Instructions for Installing FlashUpdate and Downloading Updates for Super Buddy Satellite Meter

Updates to the Field Guide and to the instrument firmware are available from the Applied Instruments website.

Requirements

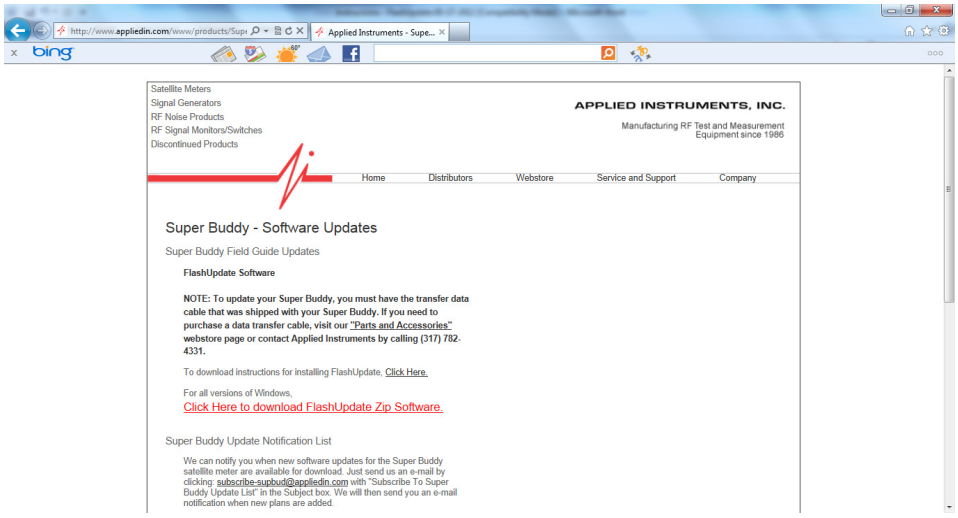
1) A PC running Microsoft Windows 95, 98, 2000, NT, XP, Vista, 7, 8, or Windows 10
2) The appropriate connection port on your PC (either Serial or USB, depending on hardware version of your Super Buddy meter)
   a) Hardware version 1.x/3.x - you need an RS-232 serial port (COM port, 9 pin D-sub connector) on your PC
   b) Hardware version 2.x/4.x - you need a USB port on your PC
3) An internet connection
4) The PC data transfer cable provided with the instrument
   a) Hardware version 1.x/3.x – an RS232 serial cable is provided. It has a 9 pin connector at one end that connects to the PC and a mini stereo/headphone jack (2.5mm) at the other end that connects to the bottom of the meter
   b) Hardware version 2.x/4.x - a USB cable is provided

Note: If your Super Buddy has the RS232 download cable and your PC does not have an RS232 serial port (9 pin), a USB to serial adapter ***with a proper ground connection*** may be used. Unfortunately, many USB to serial converters available today do not contain a proper ground connection; see the section on USB Converters below.

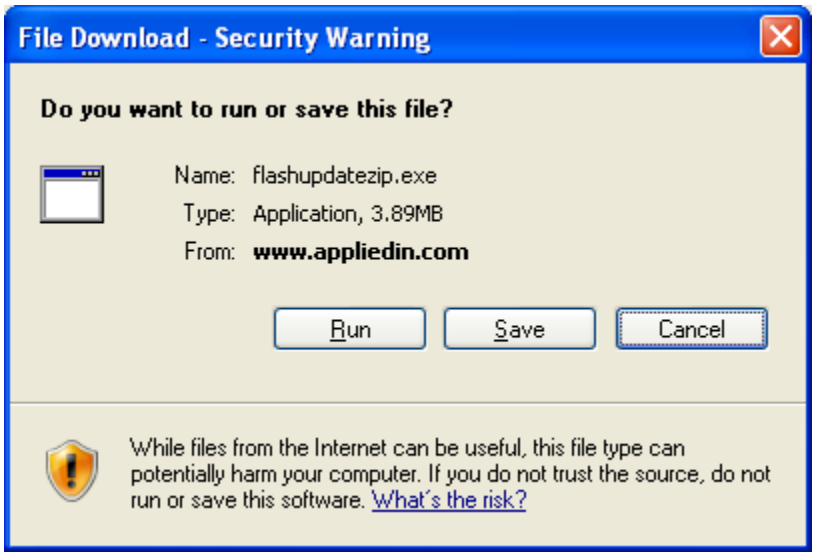
Installation

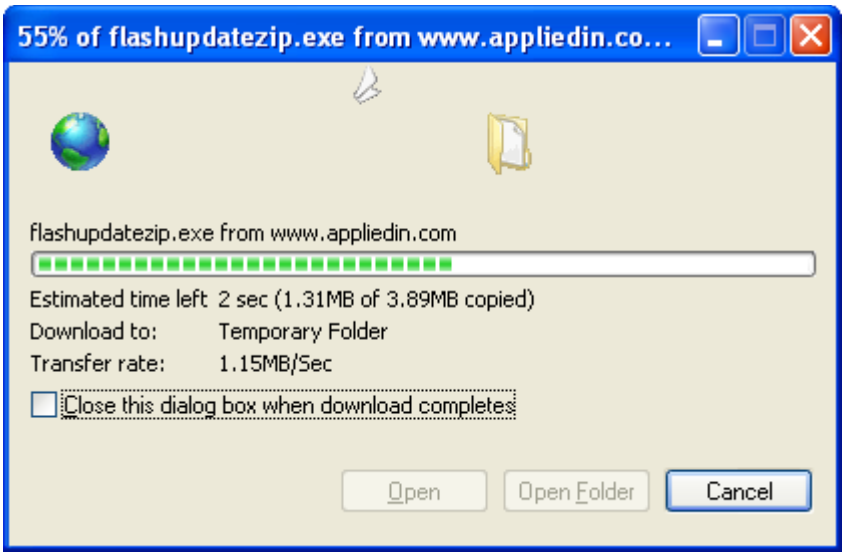
Before you can update your instrument, you must obtain and install the FlashUpdate software application onto your PC:

1) Ensure that you are signed on as Administrator or have Administrator rights for Microsoft Windows.
2) Temporarily disable your computer's anti-virus software and firewall so it doesn't interfere with the installation of the FlashUpdate and SatTransfer programs and the related USB drivers. If you have a hardware firewall, either stand-alone, or in a router, you must either modify the settings of the device to permit access to our program or you will have to entirely by-pass the router or other inhibiting hardware device.
3) Go to the Applied Instruments website, www.appliedin.com. With your mouse, move your cursor over 'Service and Support' and click on it, then click 'Software Updates', then click on 'Super Buddy, Super Buddy 21, and Super Buddy 29 satellite meters'. Then click on 'Click Here to Download FlashUpdate Zip Software' (highlighted in red) or use the following link directly:
   www.appliedin.com/downloads/flashupdatezip.exe

