UDC 100
FIRMWARE UPDATE PROCEDURE

Version 2.00 or later

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RGB Spectrum

The firmware for the UDC 100 can be field updated. This is a fairly simple procedure using the unit's Primary RS-232 serial port. These instructions cover units with version 2.00 or later. For units with earlier firmware versions, contact RGB Spectrum for update instructions.

To determine the current firmware version of your unit, send the serial command "ID".

IMPORTANT - Your serial communications device must be capable of a 115,200 baud rate or you will be unable to upload the new firmware. The update file can only be sent at a 115,200 baud rate.

I. Where to Get the Firmware Update File

There are two ways to get the latest UDC 100 firmware:

- On diskette from RGB Spectrum

- Download from the product support page on the RGB Spectrum website.

II. What You'll Need

For this update procedure, you'll need the following items:

- A computer capable of a 115,200 baud rate

- Communications software (i.e. "HyperTerminal" for Windows 95/98/2000/NT/XP)

- Serial cable with proper adapter to connect from the female RJ45 jack on the UDC 100 to the serial communications port on your computer

- Firmware update file

III. The Upgrade Procedure

Step 1:	For the upgrade procedure, start with the following connections to the UDC 100 in place: - Power cord - RS-232 connection at the primary serial port (The above items are all that is needed for the upgrade process. You may also have video input and output cables connected - these will not interfere with the upgrade process.)
Step 2:	Establish serial communications between your computer and the UDC 100. The default baudrate for the UDC 100 is 9600. For Windows 95, 98, 2000, NT, XP computers running HyperTerminal, open up a connection using the following communications parameters: 9600 bits per second, No parity, 8 data bits, 1 stop bit, and XOn/XOff flow control (software handshake). If you already have a connection open, check the parameters by looking in the FILE menu under "Properties". Under the "Connect To" ("Phone Number" Win95) tab, select the "Configure" button and verify the parameters. Check to see if you are now communicating with the UDC 100. Type "id". If you see the characters you are typing and get a response from the UDC 100, then communications have been established. If not, try each of the following steps, checking after each to see if communications have been established: 1. From HyperTerminal, under the CALL selection on the HyperTerminal menu bar, first select "Disconnect". Then select "Connect". (check to see if communications have been established; if not, go to #2 below) 2. From the front panel of the UDC 100, press and hold the "Right arrow" and "Fade" keys for 5 seconds. This will reset the UDC 100's baudrate to 9600. With communications established, set the UDC 100 to a 115,200 baud rate with the command "baudrate 115200". Now the UDC 100 and your computer are set to different baud rates and you can no longer communicate. Next, set your computer's communication speed to 115,200. Once again, in the FILE menu, select "Properties". Under the "Connect To" ("Phone Number" Win95) tab, select the "Configure" button and set the Bits per second selection to "115200". Check to see if you are now communicating with the UDC 100. Type "id". If you see the characters you are typing and get a response from the UDC 100,

then communications have been established.

HYPERTERMINAL USERS: Whenever you reset the communication speed while a connection is open, you will need to DISCONNECT and then RECONNECT . Use the CALL menu on the HyperTerminal menu bar. First select "Disconnect". Then select "Connect".

Step 3: Send the command "UPDATEFIRMWARE"

Step 4: Refer to your terminal screen. You will be prompted to confirm your request to update the firmware. Type "Y" to continue. Typing "N" will cancel the update process.

Step 5: You will be prompted to check that your serial communications parameters are set appropriately, and then power cycle the UDC 100 off and then on again.

You should observe the unit erasing all ten of its Flash EPROM sectors.

Next, a message will appear reading "Send S-record data now!". The unit is now ready to receive the firmware upgrade file.

Step 6:   Place the RGB Spectrum Firmware Upgrade Diskette in your computer's floppy drive, or load the unzipped files to your computers hard drive. The file name will be "UDC_xxx.s19", where "xxx" is the version number (e.g. UDC_222.s19 is version 2.22).

From your communications software (e.g. HyperTerminal), upload the firmware file to the UDC 100. To upload the file, use your communications program's file transfer feature.

In HyperTerminal, under the TRANSFERS menu, select "Send Text File". This opens the Send Text File dialogue box. Use the "Look In" box to locate the UDC_xxx.s19 file. You will need to select the option to view ALL files. Select the file by clicking on it and click on the "Open" button to send.

THE PROCESS WILL TAKE UP TO 15 MINUTES. During this time only a few messages, such as "Found empty Srec", will be echoed to your terminal. These messages are expected and can be ignored. The UDC 100 will appear dead - all lights will be extinguished.

Step 7:   When you receive the message "Finished loading flash...reboot" on your terminal console, the upload process is complete.

Cycle the power to unit off and then back on for regular operation.

ERROR MESSAGES: If you receive any error messages during the upload process, you will need to repeat it.

Make sure your communication parameters are set correctly (see Step 2). Then from HyperTerminal, under the CALL selection on the HyperTerminal menu bar, first select "Disconnect". Then select "Connect".

Power cycle the UDC 100, and you will be back in the upload process, at Step 5. Continue as instructed.

At the successfully conclusion of the update process, the UDC 100 will be in its factory default state. The baud rate of the unit will be 115,200.