

The ultimate step-by-step hard drive replacement guide for the computer illiterate

OK, so I used "ultimate" to get your attention. I recently underwent a painstaking process of upgrading my 1680 with the Toshiba 20gig drive. This is a complete recap of the process to make it smoother for the rest of you. Many thanks to ChicagFraize and KMF for their previous contributions. Here it is:

- 1) Go to "pcprogress.com" under their "notebook drives" section and order the Toshiba TOMK2016GA, 20gig,2.5",9.5m,1ms,1mb,4200RPM drive. Current price is \$168 (\$156 + \$12shipping). It will arrive by 2-day FedEx.
- 2) Next you will need to upgrade your OS for the 1680 to something above version 2.008 (otherwise you will only format 8.4gig with only 4 partitions - you want to end up with 20gig formatted and 8 partitions). The latest version is 2.021. To do this:
- 3) You will need to have a "sound card to MIDI adaptor cable" to connect the 1680 to your PC (sorry for those MAC users, but I'm only giving steps for PC). I bought the "Voyetra MIDI cable pack" at Circuit City for \$20. You will connect the sound card end into the PC joystick port (this will NOT be a USB - its a multipin port - can't remember what they call it). You will then connect the MIDI "out" part of the cable into the MIDI "in" of the 1680 (the cable is labeled with 'out' and 'in'). Turn "off" the power to the 1680.
- 4) Get on the net and go to "rolandus.com". Click on the "non-flash" version of the website. Place cursor on "support" and a menu will appear to the right. Click on "software" upgrades. Click on "updates R-Z". Scroll down near the bottom of the list to the one that says "VS 1680 version 2.021 (PC) containing MID files,etc". I went with this one rather than the one that says anything about ZIP files. You will see an underlined section that reads "PC SMF Updater" (or similar - the PC SMF is the important part). Click on that to download it to your PC (remember where you saved it on your drive. You will need the updater to launch the upgrade for the 1680.
- 5) While still at the version 2.021 site, click on "version 2.021" to download that to your PC. This will be downloaded as a compressed file (takes a few minutes). If you don't already have "WinZip", you will need to go to "winzip.com" and download the free version. You will need WinZip to unzip the compressed files.
- 6) Now that you have all that junk on your PC, and you have gotten the new drive FedEx, you are ready to upgrade. First, go into the PC's "start" menu and "find" the file or folder with the "SMF" updater. You will see that one of the files has an icon that looks like a little red stop sign. Click & drag that icon onto your desktop to make it a shortcut (you will need it later).
- 7) Go into the PC "start" menu and find the "Winzip" file and open it (or just click on the "WinZip" icon on your desktop). This will begin to ask you registration and license agreement questions and will eventually ask which files you want to "unzip". It should show a listing of all potential files to unzip - you want to unzip anything that has to do with "Roland 1680" or "version 2.021" .
- 8) Go back to your desktop and double click the red stop sign icon for "SMF updater". This will launch the updater. A menu box will appear. In the "MIDIout device" section you should be able to scroll down to something like "Montego II MPU-401" (the MPU-401 is the important part

- that's what you want). In the "SMF path" part it should read something like 'C:WINDOWS/Desktop/VS1680v2002'. Next, click the "Scan SMF" part and the box should show about 16 files listed for the 1680 version 2.021. This is all good. Now STOP what you're doing!

9) Now the tricky part (I had to call Roland for this, so I hope you appreciate my pain). Go to your 1680. While holding down "track 7 status" and "track 7 select" buttons, turn "on" the power to the 1680. This will put you into a scary looking blue screen that will read something like "update system?". Press "yes" or enter. The screen will now say "waiting" (it is waiting for you to send the MIDI update info from the PC). Go to your PC and click "send" in the SMF box. This will begin to send the info to the 1680 and you should be able to see a bunch of wierd numbers flashing across the screen of the 1680. The process will take a few minutes. When it is done, just follow the prompts on the 1680. Congrats - you now have version 2.021.

10) Now for the "void your Roland warranty" part . TURN OFF THE 1680!!! Touch some metal to discharge any static you may have. Remove the metal plate on the outside of the 1680 near the 'record' button (2 screws). Inside, you'll see a black plastic cartridge that houses the hard drive. DO NOT ATTEMPT TO PULL IT OUT until after removing the 2 black screws that secure it into the VS (4 total screws to remove - 2 outside, 2 inside).

11) Gently pull the slim metal handle to remove cartridge.

12) Unscrew the 4 metal side screws that hold the shiny metal sheath in the cartridge.

13) Gently push the silver sheath down to move it out of the black cartridge.

14) You'll see a green multi pin connector at one end. This is attached to the metal sheath with a strip of double-sided foam adhesive tape. You may have to pry the foam tape off he sheath with a butter knife or some such thing (I just used my fingers)

15) Slide out the connector and old drive from the sheath. Take note of which side of the drive is up or down in relation to the sheath and cartridge so you don't put the new one in upside down. Also take note of where the drive slides into the sheath in relation to the 2 foam sheets that also go into the sheath.

16) Take note of where the multipin connector fits onto the drive (it should be centered) and disconnect it from the drive by holding the connector in one hand and the drive in the other, rocking it gently apart back and forth.

17) Connect the multipin connector to the new drive and reassemble and reinstall the cartidge into the 1680.

18) Turn on the 1680. It will give you a screen that says "initialize drive". Say 'yes' and you will be running in a few minutes.

19) To check if you were successfull, hit "shift/utility", "drive check" and you should see 20gig formatted and partitions 0-7. If not, you will have to go to "shift/utility", "initialize drive" with both 'physical format' and 'surface scan' set to "on" and reinitialize the drive - this will take about 6-7 hours, so hopefully you won't have to do that .

20) Wipe the sweat from your face, sit down and have a cold beverage and a snack. Congrats - you've just multiplied the memory of your machine by 8 and have the most powerful 1680 to date!