Casio FZ-1: Tips and Tricks

Here you get tips about how to get the most out of your sampler. If you have tricks that you want to share with other Casio FZ owners, mail them to me and I will add it to the list below. All tips comes from the newsletters I wrote during the time I was running the Swedish Casio FZ users Group.

Inhalt

1   Home
1.1   Casio FZ pages

This is my Casio FZ page. Here you will find information about how to get the most out of your sampler, how to get CD-ROMs with FZ samples how to get software to transfer samples to/from the FZ and links to other Casio FZ pages.

I used to run the Swedish Casio FZ Users Group a couple of years ago. The Users Group does not longer exist but I will continue to gather and provide information about information on these pages.

NOTE! I am not affiliated with Casio in any way!

1.2   The mailing list

Would you like to be notified when the Casio FZ pages update? Please e-mail me. I will not distribute to anyone or use your address for any other purpose than to notify you when these pages update.

2   System
2.1   Change the "angle" of the display.

1. Press the MODIFY button.
2. Press the DISPLAY button and keep it pressed.
3. Move the VALUE lever up and down until the right angle is obtained.

2.2   Find the hidden menu.

1. Switch off the Casio FZ.
2. Press the DISPLAY button and keep it pressed.
3. Turn on the power to the Casio FZ.
4. You can release the DISPLAY button.

Now you should find a new menu item below OPT SOFTWARE called SYSTEM TOOLS. There you will find two menu items, LCD CHECK and FLOPPY CHECK. If you enter the LCD CHECK all the pixels turn black. One more click on the ENTER button shows all the characters the Casio FZ can display. One more click on the ENTER button takes you back. FLOPPY CHECK checks the floppy drive(!). It is a very slow process. Use an empty floppy disk.

At the bottom of the view the ROM version is shown. I do not know the difference between version A and version B. If you know, please mail me!

2.3   Recovering disks that generates "DISK ERROR" message.

Use the Optional Software Copy Tool and make a copy of the damaged disk. Copy Tool will show the "DISK ERROR" message but continue to copy the disk! The copy should now be readable but some voices may be wrecked.

2.4   Call/Set Menu

The call/set menu is very usefull for live acts. you can remember any page of the fz os and call it with one click from the play mode. use it to change midi values or even to examine disks quickly. Another possible use: remembering the sampling page and call it from the bank edit page when sampling a large set of sounds.

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3   Voice
3.1   Adjust the recording level in the right place!

Do not adjust the recording level in the LEVEL SET menu. The recording level will increase in the MANU SAMPLING and AUTO SAMPLING menus and lead to distortion.

3.2   Truncate

A rule of thumb to minimize the risk of getting anoying noise/clicks at the end of the truncated sample. Cut the ending point of the sample just as it "passes the x-axis" in the "truncate graphic display" mode (see Create Vioce section in the manual).

Even if the the sample is cut according to the tip above, unwanted noise/clicks can still occur. The trick to get around this is:

1. Go to the TRUNCATE menu and step down to the END FINE parameter.
2. Decrease the value 4-8 steps.

This will eliminate the noise/clicks in almost 100% of the cases.

NOTE! The Casio FZ-10M/FZ-20M do this automatically.

3.3   DCF

To get rid of the sweeping effect on a new voice you can do:
1. Set the CUTOFF FREQ = 127. Done.
2. Set the STEP 2 = END, RATE 2 = 00 in the DCF ENVELOPE menu. Note: This is the default values on the Casio FZ10M!

To boost the treble of a sampled sound set the CUTOFF FREQ = 127 and RESONANCE = 127 in the DCF ENVELOPE menu. This is great for hi-hats, cymbals and snare drums.

3.4   DCA

You may have noticed that there are a quite significant difference in time between the settings RATE = 99 and RATE = 98 in the DCA ENVELOPE menu. To "fake" a value between 99 and 98, try these settings:

STEP 1 = ***, RATE 1 = 99, LEVEL 1 = 85
STEP 2 = ***, RATE 2 = 99, LEVEL 2 = 99

3.5 Create a detune effect

You can create a detune effect with the FZ. Follow these steps:

1. Go to the MIX WRITE menu.
2. Select an empty voice in the DEFINE VOICE menu.
3. In the VOICE SELECT menu, select the same voice in 1ST VOICE and 2ND VOICE.
4. In the DETUNE menu you tune one voice (or both voices) until desired detune effect is obtained.
5. Go to the EXECUTE MIX menu and execute.

