G90 Firmware Update

Instructions

The following items are needed:

A. G90
B. USB-to-serial cable (supplied with G90)
C. A PC running the Microsoft Windows operating system (XP/Vista/7/8/10)
D. 12-15 V DC power supply
E. Latest firmware for the G90 must be downloaded onto your PC – note that there are separate firmware files for the base unit and the display unit.
F. TeraTerm communications software must be installed on your PC – download link below:

   www.https://osdn.net/projects/ttssh2/releases/

1. Install USB-to-serial cable:

A. Plug the USB-to-serial cable into the PC. It should be recognized by Windows, which will install the appropriate driver. Open Windows Device Manager and you will be able to check that it has installed correctly and see which COM port has been allocated to it:
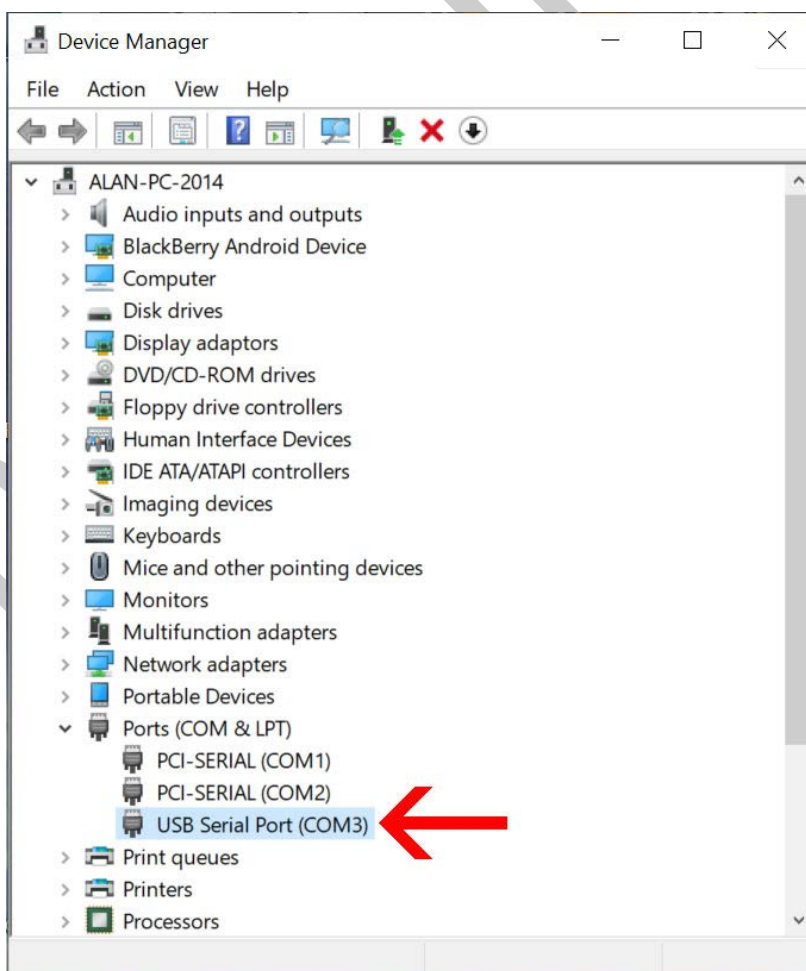
B. If you are using the old type of USB-to-serial cable supplied with early G90s (it has a black rather than a blue USB housing), which has a Prolific chipset instead of the FTDI chipset in the later cable, you may find that Windows displays an error in Device manager:
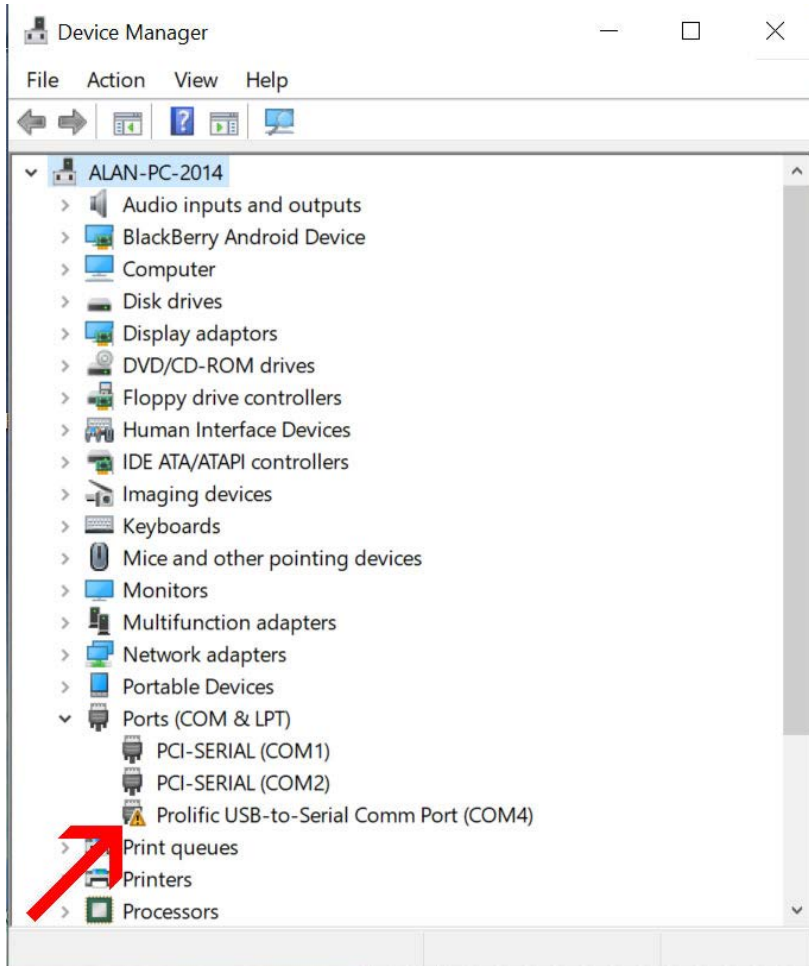
C. To resolve this problem you need to install the correct driver for the cable. To do so, double-click on the item so the *Properties* window opens. Select the *Driver* tab and click on *Update Driver*.

