

Music Box

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Many thanks to Joe Rutherford, John Cattell and Jim Starmer for assistance with the MUSIC BOX.

CONTENTS

Introduction	
Loading Instructions	
The Theory of Music	
The Editor	
Commands	
Editing Tools	
Playing Music	
Loading and Saving Music Files	
The Synthesiser	
Creating and Editing Envelopes	
Loading and Saving Envelopes	
Quick Key Guide	
Index	

INTRODUCTION

MUSIC BOX is a sophisticated music editing program for the Amstrad range of computers. Manuscripts may be created and replayed using the system which incorporates a comprehensive editor. Entering music is simplified by the use of icons and easy to use menus.

The program may be used with just the keyboard, but it also supports the facility to enter music with a joystick or light pen.

In writing this manual no special knowledge on the part of the reader is assumed and a section is dedicated to explaining the theory of music in general. This, in conjunction with the program, provides a very useful educational package.

Large music files may be created using the **AMSTRAD**'s three sound channels and full use is made of both volume and tone envelopes which may be shaped and edited on the screen. There is a library of melodies and sound envelopes included and your own compositions may be saved onto tape or disc.

Several bars of music can be displayed on the screen at any time and this may be scrolled forwards or backwards during editing. Music can be entered in any key or time signature and the program will automatically insert barlines when necessary. Music Box adopts standard music notation offering the ability to repeat sections of music and tie notes together. Triplets, rests and dotted notes are also incorporated.

Playback of your compositions allows music to be transposed and performed at different tempos.

The Music Box system also includes a separate Envelope Generator program. This allows the user to synthesise different sounds by drawing the envelope shapes on the screen, dispensing with the need to enter complicated parameters.

The user may save a set of 'instruments' and incorporate them in the main Music Box composer.

SETTING UP

The Music Box package comprises two programs: the COMPOSER and the SYNTHESISER. These two programs must be loaded into the computer individually.

Please remember that the compositions created using the Music Box may have to be saved, so it is advisable to keep a formatted disc or blank cassette nearby.

LOADING INSTRUCTIONS (Cassette version)

MUSIC COMPOSER:

Insert the Cassette into the Databorder with side A uppermost, and ensure that it is fully rewound.

Press 'CTRL' and the small 'ENTER' key.

Press PLAY then any Key.

SYNTHESISER: (Envelope designer)

This program is on side B of the Cassette and loads as described above.

The SYNTHESISER must be loaded separately from the main program but the files created by it may be merged into the MUSIC COMPOSER.

LOADING INSTRUCTIONS (Disc version)

Insert the Disc into the drive with side A uppermost.

Type RUN "LOADER"

A Loading Screen will appear with a window offering the option to load either the MUSIC COMPOSER or the SYNTHESISER.

Select the required program by typing '1' or '2'.

1) MUSIC COMPOSER 2) SYNTHESISER

There are some demonstration tunes for you to load in from the disc.

For more information on loading instructions, please consult the relevant section of your manual.

THE THEORY OF MUSIC

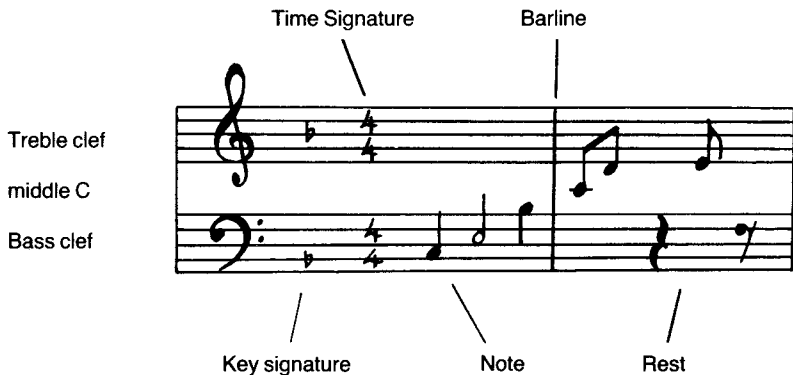
This section of the manual is intended to explain the basic principles of music to the complete beginner. The information concerns music generally and is not necessarily related to the Music Box package. If you are already familiar with music notation then it may be possible for you to omit this section.

The library of songs provide a helpful reference for the music theory.

THE STAVE

Music is written on a staff which comprises a set of horizontal lines across the page or screen. The staff can be split into two sections each with a set of five lines. On the left hand side of every staff is a 'clef' symbol. The upper set of lines has a treble clef and the lower set has a bass clef.

