Firmware, Database, & PC Application Update Installation Instructions

⚠ IMPORTANT—Please read before you begin the installation.

- *To avoid possible errors, it is recommended to install the updates as described in these instructions.*
- *The update will take approximately 30 minutes to complete. To avoid data loss and the need to re-install the update, do not interrupt the installation once you begin. Also, do not minimize or move the utility window after beginning the update.*
- *Steps 1–10 must be completed without interruption for this update to install properly. Exiting the update before it is completed will require restarting from the beginning*
- *If the AFIT PC Application is not installed on your computer, you may need to install the driver software in order for the serial communication cable to operate properly.*
- *Make sure to close all open programs, except for your internet browser before you begin.*
- *The graphics in this document are for reference only and may vary slightly (such as version numbers) from the actual screen displayed. Also, version numbers may be displayed as X.XX instead of the actual version number.*
- *The updated version of the PC Application's help file is an Adobe© Portable Document Format (PDF) document and requires Adobe© Acrobat© Reader version 6.0 or higher. If you need to install this software you can download it from Adobe's web site at www.adobe.com.*
- *When viewing these instructions as a PDF document, you can navigate through the document using the bookmarks to the left or the links in the document. The links are red in color and underlined for easy identification.*

Operating System Requirements

A computer with one of the following Microsoft® operating systems (***64-bit***):

- Windows® 11 Professional
- Windows® 10 Professional
- Administrator level access to the Microsoft® Windows operating system.

Hardware Requirements

- Minimum 500 MB free hard disk space
- Minimum 2 GB of RAM
- Available serial port or USB port (*Requires using the USB to Serial Port Adapter when connecting to the computer's USB port)*

Before You Begin

In order for the update to install properly, you must set the User Account Control (UAC) to the lowest possible setting:

For computers running Microsoft® Windows 10 or 11 Professional:

1. Type "**UAC**" in the search task bar, or right click **Start** and click **Search**
2. Under **All** click **Change User Account Control setting.**
3. Make a note of the current setting then move the slider to **Never Notify.**
4. Click **OK.**
5. Reboot the computer for the change to take effect.
6. After Installation return to UAC to previous setting and reboot.
7. Restart your computer.

USB to Serial Port Driver

Note: The original USB to Serial Communication Cable *(CH47976-3)* **provided with the AFIT kit is not Windows 10 or later compatible.**

To purchase an approved cable go to hickokwaekon.com **and order GM-47976-3A.**

Download/Install the USB to Serial Port Driver:

i. Shut down any applications that you have running on your computer except for your internet browser.

ii. **If you are installing the driver from a download:**

A. Go to hickokwaekon.com and click on Software Updates.

B. Click the appropriate link to download the driver utility.

C. When prompted, click **Open** or **RUN** (varies depending on browser and operating system). Note: for some browsers, you may only be prompted to save the file. If this is the case, save the file to your desktop and then double click the file to run it.

D. If a security warning is displayed asking if you are sure you want to run the software, click **RUN** or **Install** (varies depending on browser and operating system).

- If a security warning is displayed asking if you are sure you want to run an .exe file, click **OK.**
- Follow the on-screen instructions to install the driver.

Download/Install the AFIT Update Utility Program

Download the update utility:

i. Shut down any applications that you have running on your computer except for your internet browser.

- Go to hickokwaekon.com and click on Software Updates.

• Click the appropriate link to download the upgrade utility.

• When prompted, click **Open** or **RUN** (varies depending on browser and operating system). Note: for some browsers, you may only be prompted to save the file. If this is the case, save the file to your desktop and then double click the file to run it.

• If a security warning is displayed asking if you are sure you want to run the software, click **RUN** or **Install** (varies depending on browser and operating system).

• If a security warning is displayed asking if you are sure you want to run an .exe file, click **OK.**

• If a security warning displays protecting your PC, click **More Info** click **Run anyways.**

• After the file is downloaded, click **CLOSE** when prompted.

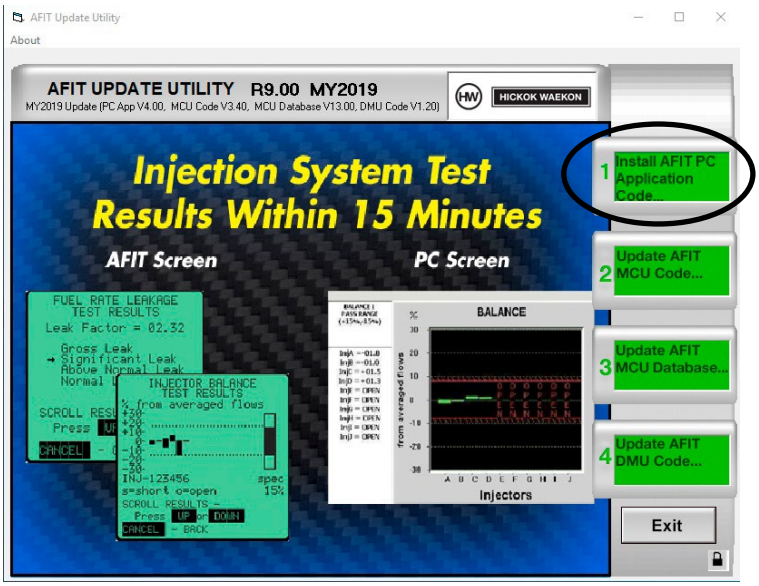
Step 1—Install the AFIT PC Application Update

a. If not already open, double click the AFIT Update icon on your computer's desktop to display the Main menu.

b. Click button 1–**Install AFIT PC Application**

c. When prompted, click **OK** next to *Install AFIT PC Application.*

d. When prompted, click **OK** and follow the on-screen instructions to complete the installation.



