

# PROFESSIONAL MIDI BASS

## Owner's Manual

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### **PREFACE**

360 Systems has been in the business of providing unique and useful products for the modern Musician and Composer for over 16 years. We rely on feedback from our customers to help us continue the development of innovative and affordable products that best meet their needs. Please feel free to address any comments you may have regarding 360 Systems and its present or future products to:

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## INTRODUCTION

After the success of our original Midi Bass, we listened and learned a great deal about what people wanted in a "bass line" sampler. As a result, our design team has incorporated many new features into a product that is useful and easy to operate. **Professional Midi Bass** was designed to provide sampled sounds so accurate and realistic that they put the actual bass instrument at your fingertips, while freeing up other synths and samplers to be used to their fullest potential. Ideal for recording, sequencing and live performance, the **Professional Midi Bass** interfaces with MIDI controllers such as keyboards, pedalboards, MIDI guitars or basses. This new rack mount version provides a megabyte of internal EPROM sound memory capacity, improved signal-to-noise ratio (in excess of 90 dB) and two 12 MHz computers to handle internal operations. All of this and more adds up to a product we think will be a vital part of everyone's set-up for many years to come.\*

## SPECIFICATIONS

ENCLOSURE: Rackmount or tabletop.  
DIMENSIONS: 1.70 x 19 x 7.50 (HWD)  
SHIPPING WEIGHT: 6 lbs.  
POWER: 120/240 volts, 50/60 Hz., 10W  
OPT.POWER: 100V/60Hz, 230V/50Hz  
FUSE: Internal

AUDIO OUT: 1/4" phone, nominal 1 volt.  
INPUT: MIDI IN  
PATCH MEMORY: Internal RAM (non-volatile)  
EPROM MEMORY CAPACITY: 16 chips  
DISPLAY: 2 line, 16 character LCD

## FEATURES

MIDI: In, Thru, Out (2nd Voice Cascade)  
MIDI RECEIVE: All, 1-16  
OMNI MODE: On / Off  
NOTE PRIORITY: Last, Low, High  
VOICES: Monophonic  
PRESETS: 30 user programmable  
ZONES: 2 user programmable  
TRANSPOSE:  $\pm 63$  semitones  
ZONE TRANSPOSE:  $\pm 63$  semitones  
FINE TUNING:  $\pm 1$  semitone, digital

ACCENT SOUNDS: 1 per zone  
VELOCITY: On / Off  
VELOCITY CROSSOVER: Variable 0-127  
DECAY AND RELEASE: Variable  
SUSTAIN: MIDI  
PITCH BEND: On / Off  
FILTER ADJUST: 5 1/3 octaves  
VOLUME: Variable 0-100  
MIDI VOLUME: On / Off

\* Additional sounds are available from the Alternate Sound Library for the **Professional Midi Bass**. For a listing of sounds and a demonstration tape, send \$5.00 along with a return address to:

360 Systems, 18740 Oxnard Street, Tarzana, CA 91356.

## Section 1 GETTING STARTED



1. Audio Out
2. Cover Plate Screws
3. Viewing Angle Adjust
4. MIDI Thru
5. MIDI In
6. MIDI Out (2nd Voice Cascade)

Fig. 1

### 1.1 CAUTIONS

- IF ALTERNATE SOUND CHIPS HAVE BEEN PURCHASED AND ARE TO BE INSTALLED, REFER TO SECTION 7.2 INSTALLING ALTERNATE SOUND CHIPS BEFORE INSTALLATION OR OPERATION OF THE PROFESSIONAL MIDI BASS.
- DO NOT REMOVE OR DEFEAT THE GROUNDING PRONG ON THE AC POWER CORD. A SERIOUS SHOCK HAZARD CAN RESULT FROM FAILING TO CONNECT THE AC POWER CORD TO A PROPERLY GROUNDED ELECTRICAL OUTLET. NEVER USE THE PROFESSIONAL MIDI BASS NEAR DAMP OR WET ENVIRONMENTS.
- MAKE SURE POWER IS OFF BEFORE CONNECTING ANY CABLES AND THAT THE PROFESSIONAL MIDI BASS HAS THE PROPER VOLTAGE RATING FOR THE COUNTRY OR AREA IN WHICH IT IS TO BE OPERATED.