This diagram displays an example of a musical staff.



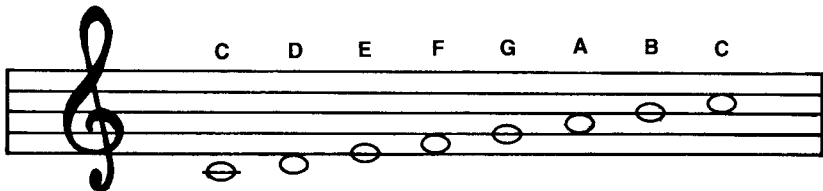
MUSICAL NOTES

A note is a musical sound of a defined pitch and duration. A piece of music or 'score' is a series of many of these notes.

PITCH




The pitch of a note is represented by its vertical position on the staff. High pitched notes are located on the treble clef and low notes are located on the bass clef.

Notes either lie on or between the horizontal lines of the staff. Different locations on the staff correspond to different tones and this determines the name of the note and its octave.



ACCIDENTALS















Accidentals also refer to the pitch of a note. There are three types of accidental: the sharp, flat and natural and each may alter the pitch of a note by a semitone. A semitone is the smallest division of pitch. All accidentals are displayed at the side of the note they affect.

Name	Symbol	Function
SHARP		Increases the pitch by one semitone.
FLAT		Decreases the pitch by one semitone.
NATURAL		Cancels the effect of a sharp or flat. The natural is used in conjunction with the key signature which is explained later.

DURATION

The duration of a note determines how long it must be played.

The fundamental unit of the notes length is called a 'beat' and all notes last for multiples or fractions of this time. The exact length of a beat depends on the 'TEMPO' or the speed of the music.

Note Symbol	Name	Length of note	Rest Symbol
	SEMIBREEVE	4 beats	
	MINIM	2 beats	
	CROTCHET	1 beat	
	QUAVER	1/2 beat	
	SEMIQUAVER	1/4 beat	
	DEMISEMIQUAVER	1/8 beat	
	TRIPLET	1/3 beat	

DOTTED NOTES

The length of any note may be extended by dotting it. This increases its duration by a half.

TIES & SLURS



Normally music is played with sharp and definite changes in pitch. However, tying two notes together merges the different pitches and causes a slur. If two notes of the same pitch are tied then they will be played as one, effectively increasing their duration.

RESTS

A rest is used to indicate that the music must pause for a definite time period. Every rest has an equivalent note time as illustrated above.

TIME SIGNATURE

As we have seen earlier, the basic unit of music time is the beat. The time signature simply determines how many beats there are to a bar. Any combination of notes may be used in a bar as long as their total number of beats exactly equals that of the time signature.

Time signature is displayed at the start of a piece of music and comprises two numbers positioned on top of each other on each clef.

The most common time signature is 4/4. The lower number refers to the value of a note, in this case a crotchet i.e. 1 beat. The upper number states how many of these notes are in a bar. Therefore, there must be four beats in every bar. The time signature of a Waltz is 3/4. i.e. three beats to the bar.

KEY SIGNATURE

A complex piece of music may involve many accidentals and printing these for most of the notes would be laborious and would spoil the presentation of the music.

The key signature is displayed at the start of each line of music and declares which notes are to be flat or sharp.

The key of C major has no flats or sharps.

But, for example, the key of F major has a flat B.


This means that whenever the note 'B' occurs in the score it is to be played flat i.e. one semitone lower than normal.

The natural symbol cancels the effect of the key signature. So, in the above example, 'B' natural would be played exactly the same as a normal 'B' in the key of C major.







THE EDITOR

MUSIC BOX		
CTR TAB		<u>BE</u>
Ⓢ 2:18		
JA	3	CH-1



[-3-
\	

* I C O N S *

#	b	b
		
		
↑	·	↓

NOTES

#	b	b
7	9	9
-	-	z
↑	·	↓

RESTS

NB. This block
<-represents the
numeric pad

NOTE/REST Toggle

The Editing screen is divided into several sections. The right hand side of the screen displays two staves of music onto which notes are entered. The key and time signatures are displayed at the left of the lower staff.

TOP LEFT WINDOW

In the top left hand corner of the screen is a window displaying two icons:



The Trumpet icon. This gains access to playback of music. Pressing 'CONTROL' activates this command.




The Scissors icon. This gains access to a menu displaying the editing tools (see later). Pressing 'TAB' activates this command.