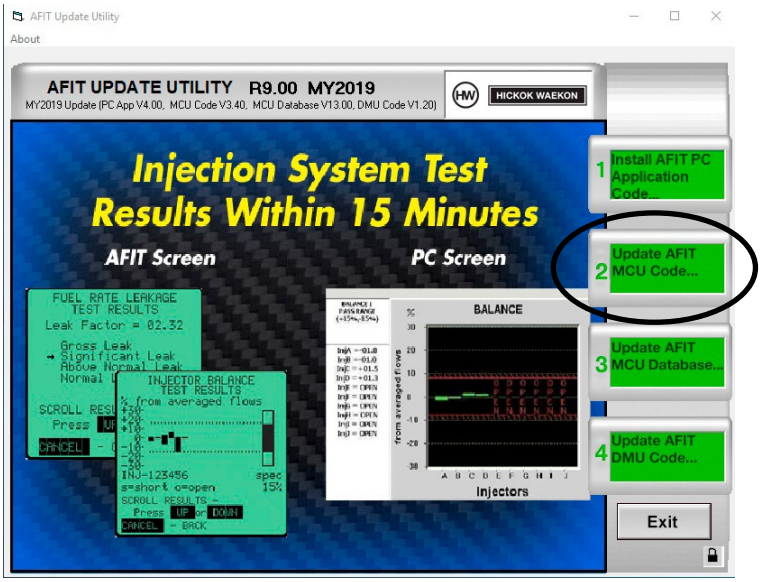
Step 2—Start the AFIT Firmware Update Procedure

a. From the AFIT Update Utility's main menu, click button 2–**Update MCU Code**

b. When prompted, click **OK** next to *Update MCU to Ver X.XX*.

Make sure the PC Application it is NOT running at this time.

Reminder!
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d. Click **OK**. The AFIT Upgrade Utility screen is displayed.



Verify the SW1 Switch is Set to Program

a. If necessary, disconnect all cables, including power, from AFIT.

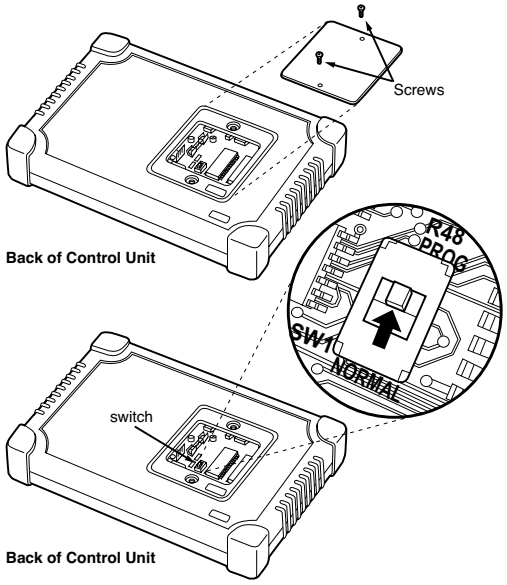
b. Unscrew the back panel of the control unit.

c. Locate the SW1 switch.

d. Slide the SW1 switch to the **PROG** position if necessary.

e. At the AFIT Upgrade Utility screen on your computer, click **Next**.

IMPORTANT! *Do not replace the back panel until instructed to do so later in these instructions*



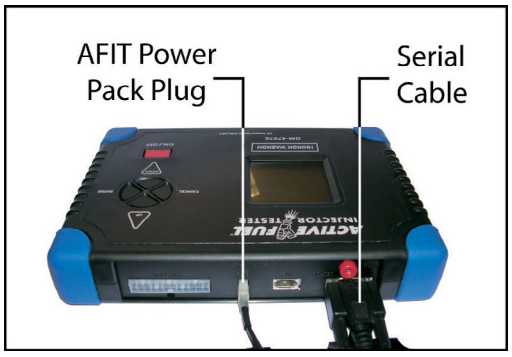
Connect AFIT to the PC

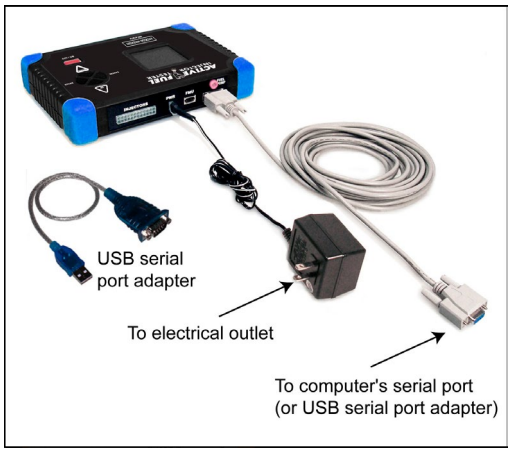
a. Plug the AFIT Serial Communications Cable and the AFIT Power Pack Plug into the rear of the AFIT Module as shown. Plug the Power pack into an electrical outlet.