### 1.2 Rear Panel Connections

- 1) Connect the Pro Midi Bass power cable to a standard **grounded** wall outlet. Versions are available for 100, 120, 230 and 240 volts.
- 2) Using a 1/4" audio cable, connect AUDIO OUT (1) to an input on your amp or mixer.

### 1.3 MIDI Connections

- 1) Using a standard 5-pin MIDI cable, connect the MIDI OUT of a keyboard, pedalboard, sequencer or other MIDI controller to the MIDI IN jack (5) on the rear panel of the Pro Midi Bass. When first powered up, the Pro Midi Bass is set to receive on MIDI Channel "ALL" (Omni mode). To change the MIDI receive channel, refer to Section 4.3-2 MIDI Channel.
- 2) To "echo" MIDI information down the line to other devices, connect the MIDI THRU jack (4) of the Pro Midi Bass to the MIDI IN jack on another MIDI device.
- 3) Two Pro Midi Bases can play multiple notes (polyphonic operation) if the 2nd Voice Cascade is used. Just connect a MIDI cable from the MIDI OUT jack (6) on the Pro Midi Bass to the MIDI IN jack (5) of another. (See Section 4.3-7)

## 1.4 Power Up

The power switch is located at the left side of the front panel. Once all cables have been connected, turn power on by depressing the bottom half of the switch. The display should read:

**Pro MidiBass 1.3**  
**Sounds Avail: 8**

Pro Midi Bass contains 8 standard factory sounds on EPROM chips. Additional empty chip sockets are provided for the user to add any desired combination of chips from the 360 Systems Alternate Sound Library. The total number of sounds on-line will vary depending upon how many chips are contained in the Pro Midi Bass and the number of sounds on each chip. (Some chips may contain only one sound, others may hold two or more.) In any case, the display will always indicate the number of sounds currently on-line each time the Pro Midi Bass is powered up.

## 1.5 Display Adjustment

When mounting the Pro Midi Bass in a rack, it may be desirable to adjust the angle of the LCD display for optimum viewing. Just turn the VIEWING ANGLE ADJUST screw on the rear panel with a small flat-blade screwdriver. (See Fig. 1)

## Section 2 OPERATIONAL OVERVIEW

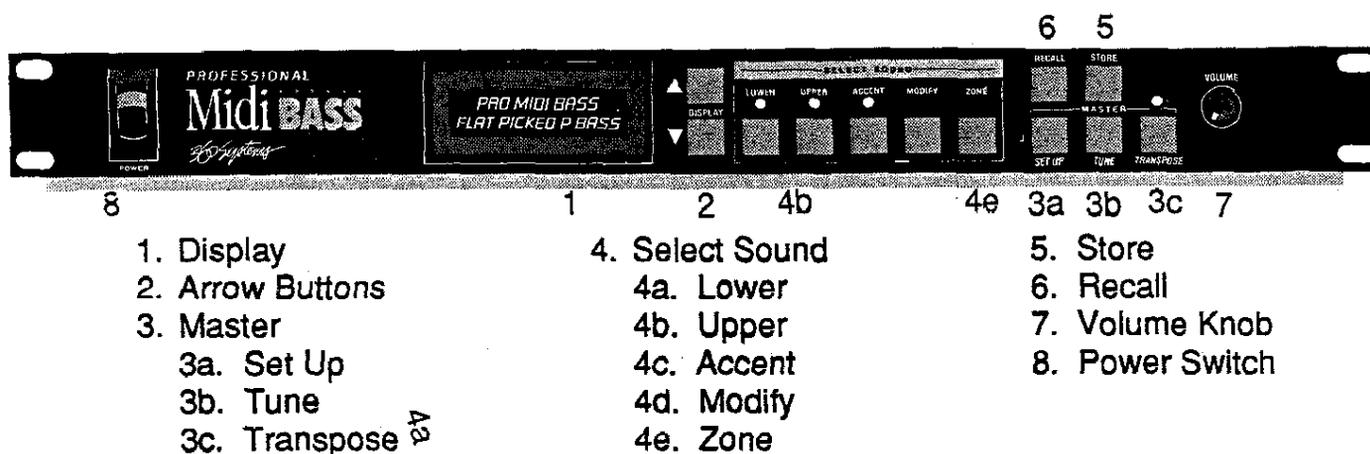


Fig. 2

### 2.1 Volume

This knob adjusts the output level of all sounds and patches in the Pro Midi Bass and is not memorized when storing patches. Use the Volume function contained in the Modify section to balance relative levels of sounds when creating custom patches.