A digital clock completes this window showing time elapsed.

CENTRE LEFT WINDOW

This window gives information concerning the location of the cursor.

 A	B	C	D
--------------------------------------------------------------------------------------------	----------	----------	----------

- A) Current Channel (A,B,C)
- B) Current Bar Number (0 to 999)
- C) Selected tone (C,C#,D etc.)
- D) Current Octave (-2 to +2)

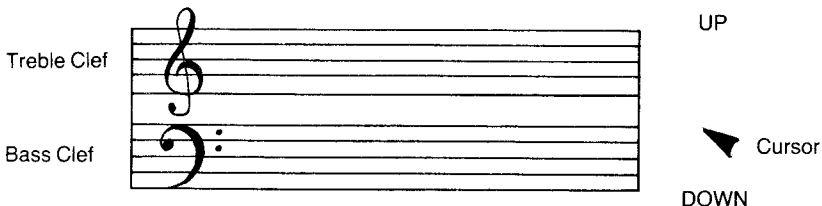
J A	3	C# - 1
------------	----------	---------------

The tone of the note is selected by moving the cursor up or down the staff. This is done with the UP and DOWN cursor keys or joystick.

To use the light pen, press the SPACE BAR and point the pen at the treble clef lines to move up or the bass clef lines to move down.

N.B. When using the light pen, the SPACE BAR is used as a trigger to inform the computer that you want to execute a command.

The pen must point to the relevant part of the LOWER STAVE.

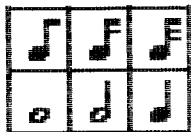


LOWER LEFT ICON WINDOWS

During composition, this section of the screen displays the different types of notes and the commands available.

The most commonly used keys are those on the numeric pad. They activate the group of icons in the bottom left corner of the screen. Once activated, the relevant icon is 'highlighted'.

NOTE LENGTHS



Keys 1 to 6 select the note duration.

- 1 Semi-Breve
- 2 Minim
- 3 Crotchet
- 4 Quaver
- 5 Semiquaver
- 6 Demisemiquaver

ACCIDENTALS



Keys 7 to 9 select the accidentals which are toggles.

- 7 Sharp
- 8 Flat
- 9 Natural

OTHER TOGGLES



0 Toggles between RESTS and NOTES
.
[DOTTED notes ON/OFF
Select TRIPLETS
] Note TIES or SLUR

The above commands may be activated by pointing to the relevant icon with the light pen and pressing the SPACE BAR.



SELECTING ENVELOPES



The program contains a set of seven envelopes which may be edited using the ENVELOPE DESIGNER program. Selecting this option prints the envelope number in the top window. This may be altered using the LEFT and RIGHT cursor keys and selected with the ENTER key.

The Selected Envelope is printed at the bottom of the stave underneath the note it affects. All subsequent notes will be played with the selected envelope until it is changed again.

USING THE EDITOR

ENTERING NOTES

After the required note length and accidentals have been selected, the note may be entered by pressing one of the two 'ENTER' keys or 'RETURN' (6128 only).

The note is written at the current cursor location and will overwrite any existing notes at that position.

The selected tone will be sounded without an envelope.

SETTING PITCH

The pitch of a note is determined by its vertical position on the stave. This is

altered using the UP and DOWN cursor keys or the joystick. The tone pointed to by the cursor is displayed in the centre left window (see previously).

MOVING AROUND

At any time during composition the user may move forwards or backwards through the music using the RIGHT and LEFT cursor keys or the joystick.

To find a specific bar quickly, consult the TOOLS MENU.

DELETE

Music can be corrected using the delete command.

Pressing 'DEL' erases the note to the left of the cursor.

Note that this command will rejustify all barlines after the deleted note.

INSERT

Notes may be inserted by pressing the 'CLR' key. All notes from the current cursor location, to the end of the line are scrolled to the right and the note under the cursor is duplicated. The duplicate note may then be altered by entering the required note on top of it.

BARLINES

Barlines are inserted by the computer automatically.

However, if the user enters the wrong number of beats in a bar then no subsequent barlines will be printed until the error is corrected.

The number of beats in a bar is determined by the time signature. For more information please consult the section on 'Music Theory'.

The current bar number is displayed in the centre left window, mentioned earlier.

THE TOOLS MENU

This menu is accessed from the main editing screen by pressing TAB.

Six options are displayed

FIND BAR
MEMORY
ACCESS
TIME
KEY
EXIT

The required option is selected by moving the 'HIGHLIGHT' up or down with the cursor keys and pressing 'ENTER' executes the command.