IMPORTANT! Do not connect to the computer until instructed to do so.

b. Connect the serial cable to the serial port of your computer or Laptop PC.

c. At the AFIT Upgrade Utility screen on your computer, click **Next**.





Power On AFIT

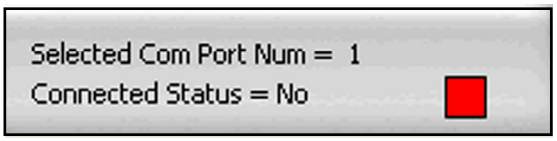
a. Power on AFIT.

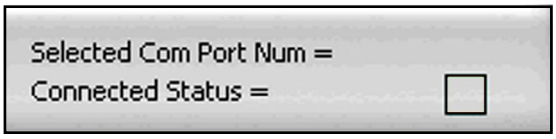
On your computer:

Make sure that the other end of the serial cable is connected to the serial port of your computer or Laptop PC. If you are using a USB to Serial converter, make sure that it is plugged into your USB port and that the other end is plugged into the AFIT serial cable.



If the **Connected Status** LED in the **Status Bar** below remains RED or BLANK at this time, then there is a connection problem with your cabling or serial port setup that needs to be reslolved. If you have a communications problem, use the **Select Com Port** menu item above to make sure you have selected the correct serial port. Plug the wall adapter pack into an electrical outlet.





If you continue to have communications problems see: Verifying COM Ports, Choosing an Available Com Port, and Troubleshooting the COM Port.

- If the **Connected Status** LED in the Status Bar (located on the download program on your computer) remains RED or BLANK at this time, then there is a connection problem with your cabling or serial port setup that needs resolving.
- If you have a communications problem, use the **Select Com Port** menu item to make sure you have selected the correct serial port. See Troubleshooting the Com Port for further information.

On AFIT:

The Start Up Logo screen and the ACTIVE FUEL INJECTOR TESTER current Version Stamp screen for the AFIT Code is displayed.

This screen will automatically disappear after 15 seconds (at the AFIT Upgrade Utility screen on your computer, click **Next)** and then the **PROGRAM CODE UPDATE** screen is displayed.





b. Make sure AFIT is still properly connected to the computer. Press the **ENTER** button on AFIT, and at the AFIT Upgrade Utility screen on your computer, click **Next**.

Reminder!
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Update the Firmware

a. AFIT is now ready to receive the download file. You may cancel this operation at this time by pressing the **Exit** button and using the update icon on your desktop at a later date to install the update.

Note: To avoid possible errors, It is recommended to continue with the firmware update.

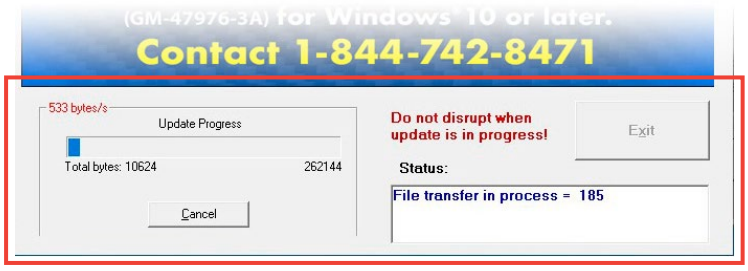
If you wish to proceed with the download, click the **Download** button on the PC Application, then press the **ENTER** button on AFIT.



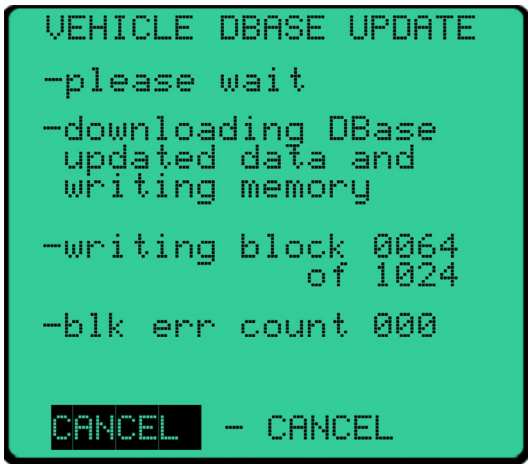
⚠ ***IMPORTANT—DO NOT INTERRUPT THE DOWNLOAD PROCESS ONCE IT STARTS.***

The following messages should appear:

On your computer:



On AFIT:



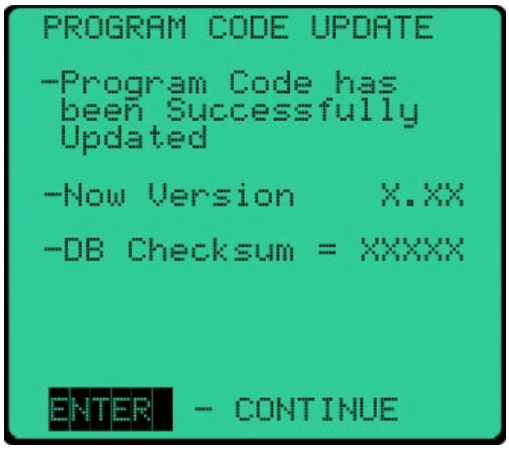
b. When the download has completed successfully, the file transfer screen will display a message that the transfer is successful.

c. Press the **ENTER** button on AFIT, and click **Exit** on your computer at the *File Successful* screen.

d. At the AFIT Update Utility screen, click **Download Complete, click here to return.**

IMPORTATNT!
Exiting the update at this point will require restarting the update from the beginning.

