

**SCHULMERICH CARILLONS, INC.  
SELLERSVILLE, PA**

*MelodyWave*<sup>®</sup>  
Instrument by Schulmerich

**OPERATING INSTRUCTIONS**

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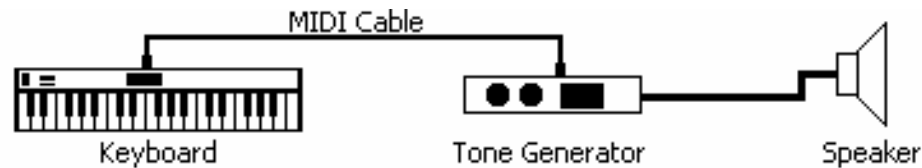
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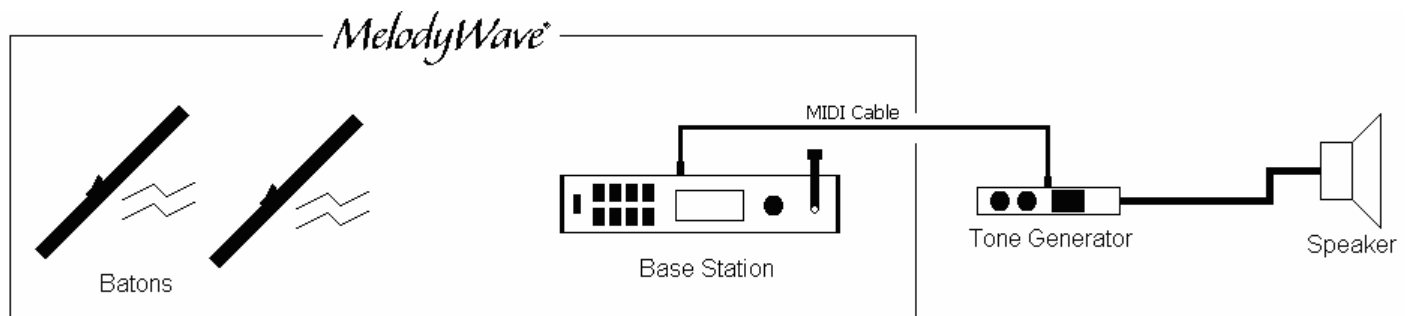
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## Introduction

Since the early 1980's, musicians and composers have used a means of communication titled MIDI (Musical Instrument Digital Interface). This protocol allows computers, electronic keyboards, sound generators, and other electronic musical instruments to talk to each other. An example of a basic MIDI link would be an electronic keyboard and separate sound/tone generator (see below). A MIDI cable enables the keyboard to talk to and control the tone generator electronically. Pressing the middle C on the keyboard sends a message to the tone generator that says, "HEY! Play middle C". Notes are not the only items sent via MIDI; the keyboard can also control the tone generator's voice, volume, pitch, etc.



The *MelodyWave* instrument is made up of one or more batons and a base station unit. It is a MIDI controller like the keyboard described above. When you play the *MelodyWave* batons, the base station unit sends note on/off information to the tone generator just like pressing keys on the keyboard. The *MelodyWave* base station also lets you program what voice and note each of your batons plays. This information is then also sent to the tone generator (see below).



# General Description

## Batons

The *MelodyWave* baton lets you play and mute a musical note by sending radio messages to the *MelodyWave* Base Station. The batons have a range of at least 50 feet. Each baton is marked with note designators on labels located on the top and end (Figure 1).

When the baton is lifted from a horizontal position it will power up. This is indicated by the red power indicator light on the top of the baton housing just above the note designator. There is no power switch for the baton. When the baton sits still for more than three minutes, it will power itself down. Also when the baton is in an unlit environment, as in a dark room or a closed charging case, it will power down after one second. *Because of this, the baton should be played in well-lit conditions.*

The baton is played with the note designator upright and facing you. Rotating the baton forward and down, and snapping your wrist to halt the baton's motion plays a note. The faster you move the baton and snap your wrist the louder the note will sound (Figure 2). *To avoid damage to the batons, please do not strike on any surface. Doing so may void your warranty.*

Notice the small round light sensors on top and bottom near the end of the baton housing. Covering up either of these sensors will mute the baton. So, placing the baton down on a table or touching it to your shoulder covers a light sensor and mutes any sounding note previously played by that baton. Covering the sensor with your finger will not mute the sound; only opaque objects will cause muting. Consequently, the baton mutes best when pressed against darker surfaces. *In dark environments the baton may not mute sounds. Be sure to rehearse in your performance lighting conditions to verify proper baton operation.*

FIGURE 1 - Baton

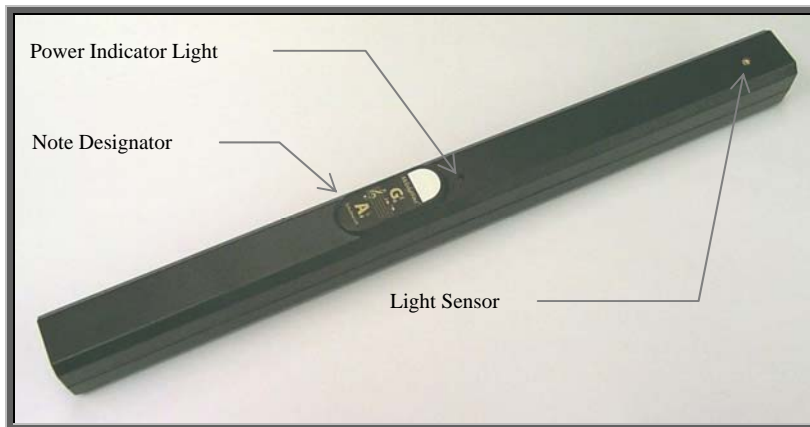
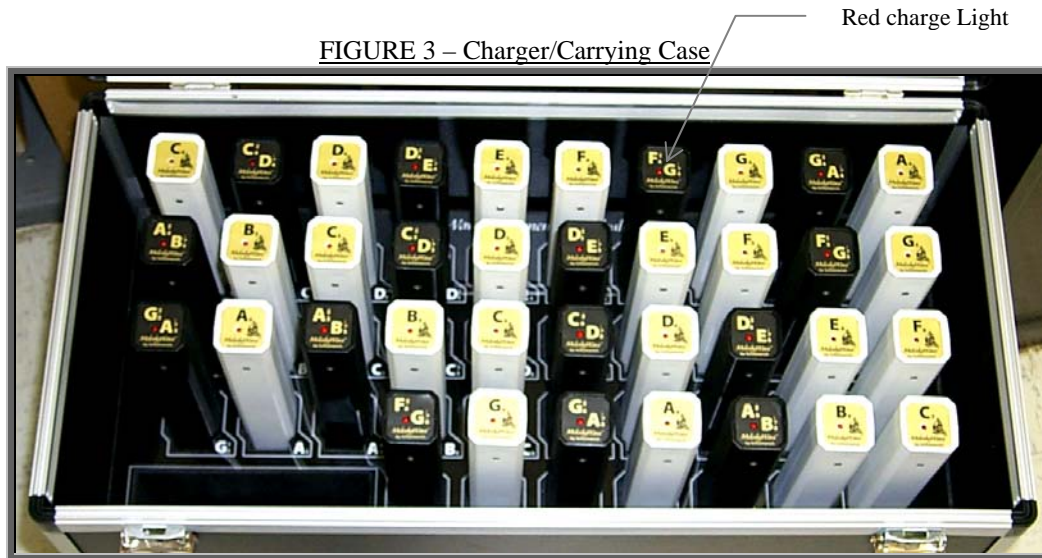


FIGURE 2 – Baton Playing



## Baton Charging Case

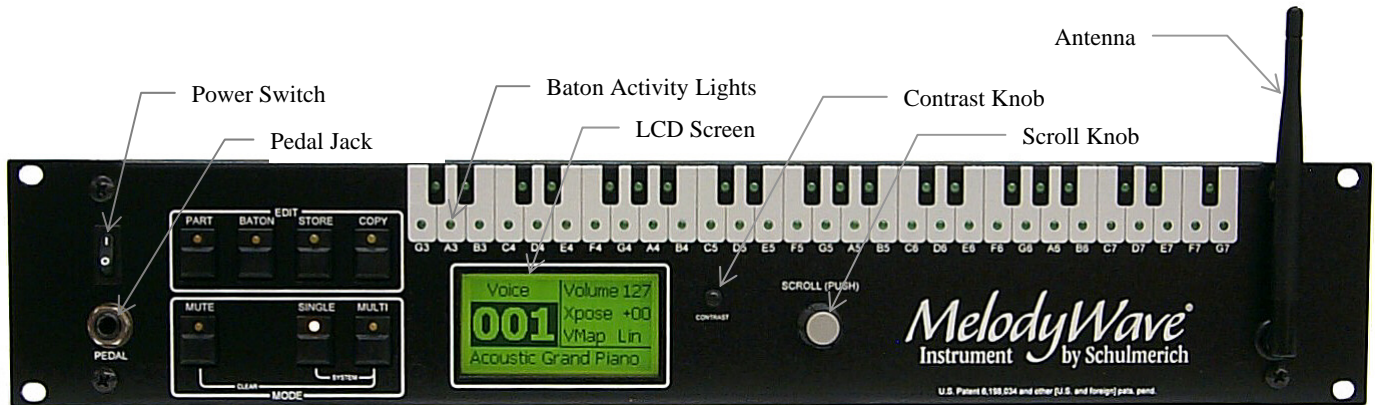
Each baton is powered by a rechargeable battery. When not in use the batons should be stored in their charging case (Figure 3). Charge the batons by connecting the charging case to a 120V AC outlet with the included power supply (Figure 4). Fully insert each baton into its labeled hole in the charging case and the red charge light on the end of the baton should light. This indicator lets you know that the baton is charging. Charge the batons for 14 hours (overnight is fine) and only when necessary to extend the number of recharge cycles. Average time between charges is approximately 40 hours of 1 strike/second playing.



## Base Station

The *MelodyWave* base station is the interpreter between your batons and the MIDI world. It communicates with both General MIDI System Level 2 (GM2) devices and the older General MIDI System Level 1 (GM1) devices. These devices, like the tone generator you are using, support standard sets of voices detailed in the last pages of this document. (Tables 1 thru 4)

**FIGURE 5 – Base Station Front Panel**



The *MelodyWave* base station includes the following front panel controls (Figure 5):

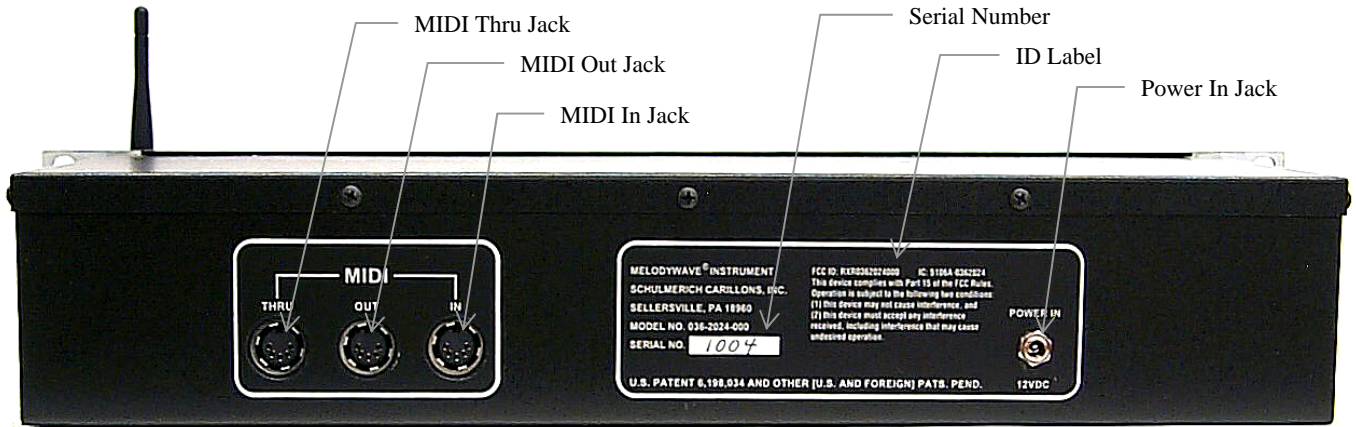
- POWER:** powers the base station unit.
- SINGLE:** activates Single Mode of operation where all batons play one voice.
- MULTI:** activates Multi Mode of operation where batons can play 15 different voices.
- MUTE:** mutes all notes and prevents further batons from sounding.
- PART:** allows setup of different instrument parts in a Multi Mode preset.
- BATON:** allows you to assign each baton to a part and note in a Multi Mode preset.
- STORE:** saves changes you make in any mode of operation.
- COPY:** copies the selected parameter across a range of batons.
- SCROLL:** rotating scroll changes the **highlighted** parameter; pressing scroll advances the cursor to the next parameter.
- CONTRAST:** changes the contrast of the LCD (Liquid Crystal Display) screen for different viewing angles.

The *MelodyWave* base station also has a green activity light for each baton. These lights are positioned on a keyboard background at the top of the base station front panel. Each activity light will turn on when its corresponding baton is played. When the voice assigned to that baton is a sustained voice, the light will stay on until the baton is muted; when the voice is percussive, the light blinks for ¼ second. The lights are also used in MULTI mode to aid in preset editing. These details are covered in the MULTI MODE section.