### 2.2 Display

When performing any operation on the Pro Midi Bass, it will read out on the 2 line, 16 character LCD Display. During programming, the Display will always indicate the sound(s) in use or the modify (edit) functions being performed as well as their currently selected values.

### 2.3 Arrow Buttons

The two Arrow buttons (up/down) located to the right of the Display are used for selection of data. When selecting a sound or modifying a patch, the up/down Arrows are used to toggle through all of the available options. Press and hold Arrow buttons for fast scanning of value options. Since the options indicated in the Display are always active, it is possible to audition the effect of various sounds or value options.

### 2.4 Master

All functions in the Master section are "global", meaning they will affect the overall response of the Pro Midi Bass. These settings are not stored within individual patches. Once a value has been selected for any Master function, that value will be retained in internal memory and will not be affected when patches are recalled. Some Master functions are non-volatile (i.e. their values will be retained when Pro Midi Bass is turned off), others are volatile and will be reset to their default values when Pro Midi Bass is turned off. For a listing of which functions are volatile or non-volatile, refer to Section 7.3 Default Settings.

### 2.5 Select Sound

All functions contained in this section can be saved to a patch number for later recall as custom patches. Lower, Upper and Accent are used to view, audition and select the sounds to be played on the Pro Midi Bass. The Modify and Zone buttons are used to affect the performance or response characteristics of any selected sounds and their placement or "mapping" onto a controller keyboard, guitar or sequencer.

### 2.6 Store

There are 30 memory locations available to store custom patches. Once a patch has been stored, it can be recalled for later use or modified and stored again in the same or a different location. Patches stored in memory will be retained when power is turned off.

## 2.7 Recall

Recall is used to call up patches previously stored in memory. When a patch is recalled, it will immediately activate a Lower, Upper and Accent sound combination, along with all Modify and Zone information originally saved to that patch number. There are no factory preset patches in the Pro Midi Bass. When attempting to recall a patch number that has never been used to store information, the Display will indicate: **Recall Patch: xx No Patch Saved.**

## Section 3 PROGRAMMING OVERVIEW

The Professional Midi Bass is programmable, meaning that combinations of sounds and other functions that affect performance may be altered by the user and stored in memory for use in future applications. The Arrow buttons are used to scroll through and select from sound and value options that are accessed through other buttons on the front panel. All sounds and values are in effect immediately when they appear on the display, and will remain in effect until they are replaced or re-programmed. Refer to Section 7.3 Default Settings for a listing of functions, their default settings, value ranges, and whether they are volatile or non-volatile.

There are three main groups of buttons which allow access to the programmable functions of the Pro Midi Bass. They are:

- 1) **MASTER**  
Global settings used for general Set Up purposes. They may be stored in internal memory, but cannot be saved to individual patch memories. For convenience, some Master functions will reset to their default values when the Pro Midi Bass is turned off.
- 2) **SELECT SOUND**  
Used to create and modify combinations of sounds and assign or "map" them to zones. These settings can be stored in the internal non-volatile patch memory and recalled for future use.
- 3) **STORE & RECALL**  
Used for storing individual user-created patches to memory for instant recall during performance or normal operating situations.

## Section 4 PROGRAMMING MASTER FUNCTIONS

The three main function buttons in the MASTER section are:

1. TUNE
2. TRANSPOSE
3. SET UP

### 4.1 Tune

Value range      -63 to +63                      Default:      0

Tuning is variable over a single semitone range up or down.

1. Press TUNE.
2. Display will prompt: **Tuning Adj: 0** (Calibration to A440)
3. Use ARROW buttons to select desired value from **-63 to +63**.
4. Press any other button on the front panel to exit this function.

## 4.2 Transpose

Value range: Enabled / Disabled      Default: Disabled

This is a global Transpose and will shift the range of all notes on the Pro Midi Bass equally. It is independent of the Zone Transpose functions and will not affect the Transpose Interval amounts selected for each Zone although it will uniformly shift the note ranges for each Zone simultaneously. When Transpose is Enabled, it allows the transposition selected using the Keyboard Transpose Interval function (Section 4.3-1) to become active. When Transpose is disabled, it defeats the Transpose Interval and returns the Pro Midi Bass to normal tuning.

