SOYO TechAID

Version: V1.0

Introduction
Congratulations on you purchase of the SOYO TechAID. Before you begin using this product, please take some time to read this user guide as it will illustrate the steps for installing and using your new TechAID.
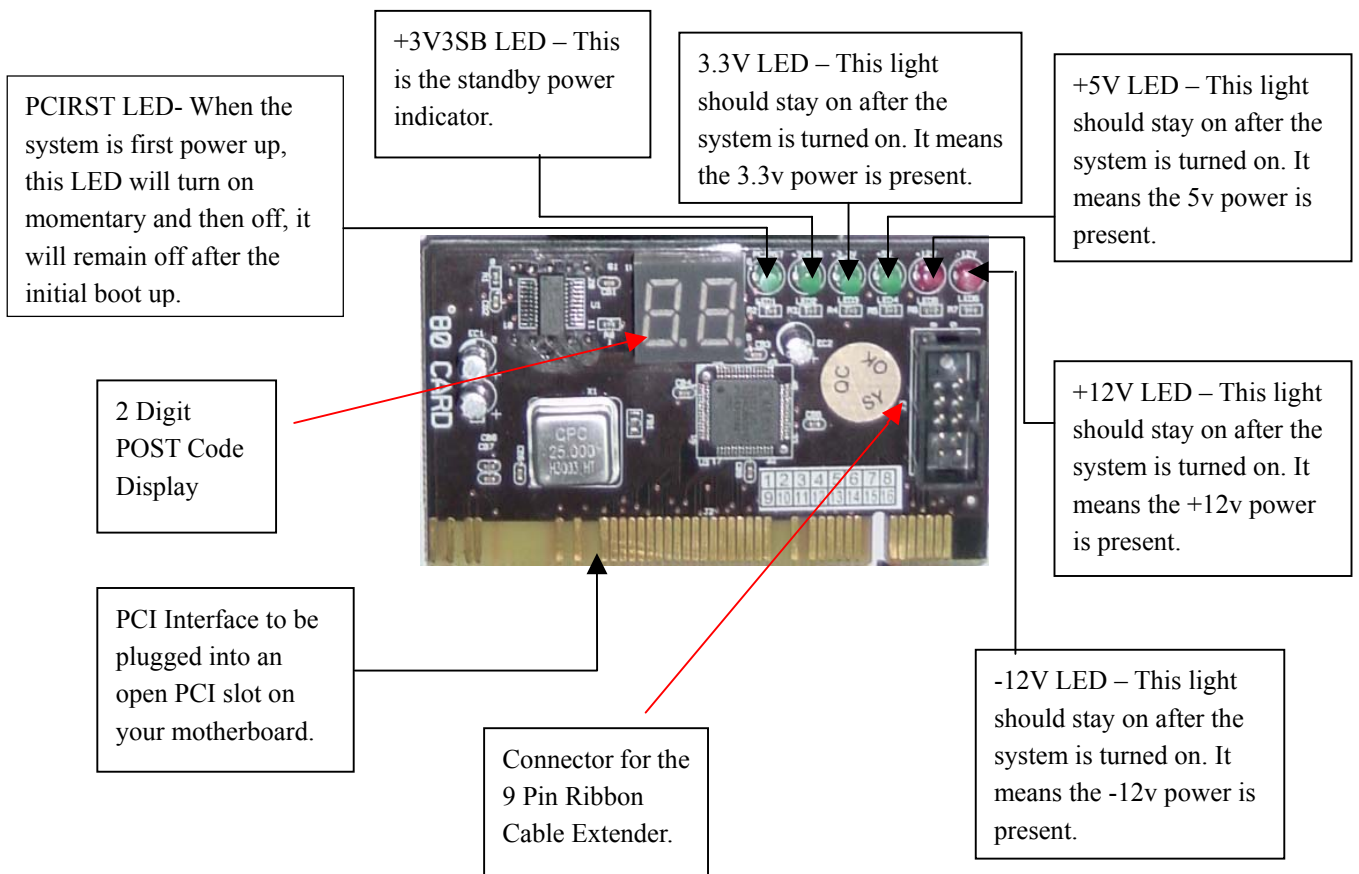
The purpose of the Soyo TechAid is to make the difficult troubleshooting procedure easier and quicker. This debugging card will assist any technicians (from novice to advance users) in accurately and conveniently locating their hardware problems faster, cutting down the troubleshooting time drastically simply by displaying an easy to follow POST (Power On Self Test) code on its display.