EXIT

Selecting the last option returns to the editing mode.

FIND BAR

This displays the current location of the cursor in terms of:

- 1) Channel (A,B,C)
- 2) Bar Number

The Amstrad has three sound channels and these may be selected using the keys: A/B/C or 1/2/3.

The required bar number can be changed using the RIGHT cursor key to increase the displayed value and the LEFT key to decrease it.

SHIFT + LEFT cursor takes you to the starting bar of the tune.

SHIFT + RIGHT cursor takes you to the last bar of the tune.

Pressing ENTER moves the cursor to the new position and returns to the editing mode.

MEMORY

This section displays three vertical bars representing the allocation of memory to the three sound channels. Underneath each bar is a percentage. The empty

section of the bars show the amount of memory remaining for notes. The bars will slowly fill up as your compositions progress.

*** ALLOCATE MEMORY ***

← ↑ ↓ →

■

B

C



54%



18%



28%

Press [TAB] to EXIT

The default settings allocate equal amounts of memory to each channel. However, you may find that one of the channels in your composition may require more memory than the others so there is the facility to set the exact amount for each channel.

The left and right cursor keys change the channel and the up or down cursors alter the percentage of memory allocated for the selected channel.

It is possible to return to this menu at any time and reallocate memory space if the situation requires it. The system will preserve existing music even if you try to reallocate that part of memory.

TAB exits this section.

MEMORY

The Memory section may also be used to CLEAR the memory. Pressing 'DEL' displays a menu requesting the required option:

Press 'SPACE' to cancel the clear command.

'ENTER' to erase the currently selected channel.

'CLR' to erase the entire contents of memory.

WARNING

Please be careful when using this command. Once an erase command is executed it may NOT be reversed.

ACCESS

Using external devices.

This section provides a menu for Loading and Saving compositions via tape or disc. Envelopes created with the companion program, the SYNTHESISER, may also be retrieved.

- | | |
|-----------------------|-----------------------------------------------|
| 1) Load Music File | This loads in previously created music. |
| 2) Load Envelope File | This loads in a set of seven 'instruments'. |
| 3) Save Music File | This saves the music currently in memory. |
| 4) Catalogue | Catalogues Tape or Disc. |
| 5) TAPE/DISC | Toggles between storage devices. |
| 6) PRINTER | Produces a hard copy of your music |

TAB exits this section.

TIME

Time Signature.

The left and right cursor keys are used to step through all the possible time signatures. The default is 4/4.

Pressing 'ENTER' selects the currently displayed signature and returns to the editing mode.

All existing bars of music are rejustified to the new timing.

KEY

Key Signature.

The left and right cursor keys are used to step through the different key signatures. The display shows the name of the key and the number of sharps or flats in the key. The up cursor key toggles between MAJOR and MINOR keys.

Pressing 'ENTER' selects the currently displayed key and returns to the editing mode.

PLAYING MUSIC

To obtain the best results from the MUSIC BOX system, an amplifier should be connected to the computer. Consult your user manual for details.

PLAYBACK

The PLAYBACK mode is entered by pressing the control key (CTRL) while in the editor mode. The top left hand window will now display the playback parameters which may be altered.

★ PLAYBACK ★			
Starting Bar Number : 000			
Tempo : (Prestissimo – Grave)			
Channels selected	<table border="1"><tr><td style="text-align: center;">┌ A B C</td><td style="text-align: center;">(C-B)</td></tr></table>	┌ A B C	(C-B)
┌ A B C	(C-B)		
	Transposition		

There are three parameters: Starting Bar
Tempo
Transposition

The 'highlight' illustrates the currently selected option and is moved using the UP and DOWN cursor keys. The value of the selected parameter is altered using the LEFT and RIGHT keys.

Starting Bar: The music may be played from any bar. This value is lowered by pressing the LEFT cursor and raised by pressing the RIGHT cursor. Holding down SHIFT while moving left and right changes the value by 10.

Tempo: There are eight tempos ranging from 'Prestissimo' (the fastest) to 'Grave'. The default setting is 'Allegro' which is approximately 125 beats per minute.

Transposition: The entire musical score can be transposed to a different pitch: (C, C#, D, D#, E, F, F#, G, G#, A, A#, B)

The letters on the right of the musical note symbol indicate which channels are going to be played. The channels may be toggled ON or OFF by pressing the letter or corresponding number (A, B, C or 1, 2, 3).