1. To activate, press TRANSPOSE.
2. LED will light and display prompts: **Keybd Transpose: Enabled**
3. To defeat, press TRANSPOSE again. LED will turn off and display prompts: **Keybd Transpose: Disabled**

## 4.3 Set Up

Repeatedly pressing the SET UP button will allow for selection of the following functions:

1. **Keyboard Transpose Interval**
2. **MIDI Channel**
3. **MIDI Pitch Bend Enable**
4. **MIDI Patch Change Enable**
5. **MIDI Volume Enable**
6. **Note Priority**
7. **Voice Cascade Mode**
8. **Test Note**
9. **Memory Protect**

These are global functions and remain effective independently of patch memory. Once a particular function is selected, use the ARROW buttons to toggle through the value options. The last value indicated on the display will remain effective until it is re-programmed. Exit any function by pressing the SET UP button again or by pressing any other button on the front panel.

### 4.3-1 Keyboard Transpose Interval

Value Range: +63 to -63      Default: 0

Remember that since this function is included in the Master section, it is a global transpose and will affect all sounds equally. Once a Transpose Interval is selected, the TRANSPOSE button on the front panel may be used to enable or disable it. This feature can be very useful when interfacing with other devices such as MIDI pedals or small keyboards with "hard assigned" note numbers.

1. Press SET UP button until the display prompts:  
**Keybd Transpose Interval: 0**
2. Use ARROW buttons to adjust value up or down by semitones.
3. Press any other button on the front panel to exit this function.

NOTE: If the Transpose LED is not on, no change will occur because Transpose is disabled. Press TRANSPOSE, LED will light and Transpose Interval will become effective.

### 4.3-2 MIDI Channel

Value range: ALL, 1-16

Default: ALL

This function allows selection of the MIDI channel number that the Pro Midi Bass receives information on. ALL (Omni) causes the Pro Midi Bass to respond to all MIDI information it receives, no matter what the transmitted channel number may be. Selecting an individual channel number causes the Pro Midi Bass to play notes it receives on that channel only, ignoring all others.

1. Press the SET UP button repeatedly until the display prompts:  
**MIDI Chan: ALL**
2. Use the ARROW buttons to select the desired channel ALL, 1-16.
3. Press any other button on the front panel to exit this function.

NOTE: Some synths, notably the Yamaha DX-7, can only transmit on MIDI channel #1. The Pro Midi Bass must be set to either ALL or 1 to respond to this type of controller.

### 4.3-3 MIDI Pitch Bend Enable

Value range: ON / OFF

Default: ON

Pro Midi Bass will respond to pitch bend information from a keyboard, sequencer or other controller when ON is selected for this function. The Pro Midi Bass has a fixed bend range of three semitones (minor third), so make sure that the controller is set for an equal amount of bend or some unusual effects may result. When OFF is selected, Pro Midi Bass will not respond to pitch bend information, but will echo pitch bend information to other MIDI devices.

1. Press the SET UP button repeatedly until the display prompts:  
**MIDI Pitch Bend Enable: ON**
2. Use the ARROW buttons to select ON or OFF.
3. Press any other button on the front panel to exit this function.

### 4.3-4 MIDI Patch Change Enable

Value range: ON / OFF

Default: ON

When calling up patches with an external MIDI device, selecting ON will allow the Pro Midi Bass to receive MIDI patch change information on the channel selected using the MIDI Channel function (Section 4.3-2). Selecting OFF will disable MIDI patch change messages but the Pro Midi Bass will continue to receive all other MIDI information.

1. Press the SET UP button repeatedly until the display prompts:  
**MIDI Patch Chng Enable: ON**
2. Use the ARROW buttons to select ON or OFF.
3. Press any other button on the front panel to exit this function.

NOTE: If MIDI Channel (Section 4.3-2) is set to ALL, the Pro Midi Bass will receive patch change commands on all channels when MIDI Patch Change Enable is ON.

### 4.3-5 MIDI Volume Enable

Value range: ON / OFF

Default: OFF

In order for the Pro Midi Bass to receive MIDI Volume messages, this function must be set to ON. New volume messages will only affect notes played after the Pro Midi Bass has received the new volume message.