Unpacking your new TechAID:
Your Soyo TechAID should contain the following items:
1) Soyo TechAID
2) Mini Display Card
3) 9 Pin Ribbon Cable
4) Installation Guide

Device Description:

+3V3SB LED – This is the standby power indicator.

3.3V LED – This light should stay on after the system is turned on. It means the 3.3v power is present.

+5V LED – This light should stay on after the system is turned on. It means the 5v power is present.

PCIRST LED- When the system is first power up, this LED will turn on momentary and then off, it will remain off after the initial boot up.

2 Digit POST Code Display

+12V LED – This light should stay on after the system is turned on. It means the +12v power is present.

PCI Interface to be plugged into an open PCI slot on your motherboard.

Connector for the 9 Pin Ribbon Cable Extender.

-12V LED – This light should stay on after the system is turned on. It means the -12v power is present.

Installation Procedure:

1. With the system power off, insert the TechAID card into one of the open PCI slots on your motherboard.

2. Power on the system and troubleshoot any power supply problems you may have by using the 6 LEDs on the debugger card. The 6 LEDs on the card represent PCIRST, +3V3SB, +3.3V, +5V, +12V, and −12v.

   a) PCIRST LED- When the system is first power up, this LED will turn on momentary and then off, it will remain off after the initial boot up. It will stay on if one of the following is true 1) the reset switch is defective, try disconnect the reset switch. 2) power supply is defective or 3) the motherboard is defective or grounded to the case.

   b) +3V3SB LED – This is the standby power indicator. It will be lit only if the power plug is plugged into the motherboard, the on/ff switch on the power supply turn on, and the +3v standby power is present.

   c) 3.3V LED – This light should stay on after the system is turned on. It means the 3.3v power is present.

   d) +5V LED – This light should stay on after the system is turned on. It means the 5v power is present.

   e) +12V LED – This light should stay on after the system is turned on. It means the +12v power is present.

   f) -12V LED – This light should stay on after the system is turned on. It means the -12v power is present.

3. If any of the above LED is not working as indicated, please verify the problem accordingly.

4. As the computer continues to boot, POST codes will be displayed on the debugger card. Each POST code represents something. You can look up the meaning of the code in the POST code list.

5. For example, if the POST card displays "C1," it means that something may be wrong with your DRAM module and its functionality needs to be inspected.

The following table consists of some of the most common POST Codes. For a complete definition, please refer to the POST Code List follow.

Most Common POST Codes

POST CODE	Cause	BIOS POST message	Solution
FF, 00	CPU	Check the functionality of the CPU.	1. Check Power connecter and make sure it is fully seated to the motherboard power socket. If you have a Pentium 4 motherboard, please make sure the 12V 4-pin square prong is connected to the motherboard. 2. Remove the board from the case and make sure it s not short-circuited to the case. 3. Change CPU (preferably with a CPU with the same speed). Inspect and clean the CPU socket and pins on the CPU 4. Make sure the CPU is inserted fully and seated properly in the socket. Try to reseat your CPU if necessary. 5. Check with your Motherboard Manufacturer as well, as your BIOS may be corrupted.
C1, C6, 31, 4E	Memory	Setting up the DRAM refresh rate, and inspecting the functionality of the DRAM controller	1.Make sure the memory module is seated fully in into the socket. 2.Make sure the memory module is not inserted backward. 3.Change and clean the DRAM module contact. Try replacing the module with a known good DRAM module.
41	BIOS	Setting up the BIOS controller	1. Clear CMOS and try turning system on again. 2. Replace BIOS chip as your current chip may be damaged or corrupted.
	Motherboard	Codes that are not listed in the above list	Motherboard error, please call your board manufacturer for assistance.