

FB-SS10

Stereophonic SID
cartridge for
Commodore 64/128
computers

Users Guide

Rev1A1

Introduction

The FB-SSID (Stereophonic-SID) cartridge is supplied with the features outlined in Figure 1 below.

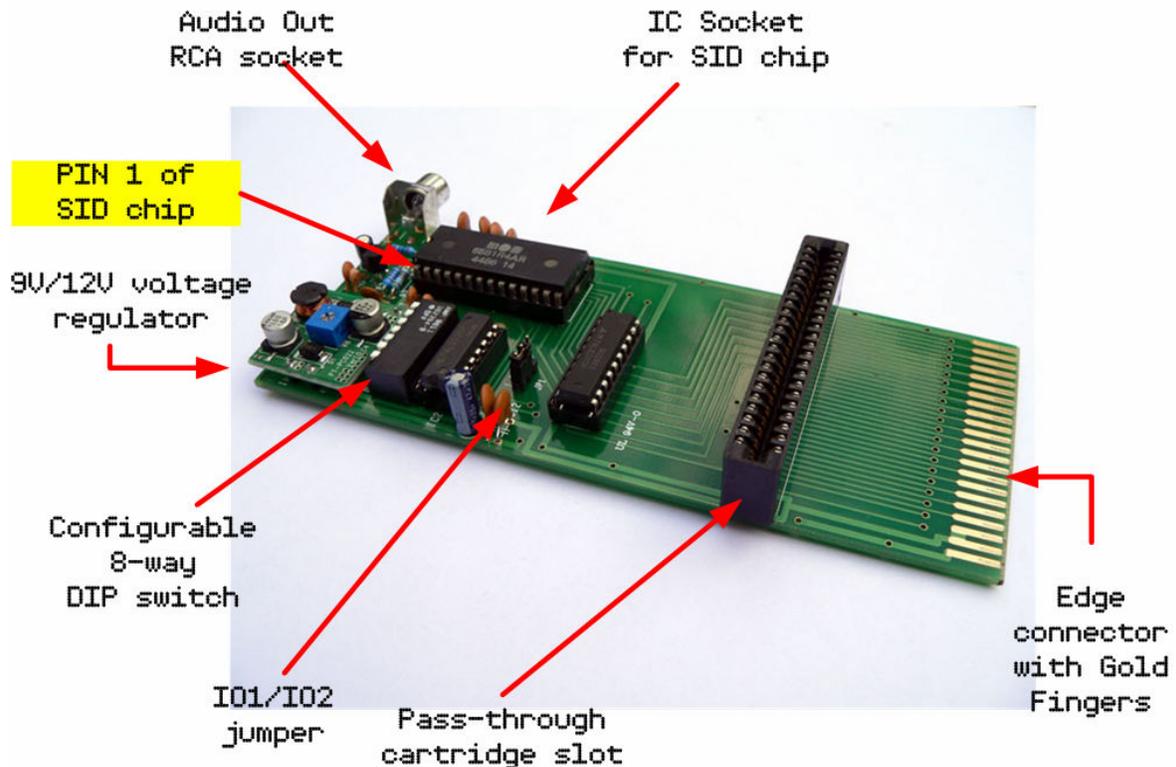


Figure 1: Top view of FB-3XP

The FB-SSID is compatible with both Commodore 64 and Commodore 128 computers and is available in two versions.

One is designed to support a 12Volt 6581 SID while the other is designed for a 9Volt 8580 SID.

The FB-SSID is not supplied with a SID chip. A SID chip needs to be added to the FB-SSID before it can be used.

Please ensure that the correct model SID chip is used. Installing an 8580 SID into a FB-SSID cartridge designed for a 6581 SID will end up damaging the SID chip! Don't be afraid to ask for assistance.

The FB-SSID includes an 8-way DIP switch and I01/I02 jumper used to configure the memory address of the FB-SSID. The default memory address is \$DE00.

A pass-through cartridge slot is also included intended for use with the Prophet64 cartridge. However, other cartridges like the Epyx Fastloader may also function when plugged into this slot.

I01/I02 jumper

Jumper JP1 is used to map the FB-SSID cartridge to either I01 (\$DE00) or I02 (\$DF00).

When the jumper is placed across pins 1 and 2 of JP1, the FB-SSID is mapped to memory address \$DE00 (I01). This is the default configuration.

When the jumper is placed across pins 2 and 3 of JP1, the FB-SSID is mapped to memory address \$DF00 (I02).

Please ensure that the Stereo SID player or application used (i.e. Prophet64) is configured to access the second SID chip at the same address used by the FB-SSID.

Most Stereo SID players will support \$DE00.

DO NOT change the IO jumper setting when the Commodore computer is powered on. Always turn the computer OFF before selecting the required configuration.

DIP Switches

The FB-SSID cartridge includes an 8-way DIP switch that can be used to map the FB-SSID to various other memory address locations. While jumper JP1 maps the FB-SSID to either \$DExx or \$DFxx, the 8-way DIP switch is used to set the last two values of the address.

The FB-SSID can be mapped to any of the following memory addresses.