TAB Pressing (TAB) exits the playback mode.

ENTER Start the playback of music.

DEL Stop the music.

SPACE Option to change the individual channel octave and volume setting.

OCTAVE & VOLUME

Pressing (SPACE) displays the octave and volume settings for the three sound channels. The 'highlight' may be moved around this grid of parameters using the cursor keys. The value of the highlighted parameter can be changed by typing the new value. The octave range is 1 to 4 and the volume range is 1 to 5.

Pressing (SPACE) returns to the other playback menu.

DURING PLAYBACK

The music will play until the end of the composition and then return to the editor unless it is stopped by pressing (DEL).

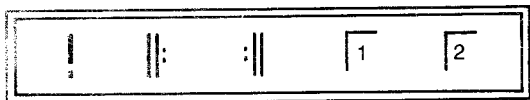
Stopping the music returns to PLAYBACK menu.

Note that the border colour changes when the music is started.

REPEATS

Many pieces of music have sections that must be repeated when played. So that you do not have to duplicate the section, wasting both time and memory, the MUSIC BOX incorporates repeat commands.

The REPEAT menu is displayed in the top left hand window and is activated by pressing the '# ' key. Five symbols will be displayed as below.



A 'highlight' is used to indicate which command you want to use. This is moved using the LEFT and RIGHT cursor keys. Pressing ENTER executes your command.

The repeat symbols place a vertical bar on the staff just like a barline. However, they do NOT necessarily indicate the start of a new bar. Sections may be repeated midway through a bar if needed.

! Selecting the exclamation marks exits the menu cancelling the repeat.

||: Indicates the start of a block.

:|| Indicates the end of a block. On playback, the music will be played again from the start of the block up to this point.

$\overline{1}$ | 'First time bar'. On the first playing of the marked block, this command will be ignored, but on the second playing the music will jump from this point to the 'Second time bar' point.

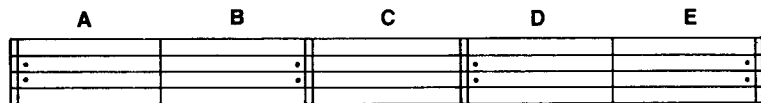
$\overline{2}$ || 'Second time bar'. This marks the end of a block but is also the point where the 'First time bar' is to jump to when the block is repeated.

You may NOT start a new block before the previous one has been ended although mistakes will not damage the tune in any way.

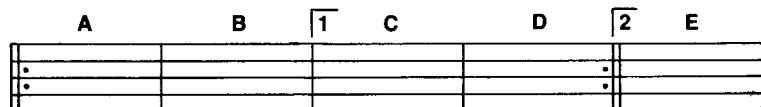
It is possible to make a section repeat forever by entering a 'first time bar' with a block repeat directly after it and not specifying a 'second time bar'.

If the start of a block is also the first note of the music then the starting point doesn't need to be indicated. Repeat symbols are inserted in the same way as notes (see the EDITOR section).

Examples of using repeats.



PLAYS A-B A-B C D-E D-E



PLAYS A-B-C-D A-B-E

LOADING AND SAVING MUSIC FILES

Included with the MUSIC BOX is a small library of melodies to demonstrate the capabilities of the program.

To Load or Save music you must first find the ACCESS menu. This is done, from the editor, by pressing 'TAB' and selecting "ACCESS" from the TOOLS menu.

LOADING MUSIC

NOTE: The Load command will erase any existing music in the computer's memory.

To Load a music file select option '1' from the ACCESS menu.

TAPE VERSION

Enter the filename of the music you want to load or just type 'ENTER' to load the next file on the tape. If you want to cancel the command at this stage then press 'TAB'.

Position the cassette to the start of the music file.

Press Play then any key.

Pressing 'ESC' will abort the command while the tape is running.

The demonstration tunes are recorded after the MUSIC COMPOSER program on side A.

DISC VERSION

Enter the filename of the music you want to load. It is possible to cancel the command at this stage by pressing 'TAB'.

Ensure the disc is placed in the drive and then press 'ENTER' to LOAD.

The demonstration tunes are on side A of the disc.

ENVELOPES

Envelopes created from the companion SYNTHESISER program may be loaded by selecting option '2'. Each envelope file comprises a set of seven 'instruments'.

Enter the filename of the envelope file as above.

NOTE: All music filenames end with ".MUS" and envelope files end with ".ENV". This is added by the program and should not be specified when entering filenames.

SAVING MUSIC FILES

Type '3' to select the SAVE MUSIC FILE option.

