Digital Storage Oscilloscope

GDS-1000B / GDS-2000E/ GDS-2000A/ GDS-3000 Series

FIRMWARE AND KERNEL UPGRADE GUIDE

GW INSTEK PART NO. N/A

ISO-9001 CERTIFIED MANUFACTURER

GW INSTEK

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UPGRADE PROCEDURE

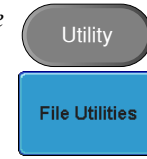
This firmware upgrade guide describes how to upgrade both the DSO firmware and the operating system kernel.

Upgrade firmware

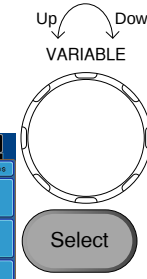
1. Insert a USB flash disk containing the firmware file, **xxx.upg** into the front panel USB slot.

2. Remove all probes and cables from the BNC terminals.

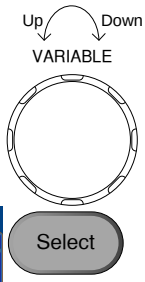
3. Press the *Utility* key and select *File Utilities* from the bottom menu.



4. Rotate the *Variable* knob to select the USB directory and then press the *Select* key.



5. Rotate the *Variable* knob to select the **xxx.upg** file and then press the *Select* key. Press the *Select* key again to begin the upgrade procedure.



6. When the procedure has completed restart the scope.

Note

For the GDS-3000 models:

Steps 7 & 8 only apply to 5GSa/s models (GDS-3154, GDS-3254, GDS-3352/4).

2.5GSa/s models (GDS-3152 & GDS-3252) will bypass these two steps.

Upgrade Kernel

7. When the screen goes "blank" during the booting process, press the lit CH1 key **three times**. (For GDS-3154, GDS-3254, GDS-3352/4 , 5GSa/s models only)

8. The scope will return to the main screen after the *CH1* key has been pressed. (For GDS-3154, GDS-3254, GDS-3352/4 , 5GSa/s models only)

9. Repeat steps 3~6 to upgrade the kernel. The same file is used again to upgrade the kernel.

10. When the calibration message appears for the second time after the oscilloscope has restarted, press "TEST" in order to perform the phase calibration officially. (For GDS-3154, GDS-3254, GDS-3352/4 , 5GSa/s models only)

    Please note that the entire phase calibration may take about 10 minutes.

11. The upgrade procedure is complete after the second upgrade.

Note

The following note is for the GDS-3000 only.

If the existing firmware version is earlier than v1.07, please repeat this firmware upgrade procedure twice.

For firmware versions earlier than v1.07 (v1.00~v1.06), please upgrade both the DSO firmware and the OS kernel (follow the operation steps 1 to 10). This means that you need to do the same upgrade procedure twice .

If upgrading the firmware from V1.07 to v1.08 or later, only update the firmware. The kernel upgrade is not required (follow operation steps 1 to 6).

If the upgrade procedure crashes and freezes during the upgrade, please use the "**safe mode**" upgrade method instead. Please see the next chapter on details on how to use the "safe mode" upgrade method.

SAFE MODE UPGRADE PROCEDURE

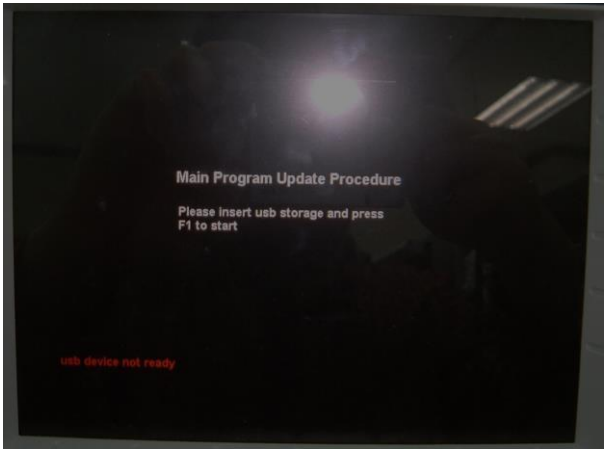
Note

If the upgrade procedure crashes and freezes during the upgrade, you use the "**safe mode**" upgrade method instead.
MHz
The upgrade file name for this method are either **xxx.opg**(for GDS-3000 150-350MHz)or **xxx.upg** (for GDS-1000B, 2000A, 2000E, GDS-3000 500MHz)

Upgrade firmware by safe mode

1. Remove all the files on the USB flash disk.
2. Copy the firmware file **xxx.opg** or **xxx.upg** into the USB flash disk (**root directory only**). Insert the USB flash disk into the front panel USB slot.

3. Power up the oscilloscope and at the same time, keep rotating the "VARIABLE" knob a number of times until the oscilloscope boots into the firmware upgrade safe mode, as shown in the snapshot below.



4. When the **xxx.opg** or **xxx.upg** file on USB flash disk has been recognized by oscilloscope, the message "**usb device ready**" will appear on the lower left corner.

5. Press the F1 key. The oscilloscope will automatically start upgrading the firmware.

When the status indicator at the center of the display has completed, the upgrade grade procedure (using the safe mode) is complete.

ongoing complete

6. The oscilloscope will restart automatically. After the scope has restarted, check the firmware version by pressing "Utility"→ "System"→ "System Info". The system information screen should now show the new firmware version that was updated.

For more information, contact your local dealer or GWInstek at www.gwinstek.com / marketing@goodwill.com.tw.