3.6 Normalize/optimize gain

In most samplers there are a function called Normalize or Optimize gain (or something similar). It raises the volume of a sample that was sampled with too low input gain. The FZ lacks this function but it can be simulated.

1. Go to the MIX WRITE menu.
2. Select an empty voice in the DEFINE VOICE menu.
3. In the VOICE SELECT menu, select the same voice in 1ST VOICE and 2ND VOICE.
4. In the LEVEL SET menu, set the levels to 1ST LEVEL = 200 and 2ND LEVEL = 200. You will have to experiment here but these values works in most cases.
5. Go to the EXECUTE MIX menu and execute.

3.7 How to simulate compression

To simulate compression set the DCA levels as follows:

STEP 1 = ***, RATE 1 = 99, LEVEL 1 = 99
STEP 2 = SUS, RATE 2 = 97, LEVEL 2 = 90

To vary the attack time of the compression, change the RATE 2 value. To vary the compression level, change the LEVEL 2 value. This is a great effect to use on bass sounds and bass drums.

3.8 How to simulate reverb

You can simulate a reverb effect (on non percussive sounds) with the dca and the dcf envelopes:
-1st steps and rates to 99 on both envelopes.
- 2nd step level 75 rate 98 in the dca (altering this parameters => wet/dry mix)
- final dca step: level 20 (the higher or lower values => reverberating time)
- 2nd dcf step rate 15
- dcf cutoff=0.
the physical principle is that higher frequencies decrease faster in a natural environment.

3.9 Separate outputs tricks

You can use that funny behavior of the outputs to create panning effects assigning two outs to the same sound and panning them fully to left and right in the mixer. it is also interesting for HH sounds to assign both open and closed to the same monophonic output.

4   Want more crunchy trebbles in your sounds ?

Load a sample.
Go to voice menu and then create voice and then loop menu.
You 'll see in this menu an option called "cros time".
Set the value to 0001 and listen to the sound. It gives you extra aliasing now at low octaves and extra brightness at the original tune and higher octaves...

(Sounds very cool on vocoder samples! - Andreas)

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5   General

5.1   Sampling tips

If possible, turn off the LFO on the synth/sampler you are going to sample from. Add the vibrato with the LFO in the FZ instead.

If the synth/sampler you are sampling form has a built in Chorus effect, turn it off and create a detune effect in the FZ instead.

If you are sampling strings or bass sounds you can make them sound "richer" by recording a chord consisting of two notes, an octave apart, into a sequencer. Press play on the sequencer and sample the chord.

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6   Optional Software

On this side you will find manuals for all Optional Software I know of. As far as I know this software is freeware (if it is not, please let me know!). If you are interested in a copy mail me. I have written the manual for "Optional Software Test Disk v. 1.62". The other manuals are written by Frank Nitzinsky.

6.1   Optional Software Test Disk v. 1.62

6.1.1   CKMEMORY

Checks the RAM memory. Reads and writes in all memory cells. A very time consuming test.

6.1.2   CKSWITCH

Tests all buttons on the FZ and the sustain pedal. You are notified if you press the wrong button by an error message on the display.

6.1.3   CKPLAY

Checks the keyboard. Shows note number, velocity and aftertouch values. Also checks pitchbend, modulation, foot volume and main volume.

6.1.4 CKMIDI

Checks the MIDI ports. Connect the FZ MIDI OUT to the FZ MIDI IN and execute the test.

6.1.5 CKPORT

Checks the high speed port. Two FZ-1/10M/20M is needed to perform the test. Have not been able to get it to work.

6.1.6 CKDISK

Checks the floppy drive by reading and writing data from/to a disk. NOTE! Use an empty, formatted disk!