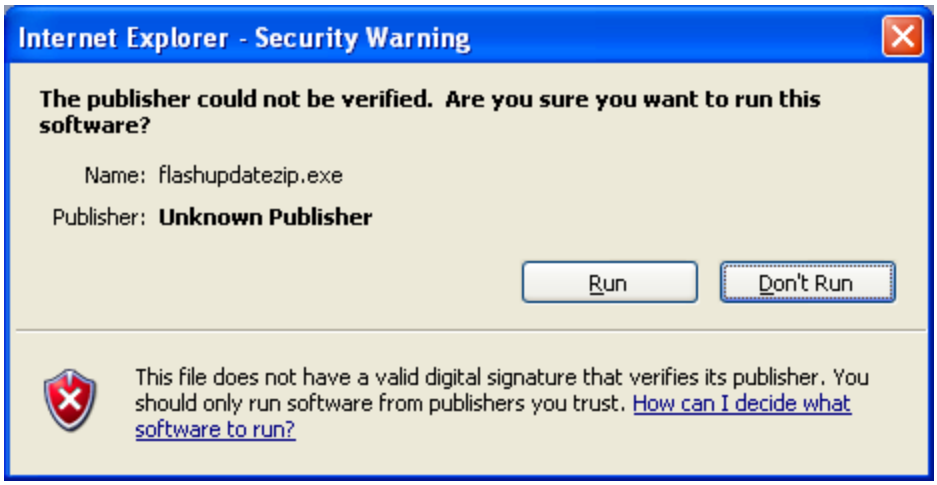


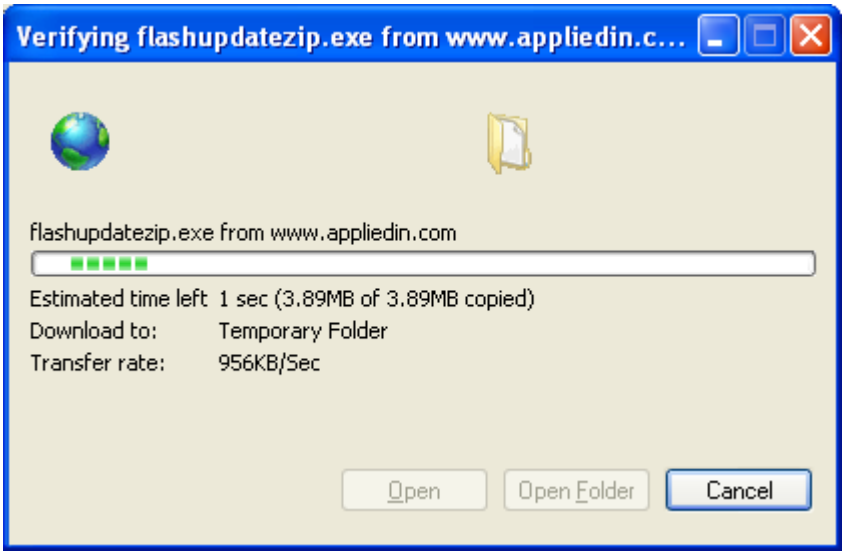
4) This is a self-extracting archive file. You may choose to open or run the file directly from the website or may save it to your disk and then open or run it. It is recommended that you run the file. The instructions below assume that you have chosen to run the file.



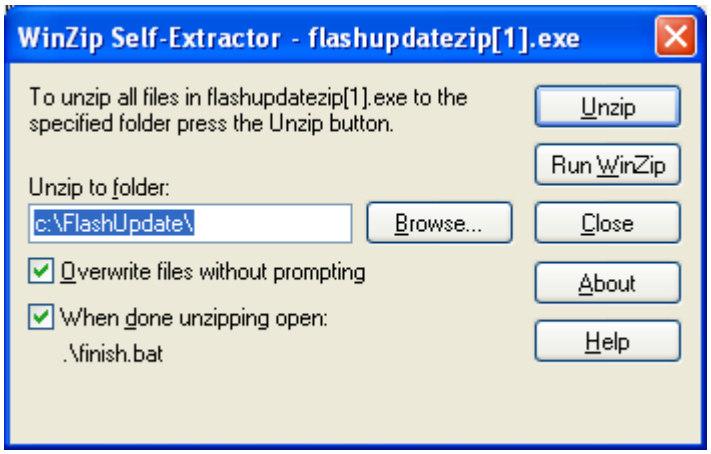


You may receive a warning message. Press Run to continue to open the file.

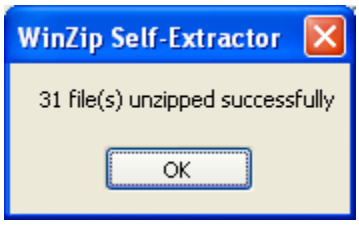




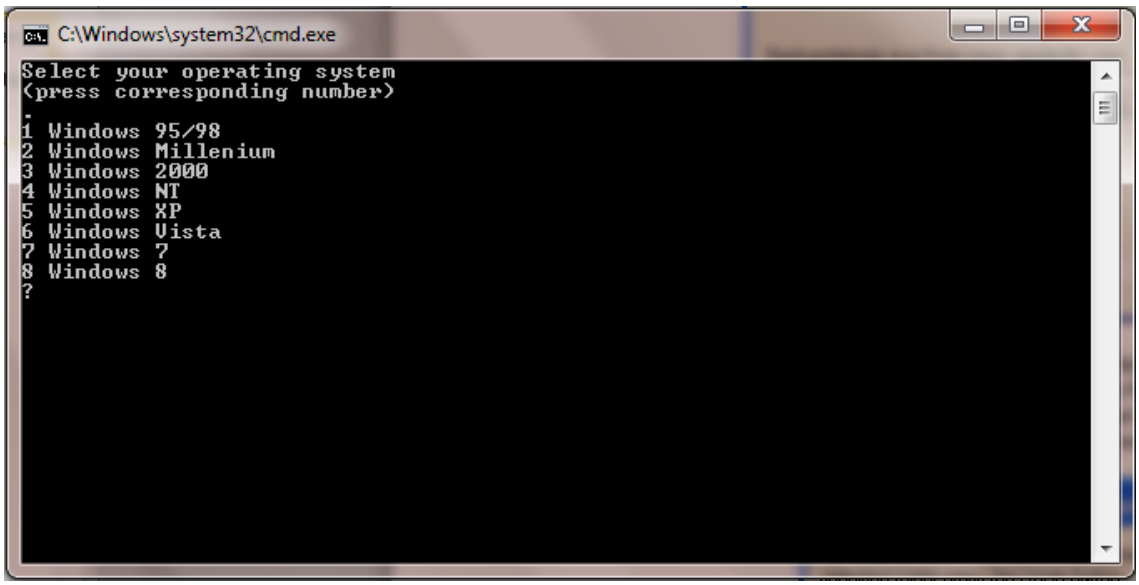
5) When you open this self-extracting archive file, the WinZip Self-Extractor program will appear. It is recommended that you press the Unzip button to unzip the files to the default location (c:\FlashUpdate\). If you wish to unzip the files to another location, type that desired destination folder into the field titled 'Unzip to folder' or press the Browse button and then navigate the network to select the desired destination folder.