On AFIT, you will receive the following message when the download is complete:



Step 3—Start the MCU Database Update Procedure

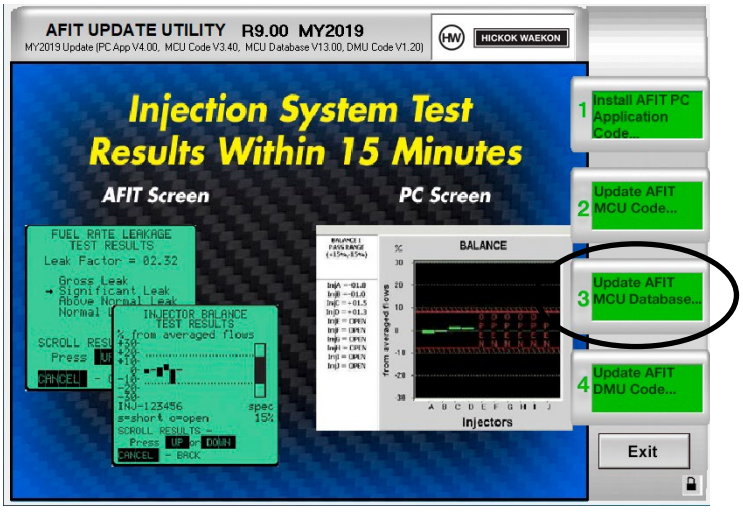
If you have the AFIT PC Application installed on your computer, make sure it is NOT running at this time.

a. From the AFIT Update Utility's main menu, click button 3–**Update MCU Database**

b. When prompted, click **OK** next to *Update MCU to Ver X.XX.*

Make sure the PC Application it is NOT running at this time.

Reminder!
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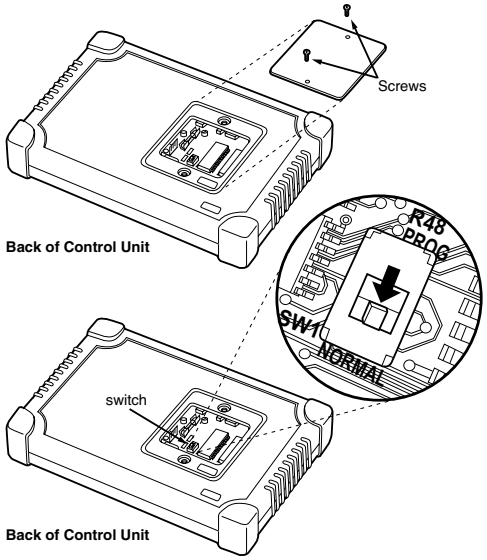
c. Click **OK**. The AFIT Upgrade Utility screen is displayed.



Set the SW1 Switch to Normal

a. Power off AFIT and slide the SW1 switch back to the **Normal** position and replace the back panel.

Do not disconnect AFIT from your computer, and do not close the update Utility program on your computer.

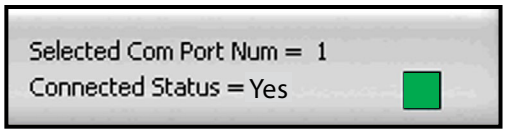


Power On AFIT

a. Power on AFIT.

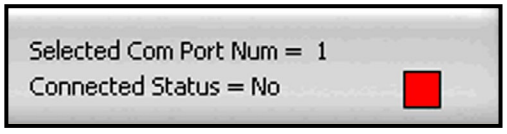
On your computer:

Make sure the Connected Status LED in the status bar (located on the AFIT Upgrade Utility program) is green.



- If you are using a USB to Serial converter, make sure that it is plugged into your USB port and that the other end is plugged into the AFIT Serial cable.

- If the **Connected Status** LED in the Status Bar (located on the download program on your computer) remains RED at this time, then there is a connection problem with your cabling or serial port setup that needs resolving.



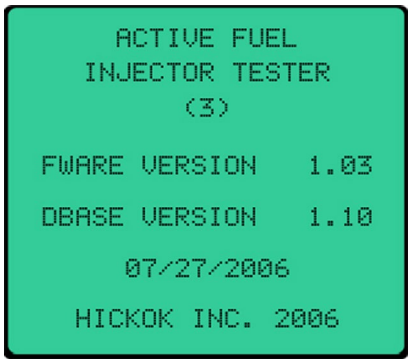
- If you have a communications problem, use the **Select ComPort** menu item to make sure you have selected the correct serial port. See Troubleshooting the Com Port for further information.

