

Grayhill DuraMax Tablet

Upgrading the DuraMax Tablet Operating System And Bootloader



Grayhill Part Number:

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Audience

This manual provides a procedure to upgrade the Operating System on a DuraMax Tablet-based device. The information it provides is intended for qualified electrical personnel familiar with installing, programming, and maintaining industrial networks and industrial automation.

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Introduction

This document will specify the procedure for upgrading an existing DuraMax based product to a different Operating System than what it is currently running. This instruction-set may be used to upgrade or downgrade operating systems on the device. Please advise your Grayhill sales or support representative to ensure that you are using the appropriate operating system for your needs.

Components Needed

Table 1. Components Needed

Tablet Kit Components
1 Compact Flash to PCMCIA Adapter Card
1 Compact Flash Card

 **WARNING:** An OS upgrade involves formatting the FLASH Disk. Backup all of your data prior to performing the update. All data will be lost.

Preparing the Device

1. Current Operating System Version

Prior to upgrading your device please make a note of the current version of the Operating System. The version is denoted by the build date. The build date can be viewed on the desktop. Note the build date in the following area.

Current Version of Operating System: _____

Ensure AC Power

Attach the AC adapter to the Tablet's external power port, then connect the power cord to an electrical outlet. Since the upgrade process takes some time, it is recommended that the process is performed while the device is powered to ensure that the process proceeds uninterrupted.



WARNING: Use only a Grayhill-approved AC adapter with the Tablet or the Tablet dock. Use of another AC adapter may cause a fire or an explosion. Always connect the AC adapter first to the Tablet or Tablet dock. Use the AC adapter with a properly grounded supply to avoid electrical shock. Before plugging the power cord into the wall socket, make sure its voltage and frequency match that of the AC adapter. If using an extension cord with the provided AC adapter, make sure the total current rating of the product does not exceed the current rating of the extension cord.

2. Remove the PC Card Slot Cover

In order to upgrade the Operating System access to the PC Card Slot is required. Remove the four (4) screws securing the PC Card Slot cover in the rear of the device.



3. Copy files to CF Card

The following files need to be copied to the CF card:

NK.BIN
GRAYHILL.REG
BLPROG.EXE
EBOOT.NB0 *

*NOTE: Copy or rename EBOOT.NB0 to GHBOOT.NB0 on the CF card.

NOTE: Some or all files may need to be uncompressed or un-zipped first.

4. Insert the CF Card/PC Card into the PC Card Slot

Insert the CF Card into the PC Card Adapter

The CF Card should be inserted into the PC Card adapter. Note: The CF Card should only be inserted into the PC Card adapter in the correct manner. Do NOT force the CF Card into the adapter. If a great deal of force is required to insert the CF Card into the adapter make sure that the CF Card is aligned correctly with the adapter and that there is no debris inside the adapter.



Inserting the CF Card/PC Card combination into the device

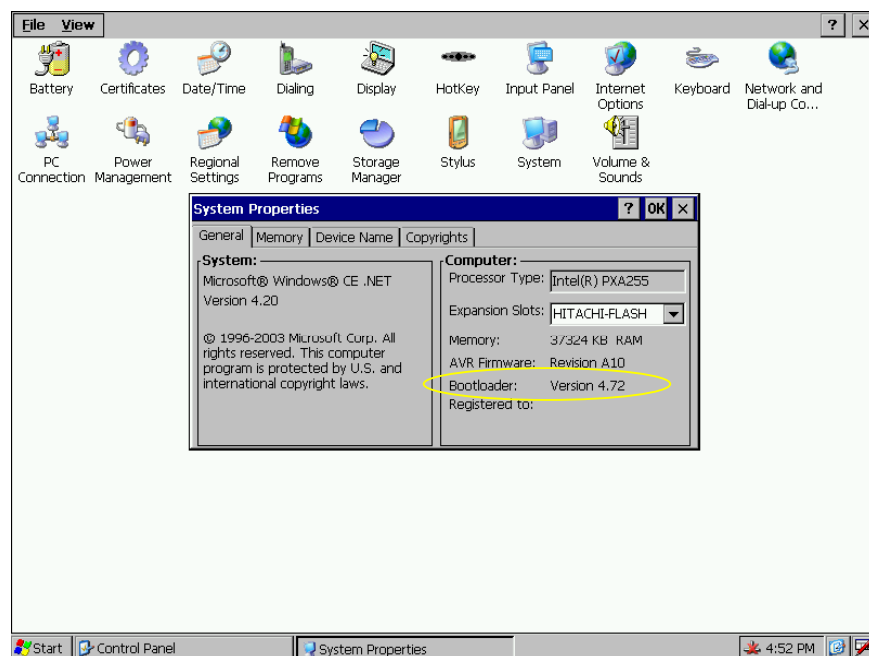
Insert the CF Card-PC Card combination into the PC Card Slot.



Make sure that the PC Card is completely inserted. This can be verified by checking the device recognizes the PC Card and mounts it as “/Storage Card”.

5. Updating the Bootloader

Prior to upgrading the bootloader on your device, please make a note of the current version of the bootloader. The version can be found in the System Properties applet of the Control Panel.



Open a command prompt

From the Start menu in the lower left hand corner of the screen, select Programs → Command Prompt.



Run the bootloader programmer utility

From the command prompt window, change directories to the CF storage card by typing **cd storage card**

followed by <ENTER>

Start the bootloader update procedure by typing

blprog \storage card\ghboot.nb0

followed by <ENTER>

Upon completion of the upgrade procedure, the results will look like the following:

```
File Edit Help
Pocket CMD v 4.20
\> cd storage card
\storage card> blprog \storage card\ghboot.nb0
Opening Argv[1] \storage card\ghboot.nb0
Opening \storage card\ghboot.nb0
Found Flash, status = 0x1
Reading the Data file
Erasing chip
.....
Programming Flash
.....
Completed programming succesfully
\storage card>
```

6. Resetting

Press the reset button which is located above the PC Card Slot on the back of the device. This will reset the device and the upgrade process will begin.



The upgrade process can take some time so please be patient. (Typically about 7-10 minutes).

Upon completing the upgrade process the device will boot with the Windows CE desktop present. Verify that the version(build date) has been updated from the original version number which was noted in step #1 of this guide.

Remove the PC Card from the slot and secure the cover plate with the four (4) screws.

Troubleshooting

- If the upgrade process takes less than 2 minutes and the version number does not change, then make sure that the CF Card contains both an NK.bin and grayhill.reg file. If the CF Card does not contain these files then contact your Grayhill representative.
- If the device does not boot correctly after an upgrade then remove the PC Card and reboot the device by pressing the reset button.