In addition to the above, a ¼” receptacle is included labeled “Pedal”. This allows you to connect a standard foot switch to the instrument (not included). This foot switch may be used to advance through your Multi Presets simply by pressing the foot switch once for each time you want to increment the Multi Preset number. This can be used during performances to avoid going to the base station to make changes.

## Base Station (continued)

**FIGURE 6 – Base Station Back Panel**



The *MelodyWave* base station includes the following back panel components (Figure 6):

- |                   |                                                                  |
|-------------------|------------------------------------------------------------------|
| <b>MIDI IN:</b>   | Input jack that allows connection of external input MIDI device. |
| <b>MIDI OUT:</b>  | Output jack for connection to external MIDI tone generator.      |
| <b>MIDI THRU:</b> | Output jack to allow direct pass-through of MIDI input signals.  |
| <b>POWER IN:</b>  | Input jack for connection of 12 volt power supply.               |
| <b>ID Label:</b>  | Identification label and serial number.                          |

## Quick Start Guide

Upon receipt of your *MelodyWave* instrument the following setup steps should be followed in order to make sure your *MelodyWave* instrument is ready to play.

1. Upon receipt, carefully inspect your cartons for any damage. If any damage is noted, you should notify the carrier immediately.
2. Remove the components from the cartons and save the cartons in case you need them later.
3. Remove the documentation pack for important information.
4. Your *MelodyWave* instrument comes with the following:
  - (1) Base station with Power Supply.
  - (1) or (2) Charger/Carrying cases for the batons. (depending on the instrument purchased). (13), (25), or (37) batons would all come in the (37) note case. The 4<sup>th</sup> octave of 12 notes would come in an additional (12) note case.
  - Inside the Charger/Carrying case(s) the batons purchased should be in their respective pockets. Also, in the large pocket of each case there should be a Power Supply for each Charger/Carrying case.
  - A packet of information including:
    - a. Quick Start Guide.
    - b. Instruction Manual
    - c. Registration card.
    - d. CD with (2) complimentary musical selections along with printable sheet music and Multi Mode setups for these selections.
    - e. Additional blank Multi Mode setup sheets.
    - f. Any other information which may have been added after the writing of this document.

### **If any of the items are missing or damaged, please notify the manufacturer or dealer.**

5. Remove the Power Supply from the Charger/Carrying case(s), plug the small connector into the power input jack on the charging case(s), and the other end into a live AC outlet. This will recharge the batteries in the individual batons. **The initial charging cycle should be at least 14 hours to insure that the batteries are fully charged.** When the Charger/Carrying case(s) are plugged into AC power, the red charge light on the end of each baton should be lit. Please verify this and if any of the batons lights are not lit, reseal the baton in the pocket by carefully pushing down on the baton.
6. While the batons are charging, you can familiarize yourself with the base station and its controls.
7. Plug the base station Power Supply into the back of the base station (“Power In”) and connect the other end into a live AC outlet.
8. Turn on the Power Switch on the front left corner of the base station front panel. The display should light and a message will appear indicating that General MIDI presets are loading. If the display is difficult to read, you can adjust the contrast control that is located immediately to the right of the display.
9. After the General MIDI presets have completed loading, the base station will immediately go into Single Mode of operation.

## Quick Start Guide con't.

10. The first thing you will need to do is to determine what type of MIDI tone generator you will be playing. Older MIDI equipment is most likely General MIDI 1 compatible which means it is capable of creating 128 different sounds. Newer MIDI equipment is most likely to be General MIDI 2 compatible which is capable of generating 256 different sounds. Normally, this is indicated on the front panel of the tone generator.
11. Once you have determined this, press the Single Mode and Multi Mode switches **simultaneously**. This will put you into System Mode where you will be able to tell the base station which MIDI type you will be playing.
12. Upon entering System Mode, you will initially see a display showing copyright information along with information about the firmware version your *MelodyWave* instrument is using.
13. Rotate the Scroll Knob until the display shows “GM Sound Set” at the top.
14. At the bottom of the display, a message will indicate that the instrument is presently set to “General MIDI 2”. (as shipped from the factory) If your tone generator is GM2 compatible, no changes are necessary. Simply press the Single Mode button to exit out of System Mode. If your tone generator is GM1 compatible, press the Scroll button once, rotate the Scroll knob once, and then press the Scroll button a second time. This will bring up a message asking if you want to store the settings.
15. Rotate the Scroll Knob until the word “YES” is displayed. Press the Scroll Knob to save.
16. After the presets are reloaded, press the Single button to exit out of the System Mode.

**Your *MelodyWave* instrument is now ready to be connected to your tone generator.**

17. Turn off the power to the base station before proceeding any further.
18. Plug one end of a standard MIDI cable into the jack on the back of the base station labeled “MIDI OUT”. Plug the other end of the MIDI cable into your tone generator “MIDI IN” jack.
19. Turn on your tone generator and amplifier and test the tone generator to make sure that it is working properly.
20. Now you are ready to test your *MelodyWave* instrument.

**The following assumes that your batons have been fully charged overnight. If not, then you should delay the following until the batons have had a chance to be charged. Failure to do so could result in intermittent operation.**

21. Rotate the base station antenna 90° to the vertical position. This is the optimum direction of the antenna for maximum signal reception. ***Caution: Do not attempt to rotate the antenna more than 90° from vertical in either direction or damage to the antenna may occur.***
22. Turn on the base station and after the initial power up loading screen has completed, your *MelodyWave* instrument should now be in Single Mode with “Acoustic Grand Piano” displayed as Voice #001.
23. Remove all of the batons from the charging case and place them flat on a padded surface such as a table with foam pad and a dark cover. Note: Always rehearse in identical room lighting for both rehearsal and performance. Baton damp technique may vary in different lighting settings.
24. Immediately after removing from the charging case, one or more of the batons may already be powered “ON” indicated by the Power Indicator Light on the top of the baton being lit. This is due to the motion of removing the batons from the case.
25. Pick up one baton and play it by moving in a forward and downward motion.

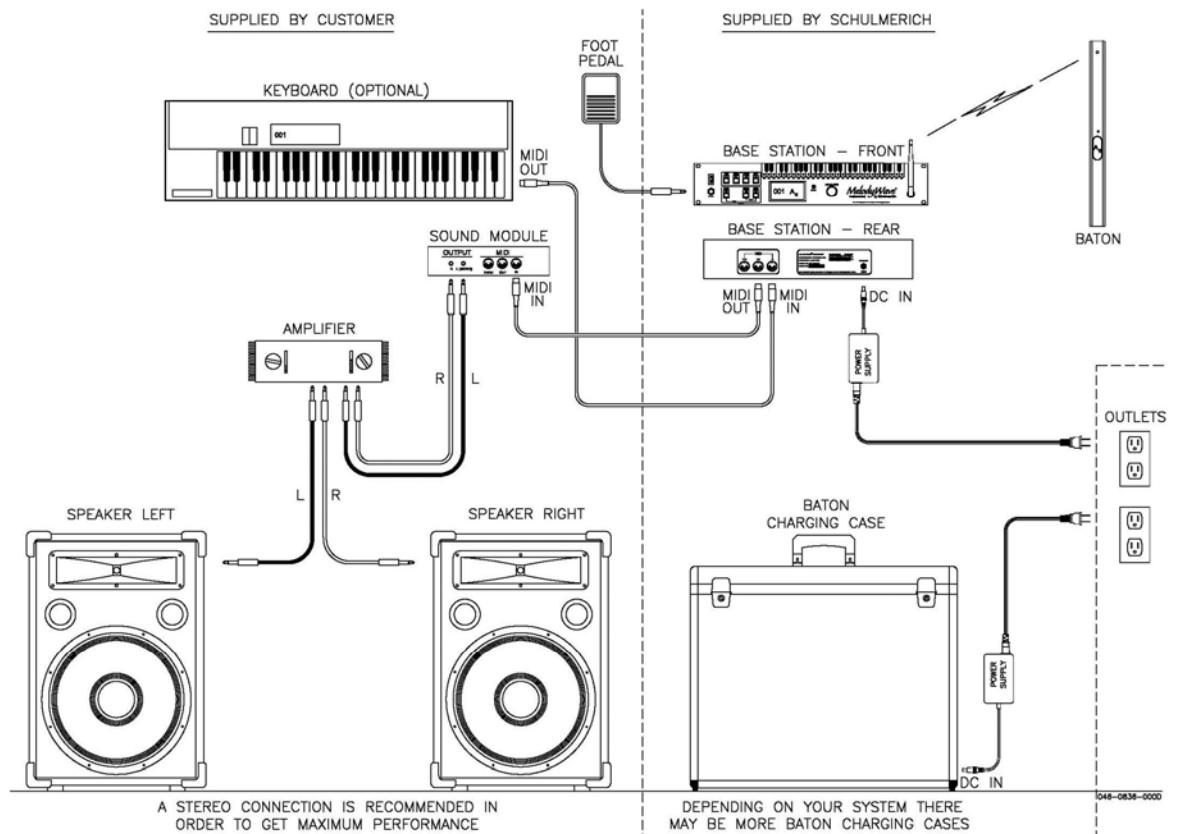
## Quick Start Guide con't.

26. This should cause the green Activity Light on the base station corresponding to the baton's note designation to light. For example: the C4 baton should make the C4 green indicator light.
27. Test all of the batons of your instrument starting with the lowest note to the highest note, playing each one and make sure that the corresponding green light on the base station lights for each baton.
28. Each time that you play a baton, you should hear the corresponding piano note being generated by your tone generator.
29. Try out some other voices by rotating the Scroll Knob and playing the batons.
30. If you do not hear anything, recheck your connections and the above setup as well as making sure your tone generator is ready to be played. If the green activity indicators light each time you play a baton, then the difficulty is most likely not with the base station, but rather with your other MIDI equipment. If you are still experiencing difficulties, please refer to the troubleshooting section at the end of this manual.

**Congratulations! Your *MelodyWave* instrument is now ready to be enjoyed.**

Please refer to the following sections on Single Mode and Multi Mode setups to learn how to further program and use your instrument to the fullest. Also check the System Mode setup section for further options.

### Typical Setup:



## Modes of Operation

Your system includes 3 modes of operation: Single Mode, Multi Mode, and System Mode:

- Single Mode is used to program and perform with a single voice.
- Multi Mode is used to program and perform with many voices.
- System Mode is used to program global settings affecting overall operation; it is not used for performance.

### Single Mode

In Single Mode, all batons play one selected voice of the maximum available, i.e. 4 octaves of Xylophone. The parameters of each voice, termed a Single Mode preset, can be changed and stored for later use. Single Mode is selected by pressing the SINGLE button. An example of programming a single mode preset can be found in the 'Single Mode Walk-through' section.

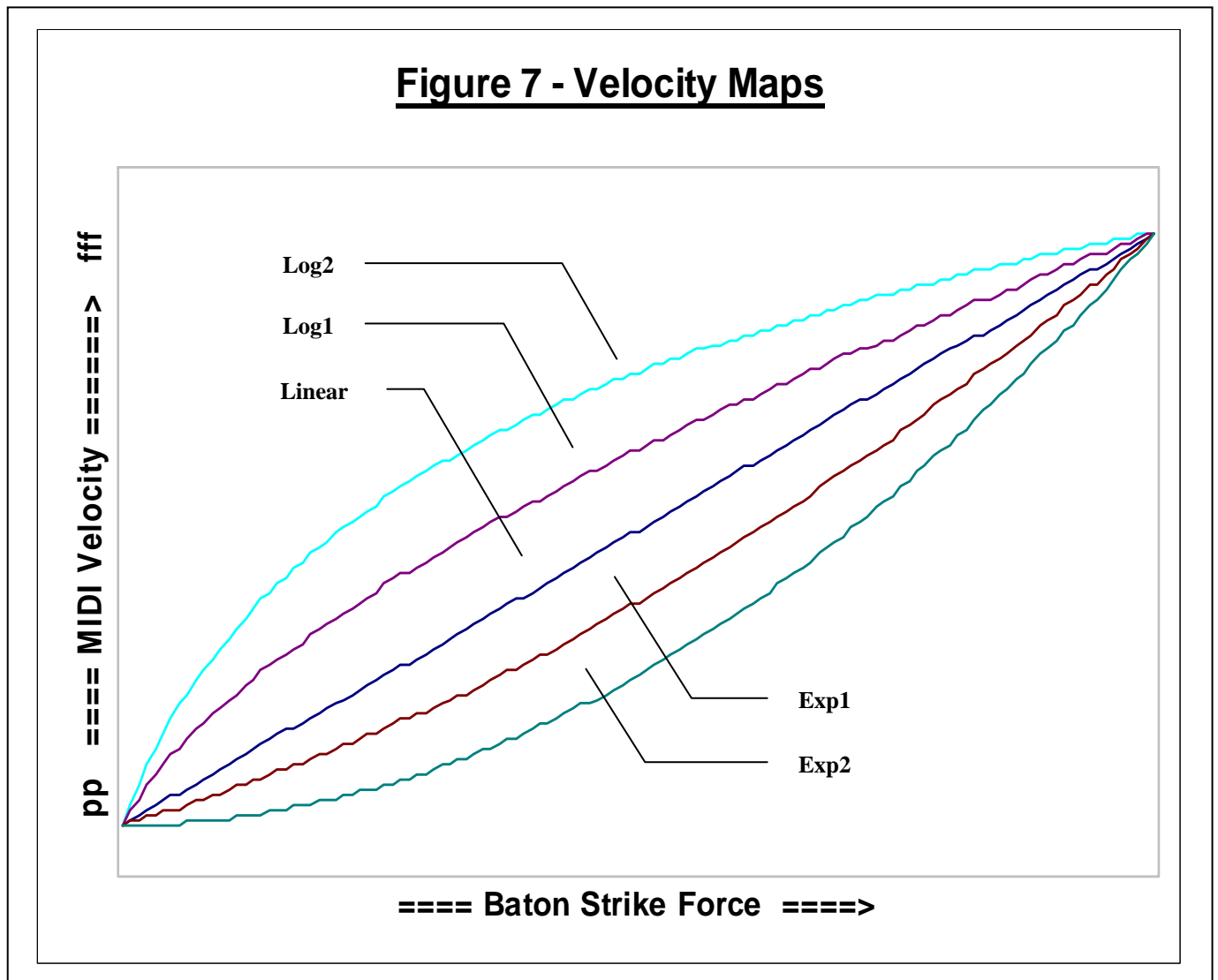
Voice	Volume 127
<b>001</b>	Xpose +00
	VMap Lin
Acoustic Grand Piano	

