

## 5. RESTORING A BIOS

### 5.1. Creation of a Crisis Recovery Disk

To create the Crisis Recovery Diskette insert a clean diskette into the floppy drive and execute **CRISDISK.BAT** (see Table 1). This enables the disk to be bootable with minimal DOS and copies the following four files onto the Crisis Recovery Diskette:

MINIDOS.SYS	Allows the system to boot in Crisis Recovery Mode
PHLASH.EXE Or PHLASH16.EXE	Programs the flash ROM. PHLASH.EXE requires a PLATFORM.BIN. PHLASH16.EXE does not require a PLATFORM.BIN
PLATFORM.BIN	Performs platform-dependent functions
BIOS.ROM Or BIOS.WPH	Standard BIOS image to be programmed into flash ROM. BIOS.ROM is used with PHLASH.EXE tool. BIOS.WPH is used with PHLASH16.EXE tool.

**Table 2**

If the BIOS image (BIOS.ROM or BIOS.WPH) changes due to an update or bug fix, or you get a new bios from your support team, you can easily update the Crisis Recovery Disk. Just copy the **nameofthebios.ROM** or **nameofthebios.WPH** image onto the diskette with the new name **BIOS.ROM** respectively **BIOS.WPH**.

### 5.2. Checksum failure during booting

Updating the BIOS may create a possible hazard: power failures or fluctuations that occur during updating the Flash ROM can damage the BIOS code, making the system unbootable.

To prevent this possible hazard our boards are equipped with a boot block Flash ROM. The boot block region contains a fail-safe recovery routine. If the boot block code finds a corrupted BIOS (checksum failure), it boots into the crisis recovery mode and loads a BIOS image from a special crisis diskette.

### 5.3. System is unbootable

If the BIOS is damaged and the system is unbootable, you have to force the system to a Crisis Recovery with an update key. This key must be plugged into the parallel interface. With the Crisis Recovery Diskette in the floppy drive the BIOS is restored using the Bios image on the diskette.

If the system does not detect an update key you will get the following error message:

**Flash Crisis Recovery disk  
Remove and press any key**

If you see this message, please insert the update key and reboot.

During Crisis Recovery you won't get any display. The system does not detect if the Crisis Recovery is finished, so after you see that the LED on the FDD is off for a short time you can switch the system off and remove the Crisis Recovery Disk as well as the update key from the parallel port, then switch the system on.

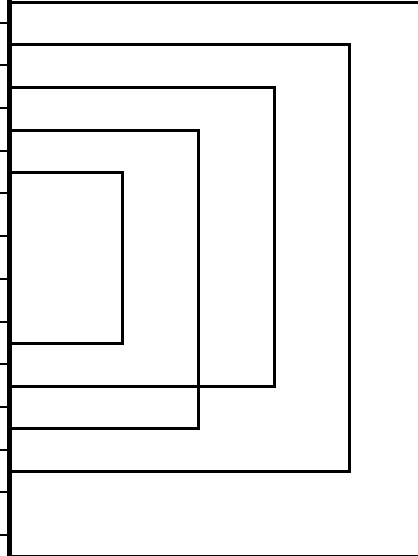
After the first reboot with the new Bios the Checksum is not correct, key F1 to resume or F2 to enter your BIOS settings.

## 5.4. Layout of Update Key

### 5.4.1. Key for Parallel Port

Function	Kontron 26 Pin No. *	D-Type-25 Pin No.
<b>NSTROBE</b>	1	1
<b>Data0</b>	3	2
<b>Data1</b>	5	3
<b>Data2</b>	7	4
<b>Data3</b>	9	5
<b>Data4</b>	11	6
<b>Data5</b>	13	7
<b>Data6</b>	15	8
<b>Data7</b>	17	9
<b>nAck</b>	19	10
<b>Busy</b>	21	11
<b>Paper-Out / Paper-End</b>	23	12
<b>Select</b>	25	13
<b>nAuto-Linefeed</b>	2	14
<b>nError / nFault</b>	4	15
<b>nInitialize</b>	6	16
<b>nSelect-Printer / nSelect-In</b>	8	17
<b>Ground</b>	10,12,14, 16, 18, 20, 22, 24	18-25

**PLEASE CONNECT  
THE PINS AS  
FOLLOWS**



**Table3**

## 5.5. Update of Bootblock

The PHLASH.EXE tool of the Phoenix BIOS also allows you to update the bootblock. This might be necessary if there is a BIOS in use without any bootblock.

To do this you need to update the BIOS with the switch:

**plash xxxx.rom /PF=BB**

(You have to use capital letters for the switch, because it's case sensitive!)

Please use this feature only if it is really necessary and when asked by your Kontron support. A hazard during bootblock update can cause the system not to boot anymore and even the crisis recovery may not help anymore.

**Please note that the PHLASH16.EXE tool does not support this feature so far.**