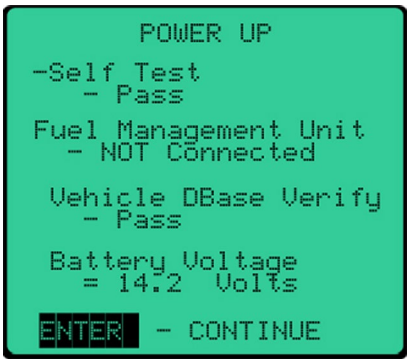
On AFIT:

The Start Up Logo screen and the ACTIVE FUEL INJECTOR TESTER current Version Stamp screen for the AFIT Code and database is displayed.

This screen will automatically disappear after 15 seconds (at the AFIT Upgrade Utility screen on your computer, click **Next)** and then the **POWER UP** screen is displayed.

Note: If advertising screens (identified with ATTENTION at the top) are displayed, press the ENTER button to advance to the next screen.





b. Press the **ENTER** button on AFIT, and at the AFIT Upgrade Utility screen on your computer, click **Next**.

c. The **VEHICLE SELECTION** screen should now be visible on AFIT. Highlight the **CLEAR VEH SELECTION** on the AFIT screen.



d. Press the **ENTER** button on AFIT, and at the AFIT Upgrade Utility screen on your computer, click **Next**.

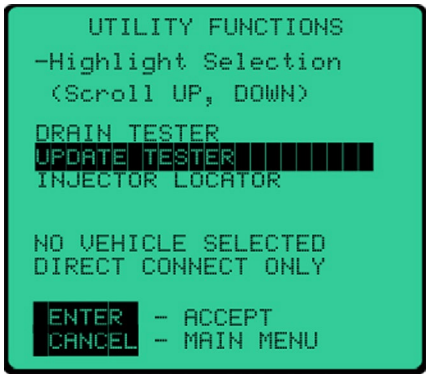
e. The **MAIN MENU** screen is displayed on AFIT. Highlight **UTILITY FUNCTIONS**.



f. Press the **ENTER** button on AFIT, and at the AFIT Upgrade Utility screen on your computer, click **Next**.

g. The **UTILITY FUNCTIONS** screen is displayed on AFIT. Highlight **UPDATE TESTER** on the AFIT screen

h. Press the **ENTER** button on AFIT, and at the AFIT Upgrade Utility screen on your computer, click **Next**.

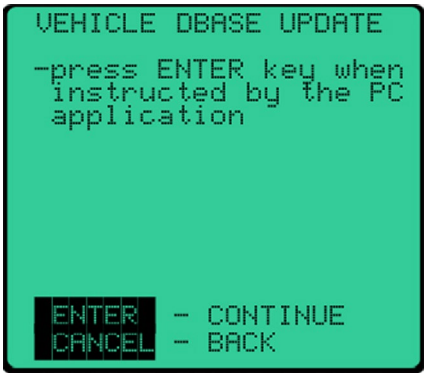


Update the Database

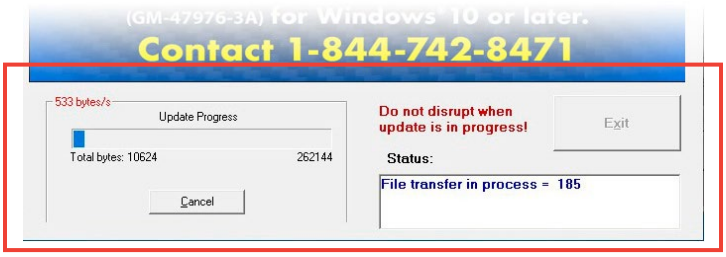
a. AFIT is now ready to receive the download file. You may cancel this operation at this time by pressing the **Exit** button and using the update icon on your desktop at a later date to install the update.

   To proceed with the download, click the **Download** button, then press the **ENTER** button on AFIT.

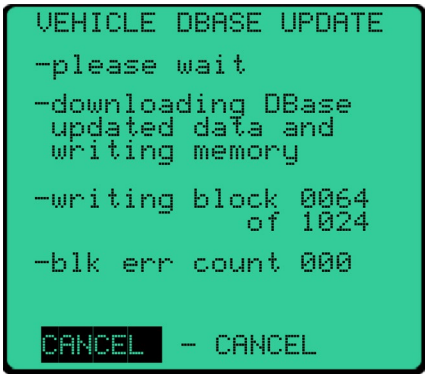
   ⚠ ***IMPORTANT—DO NOT INTERRUPT THE DOWNLOAD PROCESS ONCE IT STARTS.***



On your computer:



On AFIT:

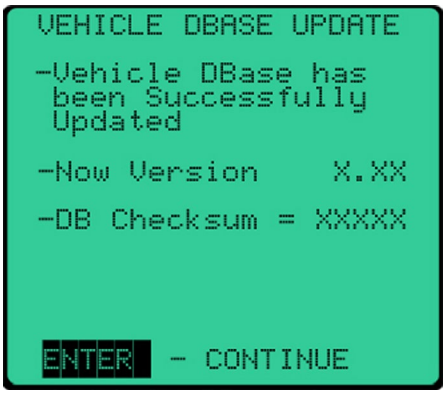


b. When the download has completed successfully, the file transfer screen will display a message that the transfer is successful.

c. Press the **ENTER** button on AFIT, and click **Exit** on your computer at the *File Successful* screen.