1. Press the SET UP button repeatedly until the display prompts:  
**MIDI Volume Enable: OFF**
2. Use the ARROW buttons to select ON or OFF.
3. Press any other button on the front panel to exit this function.

### 4.3-6 Note Priority

Value range: LAST, LOW, HIGH      Default: LAST

Since Pro Midi Bass is monophonic, it needs to know which note it should play when several are received. In other words, it must know which note to give priority to.

1. Press the SET UP button repeatedly until the display prompts:  
**Note Priority: Last Note**
2. Use the ARROW buttons to select **Last, Low** or **High**.
3. Press any other button on the front panel to exit this function.

**LAST NOTE-** For most performance work and especially when using a sequencer, select this option. This will insure that every new note played will sound, even if old notes are still being held down. This mode allows for fast and even somewhat inaccurate playing.

**LOW NOTE-** It is often useful to extract the lowest note played within a chord and ignore all others. Low mode is particularly useful in two-handed performances when the left hand is playing open-voiced pads and the Pro Midi Bass is set to play only in the lowest range of the keyboard.

**HIGH NOTE-** In High mode the Pro Midi Bass will play the highest note within a chord. By voicing chords suitably, it can play a predictable harmony line or melody line within the chord. High mode also works well in two-handed performances, when the Pro Midi Bass is set to play the upper portion of the keyboard.

### 4.3-7 Voice Cascade Mode

Value range: ON / OFF      Default: OFF

By connecting two Professional Midi Basses together via the MIDI OUT jack, notes can be played and triggered in a polyphonic manner. Once the Pro Midi Bass has received and triggered an initial note, a second incoming note will be passed via the MIDI OUT port to the next Pro Midi Bass or other MIDI device connected. When ON is selected for this function, any incoming note will be played unless a previous note is still being held. If a previous note is being held, the new note will be passed through the MIDI OUT port to the next unit "in-line". Any additional information will also be passed to the second unit (i.e.- patch change, Midi Volume, etc.) When using the 2nd Voice Cascade, make sure that the second Pro Midi Bass has its Voice Cascade Mode switched to OFF.

1. Press SET UP button repeatedly until display prompts: **Voice Cascade Mode: OFF**
2. Use ARROW buttons to select **ON** or **OFF**.
3. Press any other button on the front panel to exit this function.

### 4.3-8 Test Note

Value range: Upper, Lower      Default: Press arrows for sound

The Test Note function provides for audio testing of the Pro Midi Bass output connections. The UP ARROW button will trigger the currently selected upper sound and the DOWN ARROW will trigger the lower sound. This function can also be used to determine whether or not an external controller is properly interfaced with the Pro Midi Bass. If pressing the ARROW buttons triggers a note but no note is heard when a key is pressed on an external controller, then there is a bad MIDI connection, or one or more of the Set Up and Zone functions is incorrectly programmed for interface with that controller. (Check to see that MIDI Channel is correctly assigned and that Zone and Transpose are set to ranges that allow proper triggering of sounds.) Test Note will trigger the note that is the mid-point of the sample's range, so don't be alarmed if triggered notes are different pitches.

1. Press the SET UP button repeatedly until the display prompts:  
**Test Note: Press arrows for sound**
2. Press UP ARROW button to trigger Upper sound.
3. Press DOWN ARROW to trigger Lower sound..
4. Press any other button on the front panel to exit this function.

### 4.3-9 Memory Protect

Value range: ON / OFF

Default: ON

Memory Protect prevents the loss of user presets through accidental erasure or re-programming and also protects against others tampering with stored patches. When Memory Protect is ON, the Store function is disabled. Since Memory Protect defaults to ON, it must be turned OFF before patches may be stored.

1. Press the SET UP button repeatedly until the display prompts:  
**Memory Protect Switch: ON**
2. Use the ARROW buttons to select ON or OFF.
3. Press any other button on the front panel to exit this function.

## Section 5 PROGRAMMING SELECT SOUND FUNCTIONS

Pro Midi Bass allows for selection of four sounds to be on-line at one time (Lower, Lower Accent, Upper and Upper Accent) although only one sound at a time may be played. LOWER, UPPER and ACCENT buttons are used to select the sounds you wish to play. MODIFY and ZONE buttons are used to select options that affect the performance or response characteristics of the various sounds. Lower and Upper sounds correspond to the Lower and Upper Zones defined with the Zone function (Section 5.4). For each main (Lower, Upper) sound selected, a separate Accent (Lower, Upper) sound may also be selected.