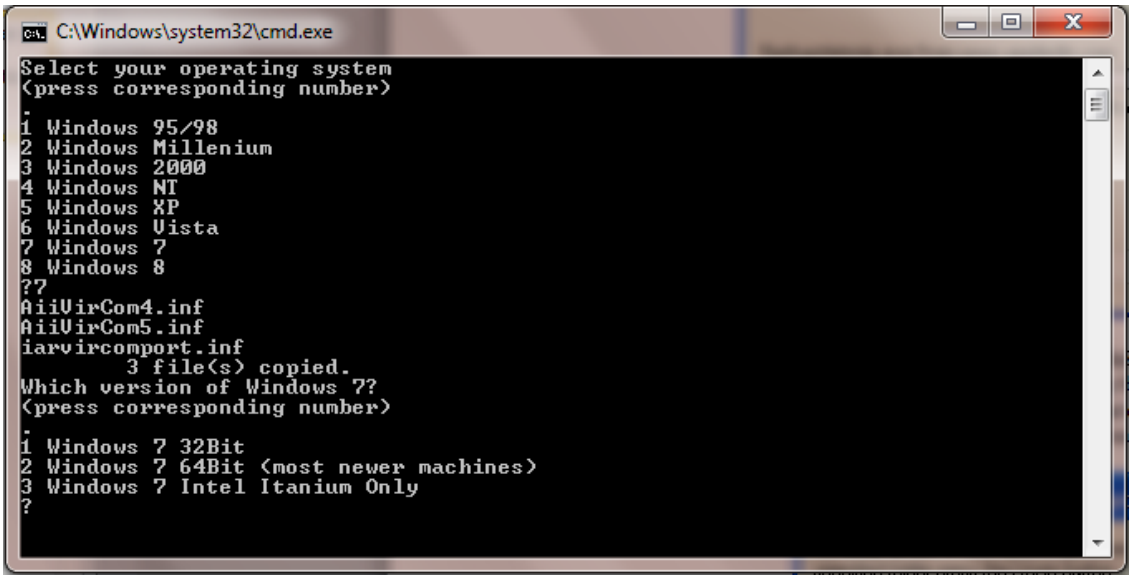


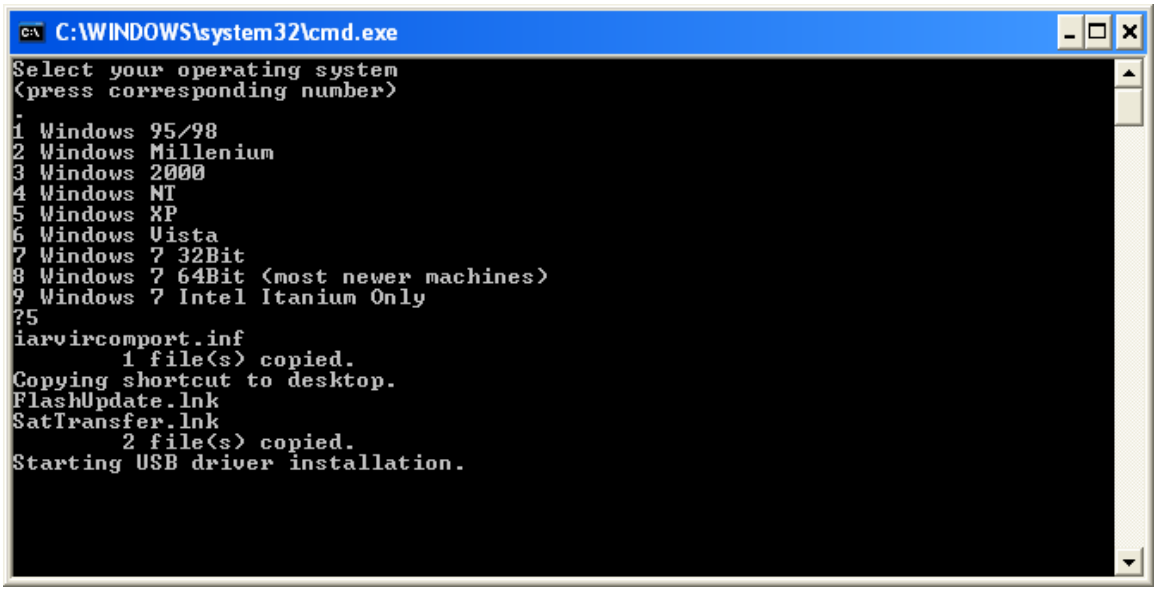
6) It will unzip several files onto your PC to the location you indicated. Press OK.



7) A Command Prompt screen will appear. Using your computer's keyboard, type the number next to the question mark at the flashing cursor that corresponds to your computer's operating system. If you aren't sure of which Operating System you are running, please proceed to Step 8. If you already know your Operating System, please proceed to Step 9.

