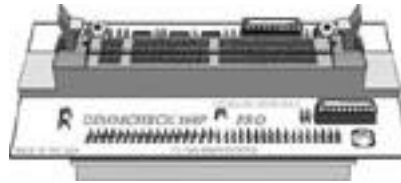


## 8.6 DIMMCHECK 168P PRO



The optional DIMMCHECK 168P PRO (p/n INN-8484-10) enables SIMCHECK II, or SIMCHECK II se, to test 168-pin 5V/3V, buffered/unbuffered EDO/FPM DIMM modules. These are 84x2 pin Dual-Inline-Memory-Module with basic configurations of 64, 72, and 80 bits. The x72 DIMM can be wired as Parity or ECC (Error Correction Code) types, while the x80 DIMM comes in ECC type only.

NOTE: This adapter does not support SDRAM modules. We recommend using the Sync DIMMCHECK 168, which tests SDRAM/EDO/FPM modules.



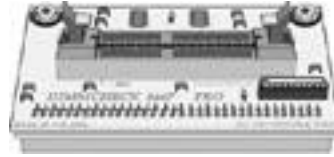
**Install or remove this adapter only when SIMCHECK II is OFF! Installing the adapter when SIMCHECK II is on may damage the sensitive PAL devices on this adapter.**

### 8.6.1 OPERATION

The DIMMCHECK 168P PRO is conveniently installed in the expansion slot, and is automatically recognized by SIMCHECK II. It comes with a high quality test socket for easy insertion and removal of DIMMs, suitable for high volume testing.

INSERTION: For insertion and removal instructions, please refer to Section 8.1.1.1, for operation instructions, refer to Section 5.

## 8.7 DIMMCHECK 144P PRO



The DIMMCHECK 144P PRO (p/n INN-8558-2) enables SIMCHECK II, or SIMCHECK II se, to test EDO/FPM 144-pin SO DIMM modules. These 72x2 pin Small-Outline Dual-Inline-Memory-Modules have basic configurations of 64 and 72 bits. To facilitate their use in low power applications like laptop computers, the 144-pin SO DIMM are designed to work and test at 3.3V.

**NOTE:** This adapter does not support SDRAM modules. We recommend using the Sync DIMMCHECK 144, which tests SDRAM/EDO/FPM modules.

The DIMMCHECK 144P PRO is conveniently installed in the expansion slot of SIMCHECK II and is automatically recognized. It comes with a high quality test socket for easy insertion and removal of DIMMs, suitable for high volume testing.



**Install or remove this adapter only when SIMCHECK II is OFF!**

### 8.7.1 OPERATION

This tester connects via the expansion slot of SIMCHECK II, and is automatically recognized. Plug the adapter into the expansion slot only when SIMCHECK II is turned OFF.

**CAUTION:** Failure to turn SIMCHECK II OFF when connecting or disconnecting the DIMMCHECK 144P PRO to your tester may result in damage to the PAL chip of the DIMMCHECK 144P PRO!



**DIMM insertion and removal should be**

**INSERTION:** Please examine the DIMMCHECK socket and note the key position on the socket which directs proper orientation and insertion. The socket has two ejectors that need to be opened prior to insertion. Carefully insert the DIMM into the socket, pushing it evenly along its top. When the DIMM is properly inserted, the ejectors will snap onto the semi-circular notches on each side of the modules.

done only when  
SIMCHECK II is in  
STANDBY Mode.

REMOVAL: The DIMM is easily released from the socket by pulling both ejectors sideways.

Turn SIMCHECK ON once the DIMMCHECK 144P is installed and insert the first DIMM module. THERE IS NO NEED TO SETUP the program, as the tester automatically recognizes this adapter. After the first DIMM has been tested and SIMCHECK II returns to the STANDBY mode, the presence of the DIMMCHECK 144P is recognized.

The DIMMCHECK 144P test procedure is similar to regular module testing. After the BASIC test, SIMCHECK II displays explicit structure information on the tested module.

```
4Mx64'S STRUCTURE:  
BANKS:1 RAS:0  
CAS:0+1+2+3+4+5+6+7  
144P DIMM UNBUFFERED
```

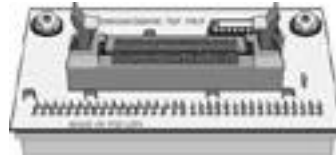


Additional information is given if SIMCHECK II detects a serial EEPROM on the memory device.

```
1Mx64'S STRUCTURE:  
SERIAL PRD  
TO ACCESS THE SPD SPD  
PARITY MODE
```

Please refer to  
Section 5.5 for  
information on SPD  
Management.

## 8.8 DIMMCHECK 72P PRO



The DIMMCHECK 72P PRO (p/n INN-8558-3) enables SIMCHECK II, or SIMCHECK II se, to test 72-pin SO DIMMs. These 36x2 pin Small-Outline Dual-Inline-Memory-Modules have basic configurations of 18, 32, and 36 bits. The user can select the test to be performed at 5V or 3.3V.