6.1.6.1 COPYDISK

Disk copy program.

6.1.7 SPLAYC

Simple sequencer. Can only record MIDI data via the MIDI in port, not from the keyboard. The tempo can be changed from 1000 to 32767. The controls are STOP, PLAY, REC and CLR.

6.2 Below follows the manuals written by Frank Nitzinsky

This is all the information I have on the Casio FZ Optional Software. I intend for this list to be a complete guide that will hopefully replace the old documentation. Future versions should be available in HTML, Word 6.0 and .TXT format. However, there are a few applications of which I am lacking information, as there are some applications I do not even have. If you have any information or corrections to this list for me, please e-mail them to me at: eye-d@dds.nl. If you have an application that I have not listed here, or paper-documentation that I have stated I do not have, which you want to send over... my address is:

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4463 JB Goes
The Netherlands

I will gladly make copies for other FZ-users out there. If you want an application that I have, send me an e-mail and we'll discuss the best way to handle the transfer!

Now, help me!
Frank

6.2.1 Disk Copy Tool

This application will enable you to make multiple copies of any Casio FZ Optional Software packages or sound disks. COPY TOOL is, in fact, necessary to copy any Optional Software applications, while sound disks can also be copied from the DATA DUMP menu.

Note: COPY TOOL is currently resident on the disk labeled LOOP OPTIMIZER.

To use COPY TOOL:

You will need one or more blank formatted DS/HD disks on which to copy, and the master copy of whatever optional software (or even sound disks) you wish to copy.

1) Insert the FZ COPY TOOL (or LOOP OPTIMIZER) disk into the drive.

2) Go to the MAIN MENU, cursor down to OPT SOFTWARE, and press ENTER.

3) Cursor down to COPY DISK and press enter.

4) You will receive a prompt to INSERT MASTER; at this time, insert the master disk you wish to make a copy of and press YES.

5) The screen will say READING MASTER, as it does just that.

6) When the master disk is read into memory, the screen will say INSERT BLANK. Remove the master disk and insert your formatted blank DS/HD disk.

7) Wait just a moment (5 sec.) before pressing YES to start copying onto the blank disk. The screen will say WRITING BLANK while making the copy.

8) When the first copy is completed, the screen will read NEXT BLANK?, at which time you can insert additional formatted blank disks to copy the same program onto. Press YES; the screen will read INSERT BLANK, the press YES a second time to start copying. If you don't require any more copies, press ESCAPE to return to the MAIN MENU. Sound disks or propriety optional software disks for the FZs can be copied using this program.

Note: MAX-MIN (only included on early copies of the program) is an experimental program, using an undocumented numerical method of determining amplitude levels to ascertain whether a particular sample is clipping or not. You will probably save time and get more mileage out of your ears for this purpose, so we don't see the need to go into detail. If you can use it, fine, it's fairly self explanatory; if not, simply ignore it.

<end of original documentation>

Beware that this program does not verify your data, it just copies! As far as I know this application does not allow itself to be saved to another disk without having to copy the entire disk on which the program resides.

6.2.2   Disk Directory

FZ Disk File Directory let's you know what type of files are on your disks at a glance, how much memory they take up (in Kbytes), and how much room is left on the disk (in Kbytes). To use:

1) Load the FZ FILE DIRECTORY disk into your machine using the OPT SOFTWARE option on the MAIN MENU. Procedure: insert Directory Disk, cursor down to OPTIONAL SOFTWARE, press enter, then when DIRECTORY appears on screen,

2) Insert your disk with sounds on it and press ENTER. You will get a reading of **"free="**, which tells you how much memory (in K) is left on the disk. Also, you will see what files are on the disk and how much "K" they use. The letters mean: **F** = Full Data, **B** = Bank Data, **V** = Voice Data, **E** = Effect Data, and **P** = Program Data.

3) This disk is public domain and is not copy protected. It may be copied using the following procedure: Load the Directory Disk; press DISPLAY, then press (on the numeric keypad), **1-7-4-9** (which spells "saki", according to our engineers!). The screen will then read "PROGRAM SAVE?". Insert a blank, formatted disk, and answer YES. The screen will read EXECUTED OK" when the copy is completed. We encourage copying of this useful tool.

