

MMC/SD Upgrade Procedure for GasAlertMicro 5 Series

Warning

Do not upgrade your X5 Series unit unless you have contacted BW Technologies by Honeywell first.

This document describes how to upgrade a GasAlertMicro 5 using an MMC/SD card. The upgrade procedure will work on all GasAlertMicro 5 units with firmware revision 10B (this will display on the LCD of the GasAlertMicro 5 as 0B during startup) or higher. This includes both datalogging and non-datalogging units. **You must use fresh alkaline batteries for the upgrade.**

Caution

This upgrade procedure must be performed in a safe location with no hazardous gases.

Creating A Firmware Upgrade MMC/SD Card For GasAlertMicro 5

Preparing the MMC/SD card

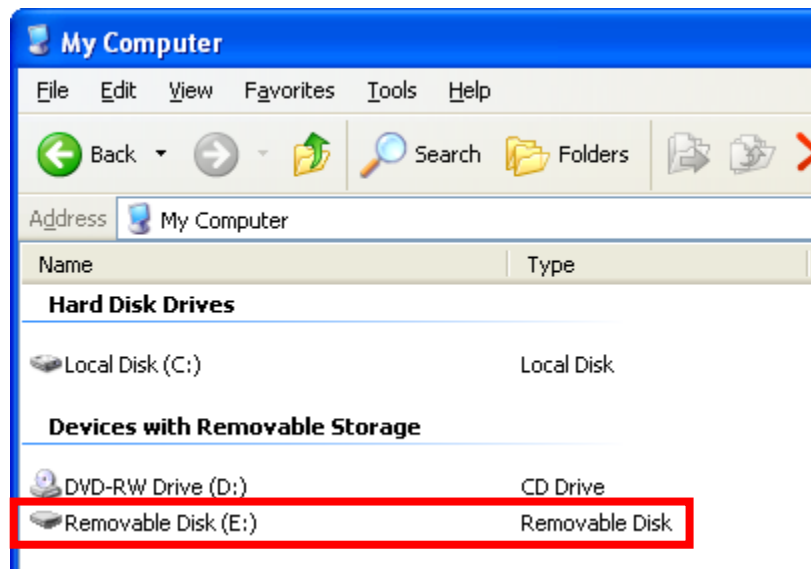
1. Insert a MMC/SD card into a MMC/SD card reader/writer attached to a Windows PC. Any 32, 64, 128 MB MMC/SD card can be used to create an upgrade card.
2. Please use a blank MMC/SD card if available.

If you have a datalogging version of the GasAlertMicro 5, it is possible to use the MMC/SD card that is installed in the unit. Please be aware that the card will need to be formatted and all data on the card will be erased. If you need to keep the raw data file, you can archive the “LOGFILE0.CSV” to a secure location on your computer. It is also recommended that you download the data with Fleet Manager II. The Fleet Manager II software is available as a free download from www.gasmonitors.com.

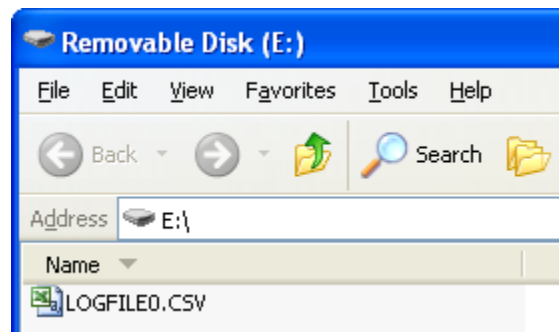
3. If you are using a MMC/SD card from a datalogging GasAlertMicro 5 and want to save the data-log file follow these instructions. If you are using a blank MMC/SD card, proceed to step #4.
 - a) Remove the MMC/SD card from the GasAlertMicro 5 and insert it into a card reader connected to your computer.
 - b) On your desktop and double click on **My Computer**.



- c) Double click on the card reader. This generally shows up as a “Removable Disk”



- d) Select “**LOGFILE0.CSV**” and save this file to your computer’s desktop or a secure location. You will need to use this LOGFILE0.CSV file in a later procedure outlined in this document if you wish to use the card for datalogging after using it for updating firmware. As well, you can review/import this raw file using Fleet Manager II.



⚠ Caution

Please note that if you do not complete the above steps, then all historical data on the MMC/SD card will be lost as it has not been archived or imported.