#### Single Mode Parameters

- Volume
  - controls the loudness of the selected voice
  - values range from 0-127, 127 is equal to maximum volume
  - enables you to balance voices with each other
- Xpose (Transpose)
  - forces each baton's sounded note to be shifted up or down for this voice
  - values range from -32 to +32 semitones, 0 = no pitch shift
  - lets you shift your baton's pitch to accommodate different instrument voicings, instruments that are out of the range of your set of batons such as Acoustic Bass (Xpose = -12) or Flute (Xpose = +12)
- VMap (Velocity Map) see next page....

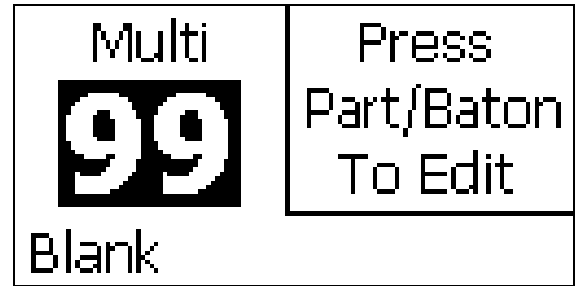
## VMap (Velocity Map)

- sets how the mechanical dynamic range of all batons are mapped to the playing volume of the voice
- makes playing certain voices more natural – for example, sharply attacked sustained voices may be more playable with the exponential maps whereas softer attacked voices may be more playable with logarithmic maps
- settings include (see Figure 7 below for graphs of different velocity curves):
  - Linear - baton response increases consistently with strike force from softest to loudest.
  - Logarithmic #1 - allows the louder baton dynamics to be more easily controlled.
  - Logarithmic #2 - same effect as Log #1 except that it provides more of an effect on playing.
  - Exponential #1 - allows the softer baton dynamics to be more easily controlled.
  - Exponential #2 - same effect as Exp. #1 except that it provides more of an effect on playing.



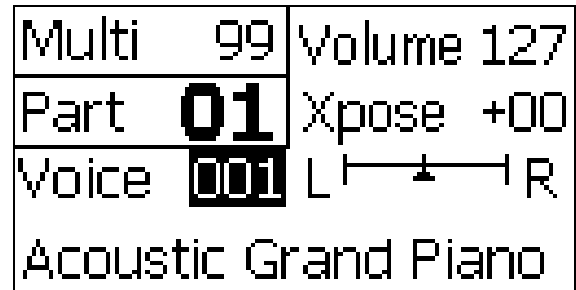
## Multi Mode

In Multi Mode, the base station can be programmed to allow your batons to play up to 15 different simultaneous voices called parts. Each baton can be assigned to play one note of any part you create. This combination of part and baton assignments creates one Multi Mode preset, which you can store for later use. These presets can be used for musical arrangements with different lead and accompaniment voices or just for adding individual percussion instruments. There are a total of 99 Multi Mode presets, the first 10 of which are already programmed from the factory. Multi Mode is selected by pressing the MULTI button. Examples of programming multi mode presets can be found in the 'Multi Mode Walk-through' section.



### Part Parameters

- Voice
  - selects the voice or sound that will play for this part
  - values range from those available in Single Mode (0-128 for General MIDI 1, or 0-256 for General MIDI 2)
  - when a part is added the following parameters default to those set in Single Mode
- Volume
  - controls the loudness of the selected part's voice
  - values range from 0-127 (127 is equal to maximum volume)
  - enables you to balance parts with each other
- Xpose (Transpose)
  - forces all batons assigned to this part to sound higher or lower in pitch
  - values range from -32 to +32 semitones, 0 = no pitch shift
  - lets you shift your baton's pitch to accommodate different instrument voicing, instruments that are out of the range of your set of batons such as Acoustic Bass (Xpose = -12) or Flute (Xpose = +12)
- Pan
  - allows you to set where in the stereo sound field this part will play
  - ranges from full Left to full Right in 128 increments
  - lets you mix the sound parts to add a spatial sense to an arrangement



## Baton Parameters

- Part
  - selects the part the selected baton will play
  - ranges from 1 to a maximum of 15, depending on the number of parts created
  - allows a baton to be assigned to any previously created part's voice
- Plays Note
  - selects which note of this baton's part will play
  - ranges from C0 to G10 (middle C is C5)
  - 'Drums/Percussion' voiced parts will list the percussion instrument name instead of note name, i.e. Claves or Maracas
  - allows a baton to be assigned to any created part's note
  - allows more than one baton to be assigned to the same part's note such as a snare drum for a drum roll

Multi	99	Plays Note	
Baton	A3		A2
		Part	08
Fretless Bass			

## System Mode

System Mode is used to program parameters on the base station that affect the instrument globally. What this means is that when you make a setting in this mode, this change will be reflected throughout the entire instrument. Be careful when you change any of these settings since several of them will change any settings you have made in Single Mode or Multi Mode. This mode is most useful for initial instrument setup or for when you want to reset the instrument back to the way it was when you first received it from the factory. System Mode is selected by **simultaneously** pressing the SINGLE and MULTI buttons. Editing System Mode screens is discussed in the 'System Mode Walk-through'. System Mode parameters which can be changed are as follows:

### GM Sound Set

This 'GM Sound Set' screen allows you to match the output of your instrument to the type of General MIDI compatible tone generator you have. Your selection here makes the base station display the correct names and properly control the correct set of voices for your application. The base station has voice sets for both General MIDI 1 and General MIDI 2 compatible tone generators. General MIDI 1 allows for 128 individual voices and General MIDI 2 allows for 256 individual voices. The type of tone generator you have is generally indicated in its user's manual or on its front panel.

**\* This should be the first setting you make since your choice will have an effect on other settings you subsequently make.**

## Reload Factory Defaults

The 'Reload Factory Defaults' screen allows you to reset various parameters back to the way the instrument was shipped from the factory.

Choices are:

- Load Single Presets
  - Resets Single Presets only to factory default settings
- Load Multi Presets
  - Resets Multi Presets only to factory default settings
- Load Baton Dynamics
  - Resets Baton Dynamics only to factory default settings
- Load All Presets
  - Resets all the above to factory default settings

**\* Remember, choosing one of the options above will cause loss of any information you have entered in that respective area.**

## Set All VMaps

The 'Set All VMaps' (velocity maps) screen allows you to change the velocity map curve for ALL single mode voices simultaneously. This will change the response of the batons as described above in 'Modes of Operation – Single Mode'.

Choices are (see Figure 7):

- Linear
- Logarithmic #1
- Logarithmic #2
- Exponential #1
- Exponential #2

**\* Remember, choosing one of the above options will cause loss of any prior settings you have made to the velocity maps.**

## Baton Dynamics

The 'Baton Dynamics' screen provides a method for you to precisely control the way the base station responds to the batons dynamic playing actions. It displays the two parameters that affect baton dynamics as settings on a Baton Force line graph. The graph also shows an arrow indicator read-out of the last struck baton's force level. This arrow updates each time a new baton is struck so you can feel how your changes affect baton dynamics.

- **'pp'**  
The 'pp' value sets the mechanical baton force that will create a loudness of pianissimo from your tone generator. It is the minimum threshold of baton force required to generate sound. Moving the 'pp' marker all the way to the left on the scale makes the batons more sensitive to softer playing action, hence easier to generate sound; moving the 'pp' marker to the right on the scale makes the batons less sensitive to softer playing action and more difficult to generate sound.

- **‘fff’**  
The ‘fff’ value sets the mechanical baton force that will create a loudness of fortississimo from your tone generator. It is the baton force required to generate the maximum sound. Batons played with more force than the ‘fff’ setting will not increase the loudness of the sound. Moving the ‘fff’ marker all the way to the right of the scale makes it harder to reach maximum loudness. Moving the ‘fff’ marker left on the scale makes it easier to reach maximum loudness.

Younger and less seasoned players will find basic operation of the batons simpler if the ‘pp’ and ‘fff’ settings are closer together and positioned to the left of the scale. Older and more seasoned players will be more satisfied with instrument performance if the ‘pp’ and ‘fff’ values are set nearer to their extremes.

### **MIDI Echo Mode**

The *MelodyWave* instrument allows you to attach a MIDI controller such as a keyboard or sequencer to its MIDI IN port. This lets such a MIDI controller send messages to the same tone generator connected to the *MelodyWave* MIDI OUT port. The MIDI Echo Mode controls how these messages are affected by the *MelodyWave* before they are passed along to the tone generator. These modes come in handy when programming and accompanying the *MelodyWave* instrument.

The two modes of operation of MIDI IN echoing are:

- Map to *MelodyWave*
  - Notes entering the MIDI IN port on MIDI channels used by the *MelodyWave* that are in the range used by the baton range (G3-G7), will play exactly as if they had been played by the batons.
  - Example: If the G3 baton is set to play G2 of the Acoustic Bass voice, then, a G3 played from a keyboard entering the MIDI IN port of the *MelodyWave* will also play Acoustic Bass G2.
  - This mode helps to verify programming of Multi presets or to take the place of one or more missing baton players.
- Echo All Notes
  - Notes entering the MIDI IN port on channels used by the *MelodyWave* that are in any range will pass unchanged to the MIDI OUT port.
  - This mode allows a musician to accompany the *MelodyWave* instrument during performance.

Refer to the ‘MIDI Implementation’ section for more details of how the *MelodyWave* interfaces to MIDI devices.

## Single Mode Walk-through

When the SINGLE button is pressed, the *MelodyWave* base station enters Single Mode indicated by the light on the SINGLE button. This operation forces all the batons to play the voice indicated on the display. The voices number from 000-256 for General MIDI 2 presets: voices 001-256, detailed in TABLE 1 (see back of instructions), include acoustic and electronic instruments. Voice 000, detailed in TABLE 2, is a Drums/Percussion voice that offers a wide array of percussion instruments. For General MIDI 1 presets, the voices number 000-128. They are numbered comparably and detailed in TABLES 3 and 4. Each of these voices has a volume, transpose, and velocity map value that can be modified and stored. Only the SCROLL knob is required to make changes to Single Mode presets. See how in the steps below.

Press  
SINGLE

1

On power-up the unit starts in Single Mode and is set to Voice 001, Acoustic Grand Piano. Notice the voice number 001 is highlighted. Rotating SCROLL now will change that voice up and down. Also note that the selected voice's name and current volume and register settings are displayed.

Voice	Volume 127
<b>001</b>	Xpose +00
	VMap Lin
Acoustic Grand Piano	

Rotate  
SCROLL

2

Change the active voice by rotating SCROLL. As you do, each voice's volume and transpose values will update on the display. If you play the batons while doing this, the resulting sound will also match the voice shown. In this case we have selected voice 030, Marimba (if using a GM1 tone generator, select voice 13).

Voice	Volume 127
<b>030</b>	Xpose +00
	VMap Lin
Marimba	

Press  
SCROLL

3

Press SCROLL to change volume, transpose or velocity map of the Marimba. This will first move the cursor to the volume setting. The volume can be changed from 0 (silent) to a maximum 127 by rotating the SCROLL knob. Here we have decided to trim the Marimba's volume a bit by rotating SCROLL to change the value from 127 to 120. The batons will all now play slightly softer.

Voice	Volume <b>120</b>
<b>030</b>	Xpose +00
	VMap Lin
Marimba	

Press  
SCROLL

4

Press SCROLL after making the volume change to move the cursor to the transpose parameter. The transpose parameter allows pitch shifting of +/- 32 semitones by rotating SCROLL. To get a higher register of the Marimba playing from all batons, rotate SCROLL to shift the voice up 12 semitones, or one octave. Now all batons play one octave higher than designated (G3 will play G4).