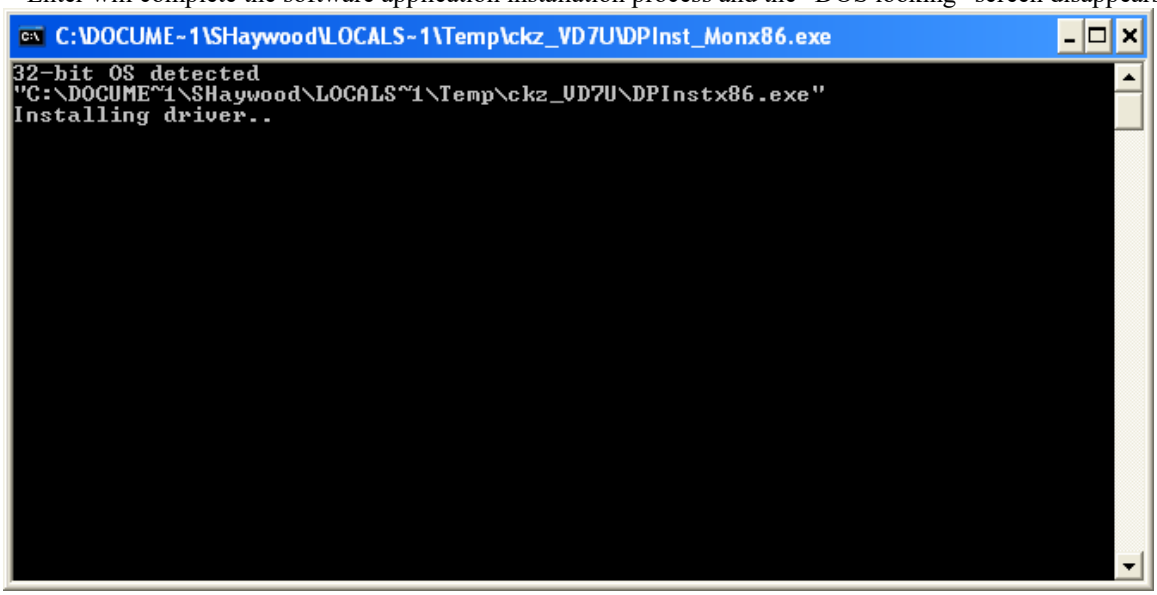


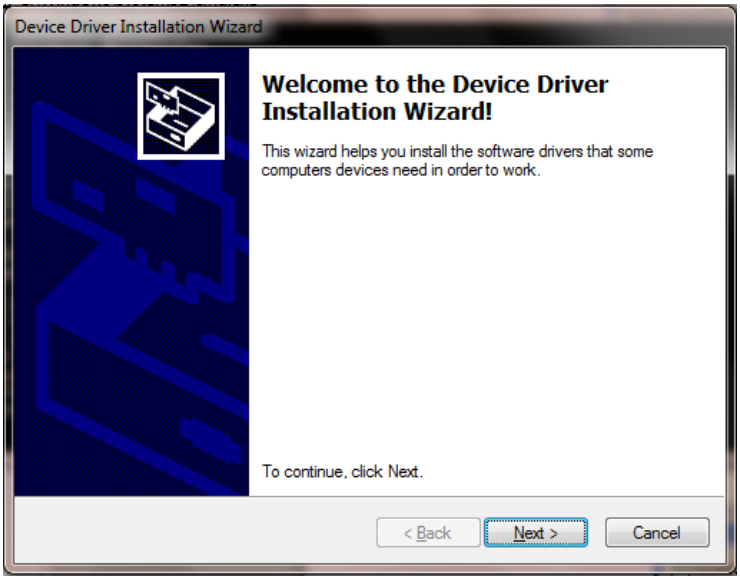


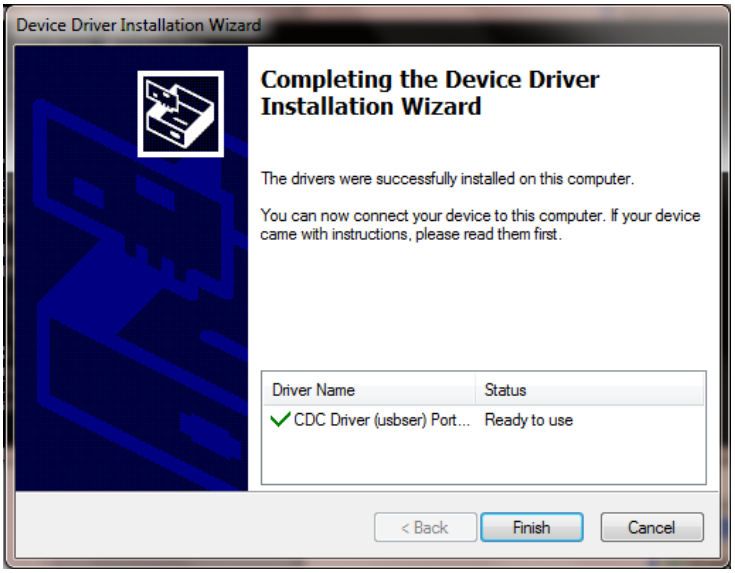


8) To find out which Operating System you're running on this PC, using your mouse, right click on the My Computer icon. Scroll to Properties and left click on it. On the General tab, underneath System, it will tell you which Operating System is installed on your PC (i.e. Microsoft Windows XP). Another method to find out which Operating System you're running is by using Windows Explorer.
Path: Windows Explorer → Help → About.

9) Another Command Prompt screen will appear to let you know that USB drivers are being installed. After the USB driver installation is complete, you will receive a message advising you to press Enter. Pressing Enter will complete the software application installation process and the "DOS looking" screen disappears.







10) Close your internet browser window if you still have it open and view your desktop screen.

11) You will notice that two new shortcut icons have been installed on your desktop. If the icons do not appear on your desktop, you can use “My Computer” or Windows Explorer to navigate to the C:\FlashUpdate\ folder and open FlashUpdate.exe from there and you can also copy and paste shortcut icons from the folder to your Desktop. If you're running Windows Vista or Windows 7 and the shortcut icons do not appear on the desktop after downloading, please right click with your mouse on the Desktop and select Refresh and then the shortcuts should appear.

