

MT/GR FLASH-Upgrade Kit

Shipped Parts:

- 1 x FLASH Memory AM29F010, pre-programmed
- 1 x Diskette with MT/GR-Data program

Mounting instructions:

1. Disconnect the MT/GR from the power supply.
2. Take the EPROM out of the „EPROM/FLASH“ socket.
3. Set jumper J5 to position 2-3 and jumper J2 to position 1-2. (Note: They might be in these positions already!)
4. Insert the FLASH memory into the „EPROM/FLASH“ socket.
Please make sure it is inserted the right way!

Software installation:

1. Insert diskette in drive A:
2. Start MTGR_DAT.EXE on Diskette via the Windows Explorer
The software will then be extracted and copied to C:\MTGRDATA. (The directory will be created for you.)

Operating instructions:

Creating images compatible with MTGRDATA.EXE:

Create your images with a pixel oriented paint program (like Paint Shop Pro) and save in the PCX format.

Make sure that the following conditions apply:

- The PCX-files must be saved in black and white mode (with 1 bit per pixel). Any other format will not work. (It must not be a picture with color information that just uses the colors black and white!)
- The image resolution (pixel size) must not exceed the pixel size of the display.
- For processing the PCX-files with MTGRDATA.EXE the files must be copied to C:\MTGRDATA.

Creating fonts compatible with MTGRDATA.EXE:

The font file format that is supported by MTGRDATA and the MT/GR is known as "VGA Fonts". It is the format that VGA graphics cards store their text mode fonts in the VGA ROM. It is a very simple format: Each font file contains the definition for exactly 256 characters (CHR\$(0) to CHR\$(255)). Each character is defined by N bytes, where N is the height of the character with the character being defined from top to bottom. All characters in a single font file have the same height. The font width is fixed to 8 pixels. Therefore the size of a font file is always a multiple of 256. All other font sizes are rejected by MTGRDATA.EXE. Legal font heights are 1 to 32. As with images the font files must be copied to C:\MTGRDATA for being processing with MTGRDATA.EXE.

Generating an output file for use with MT/GR:

1. Open the file STD.TAB with a plain text editor like Windows Notepad.
2. Save it under a new file name with the extension ".tab" and keep the original file std.tab for reference. Please use DOS names (8.3) because MTGRDATA.EXE will not be able to handle long file names.
3. Make your changes to the new .tab file following the instructions in the .tab file. Note that any file you use must be in the C:\MTGRDATA directory (you cannot use path names).
4. Save the file and close your text editor (just to make sure it is not protected from being used by another application the by windows file sharing mechanisms).
5. Open a DOS box and change your current directory to C:\MTGRDATA
6. Start MAKE.BAT with your new file name as a command line parameter, e.g:
MAKE TabFile.Tab (assuming "TabFile.Tab" was the name you stored your modified .tab file with.)
7. MTGRDATA.EXE will run and prompt you with some information about the make process and create
(a) the file

MTGR.ROM, which is a binary file that can be burned into a FLASH of Type Am29F010 or a Eprom of Type 27C010 or 27C1001 by using an EPROM programmer. PLEASE NOTE THAT MTGR.ROM AND THEREFORE THE RESULTING FLASH OR EPROM CAN ONLY BE USED FOR DISPLAYS USING T6963!

- (b) the file

MTGRDATA.TXT, which you can download to flash-memory-equipped MT/GR (using the „Send as Text“ function of e.g. HyperTerm). The download will take a while. During download numbers that are counted up will be displayed on the MT/GR display. When the numbers stop the download has finished and the programming of the FLASH starts. This also will take a little while. After programming is complete the MT/GR will perform a reset.

**NOTE: IT IS VERY IMPORTANT THAT THE MT/GR IS NOT TURNED OFF DURING FLASH PROGRAMMING!
(IT COULD RESULT IN LOSS OF FLASH DATA AND COULD CAUS MALFUNCTION OF THE MT/GR!)**