

# Adtron SDDA Installation Manual

## Introduction


Congratulations on your purchase of the Adtron SDDA! The SDDA ATA Adapters are designed to interface standard 40 or 44-pin IDE to 68-pin ATA PC Cards (PCMCIA) and 50-pin CompactFlash (CF) cards. This allows any computer to boot from an ATA PC Card or CompactFlash card (media) without the need for software device drivers or a BIOS extension.

The parameters for the media are configured in the host computer's CMOS setup. The adapter automatically sets the True IDE mode of the media, allowing the system BIOS to access the card directly as a standard IDE drive.

The passive SDDA ATA Adapter provides the interface between the host computer's IDE controller and the media. **Since most operating systems do not expect the main fixed disk to disappear, the media should NEVER be removed while the system is powered.**

Visit <http://www.adtron.com/products> to view the complete line of Adtron SCSI, IDE and PC Card storage devices.

## ESD Caution

 Before handling the SDDA or any media associated with the SDDA, make sure that you are working in an ESD-safe environment. Static electricity may be discharged through the PC Card into the SDDA. In extreme cases this may temporarily interrupt the operation. To prevent this, touch a grounded device, such as a computer case, prior to inserting the PC Card.

## Before installing the SDDA

Before beginning the installation, Adtron recommends turning the computer's power OFF.

## Configuring the SDDA

The SDDA is available in several different configurations:

SDDA Model	Configuration
SDDA-01	Single-slot, 3.5" floppy disk drive bay unit with front panel access
SDDA-02	Single-slot, 3.5" hard disk drive bay unit
SDDA-03	Single-slot, 2.5" hard disk drive form factor (PCB only)
SDDACF-xx	Same as above models but for Type I and Type II CompactFlash cards

Table 2 SDDA Models

The SDDA with media appears as a standard hard disk drive to the computer. The SDDA can be configured as either master or slave, using the jumper settings shown in Figure 1. If the SDDA is connected to the IDE controller with another device, both devices must be configured correctly – one as master and the other as slave.

The jumper settings shown in Figure 1 are for most ATA Flash PC Cards and CompactFlash cards. The settings may vary for your particular card. Refer to the manufacturer's data sheets and signal descriptions in Table 3 and Table 4, for the correct settings.

## LED Indicators

Do not turn off power while the Busy LED is lit!

SDDA [CF]-01 units use two LED indicators, labeled PWR and DASP. A solid red PWR LED shows that the media is present and powered and a blinking red DASP LED indicates activity (Busy).

SDDA [CF]-02, SDDA [CF]-03 units use only one LED indicator that shows activity (Busy).

## Installing the SDDA

The SDDA [CF]-01 and SDDA [CF]-02 typically mount in 3.5" drive bays. With the power off, remove the cover from the computer and locate an appropriate empty drive bay.

The SDDA [CF]-01 mounts in a standard 3.5" floppy disk drive bay. Mount the unit in an empty drive bay and secure it with the included screws. Screw type: #4-40.

The SDDA [CF]-02 mounts in a standard 3.5" hard disk drive bay. Mount the unit in an empty drive bay and secure it with the included screws. Screw type: #4-40.

The SDDA [CF]-03 is PCB only and has four through holes for mounting. The mounting holes are 2.36mm (.093") in diameter. The hole pattern is 60.32mm (2.375") in width and 92.12mm (3.627") in length, from center to center.

Indicators	See <b>LED Indicators</b>
Interface	SDDA 01, 02: 40-pin, 0.1" IDE connector SDDA 03: 44-pin, 2mm IDE connector
Size	SDDA 01: 101.6mm[4.0"] W x 152.4mm[6.0"] D x 25.4mm [1.0"] H SDDA 02: 101.6mm[4.0"] W x 146mm[5.75"] D x 25.4mm[1.0"] H SDDA 03: 67.7mm[2.665"] W x 101.6mm[4.0"] D x 6.4mm[0.25"] H
Weight	Based on media
Power	5VDC (Current requirements vary with media)

