

# MUZIX MIDI <=> ANALOGUE CONVERTER

## 48K ZX SPECTRUM VERSION 1.1

This package contains four parts. Programs 1 and 2 enable the communication between the 1V/octave analogue and the MIDI equipments in both directions. Programs 3 and 4 are converting sequencer timing signals of different standards into each other using MIDI signals on one side and 5V digital pulses or audio clicks on the other. This enables the synchronisation of any MIDI equipment to a multitrack recorder. Dividing or multiplying the timing signals by any number is also possible.

The use of these programs requires a 48K ZX Spectrum, the MUZIX81 COMPOSER BOX, and the two special MIDI cables supplied.

### 1. ANALOGUE CV TO MIDI CONVERTER

Connect the 1V/octave analogue keyboard to the MUZIX BOX's CV IN and TRIG IN connectors using TRIG 1. for switch trigger standard and TRIG 2. for voltage trigger. The proper MIDI cable should be in the ACCENT OUT socket.

Choosing ASSIGN prompts you to press the middle "C" on the analogue synthesizer. This key will be assigned to the MIDI middle "C" (pitch value=60). Now you can stack up an arbitrary number of notes to form a "chord memory". The little arrows showing to the appropriate notes on the keyboard appearing on the screen will denote the harmonies that will be reproduced by a single keystroke.

A flashing "R" indicates when the program is running. You can return from it by pressing any key.

You can select any of the MIDI channels 1 to 16.

### 2. MIDI TO ANALOGUE CV CONVERTER

Connect the proper MIDI cable into TRIG 1. IN, and take the CV OUT into the analogue synthesizer. Use the ACCENT OUT socket for the trigger input of your synth.

You can select MULTI or SINGLE trigger mode. SINGLE means that a new note begins only if all keys have been released previously. A TRANSPOSITION can be chosen between -24 and 24 semitones. Zero transposition means that the middle "C" will produce 2 volts. The keyboard algorithm used is last note priority so if you press more than one key at a time the last one will be sustained.

Note: This program functions correctly only if a wire is cut on the p.c. board beside IC 10. Check for this if the program does not seem to work.

### 3. AUDIO TO MIDI CLOCK CONVERTER

If your equipment has a 5V digital pulse output for synchronisation (e.g. ROLAND TR 808) then connect it to the mini jack socket above the STEP button. If you want to use a click track recorded earlier, connect it to AUDIO IN and adjust the gain. The MIDI cable should be in the ACCENT OUT socket.

Either MULTIPLY or DIVIDE mode can be selected and a factor can be chosen between 1 and 16.

### 4. MIDI TO AUDIO CLOCK CONVERTER

The proper MIDI cable should be in TRIG 1. as usual, and you get a voltage trigger pulse on TRIG 2. OUT. If you need an audio click signal instead of this, then use a cable to connect TRIG 2. OUT to the mini jack above STEP and you get the click at the AUDIO OUT socket.

Either MULTIPLY or DIVIDE mode can be selected and a factor can be chosen between 1 and 16.