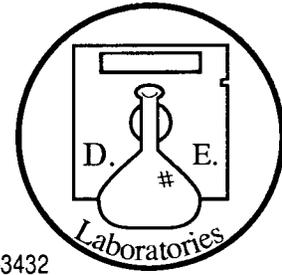


# The *SID Symphony Stereo Cartridge* Instructions

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Congratulations on your purchase of a *SID Symphony Stereo Cartridge*! This cartridge contains a SID (Sound Interface Device) chip, like the one inside your Commodore computer, and support circuitry. When used with an appropriate player program such as Mark Dickenson's *Stereo Player*, this cartridge allows you to play songs with six voices in stereo.

This instruction sheet:

- gives you operating guidelines,
- tells you how to set up the cartridge for use,
- provides troubleshooting tips,
- states warranty information, and
- explains how to replace the battery.

We strongly suggest that you read all of these instructions before using your *SID Symphony Stereo Cartridge*, and especially the next section, *Operating Precautions*.

## Operating Precautions

Your *SID Symphony Stereo Cartridge* contains a SID chip, an integrated circuit which is much more sensitive to handling than program cartridges containing ROM chips which you may own or use. The cartridge is especially susceptible to damage caused by static electricity on your person. For this reason, please observe the following:

- **NEVER** touch the gold contacts on the cartridge board. This is sure to discharge any static electricity onto the cartridge—which will destroy the SID chip inside.
- **NEVER** insert or remove the cartridge when your computer is on, **even if you have a cartridge expander device**. This kind of treatment will certainly break your cartridge.
- **ALWAYS** use an anti-static bag, such as the bubble-pack mailer in which your cartridge was shipped, to transport the cartridge any distance. This will help avoid static damage.
- **NEVER** attempt to substitute an AC wall adaptor (a battery eliminator) for the 9V battery inside the cartridge. The power from such a supply is unregulated and will certainly damage your cartridge, and possibly your computer, severely.

## Operating Tip

- **ALWAYS** remove the cartridge from your computer (with the power off) when you are not using the cartridge. The cartridge uses power whenever it is plugged into the computer and the computer is turned on. Removing the cartridge when it is not in use will help prolong the life of the battery inside the cartridge.

## Using the Cartridge

The *SID Symphony Stereo Cartridge* is easy to use. Just follow these instructions:

- 1) Turn off the power to your Commodore 64, 128, 128D, or SX-64 computer.
- 2) Plug the cartridge into the computer's cartridge port, label side up.
- 3) Turn your computer back on.

The cartridge is now ready to provide three more voices of sound for true stereo SID music.

Since the cartridge gives you stereo sound capabilities, you have audio outputs for both the left and right channels. The **left** channel, as defined by the stereo player for SID songs, is composed of the three voices from the SID chip inside your computer. The **right** side is composed of the three voices from the SID chip inside the *SID Symphony* cartridge. To fully appreciate the six stereo voices, hook up the outputs from your computer and cartridge to the left and right inputs, respectively, on your stereo amplifier or receiver. See Figure 1 below for a typical system setup.

The player for stereo SID songs is *Stereo Player*, written by Mark A. Dickenson. The *SID Symphony* has been tested and verified to work with versions 8.0 and above of this program. We recommend that you use version 10.0 or higher, though, for best results. To set up *Stereo Player*, just make sure the (A)ddress parameter is set to \$DE00. That's all there is to it!

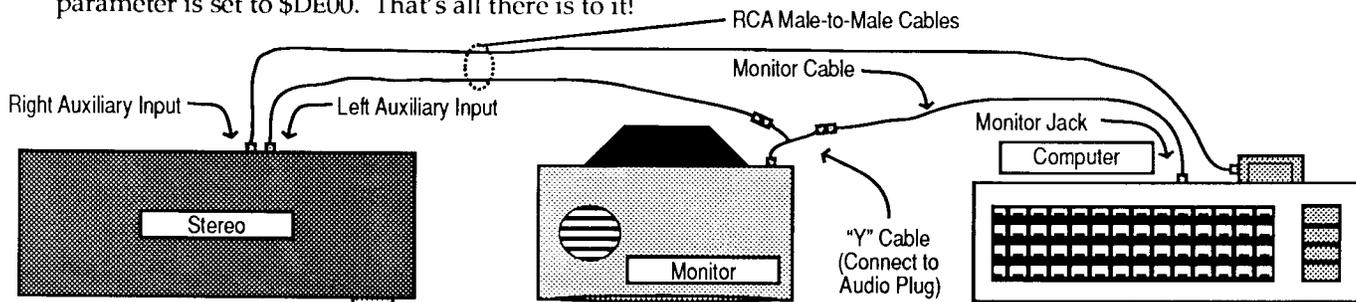


Figure 1—Example System Setup

## Troubleshooting Tips

If you are experiencing trouble with your cartridge, here are some possible problems and their solutions:

- **Loose audio output jack:** This jack can work its way loose after repeated connections and disconnections. To avoid this, just be sure to gently twist the plug on any audio cable clockwise when you are inserting or removing it.
- **Cartridge sounds "funny"** (wrong tones, garbled notes, etc.): The first thing to do is check all of your audio cables to make sure they are in working order and plugged in correctly. Next, check to see if the battery inside the cartridge is low (see the *Replacing the Battery* section for details). If you still have problems, chances are the SID chip inside the cartridge has been damaged.
- **No music from cartridge** (you may hear static): If the cartridge is hot, there is a very good chance that the SID chip inside the cartridge has been damaged. If the cartridge is not hot, check all of your audio cables to make sure they are in working order and plugged in correctly. Also, check to see if the battery inside the cartridge is low (see the *Replacing the Battery* section for details). Finally, check to make sure the (A)ddress is set to \$DE00 for the *Stereo Player* software.