Voice	Volume 120
<b>030</b>	Xpose <b>+12</b>
	VMap Lin
Marimba	

Press  
SCROLL

5

Press SCROLL after making the transpose change to move the cursor to the velocity map setting. The velocity map can be set to one of five choices. Here we will leave the velocity map on Linear.

Voice	Volume 120
<b>030</b>	Xpose +12
	VMap <b>Lin</b>
Marimba	

Press  
SCROLL

6

Press SCROLL again to return the cursor to the voice number. Note that the changes made are still active. Before moving to another voice, the changes must be stored.

Voice	Volume 120
<b>030</b>	Xpose +12
	VMap Lin
Marimba	

Press  
STORE

7

When you attempt to select a different preset or press STORE you will be prompted to store the changes. The preset's parameters will be replaced by a store prompt and the cursor will move to a yes/no decision. The indicator on the STORE button will light when 'YES' is displayed. Rotate SCROLL to select YES for storing the changes or NO for canceling the changes.

Voice	Store
<b>030</b>	<b>YES</b>
Marimba	

Press  
SCROLL

8

Press SCROLL with YES highlighted to store the changed volume and transpose values. This returns you to the normal voice selection screen. Note that the new changed parameters are stored and displayed. From here you may select other Single presets for playing and modification

Voice	Volume 120
<b>030</b>	Xpose +12
	VMap Lin
Marimba	

**Complete**

Parameter changes you save in any one of these presets are stored in non-volatile memory. They will be in effect the next time you select that preset. These changes can be made and stored permanently for any of the SINGLE mode presets. Additionally when you create parts in MULTI mode, these values will be your starting point for the voice you select. Changes made in SINGLE mode will not, however, alter parts previously created in MULTI mode.

## Multi Mode Walkthrough

When the MULTI button is pressed, the *MelodyWave* base station enters Multi Mode indicated by the light on the MULTI button. This allows each of the batons to play different notes and voices. The Multi presets number from 01-99. Each of these presets defines a set of voices called parts and which part and note each baton plays.

When the PART button is pressed, the *MelodyWave* base station enters Part Edit mode indicated by the light on the PART button. Each of up to 15 parts defines a voice with a volume, transpose, and pan value that can be modified and stored.

When the BATON button is pressed, the *MelodyWave* base station enters Baton Edit mode indicated by the light on the BATON button. Each baton can be programmed to play a note of one of the defined parts.

Typically the desired parts for an arrangement are first defined followed by assigning groups or individual batons to play these parts. The Multi Mode walkthrough sections all use an 'Assignment Chart' as a basis for programming. An example chart can be found in the back of this manual (page 35). It outlines a musical arrangement in terms of defined parts (voices) and which one each baton plays. Refer to it as you see how to create parts and assign batons to them in the example below.

### Part Edit

Press  
MULTI

1

When MULTI is pressed the last used Multi preset is displayed. Rotate SCROLL to change the highlighted preset up and down. The MULTI preset's name is displayed at the bottom of the screen. 'Blank' implies that the preset is empty.

Multi <b>99</b> Blank	Press Scroll To Activate
-----------------------------	--------------------------------

Press  
SCROLL

2

Press SCROLL to activate the preset. This activates the part settings of voice, volume, and as well as settings of voice and note for each baton. The Multi preset will not play until activated. In this case the preset is empty so no parts are defined.

Multi <b>99</b> Blank	Press Part/Baton To Edit
-----------------------------	--------------------------------

Press  
PART

3

Press PART to display the part settings for this Multi preset. Because this Multi preset is empty Part 01 is 'Blank'; we must add a part.

Multi 99 Part <b>01</b> Blank	Press Scroll To Add Part
-------------------------------------	--------------------------------

Press  
SCROLL

4

Press SCROLL to add a new part. When a new part is added it defaults to voice 001 Acoustic Grand Piano. Note that the selected part's voice name and current volume, register, and pan settings are displayed. Also all the green baton activity lights on the front panel light up. This indicates that all batons are assigned to Part 01.

Multi	99	Volume	127
Part	<b>01</b>	Xpose	+00
Voice	<b>001</b>	L	← ± → R
Acoustic Grand Piano			

Rotate  
SCROLL

5

Rotate SCROLL to select the desired voice for this part. Here we changed part 01's voice to 030, Marimba (if using a GM1 tone generator, select voice 13). The parameters previously stored for Marimba in Single mode will appear automatically for this part when the voice is selected.

Multi	99	Volume	120
Part	<b>01</b>	Xpose	+12
Voice	<b>030</b>	L	← ± → R
Marimba			

Press  
SCROLL

6

Press SCROLL after making the voice change to move the cursor to the volume setting for this part's voice. Change the volume of the Marimba part if desired by rotating SCROLL.

Multi	99	Volume	<b>120</b>
Part	<b>01</b>	Xpose	+12
Voice	030	L	← ± → R
Marimba			

Press  
SCROLL

7

Press SCROLL after making any volume change to move the cursor to the transpose parameter. Change the transpose of the Marimba part if desired by rotating SCROLL.

Multi	99	Volume	120
Part	<b>01</b>	Xpose	<b>+12</b>
Voice	030	L	← ± → R
Marimba			

Press  
SCROLL

8

Press SCROLL after making any transpose change to move the cursor to the pan parameter. Change the panning or position in the stereo sound field of the Marimba part by rotating SCROLL. In this case we changed the Marimba part to play fully on the left channel.

Multi	99	Volume	120
Part	<b>01</b>	Xpose	+12
Voice	030	<b>L</b>	← ± → R
Marimba			

Press  
SCROLL

9

Press SCROLL after making the pan change to return the cursor to the part number. Note that the changes made are still active. Now a Marimba part has been fully defined for Multi preset 99.

Multi	99	Volume	120
Part	<b>01</b>	Xpose	+12
Voice	030	L	←→R
Marimba			

Rotate  
SCROLL

10

Rotate SCROLL clockwise to allow creation of a new part. Up to 15 parts can be defined in each Multi preset. Again, 'Blank' implies that this part is empty. When you move to Part 02, all baton activity lights turn off. This tells you that no batons are assigned to Part 02.

Multi	99	Press	
Part	<b>02</b>	Scroll To	
Blank		Add Part	

Press  
SCROLL

11

Press SCROLL to create Part 02. This brings up voice 001 and its parameters so we can now add a new voice to the preset. Let's add some percussion to our Marimba.

Multi	99	Volume	127
Part	<b>02</b>	Xpose	+00
Voice	<b>001</b>	L	←→R
Acoustic Grand Piano			

Rotate  
SCROLL

12

Rotate SCROLL to select a voice for Part 02. Here we selected voice 000, Drums/ Percussion. The parameters stored for voice 000 in Single mode appear for this part when the voice is selected. Perform Steps 6-9 to make changes to this part. In this example we'll just change the panning.

Multi	99	Volume	127
Part	<b>02</b>	Xpose	+00
Voice	<b>000</b>	L	←→R
Drums/Percussion			

Press  
SCROLL  
3 Times

13

Press SCROLL 3 times to move the cursor to the pan parameter. Change the panning or position in the stereo sound field of the part by rotating SCROLL. Here we set the Percussion part to play fully on the right channel.

Multi	99	Volume	127
Part	<b>02</b>	Xpose	+00
Voice	000	L	←→ <b>R</b>
Drums/Percussion			

Press  
SCROLL

14

Press SCROLL after making the pan change and the cursor returns to the part number. Now a Marimba and a Drums/Percussion part are fully defined. Perform steps 4 through 10 as necessary to enter settings for each of up to 15 parts in your arrangement.

Multi	99	Volume	127
Part	<b>02</b>	Xpose	+00
Voice	000	L	← → R
Drums/Percussion			

Press  
STORE

15

When finished entering part information, press STORE to save the changes. The cursor moves to a yes/no decision and the indicator on the STORE button will light. Rotate SCROLL to select YES for storing the changes or NO for canceling the changes.

Multi	Store
<b>99</b>	<b>YES</b>
Untitled	

Press  
SCROLL

16

Press SCROLL with YES displayed and the newly created parts will be stored. The name of this Multi preset has changed from 'Blank' to 'Untitled' because the preset is no longer empty; it contains some part information.

Multi	Press
<b>99</b>	Part/Baton
Untitled	To Edit

**Complete**

# Baton Edit

Press  
BATON

1

When BATON is pressed the settings for the G3 baton are displayed. This screen shows that the G3 baton is assigned to play Part 01, Marimba. When the baton is played, it will sound a G4 Marimba note. It plays up an octave because the Part has a +12 transpose value. The green G3 activity light will blink, helping to identify which baton you are editing. In this example we will assign two batons, G3 and G#3 to play Drums/Percussion, Part 02.

Multi	99	Plays Note
Baton		G4
<b>G3</b>	Part	01
Marimba		

Press  
SCROLL

2

Press SCROLL to change the Part setting for this baton. The Part number highlights.

Multi	99	Plays Note
Baton		G4
<b>G3</b>	Part	<b>01</b>
Marimba		

Rotate  
SCROLL

3

Rotate SCROLL to select the desired part. Here we've selected Part 02. The G4 note letter changes to a percussion instrument name. This parameter will display as such for the Drums/Percussion voice only. All others will show up as standard note/octave designations. As set now, the G3 baton will play the High Floor Tom.

Multi	99	Plays Note
Baton		Hi Flr Tom
<b>G3</b>	Part	<b>02</b>
Drums/Percussion		

Press  
SCROLL

4

Press SCROLL to change the note or, in this case, percussion instrument setting for this baton. The Plays Note setting highlights.

Multi	99	Plays Note
Baton		<b>Hi Flr Tom</b>
<b>G3</b>	Part	02
Drums/Percussion		

Rotate  
SCROLL

5

Rotate SCROLL to select the note this baton plays. In this case we've chosen Maracas. Now the G3 baton will play a Maraca sound. Next we will set the G#3 to play the Claves.

Multi	99	Plays Note
Baton		<b>Maracas</b>
<b>G3</b>	Part	02
Drums/Percussion		

Press and  
Rotate

SCROLL

6

Press SCROLL to return the cursor to the Baton setting. Rotate SCROLL once clockwise to select G#3. The green G#3 activity light will blink to indicate we're editing the G#3 baton.

Multi	99	Plays Note
Baton		G#4
<b>G#3</b>	Part	01
Marimba		

Press SCROLL

7

Press SCROLL to change the Part setting for this baton. The Part number highlights.

Multi	99	Plays Note
Baton		G#4
<b>G#3</b>	Part	<b>01</b>
Marimba		

Rotate SCROLL

8

Rotate SCROLL to select the desired part. Here again we've chosen Part 02, and the G#4 note letter changed to a Percussion instrument name. As set now, the G#3 baton will play the Pedal Hi-Hat.

Multi	99	Plays Note
Baton		Pedal Hat
<b>G#3</b>	Part	<b>02</b>
Drums/Percussion		

Press SCROLL

9

Press SCROLL to change the note or, in this case, percussion instrument setting for this baton. The Plays Note setting highlights.

Multi	99	Plays Note
Baton		<b>Pedal Hat</b>
<b>G#3</b>	Part	02
Drums/Percussion		

Rotate SCROLL

10

Rotate SCROLL to select the note this baton plays. Here we've selected Claves. Now the G#3 baton will play a Claves sound.

Multi	99	Plays Note
Baton		<b>Claves</b>
<b>G#3</b>	Part	02
Drums/Percussion		

Press and  
Rotate  
SCROLL

11

Press SCROLL to return the cursor to the Baton setting. Rotate SCROLL once clockwise to select A3. The green A3 activity light will blink. This baton and all those up to G7 are set to Marimba. Rotate SCROLL clockwise through all the baton settings to verify this. The baton activity light will blink to indicate the note you have selected.

Multi	99	Plays Note
Baton		A4
<b>A3</b>		Part 01
Marimba		

Press  
STORE

12

Press STORE to save the changes. The cursor moves to a yes/no decision and the indicator on the STORE button will light. Rotate SCROLL to select YES for storing the changes or NO for canceling the changes.

Multi	Store
<b>99</b>	<b>YES</b>
Untitled	

Press  
SCROLL

13

Press SCROLL with YES displayed to store the changes. Now baton settings for the MULTI preset have been made and saved for later use. The display returns to the Multi activated screen.

Multi	Press
<b>99</b>	Part/Baton
Untitled	To Edit

Complete

## Baton Copy Mode

This allows you to copy one baton's part to other batons without having to select each one and individually change its part setting. In the Multi mode walk-through above, we created a Multi preset with two parts, Marimba and Drums/Percussion. G3 and G#3 were assigned to percussion instruments and the remaining batons were assigned to the Marimba part. This walk-through will add a third part, Fretless Bass, and assign a range of batons, A3 through A4, to this part. Again refer to the assignment chart at the back of this manual as you step through the example below.

Press  
PART

1

Press PART from the Multi activated screen to display the settings for Part 01. Note that all green baton activity lights are on except G3 and G#3. Again, these lights indicate which batons are assigned to Part 01.

Multi	99	Volume	120
Part	<b>01</b>	Xpose	+12
Voice	030	L	← → R
Marimba			

SCROLL  
Once  
Clockwise

2

Rotate SCROLL once clockwise to show the second part. When you move to Part 02, only the G3 and G#3 batons activity lights are on. This tells you these are the only two batons assigned to Part 02.

