

**MIDI
MASTER**
*INSTRUCTION
MANUAL*



INTRODUCTION

MIDI MASTER is a hard/software hybrid system to allow you to use your Atari to control a synthesiser or drum machine via MIDI. MIDI (Musical Instrument Digital Interface) is a standard that allows information to be transferred between synthesisers and other devices (A bit like RS232 for computers) via a normal 5 pin DIN connector.

The hardware side of MIDI MASTER consists of a lead with a serial port connector at one end and two DIN plugs at the other end, labelled 'I' and 'O'. These should be connected to the MIDI IN and OUT sockets on the synthesiser. The other end should be plugged in the back of the Disk drive or the Atari

NOTE: If you own a tape recorder with two serial connectors it is best to ignore the second connector and plug the MIDI cable straight into the computer as MIDI data from a synth can corrupt tape loading /saving.

There are three basic application programs supplied with MIDI MASTER on tape or disk. There is a sequencer package to allow you to record your own tunes from the keyboard, a music player package to let you play tunes that have been composed in the normal way on the Music composer cartridge (Or the Advanced Music system for disk owners) and a patch editor (Well two actually!!) to allow patches to be edited and stored on disk or tape.

MIDI SEQUENCER

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Loading:

TAPE: The sequencer is recorded on the front side of tape one. To load turn on the computer with both OPTION and START keys pressed. Once the program has loaded it will run straight away.

DISK: To load the sequencer type 'L' and RETURN and then type the filename 'SEQ' and RETURN. The program will then load and run.

NOTE: There are some demonstration tunes on the disk for the sequencer. These will have the extension '.SEQ'

The screen:

The screen is divided into two sections; the status line at the top showing the metronome time and the free memory, and the status block, with a line for each track.

The metronome is used to provide timing when recording and provides an audible click. The delay between each beat is variable between 0.1s and 3.1s in .1s steps and is changed by using the '<' and '>' keys. (Setting the time to zero will disable the metronome)

The main block consists of 8 lines, with each line showing the parameters for an individual track. These parameters are changed by moving the cursor over them and then typing a new numeric value. The parameters are as follows:

REC: This parameter selects the MIDI channel that will record onto the track. Its range is 00 to 16, with zero disabling recording on the track.

PLY: This parameter selects the MIDI play channel. Again a value of zero will disable play.

PGM: This parameter is the MIDI program number that will be transmitted before any notes are played. Its range is 0 to 127.

TRP: This parameter allows the notes on a track to be transposed up or down. Its range is -99 to +99. Note: To change the sign use the Space bar.

REP: This parameter controls the number of repetitions of a track once it has played.

LEAD: This parameter allows you to delay the start of a track. The lead in time is measured in 100ths of a second.

GAP: This parameter is like the LEAD but controls the time interval between repetitions of a track.

Controls:

There are six keys that control the sequencer. Their functions are listed below.

SAVE (S): This will save all eight tracks to tape or disk. You will be asked to type in a filename.

LOAD (L): This function is the opposite of the SAVE

function.

WIPE (W): This function will wipe a single track. Confirmation is requested to guard against accidental erasure.

PLAY (P): This function will play all enabled tracks over MIDI. Play can be aborted by using the OPTION key.

RECORD (R): This function will allow you to record from MIDI. If the metronome is on then there will be an 8 beat lead in before recording starts. As the tracks are only monophonic you will have to enable multiple tracks to record chords from an instrument. Any play enabled tracks that are record disabled will play as accompaniment.

TIME (T): This function only operates on the current track, and allows you to retune the notes on that track by tapping out the rhythm on any key. Otherwise it is identical to RECORD.

THE MUSIC PLAYER =====

Loading:

For tape owners the music player program is recorded on the back side of tape number one. To load it turn on the computer with the START and OPTION keys held down. The program will run automatically. Remember to stop the tape after the program has loaded because a demonstration tune has been recorded afterwards from the Music Composer.

On disk there are two versions of the program, MPLAY for Music Composer tunes and APLAY for Advanced Music System tunes. To load either these type 'L' and press return and the type the filename MPLAY or APLAY.

There are some demonstration tunes recorded on the disk. The tunes for MPLAY have the extension '.MC' and the tunes for APLAY have the extension '.AMS'.

When the program has loaded you will be presented with a screen showing four options. These options are selected by pressing their initial letter (which is highlighted on the screen)

To load a tune press 'L' and type in the filename e.g. C: for cassette or D:filename.extension for disk.

Once the tune has been loaded it can be played on you synthesiser by pressing 'P'. Once the tune has started playing it can be stopped at any time by pressing the OPTION key.

If the tune is playing at the wrong speed you can change the tempo by pressing 'T' and entering a new value. The larger the value is, the slower the tune will play.

There are two modes that the tune can be played in, MONO and POLY. You can switch between the two modes by pressing the 'S' key. NOTE: When you are in POLY mode the line will read 'SELECT MONO MODE' and when you are in MONO mode the line will read 'SELECT POLY MODE'

POLY mode means that the 4 voices are sent over MIDI channel #1 whereas MONO mode means they are sent over MIDI channels #1 to #4 respectively. This is ideal for use with more than one synthesiser, or a multitimbral synthesiser like the casio CZ101 in SOLO mode.

LIMITATIONS =====

There are some limitations with this program which are partly due to incompatibilities between the way MIDI handles notes and the way the Atari handles them.

