having to change the currently selected Voice or Performance.

(Operation—)

From the Voice Play mode or Performance Play mode, simultaneously hold down [F8] and press one of the Voice buttons 1 through 10, then release both buttons. From this condition, press the button corresponding to the program change number you wish to send. The program change message will be sent over the Voice A MIDI channel.

Button	Program Change Number
1	0
2	1
3	2
4	3
5	4
6	5
7	6
8	7
9	8
10	9

The above Program Change numbers are the default settings. Program Change numbers transmitted here can be assigned in the Program Change Transmit Number parameters. (See page 79.)

OTHER FUNCTIONS AND CONTROLS

■ MIDI PANIC

As advanced and convenient as MIDI is, unfortunately it is not without problems. One of the most annoying — especially in a live performance or demanding recording session — is the dreaded "stuck note" syndrome. This happens when a connected tone generator or synthesizer responds to a Note On message, for example, but not a Note Off — thus, the stuck note. Unexpected sustained notes, sudden losses of volume, and "hanging" pitch bends are also common MIDI problems that can happen when using a sequencer with the P-500 and other MIDI instruments.

The **MIDI PANIC** button lets you instantly send a stream of MIDI messages designed to solve most of these problems. For example, if a connected MIDI instrument has a stuck note, pressing **MIDI PANIC** immediately (within 1/2 second) cuts off the note. The following display appears while the function is active:

MIDI PANIC

[O]

```
************** PANIC !! **************
*************************************
```

Pressing the button sends the following messages in sequence, over all MIDI channels:

Key Note Off, All Note Off, Sustain Pedal Off, Modulation Depth Off, Channel Pressure Off, Pitch Bend Depth Center, Reset All Controllers.

MIDI Panic has no effect during sending/receiving of bulk data or while MIDI Merge is on.