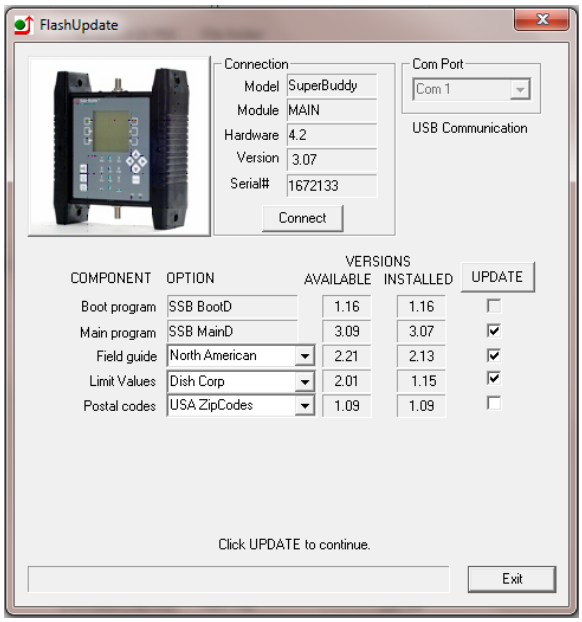
    FlashUpdate is the program used to download the latest satellite transponder and firmware updates to the Super Buddy meter.
    Application filename: FlashUpdate.exe

SatTransfer is the program used to upload stored Proof of Performance Scan information, stored Limit Scans, and stored Spectrum Scans from your Super Buddy meter to the PC.
Application filename: SatTransfer.exe

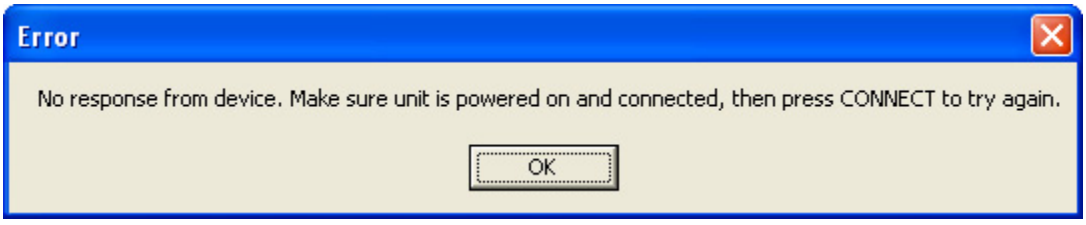
SatTransfer.lnk

Updating

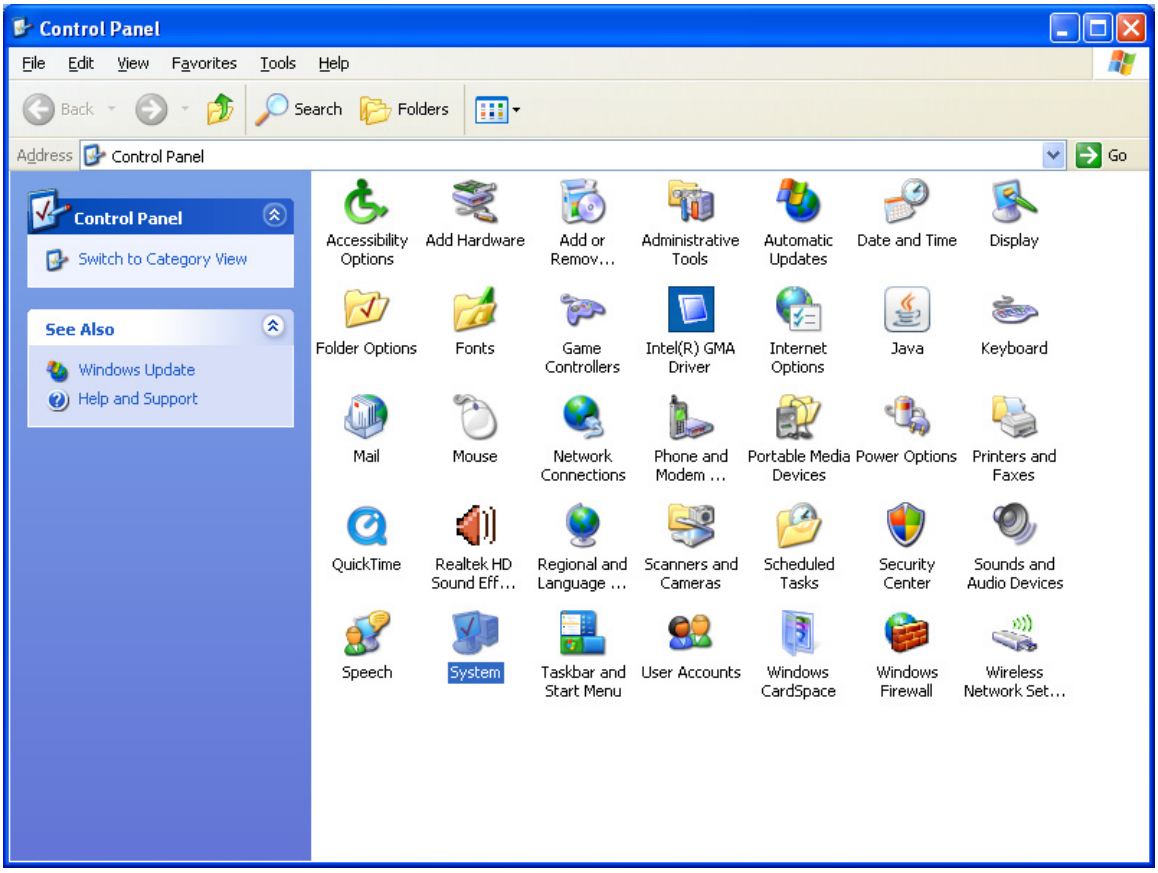
1) Ensure you have an active internet connection.
2) Plug your Super Buddy into the AC outlet to prevent any problems due to a low battery.
3) Connect the Super Buddy to your PC using the supplied download cable and turn it on.
4) Double click the Flash Update shortcut icon or start the application from wherever you saved it (i.e. your C drive).
5) If connection is established, a picture of the Super Buddy meter will appear in the top left corner of the FlashUpdate program and the top center portion of the program will be filled in with data obtained from the instrument (i.e. serial number, loaded software version, etc). If the connection is working, proceed to Step 7. If connection is not established, proceed to Step 6.