Any sound becomes effective as soon as its name appears on the display and will continue to be effective (along with any modifications made using Modify or Zone functions) until a new sound is selected or another patch is recalled. All Select Sound functions may be stored in non-volatile patch memory. The various sound and value combinations created with these functions may be stored in one of the 20 patch locations using the procedures described in Section 6.1 Store.

### 5.1 Lower and Upper Sound Select

When first turned on, the Pro Midi Bass will assign Upper and Lower sounds within the default limit points for Upper and Lower Zones. To change the "mapping" of the sounds refer to Section 5.4 Zone.

#### To Select LOWER Sound

1. Press LOWER button. LED will light. Display prompts:  
**Lower Sound: xxx**
2. Use the ARROW buttons to scroll through and select a sound.
3. Press any other button on the front panel to exit this function.

#### To Select UPPER Sound

1. Press UPPER button. LED will light. Display prompts:  
**Upper Sound: xxx**
2. Use the ARROW buttons to scroll through and select a sound.
3. Press any other button on the front panel to exit this function.

NOTE: Whenever a new sound is selected, the default settings for that sound will replace any previously programmed settings that have not been saved to patch memory.

### 5.2 Accent Sound Select

Since Accent sounds will only be heard when a note is played with enough velocity, the Accent Velocity function in the Modify section (5.3-6) may be used to lower the velocity crossover point and make it easier to audition Accent sounds. If no Accent sound is desired, select the Accent sound that matches the Upper or Lower sound selected.

#### To Select LOWER ACCENT Sound

1. Press LOWER button. LOWER LED will light.
2. Press ACCENT button. ACCENT LED lights, display prompts:  
**Lower Accent: xxx**
3. Use the ARROW buttons to scroll through and select Accent sound.
4. Press any other button on the front panel to exit this function.

#### To Select UPPER ACCENT Sound

1. Press UPPER button. UPPER LED will light.
2. Press ACCENT button. ACCENT LED lights, display prompts:  
**Upper Accent: xxx**
3. Use the ARROW buttons to scroll through and select Accent sound.
4. Press any other button on the front panel to exit this function.



### 5.3-3 Release

Value range: 0 - 7

Default: Varies by sound.

Release affects the level of the sound after a key has been released. Lower values will shorten release time. Higher values will extend release time. Default value is pre-programmed in each sound chip.

1. Select Lower, Upper or Accent sound to be modified.
2. Press MODIFY button repeatedly until display prompts:  
**Release: xxx**
3. Use ARROW buttons to select 0 - 7.
4. Press any other button on the front panel to exit this function.

### 5.3-4 Filter Adjust

Value range: 0 to -64

Default: 0

This will change the apparent "timbre" of a sound. 0 = filter open. As negative numbers increase, filter is closed down for darker tones.

1. Select Lower, Upper or Accent sound to be modified.
2. Press MODIFY button repeatedly until display prompts:  
**Filter Adj: xxx**
3. Use ARROW buttons to select 0 to -64.
4. Press any other button on the front panel to exit this function.

### 5.3-5 Velocity (Lower and Upper sounds only.)

Value range: ON / OFF

Default: ON

ON allows Pro Midi Bass to respond to velocity information from velocity sensitive controllers. In situations where velocity sensitivity is not desired, select OFF for this function.

1. Select Lower or Upper sound to be modified.
2. Press MODIFY button repeatedly until display prompts:  
**Velocity: ON**
3. Use ARROW buttons to select ON or OFF.
4. Press any other button on the front panel to exit this function.

### 5.3-6 Accent Velocity (Accent sounds only.)

Value range: 0 - 127

Default: 120

Any time a note is played with a velocity greater than the amount set, an Accent sound will be triggered instead of an Upper or Lower sound. When Velocity (5.3-5) is set to OFF, the Accent Velocity will continue to operate and trigger Accent sounds at a constant level.

1. Select Accent sound to be modified.
2. Press MODIFY button repeatedly until display prompts:  
**Accent Vel: 120**
3. Use ARROW buttons to select 0 - 127.
4. Press any other button on the front panel to exit this function.