Table 1 Specifications

Pin	Signal
1	IDE CSEL
2	Card CSEL
3	Card M/S
4	Ground
5	-DASP
6	Res to + 5V
7	No Connect
8	No Connect

Table 3 SDDA -01 Signals

Pin	Signal
1	CSEL
2	Card CSEL
3	Ground
4	M/S

Table 4 SDDA -02/03 Signals

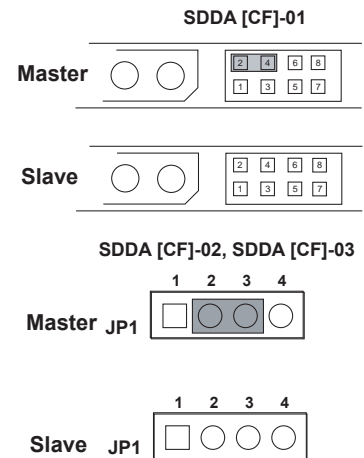


Figure 1 SDDA Master/Slave

M/S settings may vary – refer to PC Card documentation

## Connecting the Cables

SDDA [CF]-01, SDDA [CF]-02: Connect the 40-pin IDE ribbon cable to the SDDA, noting that the stripe of the cable should be nearest the power connector. If the SDDA-22 is using two cards (one as Master, the other as Slave), then it must be the only device on that IDE controller. Replace the cover of the computer and restore power.

SDDA [CF]-03: Connect the 44-pin 2mm ribbon cable to the SDDA, noting that the stripe of the cable should be on the same side as JP1. Power is supplied to the SDDA through the ribbon cable. Replace the cover of the computer and restore power.

## System Configuration and Booting

To boot from the SDDA, the system BIOS must be configured for the disk-like characteristics of the media. Most new systems have an Auto-Detection feature to simplify this process. If your system does not, you will have to enter the correct CHS (Cylinder-Head-Sector) parameters in the BIOS disk drive setup. Consult the manufacturer's documentation for these parameters.

In order to boot the SDDA:

1. Insert the media into the SDDA.
2. Boot the system from a bootable floppy disk or CD-ROM containing the desired Operating System (OS).
3. Make the media in the SDDA bootable by formatting it accordingly. You may have to consult the OS documentation for more information.
4. Remove the floppy or CD-ROM and restart the system.



The SDDA ATA Adapter is a passive interface between the host IDE controller and the media. Since most operating systems do not expect the primary, fixed disk drive to disappear, the media should **NEVER** be removed while the system is powered. The operating system may internally cache certain disk transfers and data – removing the disk can cause unpredictable results and may seriously corrupt data. Always turn the system power off before removing the media.

## Troubleshooting

The SDDA is simple to install and operate. Table 5 lists some common problems and possible solutions.

For more information, visit the Adtron website at <http://www.adtron.com/support>, send email to [techsupport@adtron.com](mailto:techsupport@adtron.com), or contact technical support at 602-735-0300 in the U.S. or at +45-4557-0754 in Europe.

## Warranty

Adtron warrants this product to be free from defects in materials and workmanship for one year. If this product fails within one year due to such a defect, Adtron will repair or replace this product at no charge. This warranty does not apply if this product has been damaged by abuse, accident, disaster, misuse or incorrect installation.

## Notice

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Problem	Possible Solutions
After installation, the system does not recognize the SDDA and the media.	Check the cables. Does the unit have power – does the LED ever blink during the boot process?
	Is the media jumpered correctly? Some systems will only boot from the primary master device.
	Is the media plugged in all the way?
The system starts to boot from the media but then an error message appears: "Missing Operating System"	Is the media ATA? Systems will only boot from ATA cards, not SRAM or linear Flash cards.
	This problem is usually due to incorrect disk drive parameters. Try setting the parameters to "Auto" or contact the manufacturer for the correct settings.
The system tries to boot from the media but then hangs with no error messages.	The media may not be bootable or the partition table may be corrupt. Try reformatting the media with the system files.
	The partition table may be corrupt. One possible solution is to run: FDISK /MBR.

Table 5 Troubleshooting



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