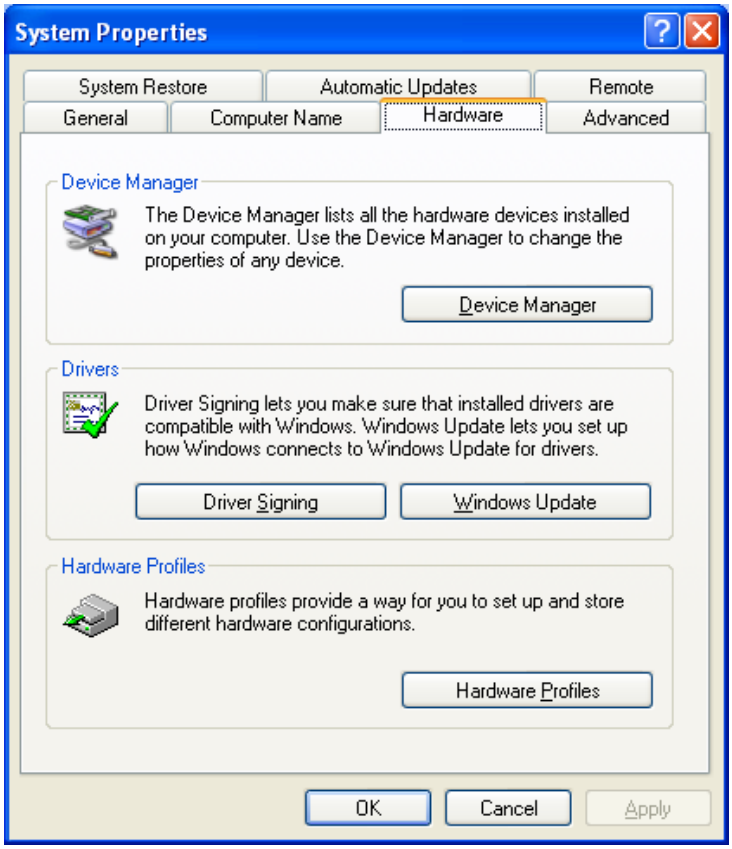


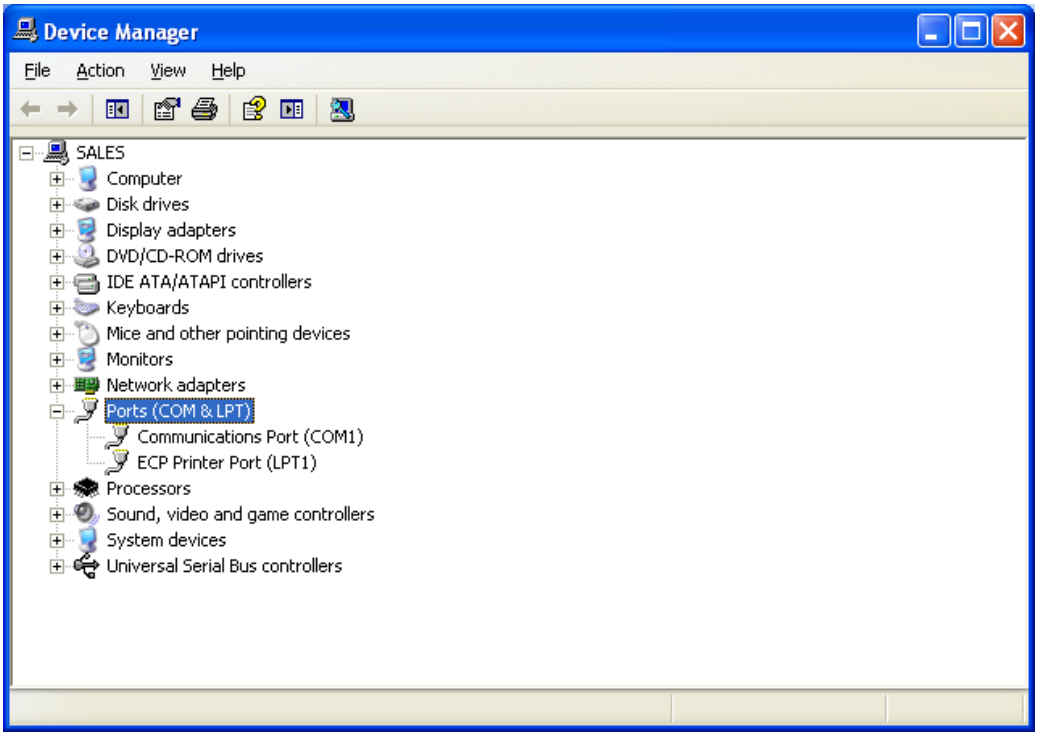
6) If the connection is not working, you will get an error message after a delay.



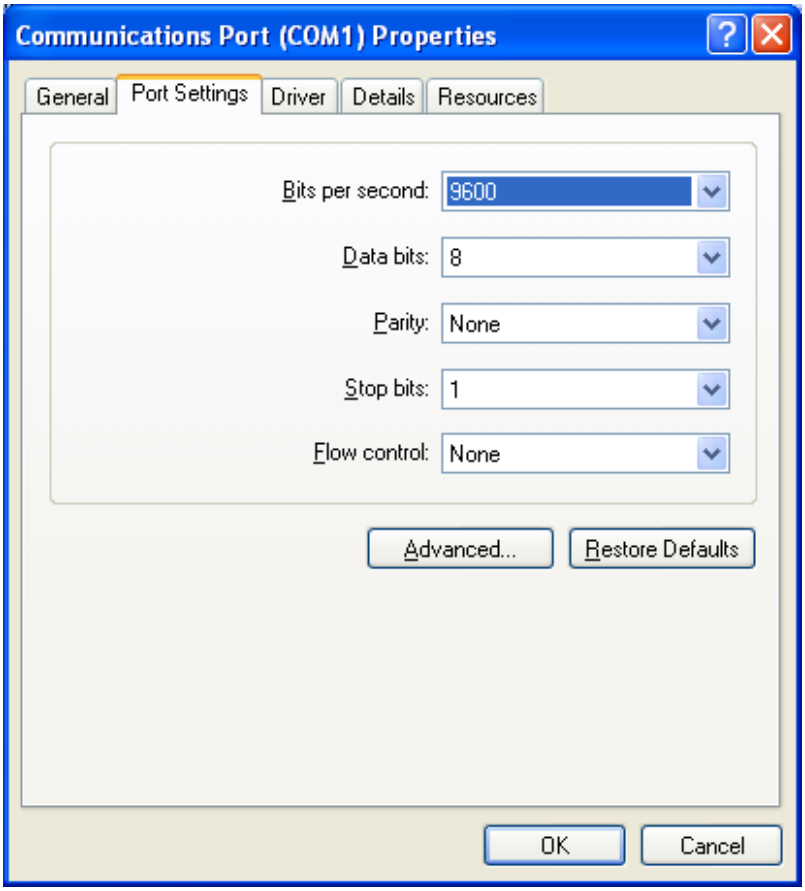
In this case, check to be sure the instrument is on and the download cable is fully seated. Click "Connect" to retry the connection. If it still fails and you have Super Buddy hardware version 1.x/3.x with an RS232 serial PC connection, verify that the selected COM port is correct. If you have Super Buddy hardware version 2.x/4.x with USB PC connection, the computer should automatically establish connection with the meter. If you don't know the com port number, you can try all available ports or you can check your COM port assignments in the Device Manager section of the Windows Control Panel.
Path: Control Panel-->System-->Hardware Tab-->Device Manager button-->Ports (COM & LPT)