## 5.4 Zone

Zones are created to define the note range over which an Upper or Lower sound and its associated Accent sound will be "mapped" onto a keyboard or other controller. Separate Zone mapping may be created for each patch in the Pro Midi Bass. Upper and Lower limits define the "width" of a Zone and the actual pitch range is defined with the Zone Transpose Interval. When first powered up, the Pro Midi Bass will default to settings of C1 - B2 at concert pitch for the Lower Zone, and C3 - D5 at concert pitch for the Upper Zone. However, if a Zone has been created outside of the note range for a particular sample, no sound will be heard and it will be necessary to adjust the Zone Transpose Interval to shift the sample into the proper note range. If certain Zone values do not need to be re-programmed, they can be stepped over without entering a new value by simply pressing the ZONE button to move to the next screen.

### To Set LOWER ZONE:

1. Press LOWER button. LED will light.
2. Press ZONE button. Display prompts:  
**Lower Zone Set Play Bottom Note**
3. Play desired bottom note for Lower Zone on controller.
4. Display will then prompt:  
**Lower Zone Set Play Top Note**
5. Play desired top note for Lower Zone on controller.
6. Display will then prompt:  
**Lower Zone Set Trnspose Int: 0**
7. Use ARROW buttons to select the desired Transpose Interval from +63 semitones to -63 semitones.
8. Press any other button on the front panel to exit this function.

### To Set UPPER ZONE:

1. Press UPPER button. LED will light.
2. Press ZONE button. Display prompts:  
**Upper Zone Set Play Bottom Note**
3. Play desired bottom note for Upper Zone on controller.
4. Display will then prompt:  
**Upper Zone Set Play Top Note**
5. Play desired top note for Upper Zone on controller.
6. Display will then prompt:  
**Upper Zone Set Trnspose Int: 0**
7. Use ARROW buttons to select the desired Transpose Interval from +63 semitones to -63 semitones.
8. Press any other button on the front panel to exit this function.

## Section 6 STORE / RECALL

### 6.1 Store

The Store function allows for user created settings and sound combinations to be saved as individual patches for later recall. STORE will save Lower and Upper sounds and any corresponding Accent voices simultaneously, along with Modify and Zone information. There are 30 memory locations available to store individual patches. Once a patch has been stored it can be reactivated using the Recall function.

**CAUTION:** If using a previously selected patch number, any information already saved to that location will be erased and replaced with the new information as soon as the STORE button is pressed for the second time.

#### To STORE a User Created Patch

1. Press STORE button.
2. Display will prompt: **Store Patch: 1 (Select / Store)**
3. Use the ARROW buttons to select patch number for storage.
4. Press STORE button again.
5. Display will prompt: **\*STORED\***

**NOTE:** If the display reads **Memory Protect On** when attempting to store a patch, Memory Protect must be deactivated before attempting the Store procedure again. (Refer to Section 4.3-9)

### 6.2 Recall

Once a patch is stored in memory it can be recalled at a later time by using the Recall function. RECALL will load patch values and sounds from memory without affecting values programmed for the Master functions. If no patch has been stored in a number location, the display will indicate **No Patch Saved** when Recall is attempted.

#### To RECALL a User Created Patch

1. Press RECALL button.
2. Display will prompt: **Recall Patch: 1 (Select / Recall)**
3. Use the ARROW buttons to select number of patch to be recalled.
4. Press RECALL button again.
5. Display will prompt: **\*RECALLED\***

**CAUTION:** Once a patch is recalled, any information currently programmed on the Pro Midi Bass except for Master (global) settings, will be replaced by the values of the recalled patch. To save current information, use the Store procedure before recalling another patch. To modify an existing patch while keeping the original, first Recall the original patch, Modify it, then Store it to a different number than the original patch. This will retain the original and also save the modified patch.

## Section 7 APPENDIX

### 7.1 Alternate Sounds

The sounds produced by the Professional Midi Bass are stored in EPROM memory chips, each one containing multi-sample digital recordings. Recognizing that everyone has different tastes and varying requirements, the Pro Midi Bass is designed to allow for custom sound selection. Besides the eight factory sounds, additional open sockets are available and will yield a total number of sounds ranging from eight to approximately 20, depending upon how many sounds are contained on each chip. 360 Systems offers an Alternate Sound Library which is constantly updated. Prices and currently available sounds, as well as a demonstration tape, may be ordered by sending \$5.00 and a return address to 360 Systems and requesting the "Pro Midi Bass Alternate Sound Tape". A demo tape and library listing may be obtained free of charge by filling in and returning the Pro Midi Bass Warranty Registration Card included with this manual.