⚠ Warning

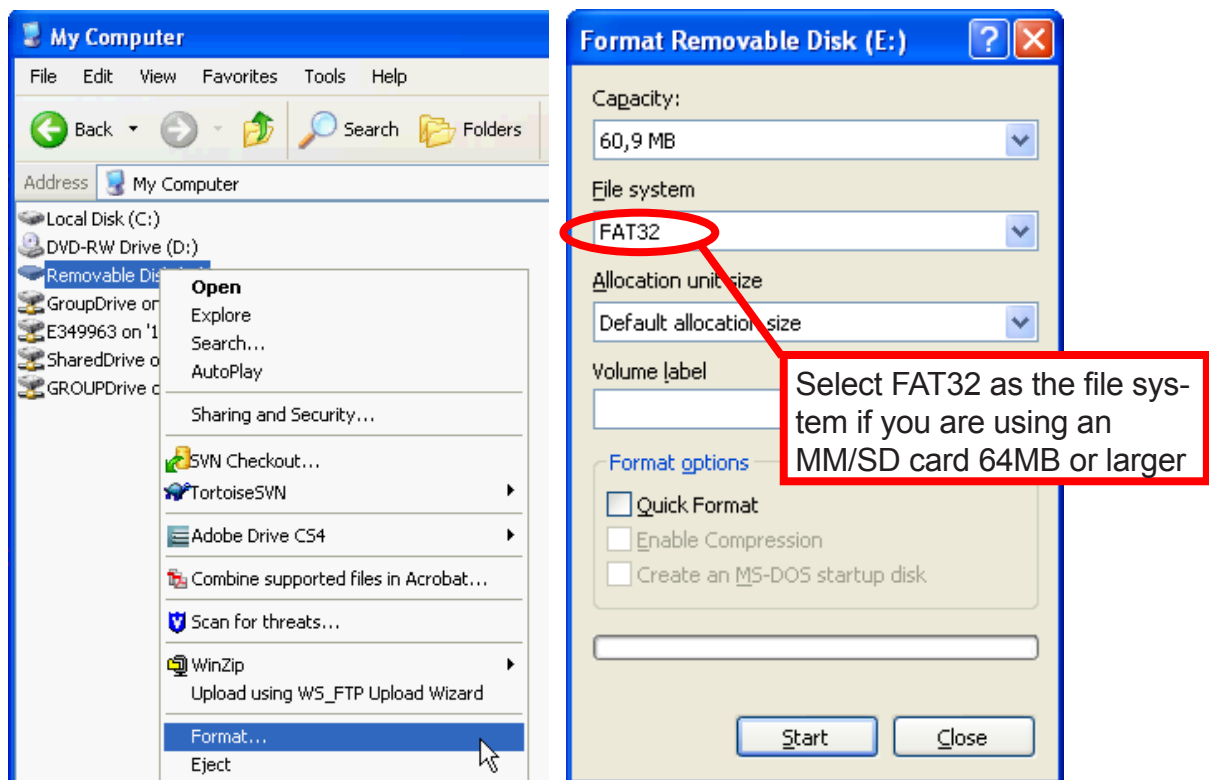
Formatting will delete all data on the MMC/SD card!

4. Format the MMC card.

- a) Go to your desktop and double click on My Computer.



- b) Right mouse click on the removable disk of the MMC card reader.
- c) Select **“Format...”** from the menu.
- d) Click **“Start”** to format the MMC/SD card. You will get a warning “Formatting will erase all data”. Click **OK** to proceed. **Important: If you are using an MMC/SD card 64MB or larger, you will have to select “FAT32” from the drop down under the File system.**
- e) Click **OK** when you get the “Format Complete” displays.



5. Download the required firmware file from the website www.gasmonitors.com.

There are 3 firmware versions available. Please download the correct version for your instrument. Table 1 provides information that is helpful in determining the correct firmware for your instrument. The required firmware version can be determined using the product revision which is part of the serial number. For example if a product serial number is SK308-002047, then the 3 is the product revision. Refer to Identification Methods for GasAlertMicro 5 Series/X5 Series document for more information.

Table 1. Firmware upgrade version

Serial number prefix	Hardware version	Upgrade to firmware version
SE1	F.TF	23C
SK1	F.PF	23C
SS2	F.IF	23I
SE3	G.TG	37
SK3	G.PG	37
SS3	G.IG	37
XE3	G.TG	37
XK3	G.PG	37
XR3	G.IG	37

6. Save the file to the PC's desktop. The file can also be saved to the MMC/SD card you have just formatted.
7. Right click on the file and click **Copy**.
8. Double click on the removable disk and right click and select **Paste**.
9. If the computer does not report any errors, the MMC/SD card is now ready to upgrade the detector's firmware.
10. Follow the instructions in [Upgrading The GasAlertMicro 5 Using An MMC/SD Card](#) to upgrade a GasAlertMicro 5.

Upgrading The GasAlertMicro 5 Using An MMC/SD Card

In the following text, the GasAlertMicro 5 buttons are represented by symbols. Refer to Table 2.