<end of original documentation>

The original documentation is a tad misleading when it comes to the copying of the program. You do not need a blank formatted disk, and the disk is not saved in its entirety. All the program does is save itself to whatever disk you want, and it is only 9K! This is a very handy application to put on new sound disks before you fill them up.

6.2.3   Fade Optimizer

The Fade Optimizer and the Loop Optimzer are two separate programs that used to be united in the Loop Tool application. I think that these are either newer or older versions of the Loop Tool. (I got them on a disk with the FZ-20M Hard Disk application so I assume that they are newer.) The Fade Optimizer application has only the "Cross Fade" sections of the Loop Tool, the loop function now resides in the Loop Optimizer. The program can copy itself to another disk by pressing **DISPLAY**, followed by **1-7-4-9**. You will the get a prompt asking you if you want to save the program. You can then insert a disk and press **YES**.

6.3   HDD Operator

This piece of optional software needed when using a SCSI hard disk with the Casio FZ-20M. I have no documentation for this piece of software but I have found that the program can copy itself to another disk by pressing **DISPLAY**, followed by **1-7-4-9**. You will the get a prompt asking you if you want to save the program. You can then insert a disk and press **YES**. The program gives you the following menus: **HDD SAVE**, **HDD FORMAT**, **FDD LOAD**, **FDD MERGE** & **OPTION COPY**.

6.3.1   Loop Optimizer

The Loop Optimizer and the Fade Optimzer are two separate programs that used to be united in the Loop Tool application. I think that these are either newer or older versions of the Loop Tool. (I got them on a disk with the FZ-20M Hard Disk application so I assume that they are newer.) The Loop Optimzer application has only the "Loop Section" of the Loop Tool, all

other functions reside in the Fade Optimizer. The program can copy itself to another disk by pressing **DISPLAY**, followed by **1**-**7**-**4**-**9**. You will the get a prompt asking you if you want to save the program. You can then insert a disk and press **YES**.

6.3.2   Loop Tool

<original documentation follows>

The LOOP TOOL Optional Software application for the FZ samplers allows a smooth crossfade to be achieved, removing "pops" and "clicks" from a looped sound. There are several individual programs within the LOOP TOOL program: Loop Optimizer, Sin X Fader (or "Feeder" depending on the version you have), Lin X Fader, Rev X Fader, etc. The objective here is not to outline the fine points of all these programs, but to get you the results quickly. Therefore, we recommend using the SIN X FADER part of the program. Here's the fastest way:

1) Loop the desired voice as well as you can (using CREATE VOICE/LOOP SET and the display screen and various resolutions). Get as close as you can to a smooth loop with no "pop".

2) SAVE this data as a VOICE DUMP (SAVE VOICE), onto a blank work disk or disk where there is enough room to store it temporarily. The reason for this: if your crossfade doesn't work the first time, you can simply reload the voice into the same location and try again.

3) Insert LOOP TOOL into the drive and go to OPTIONAL SOFTWARE on the main menu. Enter LOOP TOOL, then SIN X FADER.

4) Enter a X TIME of 15480, using either the keypad or the value slider.

5) Cursor down to EXECUTE, and press ENTER and then YES.

6) When you get "executed okay", press PLAY to get back to the play screen. Move the cursor down so it's pointing to the voice you were working on. The pop and click should be gone from the loop. If it's not, reload the original voice data (VOICE LOAD), and try a different number.

EZ, huh? Works, too. The Loop Optimizer and other programs are experimental applications that we have found not to be as consistently successful as SIN X FADER (some early programs have a SOLO CHORUS application, which does little more than make your voice disappear completely!). Some of you may find otherwise, and we encourage you to experiment. If you want it fast however, SIN-X is probably the way to go. There is no discernible difference in effectiveness between the different revisions of the program, so whatever you have is as good as having the latest revision.

Remember to save your voice first before performing the operations, so if you don't get the crossfade the first time, you can simply replace the unsuccessful try with the original voice data. A little bit of amplitude beating (swelling in volume) is often unavoidable with certain sounds; in musical context it is often not noticeable. And remember: the magic number is 15480!