Multi	99	Volume	127
Part	<b>02</b>	Xpose	+00
Voice	000	L	← → R
Drums/Percussion			

SCROLL  
Once  
Clockwise

3

Rotate SCROLL once clockwise again to allow creation of a third part. When you move to Part 03, all baton activity lights turn off. This tells you that no batons are assigned to Part 03.

Multi	99	Press	
Part	<b>03</b>	Scroll To	
		Add Part	
Blank			

Press and  
Rotate  
SCROLL

4

Press SCROLL to add Part 03 and rotate SCROLL to select voice 082, Fretless Bass (if using a GM1 tone generator, select voice 36). Note this voice's transpose value of -12. This causes any batons assigned to it to play lower by one octave.

Multi	99	Volume	127
Part	<b>03</b>	Xpose	-12
Voice	<b>082</b>	L	← → R
Fretless Bass			

Press  
BATON

5

Press BATON to begin assigning the Fretless Bass part to the A3 through A4 batons. Rotate SCROLL to select A3. The A3 activity light will blink to indicate we're editing the A3 baton settings.

Multi	99	Plays Note
Baton	<b>A3</b>	A4
		Part 01
Marimba		

Press and  
Rotate  
SCROLL

6

Press SCROLL to get to the part setting for A3 and rotate SCROLL to select Part 03. Because the Fretless Bass part has a -12 transpose, the A3 baton will play A2. Now let's copy this part setting to the batons A#3 through A4.

Multi	99	Plays Note
Baton	<b>A3</b>	A2
		Part <b>03</b>
Fretless Bass		

Press  
COPY

7

Press Copy to begin easily setting the other batons to Part 03. A brief 'Baton Copied' confirmation screen will display, The COPY light will turn on, and the A3 activity light will turn on steady. Any activity lights on steady indicate batons whose part is common to A3.

Multi	99	Scroll
Baton	<b>A3</b>	To Select
		Baton
Fretless Bass		

SCROLL  
Once  
Clockwise

8

Scroll once clockwise to select the A#3 baton. Note the A3 activity light stays on steady and A#3 activity light begins to blink.

Multi	99	Press
Baton	<b>A#3</b>	Scroll To
		Paste
Fretless Bass		

Press  
SCROLL

9

Press SCROLL to paste A3's copied part settings to A#3. Note the A#3 activity light is now on steady along with A3 because of their common part setting.

Multi	99	Scroll
Baton	<b>A#3</b>	To Select
		Baton
Fretless Bass		

Repeat  
Steps  
8 And 9

10

Repeat steps 8 and 9, selecting the next baton and pasting A3's part settings until the range A3 through A4's activity lights are all on steady.

Multi 99	Scroll
Baton <b>A4</b>	To Select
Fretless Bass	Baton

Press  
COPY

11

Press COPY to exit copy mode and return to baton edit mode. Note the COPY light turns off, the A4 activity light returns to blinking, and A4's part setting is indeed Part 03, Fretless Bass.

Multi 99	Plays Note
Baton <b>A4</b>	A3
Fretless Bass	Part 03

Press  
STORE

12

Press STORE to save the changes. The cursor moves to a yes/no decision and the indicator on the STORE button will light. Rotate SCROLL to select YES for storing the changes or NO for canceling the changes.

Multi	Store
<b>99</b>	<b>YES</b>
Untitled	

Press  
SCROLL

13

Press SCROLL with YES displayed to store the changes. Now baton settings for the MULTI preset have been made and saved for later use. The display returns to the Multi activated screen.

Multi	Press
<b>99</b>	Part/Baton
Untitled	To Edit

Complete

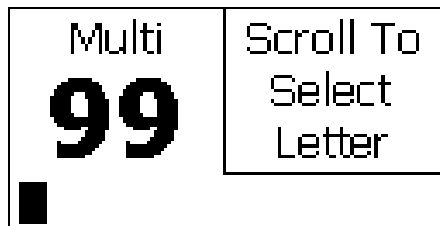
## Multi Renaming

Now that we've created a multi preset lets give it a name appropriate to this walk-through example. We'll call it 'Example'.

Press  
SCROLL

1

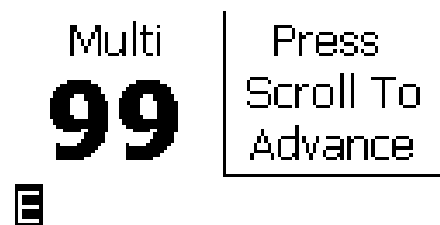
Press SCROLL from the Multi activated screen to rename your newly created Multi preset. The 'Untitled' name will be replaced by a cursor highlighting a blank character. We'll name this preset 'Example'.



Rotate  
SCROLL

2

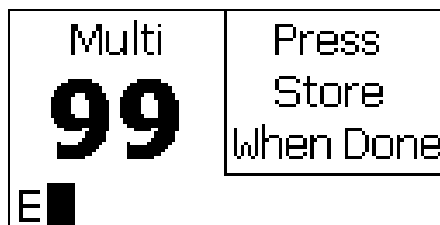
Rotate SCROLL to select the capital letter 'E'.



Press  
SCROLL

3

After selecting the letter 'E', press SCROLL to advance to the next letter in the name. Rotate SCROLL to select the letter 'x'. Do this for each letter in the new name until complete. A total of 16 characters may be used to name your preset.



Press  
SCROLL

4

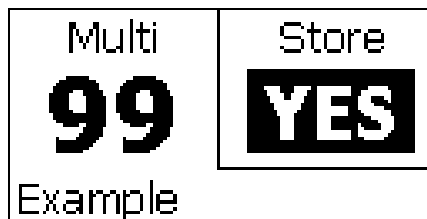
When complete the screen will appear as shown. If you make mistakes and need to move to a previous character, keep pressing SCROLL and the cursor will wrap around to the first character. Now the name is ready to store.



Press  
STORE

5

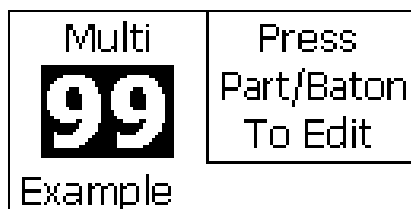
Press STORE to save the changes. The cursor moves to a yes/no decision and the indicator on the STORE button will light. Rotate SCROLL to select YES for storing the changes or NO for canceling the changes.



Press  
SCROLL

6

Press SCROLL with YES displayed and the new title will be stored.



Complete

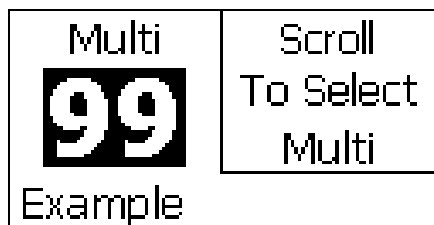
## Multi Copying

At times you may want to make a copy of a multi preset that you have created. This comes in handy if you want to make some changes to a preset and still keep the original version. Another use might be setting up a consecutive list of multi presets for a live performance. See how to copy the preset created above to a different preset position.

Press  
COPY

1

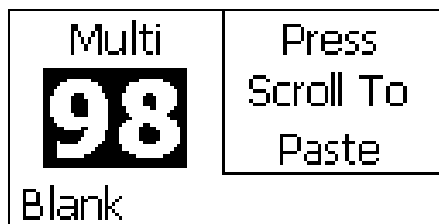
With the Multi preset number 99 displayed, press COPY to copy this preset, 'Example'. A brief confirmation 'Multi Preset Copied' will be displayed and the COPY light will turn on. The preset is now copied.



Rotate  
SCROLL

2

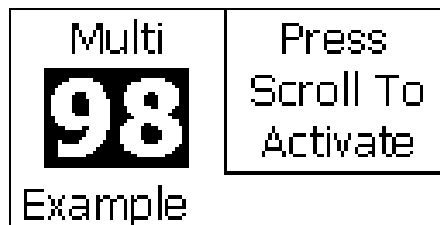
Rotate SCROLL once counter-clockwise to select preset number 98 to paste the 'Example' preset on.



Press  
SCROLL

3

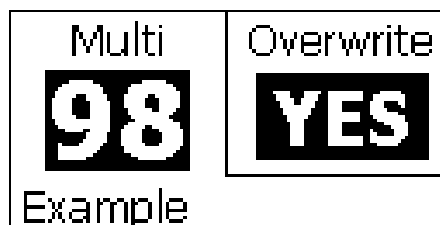
Press SCROLL to paste the 'Example' preset in the Multi 98 position. In this case a 'Changes Stored' confirmation prompt displays. Note that Multi 98 is now named 'Example' and all of its contents match those of Multi 99.



Also....

4

If Preset 98 was not blank, then the typical store screen displays prompting you whether to overwrite the contents of the selected preset as shown.



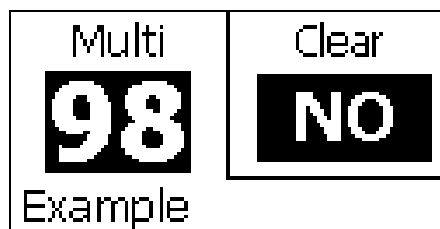
**Complete**

## Multi Clearing

Press  
MUTE  
and  
MULTI

1

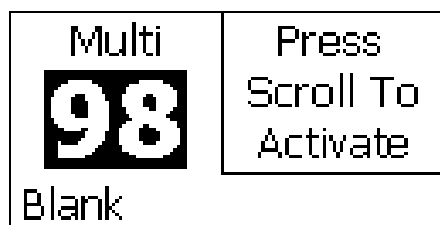
Press MUTE and MULTI simultaneously from a Multi preset screen to clear the contents of a Multi preset. The cursor moves to a yes/no decision and the indicator on the STORE button will light. Rotate SCROLL to select YES for clearing the preset or NO for canceling.



Press  
SCROLL

2

Press SCROLL with YES displayed to clear the Example preset. The preset's title returns to 'Blank'.



**Complete**

## System Mode

When the SINGLE and MULTI mode buttons are pressed **simultaneously**, the *MelodyWave* base station enters System Mode indicated by the lights on the SINGLE and MULTI buttons. This operation allows you to change settings that globally affect how the base station operates. It also gives information on the base station's current settings and firmware version.

When you enter System Mode, one screen's title and its settings will display. The title displays on the top line and is highlighted. Rotate SCROLL to view each of the system screens. To change a setting within a screen, press SCROLL. This will highlight the parameter to be changed. Press SCROLL to advance to the next parameter or return to the title. If you attempt to exit any screen and changes were made, you will be prompted with a standard yes/no store screen. Rotate SCROLL to choose YES or NO and press SCROLL to select. At any time you may return to Single or Multi Mode by pressing the SINGLE or MULTI button.

## Firmware Version

The 'Firmware Version' screen shows the currently running version of the base stations operating code. You would read the second line of this screen as 'Base Station Version One point Six-Zero-Zero'. This is helpful when referring to the factory for any problems that might arise. This screen is for display only; no changes can be made.



FIRMWARE VERSION  
Base Station V1.600  
Copyright 2005 SCI  
Scroll For More

## GM Sound Set

The 'GM Sound Set' screen shows you which sound set is loaded, General MIDI 1 or General MIDI 2, and allows you to change to the alternate sound set. ***This operation will reset all Single and Multi presets to factory defaults.***



GM SOUND SET  
Keep Existing  
General MIDI 2

If the General MIDI 2 sound set is loaded (as shown in this screen) then the choices will be:

- Keep Existing
- General MIDI 1

If the General MIDI 1 sound set is active then the choices will be:

- Keep Existing
- General MIDI 2

Press SCROLL to change the GM sound set. Rotate SCROLL to make a selection and press STORE to activate. If you choose other than 'Keep Existing', you will be prompted with a standard yes/no store screen to confirm your decision. If you choose YES, the chosen sound set will load taking approximately four and a half minutes.

## Factory Defaults

The 'Factory Defaults' screen allows you to restore certain portions or all of your base station settings to factory defaults. *These operations will clear out the existing settings for the entry you pick.* The choices and their descriptions are as follows:

**FACTORY DEFAULTS**

Keep Existing

- Keep Existing: maintain existing settings
- Load Single Presets: loads factory default single mode presets only
- Load Multi Presets: loads factory default multi mode presets only
- Load Baton Dynamics: loads factory default baton dynamics presets only
- Load All Presets: loads all of the above factory default presets

Press SCROLL to reload factory defaults. Rotate SCROLL to make a selection and press STORE to activate. If you choose other than 'Keep Existing', you will be prompted with a standard yes/no store screen to confirm your decision. If you choose YES, the chosen defaults will load taking up to four and a half minutes.