Table 2. Button and Symbols

Function	Button	Symbol
On button		ⓐ
OK button		○

1. Insert the MMC/SD card with the upgrade firmware into the GasAlertMicro 5 and press the green ON button (ⓐ). After the initial audio/visual test, the detector will begin the upgrade procedure.
2. Initial screen.

Firmware
& EEPROM
Update

3. Enter the passcode (Passcode is 1007) and press **OK** (○).

Enter
Passcode:
1007

Verifying
Data

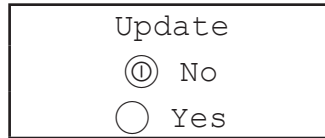
4. After passing all these checks, you will be asked if you wish to update. The current version of firmware displays.

Current
Firmware
Rev 0B

5. The new version of firmware on the MMC/SD card displays.

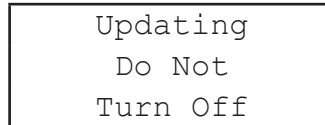
Update
To
Rev 23C?

6. You must confirm the update.



To confirm the update, press and hold the OK button (○) to start the upgrade. If you select “No” (Ⓢ) and the unit shuts off with no changes made.

7. Selecting “Yes” (○) starts to update the firmware and EEPROM.

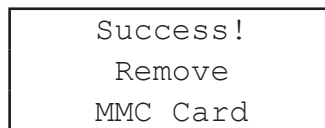


During programming, the red alarm LEDs will flash alternately to show progress. It takes a little over a minute to complete the update.

⚠ Warning

Do not remove the battery pack or push any buttons during the upgrade. If the unit is disturbed during the upgrade, the unit may need to be returned to the factory.

8. When successful, the unit displays a success screen and shuts down (both LEDs off):



Ensure Fast Pump is enabled under the “Options” in the User Option menu of the GasAlertMicro 5. All detectors with hardware revision 3 have this enabled via factory configuration. Earlier product revisions can enable Fast Pump via the User Options menu.

If you have completed this procedure with a non-datalogging MMC/SD card, this completes the MMC/SD upgrade procedure. If you completed this procedure with a datalogging MMC/SD card and you would like to use it for datalogging, refer to [Formatting a Datalogging SD/MMC](#). If you encounter any problems refer to [Troubleshooting](#).

Formatting a Datalogging SD/MMC

If you have used the datalogging MMC/SD card from the GasAlertMicro 5 to perform the upgrade, complete the following procedure.

1. Remove the MMC/SD card from the GasAlertMicro 5 and insert it into a card reader connected to the computer.
2. Format the card using the procedure outlined in step [4. Format the MMC card.](#) on page 3.
3. Copy the LOGFILE0.CSV that was on the computer desktop back onto the MMC/SD card.

Note

The LOGFILE0.CSV must be copied to the card so the GasAlertMicro 5 properly formats the card upon startup. When the GasAlertMicro 5 begins datalogging again, it will create a new LOGFILE0.CSV file.

4. Insert the MMC/SD card back into the GasAlertMicro 5. As part of the startup sequence the GasAlertMicro 5 will format this card to a datalogging card.

Troubleshooting

1. If you enter an invalid passcode, the unit will shut down. The correct passcode is 1007.

```
Passcode
Incorrect
```

2. The unit will check for strong batteries. You must use new fresh batteries to perform the update. If the batteries are not sufficiently charged, the unit will shut down. **It is recommended that FRESH set of alkaline batteries is used for this upgrade.**

```
Error:
Low Voltage
```

3. The unit will check to make sure the new version of firmware you have was designed for the hardware inside. If the upgrade firmware is not the correct version for the hardware, the unit will shut down.

```
Error:
Data
Invalid
```

4. The unit will read the firmware and EEPROM data to verify its integrity.

```
Verifying
Data
```

If the data has been corrupted, the unit will shut down.

Error:
Bad CRC

The detector will retry several times to upgrade in case of error. However, if the detector ultimately does not succeed, the LCD and beeper may not work so in case of error, the LCD will clear and both LEDs will illuminate solidly—no more blinking. In this case, the unit must be returned to the factory for complete reprogramming.



(both LEDs solid red)

Where can I get help?

Visit BW Technologies by Honeywell's web site at www.gasmonitors.com. There is a serial number identification program and other information available on the website.

Contacting BW Technologies by Honeywell

To contact BW Technologies by Honeywell call:

USA: 1-888-749-8878

Canada: 1-800-663-4164

Europe: +44 (0) 1295 700300

Other countries: +1-403-248-9226

Email us at: info@gasmonitors.com

Visit BW Technologies by Honeywell's web site at: www.gasmonitors.com

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