**Install or remove this adapter only when SIMCHECK II is OFF!**

The DIMM module (JEDEC MO-160) has an internal architecture similar to the JEDEC 72-pin SIMM standard with the main differences being the arrangement of the 72 pins along a double sided 36x2 edge connector and the use of TSOP DRAM chips which results in a remarkably thin package.

The DIMMCHECK 72P PRO is conveniently installed in expansion slot, and is automatically recognized by SIMCHECK II. It comes with a high quality test socket for easy insertion and removal of DIMMs, suitable for high volume testing.

### **8.8.1 OPERATION**

This tester connects to SIMCHECK II via the expansion slot. Plug the adapter into the expansion port only when SIMCHECK II is OFF.

**CAUTION:** Failure to turn SIMCHECK II OFF when connecting or disconnecting the DIMMCHECK 72P PRO may result in damage to the PAL chip of the DIMMCHECK 72P PRO!

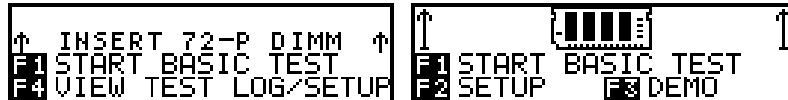
**INSERTION:** The DIMMCHECK 72P PRO uses a vertically mounted YAMAICHI test socket with two ejectors that need to be opened prior to insertion. Carefully insert the DIMM into the socket, pushing it evenly along its top. When the DIMM is properly inserted, the ejectors will snap onto the semi-circular notches on each side of the module.



**DIMM insertion and removal should be done only when SIMCHECK II is in STANDBY Mode.**

**REMOVAL:** The DIMM is easily released from the socket by pulling both ejectors sideways.

Turn SIMCHECK II ON once the DIMMCHECK 72P PRO is installed in the expansion slot and insert the first DIMM module. **THERE IS NO NEED TO SETUP SIMCHECK II**, as it automatically recognizes this tester. After the first DIMM has been tested and SIMCHECK II returns to the STANDBY mode, the presence of the DIMMCHECK 72P PRO is recognized.



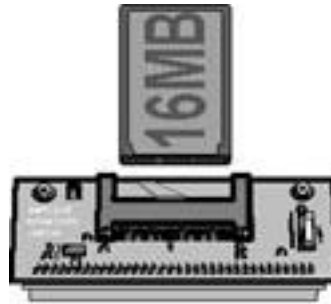
**Please refer to Section 5.3.2 for On-The-Fly parameter changes in the Basic Test, or Section 6.3.3 for continual Voltage setups.**

**5V/3.3V VOLTAGE SELECTION:** The DIMMCHECK 72P PRO can test DIMM modules at either 5V or 3.3V. When testing a DIMM module, you can easily change the default 5V voltage setting to 3V by changing the voltage on-the-fly. This can be accomplished by pressing the F2 key during the Basic Test and then selecting the 3.3V voltage setting. This new setting will affect only this test procedure, therefore subsequent modules will be tested at the default voltage setting of 5V. The 3.3V setting can be set for continual 3.3V tests from SIMCHECK II's setup program.

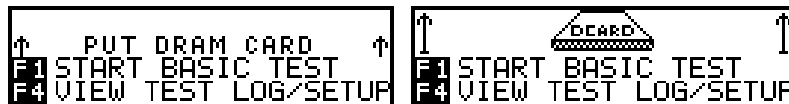
**3.3V vs. 5V TEST:** You can distinguish between a 3.3V DIMM and a 5V DIMM by the length of the lower tab near pin 1. The 3.3V DIMM's tab is 3-3.3 mm long, while the 5V DIMM's tab is 6.2-6.5 mm long. Most 5V DIMM modules will still be testable at 3.3V, but you will notice a large decrease in access time at the 3.3V tests. A 3.3V DIMM module can still be tested at the 5V test without damage, as most 3.3V DRAM chips are "5V Tolerable". You will still notice a better speed at 5V than at 3.3V, but the difference will be much smaller than with the 5V DIMMs. Future DIMM modules may come with 3.3V devices which are not 5V tolerable. *Such devices should be tested only at the 3.3V setup.*

The DIMMCHECK 72P PRO test procedure is similar to our regular module test.

### 8.9 DRAM CARD ADAPTER



The optional DRAM CARD TESTER (p/n INN-8484-3) enables SIMCHECK II, or SIMCHECK II se, to test the JEIDA/JEDEC 88-pin DRAM memory cards with basic configurations of 18, 32, and 36 bits. The DRAM memory card has an internal architecture, which is similar to the JEDEC 72-pin SIMM standard. It uses TSOP DRAM chips and TSOP address buffer logic chips which results in a remarkable thin package. They are becoming increasingly popular for laptop, notebook computers, and various other applications where minimum size and ease of removal/insertion are at a premium. The DRAM CARD TESTER is conveniently installed on the expansion slot, and is automatically recognized by SIMCHECK II.



