

**From:** Kontron Embedded Modules GmbH  
**To:** All Distributors and Customers  
**AN:** #2\_CRTtoLCD  
**Date:** 10-Aug-05  
**Originator:** Daniel Piper

**Related Products:** CRTtoLCD  
**Related Firmware :** All

### Reason for the notification:

Occasional problems when uploading Firmware to the board, because it can't be set to Firmware-Update Mode. The reason is an unannounced change in specification of the microcontroller by Atmel in September 2004.

### Description:

The Atmel-Microcontroller of Series 89C51/ED2 got an additional sequence (in comparison to version RC2 and RD2) to ensure that they always can be set to Firmware Update Mode.

#### What's to do?

The board has to be started as usual (DIP-SW1=OFF), after start-up (without removing supply voltage) DIP-SW1 has to be switched to ON. Afterwards the board has to be restarted, that means a hardware reset has to be done (please see below).

Please Note: During the reset power supply has to be connected!

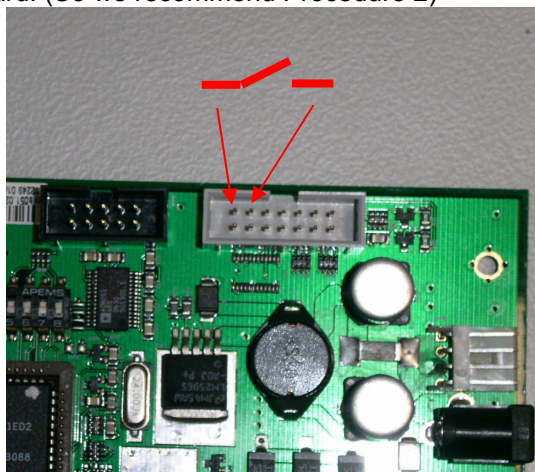
Now the flatpanel controller is in Firmware Update Mode and the firmware can be loaded up as usual with the Atmel Flip-Tool.

#### **Hardware-Reset (there are two ways to handle):**

##### *Procedure 1 (Hotfix):*

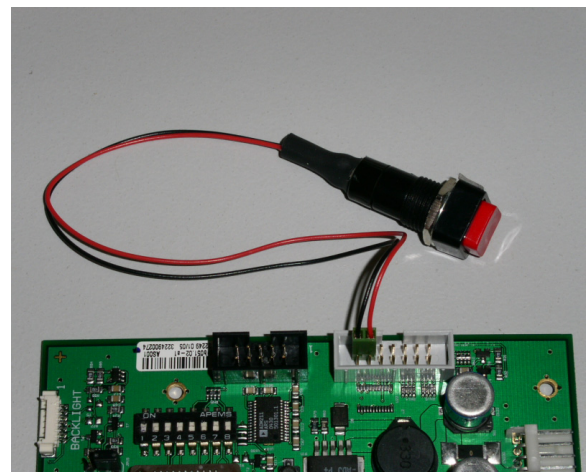
To implement the reset sequence two pins (Pin11 and Pin13) of the OSD-Connector (CN102 at CRTtoLCD-2/-3 and X5 at CRTtoLCD-1-LC/TC) have to be shorted (about 1 sec.). Best way to do is to use a jumper!

Please note: Pin12 is connected to 12V power supply. An unintended short-circuit can destroy the board! (So we recommend Procedure 2)



##### *Procedure 2:*

Best way is to use a push button. As described in Procedure 1 Pin11 and Pin13 of the OSD-Connector (CN102 at CRTtoLCD-2/-3 and X5 at CRTtoLCD-1-LC/TC) have to be shorted (GND). So a two-pole push-button has to be used. Please assure the correct position (!) on Pin 11 and 13! An unintended short-circuit can destroy the board!



**Confidential**

<b><u>Affected part numbers:</u></b>		
<b>Part Number</b>	<b>Sample available</b>	<b>Mass Production</b>
21051 / 21052 / 21053 / 21054 / 21055 / 21056 / 21071 / 21072 / 21073 / 21074 / 21075 / 21076 / 21077/21079/ 21011 / 21012 / 21013 / 21014 / 21032 / 21034		

**Important notice:**  
**Please contact your local sales representative for further information regarding this matter if necessary.**