

AccuPel Firmware Update Procedures

This is a 4-part procedure, but the first part only has to be done once.

- Set the AccuPel's current and default baud rate to 115200.
- Test the USB connection.
- Load the MPU code.
- Load the Config code.

The usual warning messages apply—don't turn off the power while programming, etc. If you should lose power while programming the MPU, the MPU code will be toast and you will not be able to reenter the Bootloader from the MPU code. Contact us if that should happen.

This procedure assumes you have already installed the correct USB driver in your PC and have previously established communications between that PC and the DVG-5000. If not, install the USB driver first.

SET THE BAUD RATE

1. Turn on the AccuPel and connect it to your display.
2. Press the **Menu** button on the remote control, and select **Defaults, USB Baud, 115200**.
3. Scroll back to the middle menu and select **Save Items**.
4. Scroll over to **Enter**, and then press the **Enter** key on the remote.
5. Unplug the unit.

Now when the unit is turned back on it will be set to 115200. When all updates are complete, you should reset the unit's default to 9600, which is what works the best with ChromaPure.

TEST THE CONNECTION

1. The PC should be operating. Connect the USB cable from the DVG-5000 to the PC with the DVG-5000 turned off.
2. Plug in the power to DVG-5000.
3. Start the DVG-5000 Programmer and verify a USB connection with the DVG-5000. The Programmer should automatically connect to the correct Serial Port. Do NOT change the Baud Rate (it is set to 115200, and will not load code at any other Baud Rate).

DVG-5000 Programmer

File Edit

Establish USB Connection

Select Serial Port: 0 COM11

Use DVG-5000 115200 Baud Rate Only. To change:
Select 115200 in Defaults/USB Baud menu, then
save using Save Items/Enter and restart the DVG-5000

Reconnect After Power-up Restarts

Connected: True

Verify Connection: ID # Version

Type DVG-5000 Command (followed by Return):

DVG-5000 Reply:

Update DVG-5000

Page: Checksum: Repeats: 0

Status:

1. Begin DVG Update Cancel
2. Wait until top 3 Group LEDs are illuminated
3. Select/Send .dvg File
4. Wait until .dvg load is done & LED's return to normal state
5. Select/Send .bin File
6. Wait until .bin load is done, then restart the DVG-5000
7. If Authorization Code required enter it below:
8. Repeat steps 1 and 2 above
9. Send Authorization Code
10. Restart the DVG-5000

4. To verify you are connected, click **Version**. You should get a version # reply.

If the DVG-5000 responds to a command, you are ready to start programming. If not, start over until you can verify a successful connection.

LOAD THE MPU CODE

1. Click **Begin DVG Update**.

The DVG-5000 will respond by illuminating the PLUGE, Grayscale, and Grayfield row of LEDs. All other LEDs will be off, and if the DVG had been connected to a display the display will go blank (or blue screen, or whatever it does when not receiving a signal). If you don't get the row of LEDs, something is wrong with the connection and you can't proceed without getting a valid connection as described above.

2. Click **Select/Send .dvg File**, and open the .dvg file in the file selection dialog box.

You will see **Erasing the MPU** message and random activity in the Progress Bar for a couple of seconds, and then **Loading MPU Code**, and then finally **uP Code Loaded**. This will take a couple of minutes to complete.

When complete, the DVG-5000 will then start running the new MPU code. If a display is connected to the DVG-5000 it should display the color bars pattern. Do NOT use the DVG-5000 without also loading the new Config File. The previous Config file may not be compatible with the new MPU code.

LOAD THE CONFIG CODE

You do NOT need to unplug the DVG-5000 before proceeding.

1. Click **Select/Send .bin File**, and open the .bin file in the file selection dialog box.

You will see a **Erasing the FPGA Config File** message and random activity in the Progress Bar for a few seconds, and then **Loading the FPGA Config File**, and then a moving Progress Bar, and increasing Page Count for about a minute.

2. When the process has completed, you MUST cycle the power to the DVG-5000 to finish the process. Unplug the DVG-5000 and then plug it back in to load and use the new Config file. (Don't use the DVG-5000 without cycling the power because the previous Config file may not be compatible with the new MPU code.)

Send Authorization Code

Occasionally, users will also need to send an authorization code to the DVG-5000. For example, this would be necessary if you originally purchased a 2D version and subsequently wish to upgrade it to 3D.

1. Connect the DVG-5000 to the PC.
2. Establish and test a connection as described above.
3. Click **Begin DVG Update**.
4. Copy/paste the authorization code you were given into the available box, and then click **Send Authorization Code**.

An **OK** should appear if the code was accepted.

5. Unplug the DVG-5000 and then plug in again for the change to take effect.