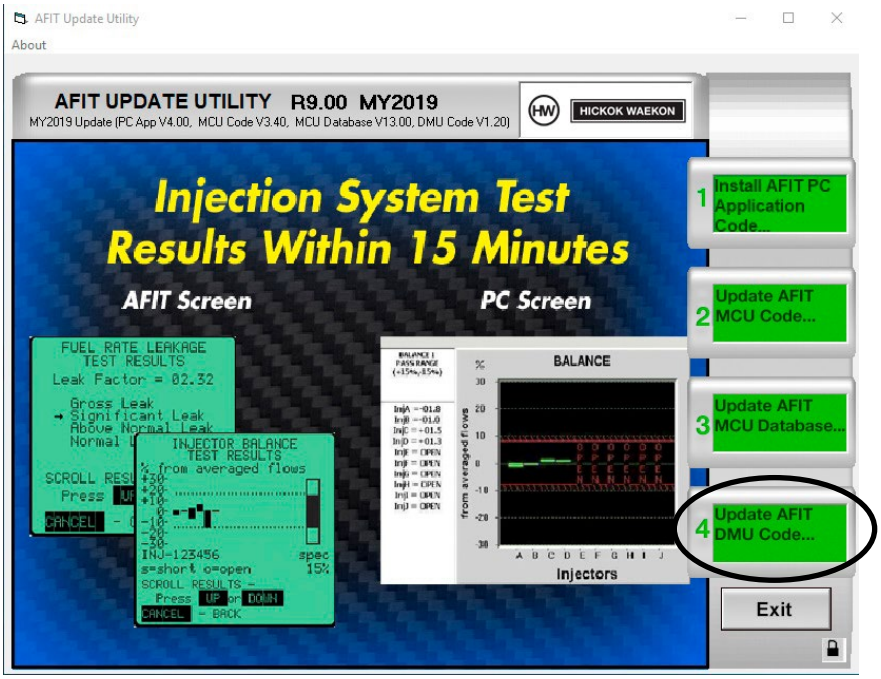
d. At the AFIT Update Utility screen, click **Download Complete, click here to return.**

b. Disconnect AFIT from your computer.



Step 4—Start the AFIT DMU Update Procedure

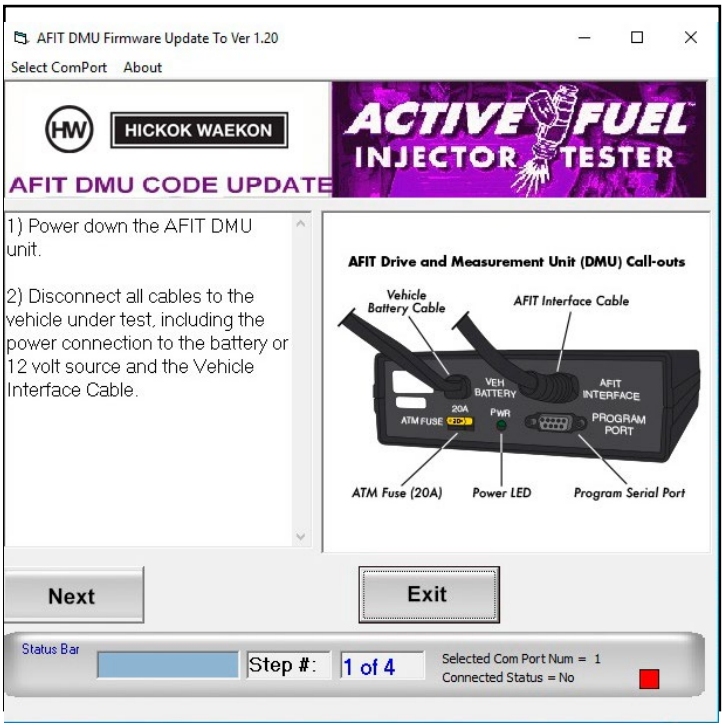
a. From the AFIT Update Utility's main menu, click button 4 – **Update AFIT DMU Code**



Step 1of 4

a. Power down the AFIT DMU.