Firstly the Music players do not support velocity sensitivity information at the moment. This is likely to be rectified in future versions of the programs.

Also certain tunes composed using the Advanced music System use the fact that the sound generators are continuously on to produce envelope effects by playing identical notes with different volume values in quick succession. Because MIDI treats notes as discrete events this means that single notes with 'envelopes' will come out as rapid trills on a

synthesiser connected to the MIDI. Also, because neither of the music systems support enveloping ,and thus dont have different sounds, the music player programs do not allow MIDI program changes to occur during the playing of a tune. To solve this problem Music player programs will eventually be produced to support more advance programs such as 'BANK STREET MUSIC WRITER' and 'ACTIVISION MUSIC STUDIO'

CZ PATCH EDITOR

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Loading:

TAPE: The CZ Patch editor is recorded on the front side of tape number two. To load it turn on the computer with both OPTION and START keys pressed. The program will run automatically once it has loaded and you can then unplug the tape recorder and plug in the MIDI interface.

DISK: To load the patch editor off of disk type 'L' and press return and then type in the filename 'CZV'.

This program will allow you to create new voices or edit existing voices for your Casio CZ101, CZ1000, CZ3000, CZ5000, or CZ230, without using the synth itself. For owners of the CZ230 this is an exceptionally usefull program as the only way that it is possible to create a new voice on that particular model is via MIDI, so this program effectively turns a non programmable preset keyboard into a fully programmable synth. Once voices have been created they can be stored on cassette or disk for safekeeping.

Once the program has loaded the screen will appear. This will show all of the parameters involved, albeit in a slightly different arrangement to the way patches are normally printed in magaazines etc.

Talking to the Synth:

If you examine the screen you will find, inbetween the two lines, a two digit number with arrows above and below it. This number will change as you select different presets on the synth and represents the current memory pointer.

When you press the OPTION key the editor will fetch the patch data corresponding to this number from the synth, and it will display that patch on the screen for you to change or examine. Once you have edited the patch you can transmit it to the synth by pressing the SELECT key. This causes the patch to be written to the internal buffer on the synth ready to be written to memory or cartridge.

NOTE FOR CZ230 OWNERS: With this model there are only 4 programmable memories, numbers 96 to 99. If the memory pointer is in the range 97 to 99 then pressing SELECT will write the patch data directly to the relevent memory, otherwise the patch data is written to memory number 96, so in order to hear your changes you must select a preset in the range 96 to 99 on the synth.

Editing Voices:

It is extremely simple to change patch data for a voice using this program. Firstly you must position the cursor (The Orange Blob on the screen) over the required paramater by using the cursor keys. NB: To make movement simpler it is not necessary to use the CONTROL key, just the cursor keys on their own.

For parameters such as the Line Select, Modulation, or

Octave, pressing the RETURN key will cycle through the options. For the other parameters the numbers can be typed in directly. Because the cursor keys are the same as the '+' and '-' keys on the keyboard you must use the 'p' and 'm' keys instead to change the sign on the Detune parameter. Also the keys 's' and 'e' can be used to place the sustain and end markers into the envelopes.

At any time you can initialise a parameter by pressing the ESCAPE key, this will produce the same effect as the INIT button on the Synth.

Storage:

To save or load a patch all you need to do is press the START key. The screen will change to a prompt saying 'COMMAND:' and an underline cursor. (If you are a tape owner now is the time to unplug the MIDI and connect the tape deck) The format of a command is very simple, you type either 'L' for load or 'S' for save and then type 'C' or 'D' (Cassette or Disk) and filename.extension for a disk file. If a mistake is made at any time pressing ESCAPE will return to the main screen. Once the command has been entered pressing RETURN will do it.

DX100 PATCH EDITOR

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This program will allow owners of the DX100, DX21, and DX27 keyboard synthesizers to transfer patch information between the synth and the computer, and then edit the parameters on the computer. As well as supporting single voice transfer the program will also allow the bulk transfer of all internal memories to or from Disk or Tape.

Loading:

TAPE: The DX Patch editor is recorded on the back side of tape two. To load it turn on the computer with both OPTION and START pressed. The program will execute automatically.

DISK: To load the Disk version type 'L' and then RETURN and then type the filename 'DXV' and return. The program will then load.

The Options:

When the program has loaded you will see a line saying 'EDIT VOICE' this is the current option. This can be changed by using the OPTION and SELECT keys. The other options are Load and Save voice, and Load and Save bulk voices. To select an option you must then press the START key. For the file options you must then type in a filename.

Editing Voices:

Underneath the option is a list of parameters. The current parameter is highlighted. To select a parameter use the cursor up and down keys (without pressing CONTROL) to move through the list. To actually change a parameter the option must be selected to 'EDIT VOICE' and the START key pressed. The new value for the parameter can then be typed in.

NOTE: Unlike the CZ Patch editor, data is automatically transmitted to and from the synth every time you either change the preset on the synth, or change a parameter on the computer. Thus you can hear the changes you make straight away. But the changes are only transmitted to the internal buffer on the synth. You have to store them in internal memory yourself.

Problems:

This version of the program does have one or two bad points. Firstly the parameters are all unsigned numeric, raw MIDI data. Consult the Voice parameters (VCED format) table at the back of the manual for clarification. Later versions will correct this. Another problem is that the tape save/load operations are superfluous because the synth already has a tape interface that records at higher speed than the ATARI will.

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