All memory cells are fully tested, with parallel write/read of 36 bits. The unit can test memory cards at 3.3V or 5V, with maximum capacities of 32Mx36.

## 8.10 SIM II SOJ ADAPTER



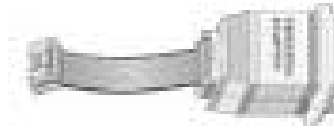
The optional SIMCHECK II SOJ ADAPTER (p/n INN-8558-5) is designed to be a universal tool for testing most 20-pin to 42-pin SOJ chips. This adapter readily supports 256Kx4, 1Mx4, 1Mx1, 4Mx1, 4Mx4, 16Mx1, 1Mx16, 8Mx8, 16Mx4 and 2Mx8.

## **8.11 CUSTOMIZED ADAPTER**

Various computer manufacturers have come out with non-standard 72-pin SIMM modules. These are similar to the JEDEC standard, but have some variation that makes it difficult to support directly on the SIMCHECK II. As a generic solution, we offer the CUSTOMIZED Adapter (p/n INN-8484-1). Customers purchasing this adapter should have the equipment and knowledge to wire the Adapter for their needs.



## 8.12 DIRECT PRINTER INTERFACE



The optional DIRECT PRINTER INTERFACE (p/n INN-8558-4) allows you to print directly from SIMCHECK to a printer, without the need of a PC connection. This option includes a special adapter, which connects to the SIMCHECK 16-pin IDC socket, and a special PAL chip, which controls the IDC socket.

Please install the PAL chip into your SIMCHECK II in accordance with the instructions and drawings in Appendix G.4.

The adapter comes with a short 16-pin IDC cable that connects to the SIMCHECK II's IDC socket. Your printer connects directly to the standard 25-pin D-SUB connector on the other side of the adapter.

**NOTE:** The DIRECT PRINTER INTERFACE is targeted for dot matrix printers only, many of which can now be purchased in a convenient narrow size.

Once you have installed the PAL chip and connected the printer, you can print the Test Log either manually or automatically. Select the mode using Setup, Configuration, More, Printer. In automatic printing mode, the Test Log is printed whenever you return to Standby after a test. In manual printing mode, you can print the current Test Log by pressing F5 while viewing the Test Log.

### 8.13 SIP ADAPTER



The optional SIMCHECK II SIP Adapter (p/n INN-8558-1) enables previous SIMCHECK owners to use their individual DRAM chip adapters on SIMCHECK II by providing the use of a SIP socket. This adapter is conveniently installed on SIMCHECK II's 90-pin expansion slot, and in addition to testing older SIP memory modules, it can readily accept the following SIMCHECK adapters:

SINGLE CHIP Adapter	p/n INN-8448-1
X4 DRAM Adapter	p/n INN-8448-2
PLCC/SOJ Adapter	p/n INN-8448-6
ZIP Adapter	p/n INN-8448-7
16M SOJ Adapter –300m	p/n INN-8448-14-3
16M SOJ Adapter –400m	p/n INN-8448-14-4
16M TSOP Adapter	p/n INN-8448-15
4M TSOP Adapter	p/n INN-8448-16
X8/X9 SOJ/ZIP Adapter	p/n INN-8448-17



**The HANDLER comes with a complete instruction manual and a precision tool kit with which the customer can set up for operation.**

## 8.14 HANDLER INTERFACE

The SIMCHECK AUTOMATIC MODULE HANDLER solves the needs of the high volume module manufacturer. It is capable of automatically testing your modules with SIMCHECK and sorting them into two separate containers – one for modules that pass the test, one for those that failed. Using SIMCHECK II's advanced Test Setup capabilities, you can sort the modules based on varieties of parameters and not just according to good/bad modules (e.g. only modules that meet specific size and speed requirements will be sorted as good).

SIMCHECK II is placed on a shelf on the back of the Handler. The 16-pin IDC socket of SIMCHECK II controls the Handler operation via a cable connecting to the Handler's control panel. The SIMCHECK II 90-pin expansion socket connects to the Handler's test site via an interface connector. The Handler package comes with a special PAL chip that needs to be installed in SIMCHECK II as explained in Appendix G.4.

A group of 50-75 modules are placed in the Handler's vertical input tray. Absolutely no supervision is required once the Handler is initiated. It automatically starts the test when a module is placed in the test position. At the end of the SIMCHECK test, the Handler receives the test results. If Sort Good is activated, the test module travels to the good module pile. If the Sort Bad was determined by SIMCHECK, it causes the module to travel to the bad module pile.

The Handler uses both the AC lines and an air pressure system at the production floor. The AC lines power the motor for the movement of the modules and also supply current to the control circuitry. The air pressure system activates both the module contact system and the power relay for diverting the test modules to the right sorting piles.

We offer several models of Automatic Handlers, with various capabilities to test SIMMs and DIMMs. Please visit our web site for more details or call for brochures.