## Set All Velocity Maps

The 'Set All VMaps' screen allows you to force the velocity map settings of all Single Mode presets to one velocity map choice. If all Single presets are already set to one common velocity map, it will be displayed at the bottom of the screen. The choices are:

**SET ALL VMAPS**

Keep Existing

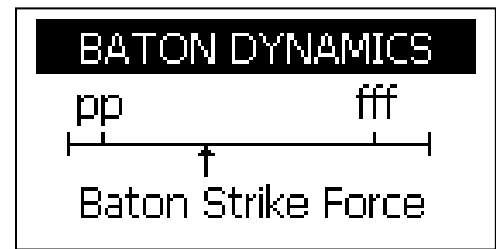
Linear

- Keep Existing: maintain existing velocity maps
- Linear: Set all Single presets to the Linear velocity map
- Logarithmic 1: Set all Single presets to the Logarithmic 1 velocity map
- Logarithmic 2: Set all Single presets to the Logarithmic 2 velocity map
- Exponential 1: Set all Single presets to the Exponential 1 velocity map
- Exponential 2: Set all Single presets to the Exponential 2 velocity map
- Factory VMaps: Set all Single presets to the Factory default velocity map settings.

Press SCROLL to set all velocity maps. Rotate SCROLL to make a selection and press STORE to activate. If you choose other than 'Keep Existing', you will be prompted with a standard yes/no store screen to confirm your decision. If you choose YES, the chosen velocity maps will load taking approximately one and a half minutes.

## Baton Dynamics

The 'Baton Dynamics' screen allows you to change the response of the baton. The line graph represents the baton minimum to maximum strike force. When you strike any baton, the arrow below the line graph will move to a new position representing how hard you struck it. The harder you strike the baton, the farther right the arrow will appear.



This screen offers two settings:

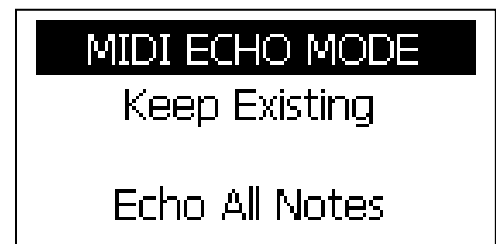
- pp: baton strike force that generates a pianissimo sound level on the active voice
- fff: baton strike force that generates a fortississimo sound level on the active voice

Setting 'pp' lower will make the baton easier to play a note, but may also generate inadvertent strikes with the less seasoned player. Setting 'fff' lower makes it easier to attain maximum volume with a softer strike. Stretching the two settings farther apart creates a wider mechanical force dynamic range.

Press SCROLL to change the baton dynamics. Rotate SCROLL with 'pp' highlighted to change the soft setting. Press SCROLL to select the 'fff' setting. Rotate SCROLL to change this loud setting. Press STORE to save your changes. If any changes are made, you will be prompted with a standard yes/no store screen to confirm your decision. If you choose YES, the new baton dynamics will be stored immediately.

## MIDI Echo Mode

The 'MIDI Echo Mode' screen allows you to set how MIDI information entering the MIDI IN port is combined with any MIDI OUT data. It also shows what echo mode is currently active.



If the 'Echo All Notes' mode is active (as shown in this screen) then the choices will be:

- Keep Existing
- Map To MelodyWave

If the 'Map To MelodyWave' mode is active then the choices will be:

- Keep Existing
- Echo All Notes

Press SCROLL to change the MIDI echo mode. Rotate SCROLL to make a selection and press STORE to activate. If you choose other than 'Keep Existing', you will be prompted with a standard yes/no store screen to confirm your decision. If you choose YES, the new echo mode settings will take effect and be stored immediately.

# Example - Multi #99

## Part Assignments

Part	GM1 Voice #	GM2 Voice #	Voice Name	Volume	Transposition	Pan
1	13	30	Marimba	120	+12	Left
2	0	0	Drums/Percussion	127	0	Center
3	36	82	Fretless Bass	127	-12	Center
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

## Baton Assignments

Baton	Part	Voice Name	Plays Note
G3	2	Drums/Percussion	Maracas
G#3	2	Drums/Percussion	Claves
A3	3	Fretless Bass	A2
A#3	3	Fretless Bass	A#2
B3	3	Fretless Bass	B2
C4	3	Fretless Bass	C3
C#4	3	Fretless Bass	C#3
D4	3	Fretless Bass	D3
D#4	3	Fretless Bass	D#3
E4	3	Fretless Bass	E3
F4	3	Fretless Bass	F3
F#4	3	Fretless Bass	F#3
G4	3	Fretless Bass	G3
G#4	3	Fretless Bass	G#3
A4	3	Fretless Bass	A3
A#4	1	Marimba	A#5
B4	1	Marimba	B5
C5	1	Marimba	C6
C#5	1	Marimba	C#6
D5	1	Marimba	D6
D#5	1	Marimba	D#6
E5	1	Marimba	E6
F5	1	Marimba	F6
F#5	1	Marimba	F#6
G5	1	Marimba	G6

Baton	Part	Voice Name	Plays Note
G#5	1	Marimba	G#6
A5	1	Marimba	A6
A#5	1	Marimba	A#6
B5	1	Marimba	B6
C6	1	Marimba	C7
C#6	1	Marimba	C#7
D6	1	Marimba	D7
D#6	1	Marimba	D#7
E6	1	Marimba	E7
F6	1	Marimba	F7
F#6	1	Marimba	F#7
G6	1	Marimba	G7
G#6	1	Marimba	G#7
A6	1	Marimba	A7
A#6	1	Marimba	A#7
B6	1	Marimba	B7
C7	1	Marimba	C8
C#7	1	Marimba	C#8
D7	1	Marimba	D8
D#7	1	Marimba	D#8
E7	1	Marimba	E8
F7	1	Marimba	F8
F#7	1	Marimba	F#8
G7	1	Marimba	G8

## Part Assignments

Part	GM1 Voice #	GM2 Voice #	Voice Name	Volume	Transposition	Pan
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

## Baton Assignments

Baton	Part	Voice Name	Plays Note
G3			
G#3			
A3			
A#3			
B3			
C4			
C#4			
D4			
D#4			
E4			
F4			
F#4			
G4			
G#4			
A4			
A#4			
B4			
C5			
C#5			
D5			
D#5			
E5			
F5			
F#5			
G5			

Baton	Part	Voice Name	Plays Note
G#5			
A5			
A#5			
B5			
C6			
C#6			
D6			
D#6			
E6			
F6			
F#6			
G6			
G#6			
A6			
A#6			
B6			
C7			
C#7			
D7			
D#7			
E7			
F7			
F#7			
G7			

# TABLE 1 – GM2

## General MIDI System Level 2 Voice List

This chart shows the names of all 256 GM2 Instruments, and the MIDI Voice numbers which select those Instruments. The patches are arranged into 16 "families" of instruments.

PIANO	ORGAN	GUITAR - CONTINUED
1 Acoustic Grand Piano	37 Drawbar Organ	73 Distortion Guitar
2 Acoustic Grand Piano (wide)	38 Detuned Drawbar Organ	74 Distortion Guitar (w/ Feedback)
3 Acoustic Grand Piano (dark)	39 Italian 60s Organ	75 Distorted Rhythm Guitar
4 Bright Acoustic Piano	40 Drawbar Organ 2	76 Guitar Harmonics
5 Bright Acoustic Piano (wide)	41 Percussive Organ	77 Guitar Feedback
6 Electric Grand Piano	42 Detuned Percussive Organ	
7 Electric Grand Piano (wide)	43 Percussive Organ 2	<b>BASS</b>
8 Honky-tonk Piano	44 Rock Organ	78 Acoustic Bass
9 Honky-tonk Piano (wide)	45 Church Organ	79 Electric Bass (finger)
10 Electric Piano 1	46 Church Organ (octave mix)	80 Finger Slap Bass
11 Detuned Electric Piano 1	47 Detuned Church Organ	81 Electric Bass (pick)
12 Electric Piano 1 (velocity mix)	48 Reed Organ	82 Fretless Bass
13 60s Electric Piano	49 Puff Organ	83 Slap Bass 1
14 Electric Piano 2	50 Accordion	84 Slap Bass 2
15 Detuned Electric Piano 2	51 Accordion 2	85 Synth Bass 1
16 Electric Piano 2 (velocity mix)	52 Harmonica	86 Synth Bass (warm)
17 EP Legend	53 Tango Accordion	87 Synth Bass 3 (resonance)
18 EP Phase		88 Clavi Bass
19 Harpsichord	<b>GUITAR</b>	89 Hammer
20 Harpsichord (octave mix)	54 Acoustic Guitar (nylon)	90 Synth Bass 2
21 Harpsichord (wide)	55 Ukulele	91 Synth Bass 4 (attack)
22 Harpsichord (with key off)	56 Acoustic Guitar (nylon+key off)	92 Synth Bass (rubber)
23 Clavi	57 Acoustic Guitar (nylon 2)	93 Attack Pulse
24 Pulse Clavi	58 Acoustic Guitar (steel)	
	59 12-Strings Guitar	<b>STRINGS AND ORCHESTRAL</b>
<b>CHROMATIC PERCUSSION</b>	60 Mandolin	94 Violin
25 Celesta	61 Steel Guitar with Body Sound	95 Violin (slow attack)
26 Glockenspiel	62 Electric Guitar (jazz)	96 Viola
27 Music Box	63 Electric Guitar (pedal steel)	97 Cello
28 Vibraphone	64 Electric Guitar (clean)	98 Contrabass
29 Vibraphone (wide)	65 Electric Guitar (detuned clean)	99 Tremolo Strings
30 Marimba	66 Mid Tone Guitar	100 Pizzicato Strings
31 Marimba (wide)	67 Electric Guitar (muted)	101 Orchestral Harp
32 Xylophone	68 Electric Guitar (funky cutting)	102 Yang Chin
33 Tubular Bells	69 Electric Guitar (muted velo-sw)	103 Timpani
34 Church Bell	70 Jazz Man	
35 Carillon	71 Overdriven Guitar	
36 Dulcimer	72 Guitar Pinch	

**TABLE 1 – GM2**

<b>ENSEMBLE</b>	<b>REED CONTINUED</b>	<b>SYNTH SFX</b>
104 String Ensembles 1	144 Oboe	182 FX1 (rain)
105 Strings And Brass	145 English Horn	183 FX2 (soundtrack)
106 60s Strings	146 Bassoon	184 FX3 (crystal)
107 String Ensembles 2	147 Clarinet	185 FX3a (synth mallet)
108 SynthStrings 1		186 FX4 (atmosphere)
109 SynthStrings 3	<b>PIPE</b>	187 FX5 (brightness)
110 SynthStrings 2	148 Piccolo	188 FX6 (goblins)
111 Choir Aahs	149 Flute	189 FX7 (echoes)
112 Choir Aahs 2	150 Recorder	190 FX7a (echo bell)
113 Voice Oohs	151 Pan Flute	191 FX7b (echo pan)
114 Humming	152 Blown Bottle	192 FX8 (sci-fi)
115 Synth Voice	153 Shakuhachi	
116 Analog Voice	154 Whistle	<b>ETHNIC MISCELLANEOUS</b>
117 Orchestra Hit	155 Ocarina	193 Sitar
118 Bass Hit Plus		194 Sitar 2 (bend)
119 6 <sup>th</sup> Hit	<b>SYNTH LEAD</b>	195 Banjo
120 Euro hit	156 Lead 1 (square)	196 Shamisen
	157 Lead 1a (square 2)	197 Koto
<b>BRASS</b>	158 Lead 1b (sine)	198 Taisho Koto
121 Trumpet	159 Lead 2 (sawtooth)	199 Kalimba
122 Dark Trumpet Soft	160 Lead 2a (sawtooth 2)	200 Bag Pipe
123 Trombone	161 Lead 2b (saw + pulse)	201 Fiddle
124 Trombone 2	162 Lead 2c (double sawtooth)	202 Shanai
125 Bright Trombone	163 Lead 2d (sequenced analog)	
126 Tuba	164 Lead 3 (calliope)	<b>PERCUSSIVE</b>
127 Muted Trumpet	165 Lead 4 (chiff)	203 Tinkle Bell
128 Muted Trumpet 2	166 Lead 5 (charang)	204 Agogo
129 French Horn	167 Lead 5a (wire lead)	205 Steel Drums
130 French Horn 2 (warm)	168 Lead 6 (voice)	206 Woodblock
131 Brass Section	169 Lead 7 (fifths)	207 Castanets
132 Brass Section 2 (octave mix)	170 Lead 8 (bass + lead)	208 Taiko Drum
133 Synth Brass 1	171 Lead 8a (soft wrl)	209 Concert Bass Drum
134 Synth Brass 3		210 Melodic Tom
135 Analog Synth Brass 1	<b>SYNTH PAD</b>	211 Melodic Tom 2 (power)
136 Jump Brass	172 Pad 1 (new age)	212 Synth Drum
137 Synth Brass 2	173 Pad 2 (warm)	213 Rhythm Box Tom
138 Synth Brass 4	174 Pad 2a (sine pad)	214 Electric Drum
139 Analog Synth Brass 2	175 Pad 3 (polysynth)	215 Reverse Cymbal
	176 Pad 4 (choir)	
<b>REED</b>	177 Pad 4a (itopia)	<b>SFX</b>
140 Soprano Sax	178 Pad 5 (bowed)	216 Guitar Fret Noise
141 Alto Sax	179 Pad 6 (metallic)	217 Guitar Cutting Noise
142 Tenor Sax	180 Pad 7 (halo)	218 Acoustic Bass String Slap
143 Baritone Sax	181 Pad 8 (sweep)	219 Breath Noise

## TABLE 1 – GM2

SFX CONTINUED	SFX CONTINUED	SFX CONTINUED
220 Flute Key Click	233 Door Creaking	246 Burst Noise
221 Seashore	234 Door	247 Applause
222 Rain	235 Scratch	248 Laughing
223 Thunder	236 Wind Chime	249 Screaming
224 Wind	237 Helicopter	250 Punch
225 Stream	238 Car Engine	251 Heart Beat
226 Bubble	239 Car Stop	252 Footsteps
227 Bird Tweet	240 Car Pass	253 Gunshot
228 Dog	241 Car Crash	254 Machine Gun
229 Horse Gallop	242 Siren	255 Lasergun
230 Bird Tweet 2	243 Train	256 Explosion
231 Telephone Ring	244 Jetplane	
232 Telephone Ring 2	245 Starship	

## TABLE 2 – GM2

### General MIDI System Level 2 Drum/Percussion List

This chart shows what drum sounds are assigned to each MIDI note for a GM2 module (ie, that has a drum part). These notes are activated when Voice 000, Drums/Percussion, is selected.

