

## User manual

### Floppy to USB emulator

**Model: SFR1M44-FU-DL code\*: F01**

#### Floppy driver with below function needed:

- Floppy driver with 34pin interface, and 5V DC power plug (example: SONY YE-DATA ALPS TEAC EPSON PANASONIC NEC )
- Use 2HD floppy disk with 1.44MB capacity
- Format of disk : Cylinders: 80    Tracks: 160    Sectors/Track: 18 Bytes/Sector: 512 Data transfer rate: 500 kbps Encoding method: MFM.

#### Features:

- Use normal USB flash drive as the medium for transfer design, support FAT16/FAT32 format.
- 34pin floppy driver interface, 5V DC power supply, easy to install.
- Capacity: 1.44MB 2HD Cylinders: 80 Tracks: 160 Sectors/Track: 18 Bytes/Sector: 512 Data transfer rate: 500 kbps Encoding method: MFM.
- 1.44MB built-in flash memory, with FAT12 format, used for cache data from USB flash drive.
- Within 1.44MB capacity of Files in root directory or 999 folders can be searched.
- Long file name and 4-level directory in 999 folders supported.
- Jumpers with function for different machines.
- 100 disk image file supported. (used for machine with non FAT disk format, example for make boot disk)

#### Panel:



**8segment numbers:** represent folder name

**Green led:** status of read and write operation

**USB port:** connect USB flash drive

#### Button:

When no USB flash drive plugged on emulator:





Left button used to rise ten-digit, right button used to rise single-digit, press 2 button together to rise hundred-digit, when the hundred-digit is 'b', the image mode used.

When an USB flash drive plugged on emulator:





Left button used to transfer data from built-in memory into USB flash drive, right button used to transfer data from USB flash drive into built-in memory.

## Operation in file mode:

- **Input sequence: files in USB flash drive transferred into built-in memory, then read by machine.**

1. power on, [  => 00.0.]
2. select directory, [000] is root directory of USB flash drive, [001 – 999] is folder named 001 – 999, for example: we select root directory [000].
3. plug USB flash drive on emulator.
4. [  => 000 ] press [right button], [  => d0 ] to [  => 000 ] less than 1.44MB capacity files transferred into built-in memory over.
5. operate machine to read data in built-in memory.
6. if total capacity of files in current directory exceed 1.44MB, only the files total capacity within 1.44MB, will be transferred into built-in memory.  
for example: 30 files named 1.\* - 30.\* in USB flash drive, each one is 0.1MB, total 3MB, only first copied 14 files 1.\* - 14.\* will transferred into built-in memory, capacity is 1.4MB.

- **Output sequence: files in built-in memory transferred into USB flash drive.**

1. power on, [  => 00.0.]
2. select directory, [000] is root directory of USB flash drive, [001 – 999] is folder named 001 – 999, for example: we select root directory [000].
3. plug USB flash drive on emulator.
4. [  => 000 ] press [left button], [  => d2 ] to [  => 000 ] files in built-in memory transferred into USB flash drive over.

## Operation in image mode: (used for machine with non FAT disk format, example for make boot disk)

- **Input sequence: image file in USB flash drive transferred into built-in memory, then read by machine.**


1. Make a folder named IMG144 in USB flash drive, get the image file from disk and named 000.IMG or 099IMG etc, copy into folder IMG144. (read relevant documents to get image file from disk)
2. power on, [  => 00.0.]
3. press 2 button together select [b00] , use image mode, [b00 – b99] represent

image file named 000.IMG – 099IMG , for example: we use 000.IMG select **[b00]**.

4. plug USB flash drive on emulator.

5. [  => **b00** ] press **[right button]**, [  => **d0** ] to [  =>

**b00** ] the image file 000.IMG in folder IMG144 is transfered into built-in memory over.

6. operate machine to read data in built-in memory.

● **Output sequence: image in built-in memory transferred into USB flash drive .**

1. power on, [  => **00.0.** ]

2. press 2 button together select **[b00]** , use image mode, **[b00 – b99]** represent

image file named 000.IMG – 099IMG , for example: we use 000.IMG select **[b00]**.

3. plug USB flash drive on emulator.

4. [  => **b00** ] press **[left button]**, [  => **d2** ] to [  =>

**b00** ] image in built-in memory transferred into USB flash drive over, 000.IMG file created.

## Jumper setting:

**J5:** ---

**JA:** set to generate READY signal on 34pin of floppy driver interface

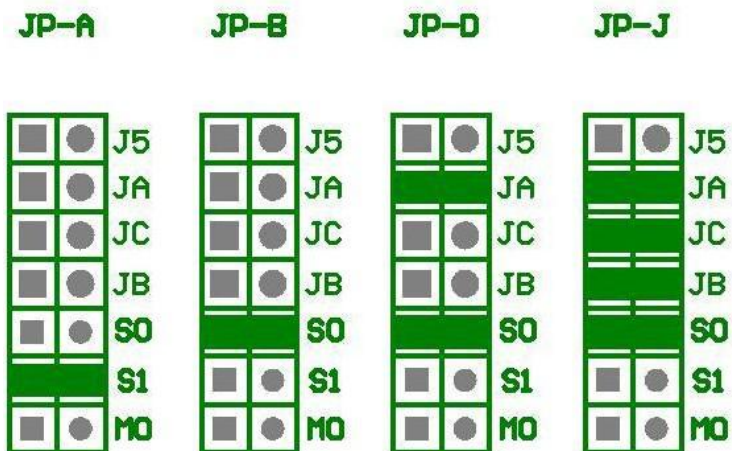
**JC:** ---

**JB:** ---

**S0:** Driver select 0

**S1:** Driver select 1

**MO:** Motor



## Firmware version of emulator:

Keep pressed 2 buttons together , power on , 8segment numbers will display firmware version and data of emulator to detect different model.

**Error code:**

**E0:** no specified file in USB flash drive

**E16:** built-in memory fault