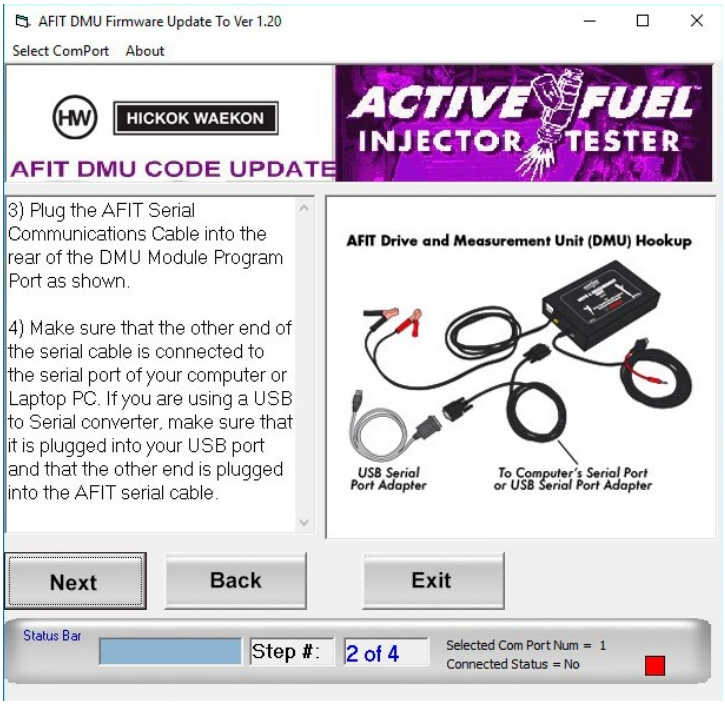
b. Disconnect all cables to the vehicle being tested, including the power connection to the battery or 12 volt source and the Vehicle Interface Cable.



Step 2 of 4

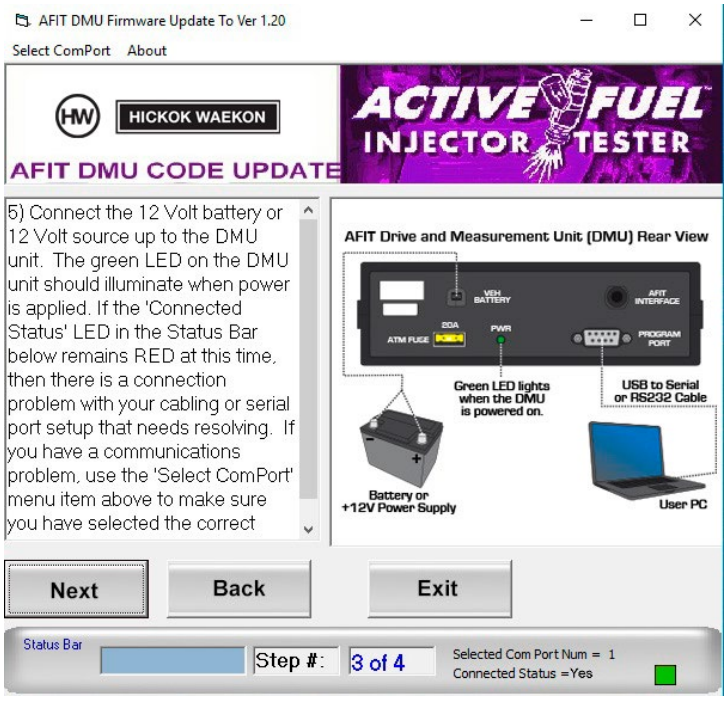
a. Plug the AFIT Serial Cable into the DMU Module Program Port.

b. Connect the other end of the Serial Cable into the PC Serial Port or USB Serial Port Adapter.



Step 3 of 4

a. Connect the DMU to a 12 volt battery or 12 volt source. The green LED on the DMU should illuminate when power is supplied. If the **Connected Status** LED in the status bar below remains red at this time, then there is a connection problem with your cabling or serial port setup that needs to resolved.



IMPORTANT!
If you have a communications problem, use the Select Com Port menu item to make sure you have the selected the correct port.See Troubleshooting the COM Port ***for further information.***

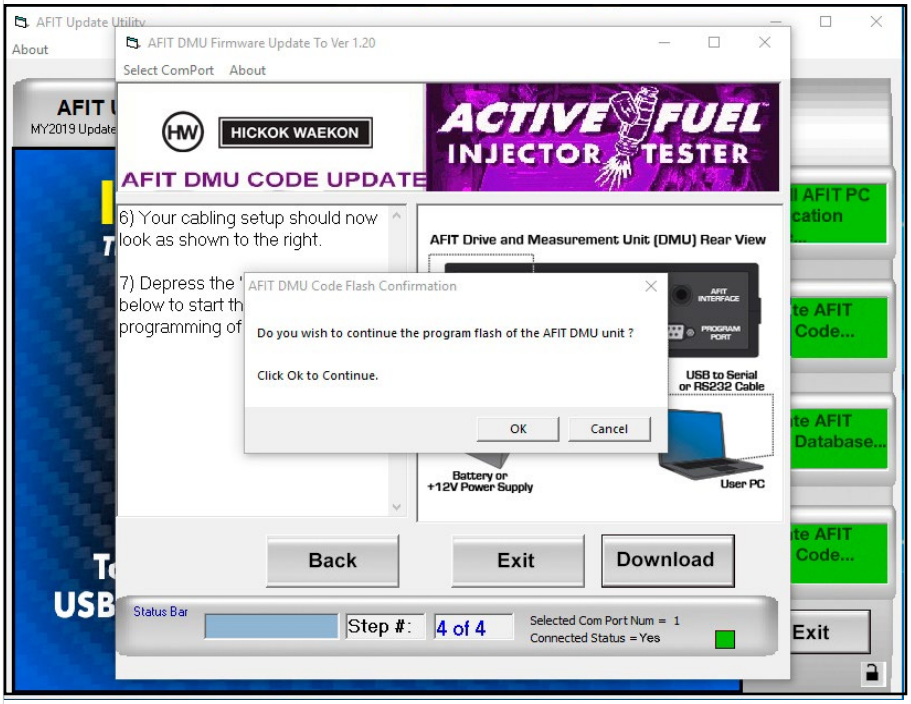
Step 4 of 4

a. Your cabling should be setup as shown.

b. Depress the **Download** button below to start the flash programming of the DMU.



c. Click OK to continue the program flash of the AFIT DMU unit.



