The software in the MG3000 can be updated in the field. A special harness and a computer are necessary to complete the update. The following procedure details the method best used to update the installed software. You will need to have complete access to the back of the MG3000 and the 6-pin connector for the software update. If you do not have complete access we recommend removing the MG3000.

Caution

If removed, when reinstalling the MG3000 tighten nuts on the back clamp only slightly more than you can tighten with your fingers. Six inch-pounds of torque are sufficient. Over tightening may cause damage to the instruments and can void your warranty.

Be certain wire insulation is not in danger of melting from engine or exhaust heat or interfering with moving mechanical parts.

Kit includes

QTY	Description
1	Faria Boot load cable - HN0561
1	USB to RS232 adapter*

* Not required if computer being used has a RS232 port.

Diagram

Computer (PC)

USB to RS232 adaptor (if required)

MG3000 Tachometer

Faria boot load cable

12-Pin Connector

Things you will need.

1	Faria MG3000 Boot load/ Software Update Kit
1	Software downloaded from www.fariabeede.com/SeaRay
1	12vDC Power supply (If instrument has been removed)
1	Computer (PC or Laptop running MicroSoft Windows)

Update the MG3000 Software

1. Download the software from www.fariabeede.com/SeaRay.

2. Connect MG3000 Tachometer to the computer (PC) being used for this procedure. Use the boot load cable and USB to serial port adapter if needed (Download Driver software and install before installing adapter). (Not required if your computer is equipped with an RS232 port.)

3. Connect the MG3000 Tachometer 12-pin connector, Pin 5 (Ignition) and Pin 4 (Ground), to a 12 volt DC power supply
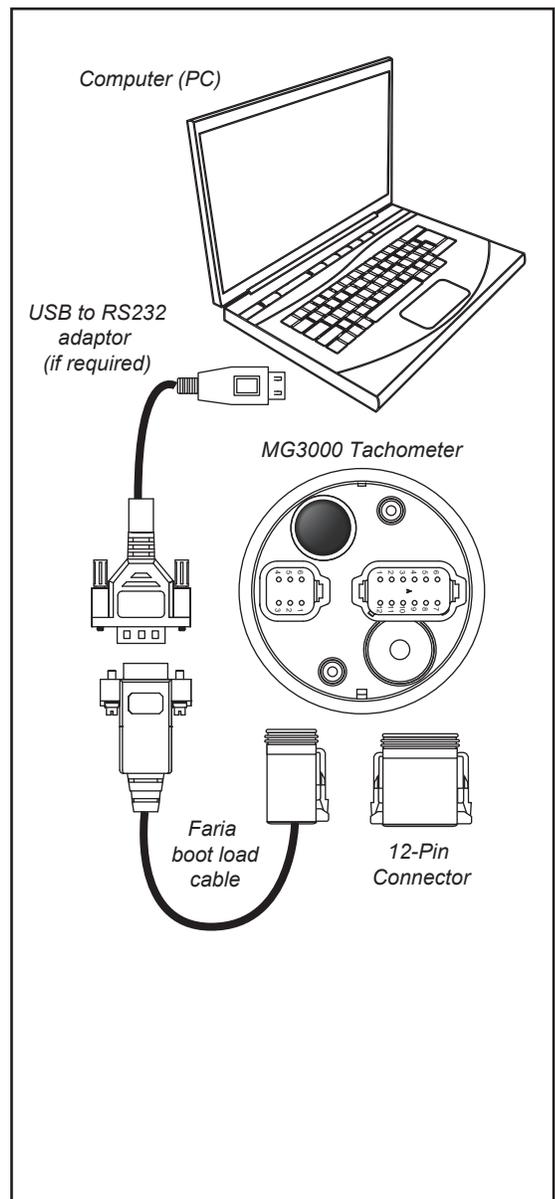
12- pin connector

Pin 1	7.7 vDC (Faria Bus +)
Pin 2	Faria Bus A
Pin 3	Faria Bus B
Pin 4	Ground
Pin 5	12vDC Ignition
Pin 6	N/C
Pin 7	Fuel Tank Level (Analog)
Pin 8	Fresh Water Level (Analog)
Pin 9	J1939 12 vDC Ignition (jumper to pin 5)
Pin 10	CAN Ground
Pin 11	CAN Hi (+)
Pin 12	CAN Low (-)

(See wiring pin out in IS0306 or IS0307 if needed.)

4. Install Device Driver Software. (Located on the USB dive.)

5. On the computer open the file named - PIC32UBL.exe.

6. Supply power to the MG3000 (The MG3000 Tachometer back lights should start to blink.)

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7. On the computer - click the "**Connect**" button in the boot load software.

8. The progress bar in the software should complete and the software should say "**device connected**"

9. If the software says "**please reset device and invoke boot loader and or operation failed no response from device**" then the computer has failed to connect to device.

   Trouble shooting for failed connection

   a. Is the DC power supply connected to the device and turned on?

   b. Is the proper COM port selected? (An RS-232 port will generally be COM1, a USB adapter will usually be COM5 or greater.

   c. Is the driver for the USB adapter installed and current on the computer being used?

10. Click the "**Load Hex File**" button in the boot load software. At this time the standard Windows® file search appears and you will have to find the Hex file required.

    Note: Placing the Hex file on your desktop may make this easier to find.

11. Choose the new PGF file to be loaded.

12. After you choose the Hex file the software will say "**Hex file loaded successfully**"

13. Click the "**Erase – program – verify**" button.

14. The software is now being updated or loaded. Please wait until the boot loader says "**verification successful**"

15. Turn off the power supply.

16. Unplug boot loader cable from the instrument.

17. Turn on power supply. Allow the MG3000 to restart.

18. The MG3000 will prompt you to perform a Basic Initialization.

Note: All information stored at this step will be lost when the Master Reset is performed in the next step. Faria recommends fast forwarding through the Initialization. Press the MODE button 7 times to get to the "Basic Initialization Complete" screen.

19. Perform a Master Reset to the MG3000 Tachometer - See below (reference IS0306 or IS0307)

20. At this point the boot loading is complete and the software has been successfully updated.

1) From the NORMAL mode, press the MODE button once.

2) Use the UP and/or DOWN buttons to select EDIT MENU.

3) Press and hold the MODE to enter the EDIT MENU options.

4) Use the UP and/or DOWN buttons to select SYSTEM.

```
EDIT MENU
SYSTEM
CAL TRIM
FUEL SETUP
```

5) Press and hold the MODE button to make the selection.

6) Use the UP or DOWN buttons to select MASTER RESET.

```
SYSTEM INFO
MASTER RESET
SOFTWARE
INITIALIZE
```

7) Press and hold the MODE button to enter the selection.

8) When prompted to PERFORM MASTER RSET?. use the UP or DOWN buttons to select YES or NO.

```
PERFORM
MASTER RSET?
NO
YES
```

If NO is selected the gauge will exit to the SYSTEM menu.

If YES is selected continue with the next step.

A warning message will display for five seconds while beeping three times which is then replaced with "CONTINUE WITH RSET?".

```
CAUTION! THIS
WILL RESET TO
FACTORY
SETTINGS
```

```
CONTINUE WITH
MASTER RSET?
NO
YES
```

9) Use the UP or DOWN buttons to select YES or NO.

10) Press and hold the MODE button to enter the selection.

If NO is selected, the gauge will exit to the SYSTEM menu.

If YES is selected, the MG3000 tachometer will be reset to factory default settings.