

MIDG Series INS/GPS Flash Utility

NOTE: This instruction assumes that the MIDG Series INS/GPS Software has previously been installed on the computer. This software needs to be installed prior to performing this operation.

1 Introduction. The MIDG Flash Utility is an easy to use program which enables users to upgrade the firmware of the MIDG Series INS/GPS and verify the date of calibration. This file will instruct the user on how to use the MIDG Flash Utility.

2 Prerequisites. MIDG Series INS/GPS, MIDG Series INS/GPS Interface Cable (either MBI# SLC2J09SF or MBI#SLC2JUSB) and MIDG Flash Loader.

Note: Refer to the MIDG Series INS/GPS User Manual for instructions on how to properly mount and interface the MIDG Series INS/GPS

- 1. Plug the unit into an available com port.
- 2. Open an instance of the MIDG Flash Utility (Figure 1).
- 3. Select the desired COM Number.

NOTE: Verify the "Skip Capture" check box is unchecked.

4. Press the Capture Target button.

NOTE: If using the MIDG USB Interface Cable, the unit is powered via the USB port.

The MIDG Flash Utility will download the information from the unit as seen in Figure 2. Once the download has finished the flash utility it is ready to interact with the user.

At this point, the user may do one of two things:

- **A.** Change the firmware of the unit. (Section 3).
- **B.** Verify the date of the calibration. (Section 4).

MIDG II Flash Utility				
Capture Target	Load Image	Program	n Verify	
COM1 -	Firmware	-		
🥅 Skip Capture				
Disconnect	GPS			
		Erase	Blank Check	
) Detached		Region Info	Abort Op	

Figure 1. MIDG II Flash Utility.

MIDG II Flash Utility		×
Capture Target Load Imag	je Progran	n Verify
Skip Capture Disconnect GPS		
	Erase	Blank Check
Downloading	Region Info	Abort Op

Figure 2. MIDG II Flash Utility download.



Changing the Firmware

MICROBOTICS, INC. DOES NOT ISSUE ROUTINE UPDATES TO FIRMWARE. ALL UPDATES MUST COME FROM MICROBOTICS, INC. VIA SUPPORT@MICROBOTICSINC.COM

FIRMWARE NOT ISSUED BY MICROBOTICS, INC. OR OLD VERSIONS OF FIRMWARE MAY RENDER THE UNIT INOPERABLE AND IT WILL HAVE TO BE RETURNED TO MICROBOTICS, INC. FOR REPROGRAMMING. THIS IS NOT COVERED UNDER WARRANTY.

DO NOT ERASE THE FIRMWARE IF THERE IS NO UPDATED VERSION. THIS ACTION WILL RENDER THE UNIT INOPERABLE AND IT WILL HAVE TO BE RETURNED TO MICROBOTICS, INC. FOR REPROGRAMMING. <u>THIS IS NOT COVERED UNDER WARRANTY.</u>

3 Introduction. Updating the MIDG Series INS/GPS firmware is easy to accomplish. This section will instruct the user on how to update the firmware.

3.1 Prerequisites. MIDG Flash Utility, MIDG Series INS/GPS, MIDG Series INS/GPS Interface Cable (either MBI# SLC2J09SF or MBI#SLC2JUSB) and <u>UPDATED</u> <u>FIRMWARE.</u>

- 1. <u>Complete Steps 1 4 of the first section.</u>
- 2. <u>Press the arrow on the dropdown list and</u> select the "Firmware" option (Figure 3).
- 3. <u>Press the "Region Info" button.</u>

MIDG II Flash Utili	ty		×
Capture Target	Load Image	Program	n Verify
COM1 🖃	Firmware	•	
🔲 Skip Capture	Firmware		
Disconnect	Calibration		
		Erase	Blank Check
		Region Info	Abort Op
Heady			

Figure 3. Selecting "Firmware" from the Dropdown Menu



This will display a small dialog box with the information about the currently loaded firmware (Figure 4).

VERIFY THE VERSION WHICH IS GOING TO BE LOADED IS UPDATED.