TAPE VERSION

Enter the filename of the music in memory (max 13 letters).
You may cancel the command at this stage by typing 'TAB'.

Insert a blank cassette into the datacorder.

Press REC and PLAY then any key.

DISC VERSION

Enter the filename of the composition (max 8 letters).
You may cancel the command at this stage by pressing 'TAB'.

Insert a formatted disc into the drive.

Press 'ENTER' to save the music.

CATALOGUE

Either the Tape or Disc may be Catalogued from the ACCESS menu by selecting option four.

Tape users return to the menu by typing 'ESC' and Disc users should type 'TAB'.

TAPE/DISC

Option five allows owners of a disc drive to select the storage medium. Pressing '5' toggles between TAPE and DISC, highlighting the currently selected option.

MUSIC AND INSTRUMENT FILES

File Types

Both the cassette and disc version of the MUSIC BOX utilise two different types of file.

The filetype is determined by the last three letters of the filename and is added automatically by the computer.

- | | | |
|------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| .MUS | MUSIC FILE: | A file comprising musical notes. The complete musical composition is saved with this filetype which also includes information such as the tempo, volume and octave settings. |
| .ENV | ENVELOPE FILE: | A set of instruments with their envelopes is saved with this filetype. Each set comprises seven sounds. |

The provided INSTRUMENT SET is called PRESETS.MUS and is loaded automatically with both the composer and the synthesiser programs.

LIBRARY OF MELODIES

The MUSIC BOX system includes a library of twelve melodies. These melodies are loaded from the ACCESS menu in the music composer.

Full name of Music	Filename	Composer
Annie's Song	ANNIE	J. Denver
The Arrival of the Queen of Sheba	SHEBA	Handel
Badinerie	BADINERI	Bach
East Enders	EASTEND	S. May & L. Osbourne
Going Home	HOME	M. Knopfler
March Militaire	MARCH	Schubert
Menuet	MENUET	Bach
Music Box Dancer	MUSBOX	F. Mills
Musette	MUSETTE	Handel
Minuet. Two of Bach's minuets	MINUET1	Bach
	MINUET2	Bach
Tambourin	TAMBOUR	Gretry

THE SYNTHESISER

The SYNTHESISER is a separate program included in the MUSIC BOX package. Consult the 'Setting up' section for details on loading the program.

To obtain the best results on playback of your musical compositions, the MUSIC BOX incorporates a Synthesiser to create and edit sets of 'instruments' which may be saved and used with the MUSIC COMPOSER.

A 'set' comprises seven instruments. Each instrument has two ENVELOPES, one for volume and the other for tone.

An envelope is a group of parameters which control the sound of the instrument as it is played. The command is potentially complex, however, the Synthesiser simplifies matters by displaying the parameters graphically.

On loading, a menu will be displayed offering four options concerning loading and saving envelope files (see later). Below this, is a window displaying the number 1 to 7, corresponding to the seven instruments. A cursor will point to number one.

* MUSIC BOX SYNTHESIZER *

```
(1)  LOAD FILE
(2)  SAVE FILE
(3)  CATALOGUE
(4)  TAPE/DISC
```

← ↓ ↑ → <ENTER> Edit <SPACE> ♪

VOLUME Envelope

1 2 3 4 5 6 7



TONE Envelope

File name: ANONYMOUS

CONTROLS

Cursor Keys:

- LEFT Moves the cursor to the left.
- RIGHT Moves the cursor to the right.
- DOWN Selects the TONE envelope corresponding to the current instrument.
- UP Selects the VOLUME envelope of the current instrument.
- SPACE Plays the currently selected instrument.
- ENTER Edits the selected envelope of the current instrument.

EDITING ENVELOPES

When the EDITOR is entered, a bordered window will appear on the screen

with the selected envelope displayed inside it. At the bottom of the screen is a panel of parameters.

VOLUME ENVELOPES

A Volume envelope determines how the sound's amplitude varies with time.

The vertical scale on the left indicates the volume; there are ten divisions.

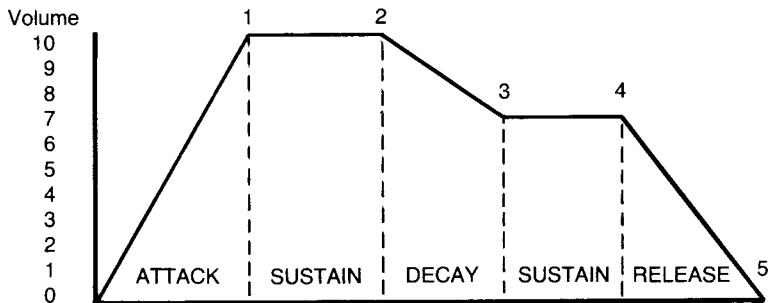
The ENVELOPE comprises a starting point (0-10) and then up to five successive points indicating how the volume will change.