MIDI Note	Drum Sound	MIDI Note	Drum Sound	MIDI Note	Drum Sound
<b>D#2 (27)</b>	High Q	<b>C4 (48)</b>	Hi-Mid Tom	<b>A5 (69)</b>	Cabasa
<b>E2 (28)</b>	Slap	<b>C#4 (49)</b>	Crash Cymbal 1	<b>A#5 (70)</b>	Maracas
<b>F2 (29)</b>	Scratch Push	<b>D4 (50)</b>	High Tom	<b>B5 (71)</b>	Short Whistle
<b>F#2 (30)</b>	Scratch Pull	<b>D#4 (51)</b>	Ride Cymbal 1	<b>C6 (72)</b>	Long Whistle
<b>G2 (31)</b>	Sticks	<b>E4 (52)</b>	Chinese Cymbal	<b>C#6 (73)</b>	Short Guiro
<b>G#2 (32)</b>	Square Click	<b>F4 (53)</b>	Ride Bell	<b>D6 (74)</b>	Long Guiro
<b>A2 (33)</b>	Metronome Click	<b>F#4 (54)</b>	Tambourine	<b>D#6 (75)</b>	Claves
<b>A#2 (34)</b>	Metronome Bell	<b>G4 (55)</b>	Splash Cymbal	<b>E6 (76)</b>	Hi Wood Block
<b>B2 (35)</b>	Acoustic Bass Drum	<b>G#4 (56)</b>	Cowbell	<b>F6 (77)</b>	Low Wood Block
<b>C3 (36)</b>	Bass Drum 1	<b>A4 (57)</b>	Crash Cymbal 2	<b>F#6 (78)</b>	Mute Cuica
<b>C#3 (37)</b>	Side Stick	<b>A#4 (58)</b>	Vibra-slap	<b>G6 (79)</b>	Open Cuica
<b>D3 (38)</b>	Acoustic Snare	<b>B4 (59)</b>	Ride Cymbal 2	<b>G#6 (80)</b>	Mute Triangle
<b>D#3 (39)</b>	Hand Clap	<b>C5 (60)</b>	High Bongo	<b>A6 (81)</b>	Open Triangle
<b>E3 (40)</b>	Electric Snare	<b>C#5 (61)</b>	Low Bongo	<b>A#6 (82)</b>	Shaker
<b>F3 (41)</b>	Low Floor Tom	<b>D5 (62)</b>	Mute Hi Conga	<b>B6 (83)</b>	Jingle Bell
<b>F#3 (42)</b>	Closed Hi-Hat	<b>D#5 (63)</b>	Open Hi Conga	<b>C7 (84)</b>	Bell Tree
<b>G3 (43)</b>	High Floor Tom	<b>E5 (64)</b>	Low Conga	<b>C#7 (85)</b>	Castanets
<b>G#3 (44)</b>	Pedal Hi-Hat	<b>F5 (65)</b>	High Timbale	<b>D7 (86)</b>	Mute Surdo
<b>A3 (45)</b>	Low Tom	<b>F#5 (66)</b>	Low Timbale	<b>D#7 (87)</b>	Open Surdo
<b>A#3 (46)</b>	Open Hi-Hat	<b>G5 (67)</b>	High Agogo		
<b>B3 (47)</b>	Low-Mid Tom	<b>G#5 (68)</b>	Low Agogo		

## TABLE 3 – GM1

### General MIDI System Level 1 Voice List

This chart shows the names of all 128 GM2 Instruments, and the MIDI Voice numbers which select those Instruments. The patches are arranged into 16 "families" of instruments.

PIANO		BASS		REED	
1	Acoustic Grand Piano	33	Acoustic Bass	65	Soprano Sax
2	Bright Acoustic Piano	34	Electric Bass(finger)	66	Alto Sax
3	Electric Grand Piano	35	Electric Bass (pick)	67	Tenor Sax
4	Honky-Tonk Piano	36	Fretless Bass	68	Baritone Sax
5	Electric Piano 1	37	Slap Bass 1	69	Oboe
6	Electric Piano 2	38	Slap Bass 2	70	English Horn
7	Harpichord	39	Synth Bass 1	71	Bassoon
8	Clavi	40	Synth Bass 2	72	Clarinet
CHROMATIC PERC.		SOLO STRINGS		PIPE	
9	Celesta	41	Violin	73	Piccolo
10	Glockenspiel	42	Viola	74	Flute
11	Music Box	43	Cello	75	Recorder
12	Vibraphone	44	Contrabass	76	Pan Flute
13	Marimba	45	Tremolo Strings	77	Blown Bottle
14	Xylophone	46	Pizzicato Strings	78	Skakuhachi
15	Tubular Bells	47	Orchestral Harp	79	Whistle
16	Dulcimer	48	Timpani	80	Ocarina
ORGAN		ENSEMBLE		SYNTH LEAD	
17	Drawbar Organ	49	String Ensembles 1	81	Lead 1 (square)
18	Percussive Organ	50	String Ensembles 2	82	Lead 2 (sawtooth)
19	Rock Organ	51	SynthStrings 1	83	Lead 3 (calliope)
20	Church Organ	52	SynthStrings 2	84	Lead 4 (chiff)
21	Reed Organ	53	Choir Aahs	85	Lead 5 (charang)
22	Accordion	54	Voice Oohs	86	Lead 6 (voice)
23	Harmonica	55	Synth Voice	87	Lead 7 (fifths)
24	Tango Accordion	56	Orchestra Hit	88	Lead 8 (bass+lead)
GUITAR		BRASS		SYNTH PAD	
25	Acoustic Guitar (nylon)	57	Trumpet	89	Pad 1 (new age)
26	Acoustic Guitar (steel)	58	Trombone	90	Pad 2 (warm)
27	Electric Guitar (jazz)	59	Tuba	91	Pad 3 (polysynth)
28	Electric Guitar (clean)	60	Muted Trumpet	92	Pad 4 (choir)
29	Electric Guitar (muted)	61	French Horn	93	Pad 5 (bowed)
30	Overdriven Guitar	62	Brass Section	94	Pad 6 (metallic)
31	Distortion Guitar	63	Synth Brass 1	95	Pad 7 (halo)
32	Guitar Harmonics	64	Synth Brass 2	96	Pad 8 (sweep)

**TABLE 3 – GM1**

<b>SYNTH EFFECTS</b>		<b>PERCUSSIVE</b>	
<b>97</b>	FX 1 (rain)	<b>113</b>	Tinkle Bell
<b>98</b>	FX 2 (soundtrack)	<b>114</b>	Agogo
<b>99</b>	FX 3 (crystal)	<b>115</b>	Steel Drums
<b>100</b>	FX 4 (atmosphere)	<b>116</b>	Woodblock
<b>101</b>	FX 5 (brightness)	<b>117</b>	Taiko Drum
<b>102</b>	FX 6 (goblins)	<b>118</b>	Melodic Tom
<b>103</b>	FX 7 (echoes)	<b>119</b>	Synth Drum
<b>104</b>	FX 8 (sci-fi)	<b>120</b>	Reverse Cymbal
<b>ETHNIC</b>		<b>SOUND EFFECTS</b>	
<b>105</b>	Sitar	<b>121</b>	Guitar Fret Noise
<b>106</b>	Banjo	<b>122</b>	Breath Noise
<b>107</b>	Shamisen	<b>123</b>	Seashore
<b>108</b>	Koto	<b>124</b>	Bird Tweet
<b>109</b>	Kalimba	<b>125</b>	Telephone Ring
<b>110</b>	Bag pipe	<b>126</b>	Helicopter
<b>111</b>	Fiddle	<b>127</b>	Applause
<b>112</b>	Shanai	<b>128</b>	Gunshot

## TABLE 4 – GM1

### General MIDI System Level 1 Drum/Percussion List

This chart shows what drum sounds are assigned to each MIDI note for a GM1 module (ie, that has a drum part). These notes are activated when Voice 000, Drums/Percussion, is selected.

MIDI Note	Drum Sound	MIDI Note	Drum Sound	MIDI Note	Drum Sound
<b>B2 (35)</b>	Acoustic Bass Drum	<b>G#4 (56)</b>	Cowbell	<b>F6 (77)</b>	Low Wood Block
<b>C3 (36)</b>	Bass Drum 1	<b>A4 (57)</b>	Crash Cymbal 2	<b>F#6 (78)</b>	Mute Cuica
<b>C#3 (37)</b>	Side Stick	<b>A#4 (58)</b>	Vibra-slap	<b>G6 (79)</b>	Open Cuica
<b>D3 (38)</b>	Acoustic Snare	<b>B4 (59)</b>	Ride Cymbal 2	<b>G#6 (80)</b>	Mute Triangle
<b>D#3 (39)</b>	Hand Clap	<b>C5 (60)</b>	Hi Bongo	<b>A6 (81)</b>	Open Triangle
<b>E3 (40)</b>	Electric Snare	<b>C#5 (61)</b>	Low Bongo		
<b>F3 (41)</b>	Low Floor Tom	<b>D5 (62)</b>	Mute Hi Conga		
<b>F#3 (42)</b>	Closed Hi-Hat	<b>D#5 (63)</b>	Open Hi Conga		
<b>G3 (43)</b>	High Floor Tom	<b>E5 (64)</b>	Low Conga		
<b>G#3 (44)</b>	Pedal Hi-Hat	<b>F5 (65)</b>	High Timbale		
<b>A3 (45)</b>	Low Tom	<b>F#5 (66)</b>	Low Timbale		
<b>A#3 (46)</b>	Open Hi-Hat	<b>G5 (67)</b>	High Agogo		
<b>B3 (47)</b>	Low-Mid Tom	<b>G#5 (68)</b>	Low Agogo		
<b>C4 (48)</b>	Hi-Mid Tom	<b>A5 (69)</b>	Cabasa		
<b>C#4 (49)</b>	Crash Cymbal 1	<b>A#5 (70)</b>	Maracas		
<b>D4 (50)</b>	High Tom	<b>B5 (71)</b>	Short Whistle		
<b>D#4 (51)</b>	Ride Cymbal 1	<b>C6 (72)</b>	Long Whistle		
<b>E4 (52)</b>	Chinese Cymbal	<b>C#6 (73)</b>	Short Guiro		
<b>F4 (53)</b>	Ride Bell	<b>D6 (74)</b>	Long Guiro		
<b>F#4 (54)</b>	Tambourine	<b>D#6 (75)</b>	Claves		
<b>G4 (55)</b>	Splash Cymbal	<b>E6 (76)</b>	Hi Wood Block		

# TABLE 5

[MelodyWave Base Station]  
Model: 036-2024-000

## MIDI Implementation Chart

Date: 5/10/05  
V1.600

Function	Transmitted	Recognized	Remarks
<b>Basic Channel</b> :Default :Changed	1 1-16	X X	
<b>Mode</b> :Default :Messages :Altered	3 X ***	X X X	
<b>Note Number</b> :True Voice	0-127 ***	43-91 43-91	*1
<b>Velocity</b> :Note On :Note Off	O O (Vel = 0)	O O	*1
<b>After Touch</b> :Key's :Channel	X X	X X	*2
<b>Pitch Bend</b>	X	X	*2
<b>Control Change</b>	0 O 7 O 10 O 78 O	X X X X	Bank Select Volume Pan All Notes Off *2
<b>Program Change</b> :True Number	O 0-127 ***	X X	*2
<b>System Exclusive</b>	O (see next page)	X	*3
<b>System Common</b> :Song Position :Song Select :Tune Request	X X X	X X X	
<b>System Real Time</b> :Clock :Commands	X X	X X	
<b>Aux Messages</b> :Local On/Off :All Notes Off :Active Sensing :System Reset	X X X X	X X X X	*2 *2
<b>Notes</b>	*1 = May alter received messages on MelodyWave reserved channels *2 = Will not echo received messages on MelodyWave reserved channels *3 = Will not echo received messages		