Reset the UAC

See "Before You Begin" (page 2)

1. Slide the settings bar to your previous setting
2. Click **OK** and restart your computer. ***The update is complete.***

Choosing an Available Com Port

1. On the Upgrade Utility's menu bar, click **Select ComPort**. This displays the *Select From Available Ports* dialog box.
2. In the COM port list, click the available port your want to use. Note: If a COM Port is currently in use, it is not displayed in the list.
3. Make sure the AFIT unit is connected to the Com port you select.



TIP: If still having communications issues and the LED is green, disconnect the black serial cable from the AFIT and verify the LED turns red.

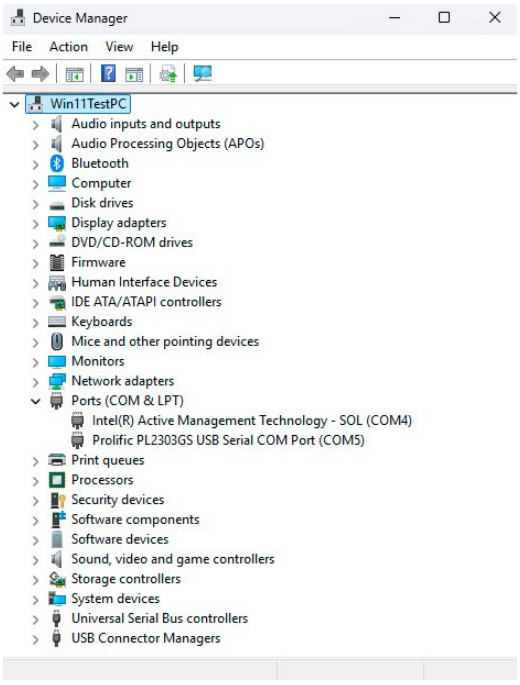
If the LED remains green, choose another available COM port and click OK. The LED should change red to green, or green to red when the cable is connected or disconnected.

Verifying Com Ports

If you are unsure as to which Com ports are installed and available on your computer, use these instructions to verify your computer's Com ports.

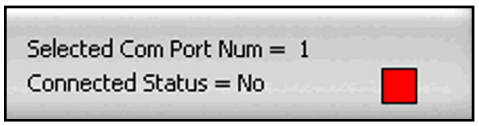
For computers running Microsoft® Windows® 10 & 11 Pro:

1. Right click the **Start** Button.
2. Click **Device Manager**.
3. Click >**Ports (COM & LPT)** to expand the list.
   - If you are connecting directly to the serial port, note which COM is listed next to *Communications Port*.
   - If you are connecting using the USB to Serial Port Adapter, note which COM is listed next to the USB-to-Serial Bridge (in the example shown here it is COM5).
4. Close the **Device Manager.**
5. Make sure that AFIT is connected to one of the ports listed, and that it is the selected Com port in the Upgrade Utility.



Troubleshooting the Com Port

This section lists some common problems you may encounter and the recommended actions to take before calling technical support.

If this occurs:	Try this:
Connected Status LED Remains Red:  	If the **Connected Status** LED in the Status Bar remains RED at this time, then there is a connection problem with your cabling or serial port setup that needs resolving. If the LED is red, do one of the following: • Make sure the AFIT unit is connected to the Com port selected. • Check the cables and make sure they are securely connected to the computer and the AFIT unit. • Verify that the selected COM port is available. If the COM port is in use by another device, select another available COM port or disconnect the other device and connect the AFIT unit. For instructions, see Choosing an Available Com Port Verifying Com Ports
Error message displayed: ***Port number xxx is not a valid selection***	• Verify that you have selected the correct available Com port and that the AFIT unit is connected to this port. • Select another available Com Port (make sure the AFIT unit is connected to the port you select). For instructions, see Choosing an Available Com Port Verifying Com Ports
Error message displayed: ***Com Port xxx is in use. Please select a different port, or free Com Port xxx***	• If the COM port is in use by another device, select another available COM port or disconnect the other device (make sure the AFIT unit is connected to the port you select). For instructions, see Choosing an Available Com Port Verifying Com Ports
Error message displayed: ***The Com Port is not available It is locked by another device. Please free port.***	• If the COM port is in use by another device, select another available COM port or disconnect the other device (make sure the AFIT unit is connected to the port you select). For instructions, see Choosing an Available Com Port Verifying Com Ports
Error message displayed: ***The port is busy. Please free port.***	• If the COM port is in use by another device, select another available COM port or disconnect the other device (make sure the AFIT unit is connected to the port you select). For instructions, see Choosing an Available Com Port Verifying Com Ports

For technical assistance or to order service parts, contact:

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