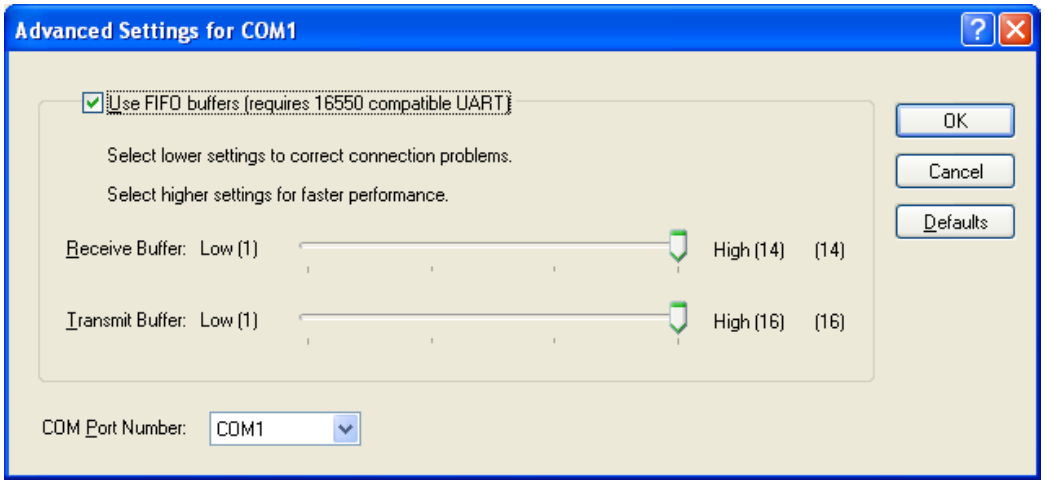

Control Panel
File Edit View Favorites Tools Help
Back Search Folders
Address Control Panel
Go
Control Panel
Switch to Category View
See Also
Windows Update
Help and Support
Accessibility Options
Add Hardware
Add or Remov...
Administrative Tools
Automatic Updates
Date and Time
Display
Folder Options
Fonts
Game Controllers
Intel(R) GMA Driver
Internet Options
Java
Keyboard
Mail
Mouse
Network Connections
Phone and Modem ...
Portable Media Devices
Power Options
Printers and Faxes
QuickTime
Realtek HD Sound Eff...
Regional and Language ...
Scanners and Cameras
Scheduled Tasks
Security Center
Sounds and Audio Devices
Speech
System
Taskbar and Start Menu
User Accounts
Windows CardSpace
Windows Firewall
Wireless Network Set...


System Properties
System Restore
Automatic Updates
Remote
General
Computer Name
Hardware
Advanced
Device Manager
The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device.
Device Manager
Drivers
Driver Signing lets you make sure that installed drivers are compatible with Windows. Windows Update lets you set up how Windows connects to Windows Update for drivers.
Driver Signing
Windows Update
Hardware Profiles
Hardware profiles provide a way for you to set up and store different hardware configurations.
Hardware Profiles
OK
Cancel
Apply

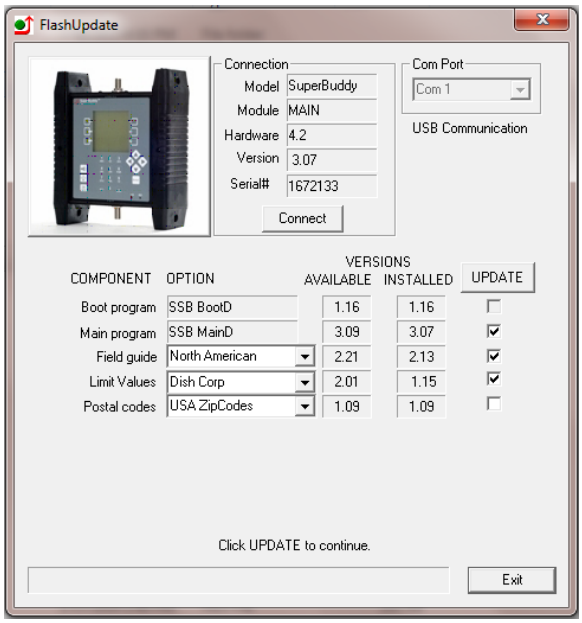


If you see that your Communications Port is set to something other than COM ports 1 through 12, you will need to reassign the COM port. To reassign the COM port, right click with your mouse on the desired COM port and select Properties. Then click on the Port Settings tab. Then click on the Advanced button. Using the drag down menu at the bottom of the Advanced Settings screen, reassign the COM port to an open (unused) port to any COM port from COM1 to COM12. Then press OK twice and exit out of the Device Manager and exit out of the Control Panel.





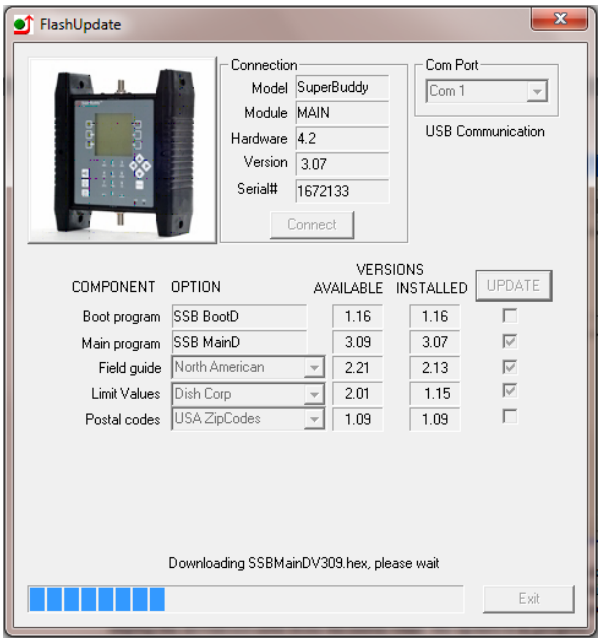
7) As soon as the connection is established, the application will access the website and obtain the latest available versions for the various components. These will be compared with the versions installed on your instrument. Any component with a newer version available will be checked. Normally, there is no need to check anything that isn't already checked and we don't recommend manually check marking the boxes.