Mode 1: OMNI ON, POLY  
Mode 3: OMNI OFF, POLY

Mode 2: OMNI ON, MONO  
Mode 4: OMNI OFF, MONO

O = Y  
X = N

# MIDI Implementation

## 1. Transmitted Data

1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	Description	
1001nnnn	0kkkkkkk	0vvvvvvv	Note On	kkkkkkk = 0-127 vvvvvvv = 1-127, 0 = Off
1011nnnn	0BBBBBBB	0000bbbb	Bank Select	BBBBBBBB = 120-121 bbbb = 0-9
1011nnnn	00000111	0vvvvvvv	Volume	vvvvvvv = 0-127
1011nnnn	00001010	0ppppppp	Pan	ppppppp = 0-127
1011nnnn	01111011	00000000	All Notes Off	
1100nnnn	0ppppppp		Program Change	ppppppp = 0-127

## 2. Recognized Received Data

1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	Description	
1000nnnn	0kkkkkkk	0vvvvvvv	Note Off	kkkkkkk = 0-127 vvvvvvv = 0-127
1001nnnn	0kkkkkkk	0vvvvvvv	Note On	kkkkkkk = 0-127 vvvvvvv = 1-127, 0 = Off

## 3. Exclusive Transmitted Data

### 3-1. GM System Off

Status	11110000	F0H	System Exclusive
Header	01111110	7EH	Non-Real Time SysEx
ID	01111111	7FH	ID of Target (All Devices)
Sub-ID#1	00001001	09H	General MIDI Message
Sub-ID#2	00000010	02H	General MIDI Off
EOX	11110111	F7H	End of SysEx

### 3-2. GM System 1 On

Status	11110000	F0H	System Exclusive
Header	01111110	7EH	Non-Real Time SysEx
ID	01111111	7FH	ID of Target (All Devices)
Sub-ID#1	00001001	09H	General MIDI Message
Sub-ID#2	00000001	01H	General MIDI 1 On
EOX	11110111	F7H	End of SysEx

### 3-3. GM System 2 On

Status	11110000	F0H	System Exclusive
Header	01111110	7EH	Non-Real Time SysEx
ID	01111111	7FH	ID of Target (All Devices)
Sub-ID#1	00001001	09H	General MIDI Message
Sub-ID#2	00000011	03H	General MIDI 2 On
EOX	11110111	F7H	End of SysEx

# **Troubleshooting**

## **Baton Charging Case**

<b>Problem</b>	<b>Possible causes</b>	<b>Remedies</b>
<p>All baton charge indicators are “off”</p> <p><i>See Note 1.</i></p>	<ul style="list-style-type: none"> <li>● No AC power to power supply</li> <li>● No DC power to charging case</li> <li>● Defective power supply</li> </ul>	<ul style="list-style-type: none"> <li>● Check that power supply is plugged into a “live” outlet</li> <li>● Check that the small DC plug end of the power supply is securely inserted into the DC input jack on the side of the charging case</li> <li>● Return to the factory for replacement</li> </ul>
<p>One baton’s charge indicator does not light</p> <p><i>See Note 2.</i></p>	<ul style="list-style-type: none"> <li>● Baton not making contact</li> <li>● Baton receptacle hole blocked</li> <li>● Screw contact on back end of baton is missing.</li> <li>● Defective baton</li> </ul>	<ul style="list-style-type: none"> <li>● Remove and reinsert the baton</li> <li>● Remove obstacle</li> <li>● Replace screw</li> <li>● Return to factory for repair or replacement</li> </ul>
<p>My baton doesn’t fit in the charging case hole</p>	<ul style="list-style-type: none"> <li>● You are attempting to insert the baton into the hole in the wrong direction.</li> <li>● Foam insert is damaged</li> </ul>	<ul style="list-style-type: none"> <li>● Turn baton so that the thumb label is towards the front of the case</li> <li>● Repair or replace foam</li> </ul>
<p>My charging case lid will not close properly</p>	<ul style="list-style-type: none"> <li>● One or more batons not fully inserted into it’s hole</li> <li>● There is an obstruction in one of the baton’s holes</li> <li>● Case is damaged</li> </ul>	<ul style="list-style-type: none"> <li>● Insert baton fully into it’s hole</li> <li>● Remove obstruction</li> <li>● Replace case</li> </ul>
<p>My power supply is missing</p>		<ul style="list-style-type: none"> <li>● Call the factory for replacement</li> </ul>
<p>My charging case was damaged when received</p>	<ul style="list-style-type: none"> <li>● Shipping damage</li> </ul>	<ul style="list-style-type: none"> <li>● Notify shipping carrier</li> </ul>

Note 1: Power supplies for the charging cases and base station are interchangeable. Swapping them will help to determine whether a power supply is bad.

Note 2: Any baton will charge in any hole in the charging case(s). Swapping batons will help to determine if the problem is with the baton or with the charging case(s).

## Troubleshooting con't.

### **Baton**

<b>Problem</b>	<b>Possible causes</b>	<b>Remedies</b>
Power light does not come on when picked up	<ul style="list-style-type: none"> <li>● Battery dead</li> <li>● Not lifting the baton high enough</li> <li>● Baton is defective</li> </ul>	<ul style="list-style-type: none"> <li>● Recharge battery in charging case</li> <li>● Baton must be lifted at least at a 15 degree angle to turn on</li> <li>● Return to factory for repair or replacement.</li> </ul>
Power light comes on brightly for 1 second and then turns off	<ul style="list-style-type: none"> <li>● Battery in baton is low on charge</li> <li>● Base station is not operating</li> <li>● Distance between baton and base station is to far</li> <li>● Baton is located in a very dark area</li> <li>● Baton is defective</li> </ul>	<ul style="list-style-type: none"> <li>● Recharge battery</li> <li>● Make sure base station is powered</li> <li>● Move baton closer to base station</li> <li>● Move baton to an area which is better lighted</li> <li>● Return to factory for repair or replacement</li> </ul>
Power light blinks on when powered up but then shuts off immediately	<ul style="list-style-type: none"> <li>● Battery in baton is low on charge</li> </ul>	<ul style="list-style-type: none"> <li>● Recharge battery</li> </ul>
Power light blinks bright to dull upon powering up and then turns off the first time I try to play or mute	<ul style="list-style-type: none"> <li>● Battery in baton is low on charge</li> </ul>	<ul style="list-style-type: none"> <li>● Recharge battery</li> </ul>
Power light on baton turns off after baton is laid down on table for a couple of minutes	<ul style="list-style-type: none"> <li>● This is normal operation. Baton will turn itself off after 3 minutes if baton is not picked up again.</li> </ul>	<ul style="list-style-type: none"> <li>● None needed</li> </ul>
Baton powers up normally but then does not play	<ul style="list-style-type: none"> <li>● Playing motion not correct</li> <li>● Do other batons work?</li> <li>● Baton too far from base station</li> <li>● Battery on baton is low on charge</li> <li>● Baton is defective</li> </ul>	<ul style="list-style-type: none"> <li>● Make sure you are playing the baton with the correct playing motion</li> <li>● Check base station to see whether other batons are working normally</li> <li>● Move baton closer to base station</li> <li>● Recharge battery</li> <li>● Return to factory for repair or replacement</li> </ul>

## Troubleshooting con't.

<b>Problem</b>	<b>Possible causes</b>	<b>Remedies</b>
Baton plays intermittently  <i>See Note 3.</i>	<ul style="list-style-type: none"> <li>● Baton is too far from base station</li> <li>● Playing motion not correct</li> <li>● Radio Interference</li> </ul>	<ul style="list-style-type: none"> <li>● Move baton closer to base station</li> <li>● Make sure you are playing the baton with the correct playing motion</li> <li>● Turn off cell phones or relocate the base station as needed</li> </ul>
Baton mutes after playing  <i>See Note 3.</i>	<ul style="list-style-type: none"> <li>● Playing area is too dark</li> <li>● Playing baton too softly to hear</li> </ul>	<ul style="list-style-type: none"> <li>● Move baton to area which is better lighted</li> <li>● Play baton more forcefully</li> </ul>
Baton does not mute properly	<ul style="list-style-type: none"> <li>● Attempting to play in a very dark area</li> <li>● Color of cloth on table is too light or dark to mute properly</li> <li>● Does Baton play notes normally?</li> <li>● Baton defective</li> </ul>	<ul style="list-style-type: none"> <li>● Move baton to an area which is better lighted</li> <li>● Change the color of the cloth <i>See Note 4.</i></li> <li>● If baton plays normally but does not mute, then the light sensors are most likely defective. Return baton to the factory for repair or replacement</li> <li>● Return baton to factory for repair or replacement</li> </ul>
Baton will not charge at all  <i>See Note 2.</i>	<ul style="list-style-type: none"> <li>● Baton defective</li> </ul>	<ul style="list-style-type: none"> <li>● Return baton to factory for repair or replacement</li> </ul>

Note 3: If you are having difficulty playing the baton hard enough, try playing with a motion of moving the baton forward (away from your body) and then stopping this motion abruptly.

Note 4: Light colored or translucent materials may cause failure to mute under certain lighting conditions. Dark, dense materials may cause muting to occur when the baton is too far from the surface.

## Troubleshooting con't.

### Base Station

<b>Problem</b>	<b>Possible causes</b>	<b>Remedies</b>
Will not power up <i>See note 1.</i>	<ul style="list-style-type: none"> <li>● No AC power to power supply</li> <li>● No DC power to base station</li> <li>● Defective power supply</li> </ul>	<ul style="list-style-type: none"> <li>● Check that power supply is plugged into a “live” outlet</li> <li>● Check that the small DC plug end of the power supply is securely inserted into the DC input jack on the back of the base station</li> <li>● Return to the factory for replacement</li> </ul>
Display is lit, but is blank or not readable	<ul style="list-style-type: none"> <li>● Contrast not adjusted properly</li> </ul>	<ul style="list-style-type: none"> <li>● Adjust contrast knob for best viewing</li> </ul>
On power-up, only Single Voice #001 should be active	<ul style="list-style-type: none"> <li>● If anything else is being displayed, base unit is defective</li> </ul>	<ul style="list-style-type: none"> <li>● Return to factory for repair</li> </ul>
Scroll knob doesn't do anything when rotated	<ul style="list-style-type: none"> <li>● Knob has loosened on shaft</li> </ul>	<ul style="list-style-type: none"> <li>● Using a 0.050” hex (Allen) key, tighten the set screw on the knob</li> </ul>
Scroll knob doesn't do anything when pressed	<ul style="list-style-type: none"> <li>● Knob has moved inward on shaft</li> </ul>	<ul style="list-style-type: none"> <li>● Loosen set screw on knob and pull knob out slightly. Retighten</li> </ul>
Antenna will not come off	<ul style="list-style-type: none"> <li>● Antenna is not removable</li> </ul>	<ul style="list-style-type: none"> <li>● Antenna only swivels 180° and pivots 90° outward to horizontal position</li> </ul>
No response to batons	<ul style="list-style-type: none"> <li>● Mute light is on</li> </ul>	<ul style="list-style-type: none"> <li>● Turn off mute</li> </ul>
A note is stuck “on”	<ul style="list-style-type: none"> <li>● A baton (or the player) failed to mute a sustained voice's note</li> </ul>	<ul style="list-style-type: none"> <li>● The activity light will reveal which note is still “on”. Either mute with the baton or else press the Mute button to mute all notes</li> </ul>
The base's baton activity light turns on when I strike a baton but no sound occurs.	<ul style="list-style-type: none"> <li>● Base station is not connected to the tone generator.</li> <li>● Problem with audio connections from tone generator.</li> </ul>	<ul style="list-style-type: none"> <li>● Connect a MIDI cable from the base station MIDI out to the tone generator MIDI in.</li> <li>● Verify proper connections from audio output of tone generator to mixer/amplifiers.</li> </ul>
The voice on the screen does not match the voice that sounds.	<ul style="list-style-type: none"> <li>● The GM1/GM2 setting of the base does not match that of the tone generator.</li> <li>● Your tone generator is not GM compatible.</li> </ul>	<ul style="list-style-type: none"> <li>● See System Mode, GM Sound Set section in this manual</li> <li>● Use a GM compatible tone generator</li> </ul>

## MelodyWave® Warranties

- A. Schulmerich MelodyWave® Instruments are guaranteed solely to the original purchaser, to be free from defects in material or workmanship, for a period of one year from the date of delivery. Defective parts will be repaired or replaced (at Schulmerich's option) without charge for materials or labor, provided such parts are returned shipping prepaid, to Schulmerich Carillons Inc., Sellersville, Pennsylvania.
  - B. This warranty is VOID in the event of abuse, accident, modification to parts, improper handling or installation, repairs made by the owner or third parties, without Schulmerich factory written authorization, or alteration or removal of serial number.
  - C. Proof of purchase (store receipt or Schulmerich invoice) must be submitted with the returned parts.
  - D. Schulmerich's Factory Service Department offers repair service. Such repairs are warranted for 90 days. All shipping charges in addition to parts and labor charges will be at owner's expense.
  - E. With the exception of warranty of title, ALL OTHER WARRANTIES ARE EXPRESSLY DISCLAIMED, thus there is NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No one is authorized to change these terms.
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***Should any component of your MelodyWave® instrument need to be returned to the factory for repair, you must first call the factory at: (215) 257-2771 to obtain a RMA (Return Material Authorization) number. This number must be placed on the outside of each package that you return. Failure to do so will cause delays in processing your repair.***

## **INSTRUCTION TO THE USER**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

The user is cautioned that changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.