Figur	e 4.	Fir	mware	"Region
Info"	dial	og	box.	

- 4. <u>Press the "OK" button on the "Region Info"</u> information box to close it.
- 5. <u>Press the "Erase" button.</u>

MDG II Flash Utili	t y			
Capture Target	Load Image		Program	n Verify
COM1 🔽	Firmware	-		
Skip Capture				
Disconnect				
		E	rase	Blank Check
Erasing		Regi	on Info	Abort Op

This will begin the procedure to erase the firmware from the unit (Figure 5).

Figure 5. Erasing the firmware.

NOTE: Prior to loading new firmware, the old firmware must be erased.

ONCE THE ERASING PROCESS HAS BEGUN, IT IS IRREVERSIBLE. DO NOT ERASE THE UNIT UNLESS YOU HAVE UPDATED FIRMWARE TO LOAD INTO IT.



- 6. <u>Press the "Load Image" button.</u> This will open the "Select Image File" dialog box (Figure 6).
- 7. <u>Select the path to the new firmware file and</u> <u>Press the "Open" button.</u>
- 8. <u>Press the "Program" button.</u> The flash utility will program the updated firmware into the unit (Figure 7).
- 9. <u>Press the "Region Info" button</u> to verify the update after the firmware is loaded.

Select Image File	? 🛛
Look jn: 🚞 v2.2.0708	- 🗢 🖻 📺 -
ins_V2_2_0708.srec	
File name: ins_V2_2_0708.srec	<u> </u>
Files of type:	Cancel

Figure 6. Select Image File dialog box.

MIDG II Flash Utilit	у		×
Capture Target	Load Image	Program	n Verify
COM1	Firmware	~	
🔲 Skip Capture	F:\\v2.2.0708	\ins_V2_2_07	'08.srec
Disconnect			
	_	Erase	Blank Check
Programming		Region Info	Abort Op

 Region Info
 X

 Version: Timestamp: Filename:
 02020708 7/20/2008 9:27:00 AM ins_V2_2_0708.srec

 OK
 OK

 Figure 8. "Firmware" Update Verified

Figure 7. Programming the unit.

This completes the steps on updating the firmware for the MIDG Series INS/GPS.



Verifying the Calibration Date

MICROBOTICS, INC. DOES NOT ISSUE ROUTINE UPDATES TO CALIBRATIONS.

ANY ATTEMPT BY THE USER TO UPDATE THE CALIBRATION FILE WILL RENDER THE UNIT INOPERABLE AND IT WILL HAVE TO BE RETURNED TO MICROBOTICS, INC. FOR RECALIBRATION. THIS IS NOT COVERED BY WARRANTY.

NOTE: There is a Calibration sticker on the side of the MIDG II INS with the date of its last calibration.

4 Introduction. Verifying the calibration date of the MIDG Series INS/GPS is easy to accomplish. This section will instruct the user on how to verify the calibration date of the unit.

4.1 Prerequisites. MIDG Flash Utility, MIDG Series INS/GPS, MIDG Series INS/GPS Interface Cable (either MBI# SLC2J09SF or MBI#SLC2JUSB)

- 1. <u>Complete Steps 1 4 of the first section.</u>
- 2. <u>Press the arrow on the dropdown list and</u> select the "Calibration" option (Figure 9).
- 3. <u>Press the "Region Info" button.</u>

Region Info	
Version: Timestamp: Filename:	00000000 6/30/2008 10:44:00 AM cal.s28
	OK

This will display a small information box about the calibration file which is currently loaded into the unit (Figure 10).

MIDG II Flash Utilit	у		
Capture Target	Load Image	Program	Verify
COM2	Calibration	•	
🔲 Skip Capture	Firmware Calibration		
Disconnect	Comprovider		
		Erase	Blank Check
		Begion Info	Abort On
Ready		riegiorinio	Libort op

Figure 9. Selecting "Calibration" from the Dropdown Menu

Figure 10. Calibration "Region Info" dialog box.

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This completes the steps on verifying the calibration date for the MIDG Series INS/GPS.