Happy looping!

This program can most likely also copy itself to another disk by pressing **DISPLAY**, followed by **1**-**7**-**4**-**9**. You will the get a prompt asking you if you want to save the program. You can then insert a disk and press **YES**.

6.3.3 MAX-MIN

<edited original documentation follows>

MAX-MIN is an experimental program, using an undocumented numerical method of determining amplitude levels to ascertain whether a particular sample is distorted or not. MAX-MIN shows a value for a sampled voice. If the displayed value lies between **+max32766** and **-min32767** this proves that the sample is not distorted.

<end of original documentation>

I have neither this application nor its documentation. This program will most likely allow itself to be saved to another disk by pressing **DISPLAY**, followed by **1**-**7**-**4**-**9**. You should get a prompt asking you if you want to save the program. You can then insert a disk and press **YES**.

6.3.4 Playbacker Tool (Version 2.0)

<original documentation follows, slightly edited>

This optional software package turns your FZ into a single track, real-time MIDI recorder and plays back your music sequences.

Operational Instruction

Fed from the MIDI-in jack, the sequence data will be saved on another formatted disk together with the Playbacker Tool program as a demonstration file. The FZ Playbacker Tool requires:

1) A MIDI-equipped digital sequencer,

2) One or more FZ sound disks,

3) A blank formatted disk,

4) A unit of either FZ-1 or FZ-10M.

Step 1: Load sound data from an FZ sound disk to the FZ's internal memory.

Step 2: Insert the FZ Playbacker Tool into the FZ floppy disk drive, and select OPT SOFTWARE from the MODIFY MENU.

Step 3: Select the PB TOOL and press ENTER to show the following sections:

1) REC

2) PLAY

3) SAVE

4) SPEED

Step 4: In order to record the sequence into the FZ,

1) connect a MIDI cable from the MIDI-out jack of the digital sequencer to the MIDI-in jack of your FZ,

2) Press "1" to enter REC (record) mode,

3) Press YES to start recording while at the same time starting your digital sequencer.

4) Press ESC at any time to stop/finish recording. You can record sequence data up to 27.5K (29,184) bytes, for a 3,700-note music duration.

Step 5: In order to save the sequence data to a disk,

1) Insert the formatted disk into the FZ floppy disk drive,

2) Press "3" to enter the SAVE mode,

3) Select BASIC (normal), or AREA (allows for channel splits). All settings are made to Bank 8.

4) Press YES to starts the save. This procedure will save a playback-only copy of the PB TOOL as well as the sequence data. The sequence can be loaded from the disk in the future by selecting the sequence in OPT SOFTWARE. If the sound data consists of more than one disk, the sequence should be saved to all other disks as well.

5) Press the ESCAPE key to exit the SAVE mode.

Step 6: In order to playback the sequence,

1) Press "2" to enter the PLAY mode,

2) You will now see a selection of three choices. 1) Play, (for one-shot playback), 2) Repeat, for endless playback, and 3) Speed, which gives you five different speeds to which you can set the Playbacker.

Step 7: Save your FZ sound data to the disk(s).

<end of original documentation>

This application also does not allow itself to be saved to another disk without having to copy the entire disk on which the program resides.

6.4   Wave Synthesizer

This optional software immediately jumps to the **WAVE SYNTH** section on the FZ. I have no documentation for this program and have no idea what it does. The program can copy itself to another disk by pressing **DISPLAY**, followed by **1**-**7**-**4**-**9**. You will the get a prompt asking you if you want to save the program. You can then insert a disk and press **YES**.

7   Casio FZ samples

I am offering on CD-ROM the entire Swedish Casio FZ Users Club Sample Collection in FZ-Dump format plus the FZ File Transfer Utility and FZ FX software. The collection is divided into two CD-ROMs.

FZ Samples A-F (~500MB)
FZ Samples G-Z (~400MB)

7.1   To order the Casio FZ CDs.

Please e-mail me if you are interested in getting the CDs with sounds.