The CURSOR KEYS or the LIGHT PEN may be used to change the current section of the envelope. The selected control devices is displayed in the bottom right corner of the screen.

CONTROLS

- CLR** To start a new envelope press (CLR) while in the editing mode. This will delete the currently selected envelope.
- ENTER** You may use either the keyboard or light pen to control the shape of the envelope by moving the flexible line around the screen. Each line is called an envelope section. The section is secured by pressing ENTER.
- SPACE** Pressing SPACE will sound the currently edited instrument with both the TONE and the VOLUME envelopes.
- CTRL** This is a toggle indicating the use of either KEYBOARD or LIGHT PEN. The currently selected option is displayed in the bottom right hand corner of the screen.
- TAB** This EXITs the editing mode.
- 0 – 5** Pressing any of the numbers 0 to 5 will allow the user to edit the corresponding section of the envelope. If the section does not yet exist then no action is taken. Pressing 0 (zero) edits the starting volume.
- DEL** If you are at the end of the envelope then pressing DEL will delete the section to the left.

A typical 5 stage VOLUME ENVELOPE



VOLUME: (1,2,3,4,5,6,7)
envelope:

SECTION: (1,2,3,4,5,END)

KEYBOARD/LIGHTPEN

STARTING VOLUME

The volume envelope requires a starting volume which is taken to be section zero. The starting volume is represented by the small arrow on the left of the screen on the vertical scale.

When you exit the editing mode, the computer will interpret the graph and calculate the parameters that make up the sound. In doing this it MAY adjust the graph slightly to improve the sound.

STONE ENVELOPES

A Stone envelope determines the change in pitch of a sound with respect to time.

The envelope is controlled in the same way as the volume envelope. However, the starting point will always be the pitch of the note to be played. This pitch is represented by the horizontal line in the centre of the screen.

All changes in pitch are relative to the starting pitch.

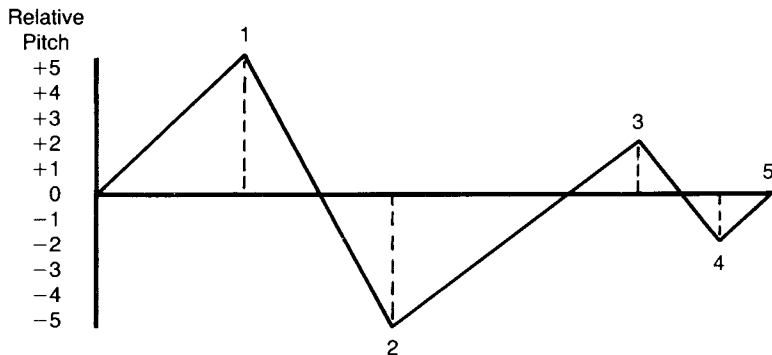
The time scale on the TONE envelope is shorter than that of the VOLUME envelope. This is because changes in pitch should be made quickly so that the music does not sound 'out of tune'.

The entire Tone envelope may be repeated again and again until the note being played ends. This is done using the repeat toggle.

£ Toggles repeat ON/OFF

The envelope will repeat from the pitch where the previous envelope finished, therefore, you should ensure that the last stage of the envelope moves back to the central horizontal line. Failing to do this will cause the note to continue rising or falling in pitch.

A typical Tone envelope giving a VIBRATO effect



TONE: (1,2,3,4,5,6,7)
envelope:

SECTION: (1,2,3,4,5,END)
REPEAT: (ON/OFF)

KEYBOARD/LIGHTPEN

NOTE: On loading, the synthesiser has the presets file loaded already.

LOADING and SAVING ENVELOPES

The sets of instruments provided with MUSIC BOX have the filename "PRESETS". On loading either the SYNTHESISER or the MUSIC COMPOSER, the Preset sounds will be resident in the system.

The main menu screen, displayed on loading, offers the following options:

- 1) Load Envelope File
- 2) Save Envelope File
- 3) Catalogue
- 4) TAPE/DISC

Press keys '1' to '4' to select the required option.