\$DE00 \$DE20 \$DE40 \$DE60 \$DE80 \$DEA0 \$DECO \$DEED
\$DF00 \$DF20 \$DF40 \$DF60 \$DF80 \$DFA0 \$DFCO \$DFED

Pin 8 of the DIP switch is the one closest to the edge of the circuit board. Pin 1 of the DIP switch is the one closest to the SID chip.

The following table includes a list of all possible configuration settings.

Jumper JP1	8-way DIP Switch	FB-SSID Address
Pins 1-2	Pin 1 = Down Pins 2,3,4,5,6,7,8 = Up	\$DEED
Pins 1-2	Pin 2 = Down Pins 1,3,4,5,6,7,8 = Up	\$DECD
Pins 1-2	Pin 3 = Down Pins 1,2,4,5,6,7,8 = Up	\$DEAD
Pins 1-2	Pin 4 = Down Pins 1,2,3,5,6,7,8 = Up	\$DE8D
Pins 1-2	Pin 5 = Down Pins 1,2,3,4,6,7,8 = Up	\$DE6D
Pins 1-2	Pin 6 = Down Pins 1,2,3,4,5,7,8 = Up	\$DE4D
Pins 1-2	Pin 7 = Down Pins 1,2,3,4,5,6,8 = Up	\$DE2D
Pins 1-2	Pin 8 = Down Pins 1,2,3,4,5,6,7 = Up	\$DE0D
Pins 2-3	Pin 1 = Down Pins 2,3,4,5,6,7,8 = Up	\$DFED
Pins 2-3	Pin 2 = Down Pins 1,3,4,5,6,7,8 = Up	\$DFCD
Pins 2-3	Pin 3 = Down Pins 1,2,4,5,6,7,8 = Up	\$DFAD
Pins 2-3	Pin 4 = Down Pins 1,2,3,5,6,7,8 = Up	\$DF8D
Pins 2-3	Pin 5 = Down Pins 1,2,3,4,6,7,8 = Up	\$DF6D
Pins 2-3	Pin 6 = Down Pins 1,2,3,4,5,7,8 = Up	\$DF4D
Pins 2-3	Pin 7 = Down Pins 1,2,3,4,5,6,8 = Up	\$DF2D
Pins 2-3	Pin 8 = Down Pins 1,2,3,4,5,6,7 = Up	\$DF0D

Table 1: FB-SSID Address Settings

DO NOT change the DIP switch settings when the Commodore computer is powered on. Always turn the computer OFF before selecting the required configuration.

Installation and Setup

The FB-SSID comes fully assembled and ready for connection to your computer.

1. Turn your computer off before installing the FB-SSID into your computer's expansion port. To avoid damaging your Commodore computer, DO NOT insert the FB-SSID into your computer when it's powered on.
2. Configure the JP1 jumper and DIP switch settings for the desired memory address configuration for the FB-SSID.
3. Insert the appropriate SID chip into the FB-SSID with pin 1 (or the notch) of the SID chip facing towards the rear of the FB-SSID cartridge as per figure 1.

Please note that there are two versions of the FB-SSID available. One is designed to support a 12Volt 6581 SID while the other is designed for a 9Volt 8580 SID.

The FB-SSID is not supplied with a SID chip. A SID chip needs to be added to the FB-SSID before it can be used.

Please ensure that the correct model SID chip is used. Installing an 8580 SID into a FB-SSID cartridge designed for a 6581 SID will end up damaging the SID chip! Don't be afraid to ask for assistance.

4. If using a Prophet64 or other cartridge with the FB-SSID, insert it into the FB-SSID pass-through slot with the front of the cartridge facing the FB-SSID gold edge connector.
5. Plug the FB-SSID into the expansion port when the computer is powered off. Ensure that the FB-SSID cartridge is fully inserted into the Commodore expansion port with the top side being upright as shown in figure 1.
6. Connect the Audio-Out RCA socket from the FB-SSID to the Audio-IN RCA socket on your stereo computer monitor (e.g. Commodore 1084S) or stereo amplifier. This requires an RCA (male) to RCA (male) audio cable (not supplied).

Troubleshooting

If there's no display or a blank black screen when powering on the Commodore computer with the FB-SSID installed, please check the following:

1. Was the FB-SSID cartridge inserted correctly into the Commodore expansion port? Turn the computer off. Reinsert the FB-SSID as per the instructions included in the Installation and Setup section of this User Guide.
2. If there's a cartridge plugged into the passthrough slot, double-check the orientation as per the Installation and Setup section of this guide. Please note that some cartridges may conflict with the FB-SSID.
3. Is the correct version SID chip installed in the SID socket of the FB-SSID?
Warning: Installing the wrong type of SID may cause permanent damage.
4. Is the SID chip installed with pin 1 facing towards the rear of the FB-SSID as per figure 1?
Warning: Incorrect installation of the SID chip may cause permanent damage.

If there's no audio when playing a Stereo SID tune, please ensure that the audio cable from the FB-SSID cartridge is plugged into the correct Audio In/Line In socket on the monitor or stereo amplifier. Another possible cause may be that the memory address configured on the FB-SSID differs to the one configured within the audio software used on the Commodore 64/128.

Don't forget that you must be using a Stereo SID player and Stereo SID tune!

Many thanks for purchasing this product. Enjoy!