**CAUTION:** Only EPROMs designed specifically for the Pro Midi Bass may be used. Chips from other drum machines, prom burners or the original Midi Bass will not work in the Professional Midi Bass. Damage resulting from improper installation or replacement is not covered under warranty.

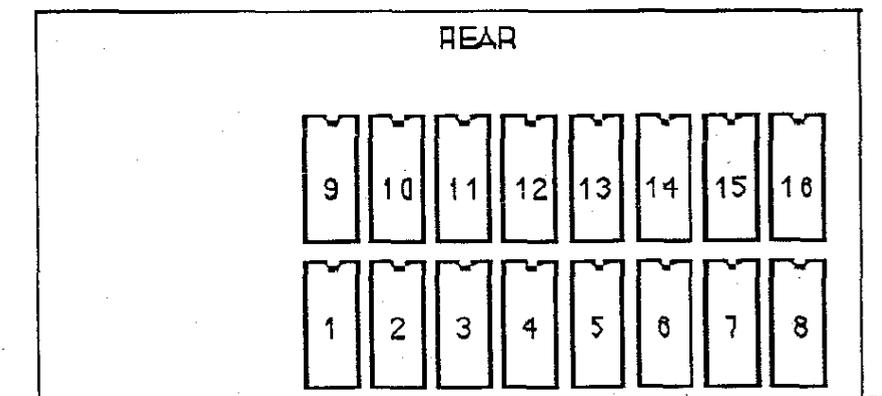
### 7.2 Installing Alternate Sound Chips

The eight factory sounds are contained on chips with other important information and should never be removed. Chip sockets are located and ordered as described in Figure 3 below. Additional sound chips may be installed in any desired order. Once installed, they will appear in the Select Sound Display in the order shown in Figure 3.

1. Turn Pro Midi Bass off and unplug it.
2. Open the unit by removing the two screws on the rear panel and the single screw in the center-front of the top panel. (The center top panel screw is optional. For ease of lid removal when rackmounted, omit this screw.)
3. Slide the top panel off towards the rear of the Pro Midi Bass.
4. When installing Alternate Sound Chips, make sure the notch at one end of the chip is facing the rear of the Pro Midi Bass. (Notice that the sockets also have notches at one end - chips must be plugged in with the notch matching the socket.)

**NOTE: BACKWARD INSTALLATION WILL DESTROY THE SOUND CHIP!**

5. Carefully align all 28 pins with the socket. It is easiest to align one row of pins first, and then the other. New chips may have their pins spread slightly; it is sometimes helpful to press the side of the chip against a table top until all pins point straight downward.
6. Once all pins are aligned with the socket, press firmly to seat the chip in the socket. Visually inspect the pins on both sides, and check once more that the notches are properly positioned to the rear.
7. Replace the top panel.



### 7.3 Default Settings

<u>Function Name</u>	<u>Value Range</u>	<u>Default</u>	<u>Non-volatile?</u>
<b>Modify:</b>			
Volume	0-100	100	Yes
Decay	0-7	EPROM*	Yes
Release	0-7	EPROM*	Yes
Filter Adjust	0 to -64	0	Yes
Velocity	ON / OFF	ON	Yes
Accent Velocity	0-127	120	Yes
<b>Zone:</b>			
Lower Zone	±63 semitones	C1-B2	Yes
Upper Zone	±63 semitones	C3-D5	Yes
Transpose Int.	±63 semitones	0	Yes
<b>Set Up:</b>			
Keybd Transpose Int.	±63 semitones	0	Yes
MIDI Channel	ALL, 1-16	ALL	Yes
MIDI Pitch Bend	ON / OFF	ON	No
MIDI Patch Change	ON / OFF	ON	No
MIDI Volume Enable	ON / OFF	OFF	No
Note Priority	LAST,HIGH,LOW	LAST	No
Voice Cascade Mode	ON / OFF	OFF	No
Test Note	Upper, Lower	Press arrows	N/A
Memory Protect	ON / OFF	ON	No
Tune	±1 semitone	0	Yes
Transpose	Enabled / Disabled	Disabled	No

\* "EPROM" indicates that the default setting is programmed separately for each individual Sound Chip and the default values may vary.