LOADING ENVELOPES

Loading in a new set of envelopes will overwrite the current set in memory.

Select option '1' from the menu and then enter the filename of the envelopes. Ensure that the disc is in its drive or the cassette in the Datacorder.

SAVING ENVELOPES

The set of seven instruments may be edited, resaved and then loaded back into the MUSIC COMPOSER.

To save the set of sounds select option '2' and enter the filename to be saved. Insert the Cassette or Disc.

CATALOGUE

Option '3' allows the Tape or Disc to be catalogued.

TAPE: Press 'ESC' to Exit

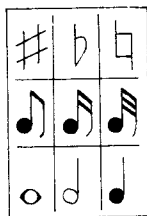
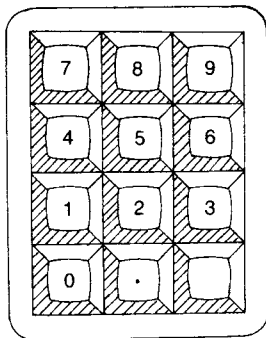
DISC: Press 'TAB' to Exit

TAPE/DISC

Option '4' allows owners of both cassette and disc to select which peripheral they want to use. The currently selected is 'highlighted'.

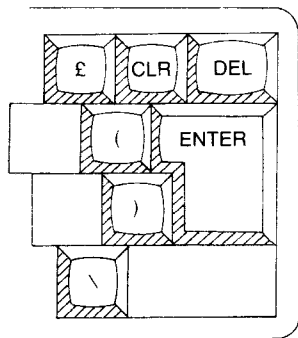
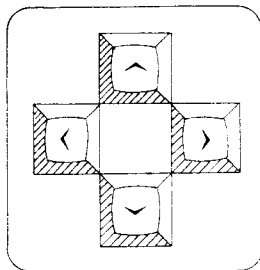
QUICK KEY GUIDE

NUMERIC KEY PAD



0 NOTE/REST
· DOT

CURSOR KEYS



ENTER Enter note

DEL Delete

CLR Insert

[Triplet

] Tie

/ Envelope

TAB TOOLS Menu

CTRL PLAY Music

GLOSSARY

ACCIDENTAL	The sign which alters a note by a semitone, i.e. ♯ (sharp) raises it; ♭ (flat) lowers it; ♮ (natural) restores it to its original position.
BAR	A metrical division of music indicated by a vertical line in musical notation.
BEAT	A rhythmic pulse lasting for the duration of a quaver.
CHORD	A combination of notes played simultaneously.
CLEF	A sign in a stave that fixes the location of the notes.
CROTCHET	Note that equals two quavers and is given the value of one beat.
DOT	Increases the length of a note by a half.
DOUBLE BAR	Two vertical lines indicating the end of a section of music.
DEMISEMIQUAVER	Note that equals half a semiquaver ($\frac{1}{8}$ beat).
ENVELOPE	A group of parameters that govern the sound of an instrument.
FLAT	Indicates the lowering of pitch by a semitone.
KEY SIGNATURE	An indication of the number of accidentals in the key of the composition.
MINIM	Note that equals two crotchets (2 beats).
NOTE	A single sound of specified pitch and duration.
OCTAVE	Interval of pitch of eight tones.
QUAVER	Note that equals two semiquavers ($\frac{1}{2}$ beat).
REST	The notation of a pause for a definite period of time.
SCALE	Progression of adjoining notes upwards or downwards.
SCORE	Copy of any music written in several parts.
SEMIBREVE	Note that equals two minims (4 beats).
SEMITONE	Smallest interval of pitch (Eg between C and C \sharp).
SEMIQUAVER	Note that equals two demisemiquavers ($\frac{1}{4}$ beat).
SLUR	Describes a section of music where notes are played so that they run into the next. Opposite of staccato.
STACCATO	Describes music to be played in a short detached manner.
STAFF	Horizontal lines on which music is written.

SYNTHESISER	Device used to edit and create envelopes.
TEMPO	Pace or speed of music.
TIE	A symbol that links two notes of equivalent pitch so that they sound as one.
TIME SIGNATURE	Indication of the duration of all bars in the composition.
TONE	Interval of pitch of two semitones.
TOGGLE	A switch with two states. Usually ON/OFF.
TRANSPOSE	The playing of a piece of music at a different pitch from that originally intended.
TRIPLET	Note that lasts for the duration of a third of a crotchet, usually in groups of three. ($\frac{1}{3}$ beat).

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THE ELECTRIC STUDIO

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