Z70 v2
Firmware Update

DOCUMENTATION

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1 INTRODUCTION

Z70 v2 incorporates **two separate microcontrollers**, one of which focuses on interfacing with the KNX bus and on running the application program itself, while the second one is dedicated to running the firmware that implements the operating system and the management of the peripherals.

Therefore, updating Z70 v2 may consist in two phases:

- Downloading the new application program (from ETS),

- Downloading the new **firmware** by connecting a **flash memory USB drive** to the Micro-USB port, through the male Micro-USB to female USB adapter.

The next sections explain how to perform the firmware update, including the possible events that may take place during the process, together with the suggested solutions.

> **Important**: *Please avoid bus / power interruptions until the new firmware installation has been completed and Z70 has booted into its normal operating mode.*

2 UPDATE VIA USB

2.1 STEP-BY-STEP PROCESS

Updating the firmware via USB (universal serial bus) requires a male Micro-USB to female USB adapter and a USB flash memory drive.

These are the steps:

1. Download from https://www.zennio.com the ***.ZIP** file with the firmware corresponding to the desired version of the application program. Compressed inside this *.ZIP file is the update package: **Z70_update.pak.**

2. Save or copy this **Z70_update.pak**, leaving the file name unchanged, in the **root folder** of a USB flash storage[1] drive with the **FAT32** file system.

   Important: *if the file name (Z70_update.pak) is altered or the file is not saved to the root directory, Z70 v2 will not start the update process after the connection of the USB drive.*

3. **Safely** disconnect the USB drive from the PC, in order to prevent electrical risks that may corrupt the information stored.

4. Insert the USB drive into the female end of the mini-USB to USB adapter and connect the other end of the adapter to the mini-USB port of Z70 v2 (please refer to the element diagram in the user manual).

   When the Z70 v2 recognizes the inserted USB flash memory, a USB icon will appear on the top bar and an informational message will appear on the screen. The actions notified will be:

   ➢ *Update detected. Rebooting...*: A update package (Z70_update.pak) with a version **different** from the installed version has been detected. After a few seconds, the update of Z70 v2 will begin automatically, as long as the external power supply is plugged.

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[1] Only flash memory drives are supported; USB hard disks are not compatible.

➢ *No updates found*: no update package with different version than the current one has been detected. No update process will take place.

Important: *any firmware version (newer or not) can be downloaded to Z70 v2 as long as it differs from the currently installed version. Because of this, it is important to ensure that the version of the application program to be downloaded from ETS matches the version of the firmware being installed.*

5. Wait until the update process finishes, which may take several seconds/minutes and make Z70 v2 reboot. The update process is totally transparent to the user, and will finish as soon as Z70 v2 loads the user interface again. From that moment, the USB drive and the Micro-USB adapter **can be disconnected**.

Important: *do not connect Z70 v2 directly to the USB port of a PC, as the device may become damaged.*

2.2   TROUBLESHOOTING

Event	Possible cause(s)	Solution
The update process does not start after connecting the USB memory	The **.pak** file has been renamed.	Change the file name back to **Z70_update.pak**
	The **.pak** file has not been saved into the root directory of the USB memory drive.	Move the file to the root folder of the USB memory drive, e.g., $X:\setminus$.
	The USB drive is not supported (non-flash memory, external hard drive, etc.).	Use a flash memory drive or try with another.
	The file system in the USB memory is not **FAT32**.	Format the USB memory to the FAT32 file system.
	More than one partition co-exist in the USB drive and the **.pak** file has not been found on the first partition detected by Z70 v2.	Define only one partition in the USB memory and save the **.pak** file to the root directory of that partition.
	The **.pak** file and the already loaded firmware on Z70 v2 have the same version.	Obtain a more recent / different version of the **.pak** file, if available.
	The firmware update feature through the USB port has been disabled in ETS.	Enable in ETS the update function via USB (making use of the particular application program version that is currently loaded on the device) and download the parameters again.
After the update, the screen shows the Status page permanently, or remains blank, or shows a	The **.pak** file was damaged, or the download to Z70 v2 failed.	Restart the process (by disconnecting and then connecting back the USB drive) and/or obtain a fresh copy of the desired firmware.

Software Error warning.	The firmware downloaded to Z70 v2 is not compatible with the installed version of the application program.	Download from ETS the application program version that corresponds to the firmware version, or install a firmware that matches the current application program.
	The update process was interrupted (bus power failure, unexpected power loss from the external supply, disconnection of the USB drive, etc.).	Fix the incident and wait until the process automatically resumes. If this does not happen, restart it manually (disconnect and connect back the USB memory).
	Several resets (bus failures or external power failures) have taken place within the first two minutes after the firmware update, making Z70 v2 consider the new firmware as corrupt.	Please, disconnect and connect the device again, avoiding power failures during the first two minutes of operation.

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