8) Select your desired Limit Values file: Dish Corp, Dish RSP, or No Limits. See Limit Values section below for more details.
9) Select your postal code region: USA ZipCodes, Canadian Postal, or No Postal Code (if located outside of North America).

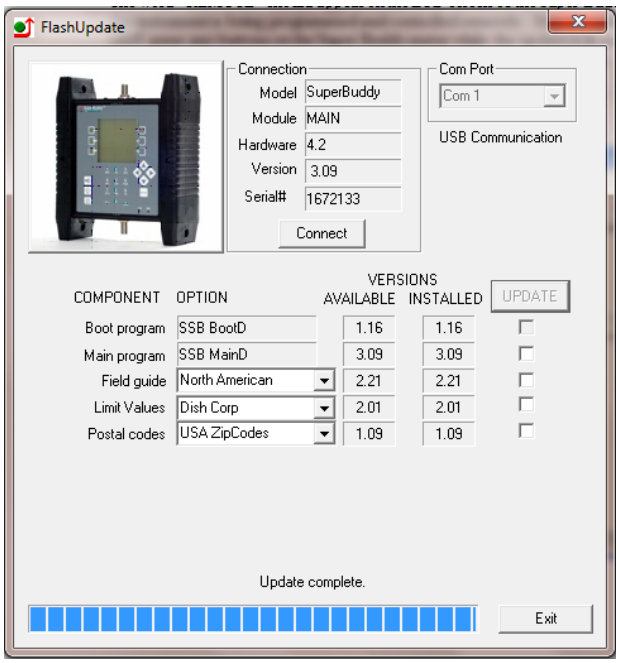
Click "UPDATE" to start updating the instrument. This process is rather slow. The progress bar at the bottom will show the installation progress of each component. In the screenshot from the example shown below, the program has detected that three components need to be updated (it automatically placed three check marks next to the items that need updated). The blue status bar at the bottom of the program will reset itself after each of the three components is downloaded.

a) If you have Hardware version 1.x/3.x with serial PC connection, the download process can take up to 10 minutes to complete, depending on the number of components that need to be updated.
b) If you have Hardware version 2.x/4.x with USB PC connection, the download process can take up to 5 minutes to complete, depending on the number of components that need to be updated.



The word "REMOTE" should appear on the LCD screen of the Super Buddy satellite meter to indicate that the instrument is being programmed and controlled remotely. Standby while the instrument is updated. Do NOT press any buttons on the Super Buddy meter while the update is in progress. Do NOT bump or unplug the download cable from the meter while the update is in progress.

10) When finished, the program will display "Update Complete", click "Exit". You may now disconnect the Super Buddy meter from the computer and it is ready to use.



Field Guides

There are several global Field Guides (satellite transponder databases) available now and more may be added in the future. The different Field Guides cover different regions of the world. You can select the Field Guide you need using the pull down list.

If you simply want to change Field Guides even though no new versions are available, you may need to also put a check in the box before clicking "UPDATE". Only components that are checked will be updated.

Limit Values

For technicians that will be using the meter for Dish Network related work, there are two Limit Value databases available, 'Dish Corp' and 'Dish RSP'. If you work in an area that is served by Dish Corporate, select 'Dish Corp'. If you work in an area that is served by a Dish RSP, select 'Dish RSP'. If you won't be using the Super Buddy for Dish Network applications, select 'No Limits'. You can select the Limit Values you need using the pull down list.

If you simply want to change Limit Values even though no new versions are available, you may need to also put a check in the box before clicking "UPDATE". Only components that are checked will be updated.

Postal Codes

Postal code files for the United States and Canada are available now and more may be added in the future. You can select the Postal Code file you need using the pull down list.

If you simply want to change your Postal Code file, even though no new versions are available, you may need to also put a check in the box before clicking "UPDATE". Only components that are checked will be updated.

If you are using the meter outside of the United States and Canada, then choose "No Postal Codes." This allows you to type in and save your latitude and longitude coordinates for your location. Based on the lat/long coordinates provided, the meter can still calculate the azimuth, elevation, and skew settings of the dish antenna as it relates to each satellite.

USB Converters

Note: This section is only applicable if you are using a USB to Serial Converter cable and you have Super Buddy hardware version 1.x/3.x.

If your PC does not have an RS232 serial port, it is possible to use a USB to RS232 converter. These are available from most electronics retailers for a modest cost. However there are two problems frequently encountered when using these converters:

First, the USB converter will be assigned to a COM port by the Windows operating system. This is usually Com 5 or Com 6 but your system may vary. You can try each com port available in the FlashUpdate program or use the Windows Control Panel to determine which com port has been assigned. For FlashUpdate to recognize the meter, it must be on COM Port numbered between COM1 and COM12. If Windows has assigned the USB converter a COM port number higher than 12, then you'll need to reassign it to a COM port 1 through 12.

Second, many of these converters do not implement a proper signal ground between the PC and the Super Buddy's serial cable. These same converters may work perfectly well with other equipment by relying on the AC power ground to provide a common ground. But since the Super Buddy is a battery operated device, its RS232 signals are isolated from the AC ground even when the AC battery charging cord is plugged in.

These converters may occasionally work with the Super Buddy simply because the two ground levels happen to be close to each other at the time. They may work initially and then fail part way through the update.

A ground connection can be made with an external wire connecting the F-connector shield (not the center pin) to the frame of the PC (a screw on the back may work).

If you are using a USB converter that you are not sure of, we recommend testing the connection by updating just the Field Guide first. If that works, restart FlashUpdate and update the necessary remaining components. If the update fails during the Field Guide, it is easy to restart the process after finding a different system or installing a ground wire. If the update fails during the Main Program Software, call for technical support to help you restart the update. If the update fails during the Boot Program Software, the meter will have to be returned to the factory to restore the boot program.

Applied Instruments has been satisfied with a USB converter manufactured by Aten, model UC232A. From our testing, it seemed to be the most user-friendly and best performing. This model is available from Applied Instruments and from many online electronics retailers. Do NOT use the Belkin brand USB to Serial converters with this instrument, as Applied Instruments has seen them cause many problems.

Future Updates

You may check for an update by connecting your Super Buddy to your computer and performing the step in the section “Checking for Updates”. Make sure your Internet connection is active (if you have a dial up connection to the Internet.) It is recommended you check for updates regularly.

If you have any problems or questions about the FlashUpdate program, call Applied Instruments’ Tech Support team at (317) 782-4331.