If your cartridge is in need of repair, return it to Dr. Evil Labs postage paid. See the *Limited 90-day Warranty* section for the terms of a warranty repair.

## Limited 90-day Warranty

Dr. Evil Laboratories warrants that each *SID Symphony Stereo Cartridge* will be free from defects in material or workmanship for a 90-day period beginning when the cartridge is shipped. This warranty covers parts and labor for repairing defects in the cartridge as it was manufactured. The warranty does not cover unreasonable wear and tear or abuse on the cartridge, nor breakage through negligence.

The manufacturer does not warrant that this unit is fit for any particular purpose. In no event shall damages for loss of use of this cartridge extend beyond the purchase price of this item. Any attempt to alter or repair the cartridge by persons not connected with Dr. Evil Labs voids any remaining warranty on the cartridge.

If your cartridge needs warranty service, return it to Dr. Evil Labs postage paid. Make sure you package it very securely to prevent any damage during shipping. You may also want to send the cartridge insured. Enclose a letter stating the nature of the problem. Your cartridge will be repaired free of charge and returned postage paid, unless it is determined that the problem is not defect-related. Dr. Evil Labs reserves the right to determine what is and what is not a defect. This cartridge, as well as many other peripheral devices of this nature, is extremely sensitive to static electricity. Therefore, damage due to static electricity discharge once the cartridge is in your possession is not considered a defect, and therefore is not treated as a warranty repair.

## Replacing the Battery

The *SID Symphony Stereo Cartridge* needs two power sources to operate: 5 volts DC, which your computer provides, and 9 volts DC, provided by a 9 volt battery inside the cartridge. The battery that comes with your cartridge will provide many hours of music, but it will eventually wear out. The average life for a battery is about 20-30 hours of use. You will be able to tell when your battery is wearing down as the output from the cartridge will become softer and the quality of the sound will decrease, eventually stopping altogether.

When it is time to replace the battery, please use a new, alkaline battery for the best sound quality and longest life. Note that Duracell™ batteries are oversized and do not fit well in the cartridge. Here's how to easily install a new battery:

- 1) **BEFORE you even touch the cartridge:** Sit down at a desk or table that is in a well-lighted area. Plant your feet firmly on the floor and touch something that is metal and is well-grounded. A stereo, lamp, coat rack, etc., all work fine. By doing this, you are discharging static electricity from your body. You can store a vast amount of static, and the SID chip inside your cartridge will be damaged if even a tiny charge reaches it.
- 2) **Do not move your feet**, especially if they are on a carpeted surface, while changing the battery. Even a static discharge so small that you don't feel it can damage the SID chip. **Be careful!**
- 3) Unscrew the nut on the bottom of the cartridge and remove it along with the washer and screw.
- 4) Hold the cartridge so that the gold fingers are pointing up. Insert your fingers between the circuit board and the case, put your thumbs under the case, and pull the case apart as shown in Figure 2.
- 5) Remove the old battery and snap the new battery into the battery clip.



Figure 2—Case Separation

- 6) Pull the new battery away from the cartridge so the wires attached to battery extend straight out. Push down on the circuit board directly under the chip, and fold the wires under the circuit board as you return the battery to its place. See Figure 3 for a diagram of the action. This ensures that the wires do not get stuck underneath the SID chip or battery, which would keep the case from closing correctly.

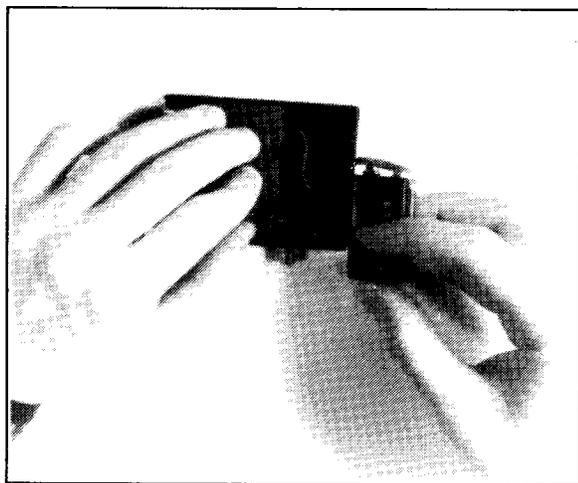


Figure 3—Battery Insertion

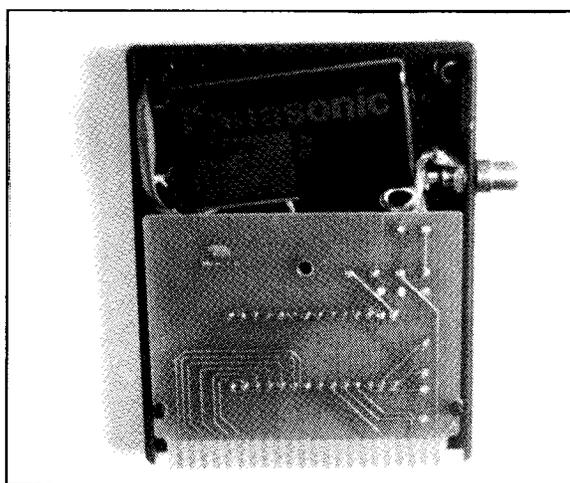


Figure 4—Battery Position

- 7) Place the battery in the case so that the post in the corner of the cartridge fits snugly between the battery and the battery connector. The battery should be at a slight angle. See Figure 4 for a diagram of how the battery should rest in the case.
- 8) Press the two halves of the case together tightly. Re-install the screw assembly and tighten with your fingers. Do not use tools to tighten the nut—damage to the case may result if you do.