D.   Select *"Browse my computer for driver software."*

E. Select *"Let me pick from a list of available drivers on my computer."*
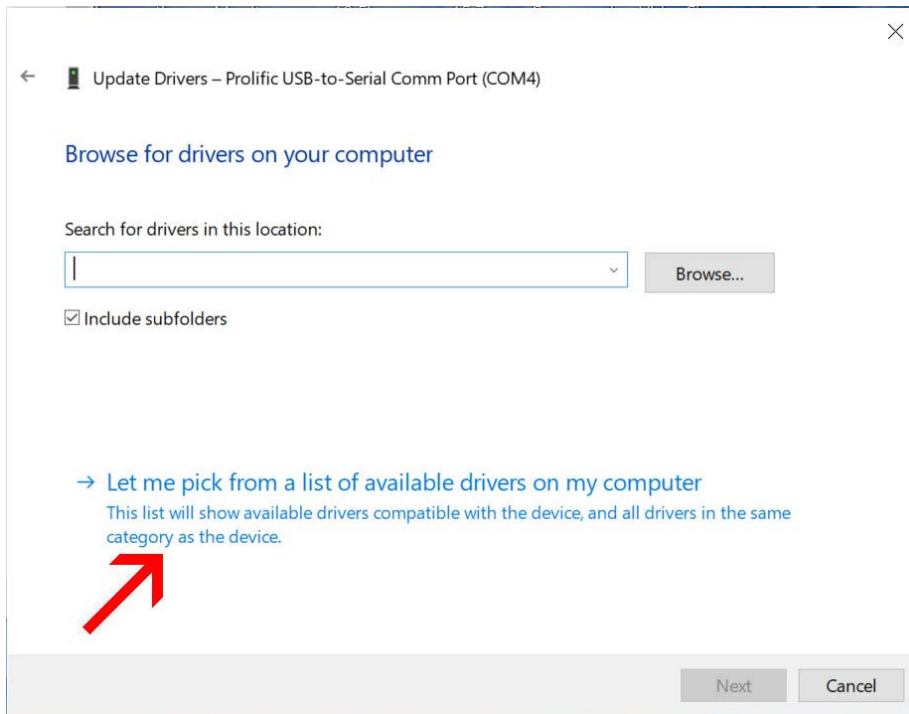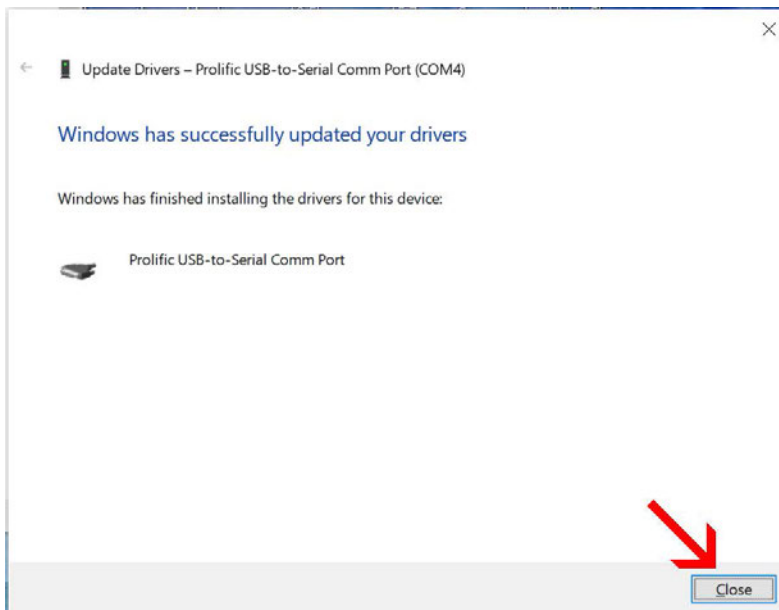

F. The correct driver for the cable is Version 3.3.2.102 dated 24/09/2008. There is a
    good chance this version is already available on your PC. If it isn't, you can download
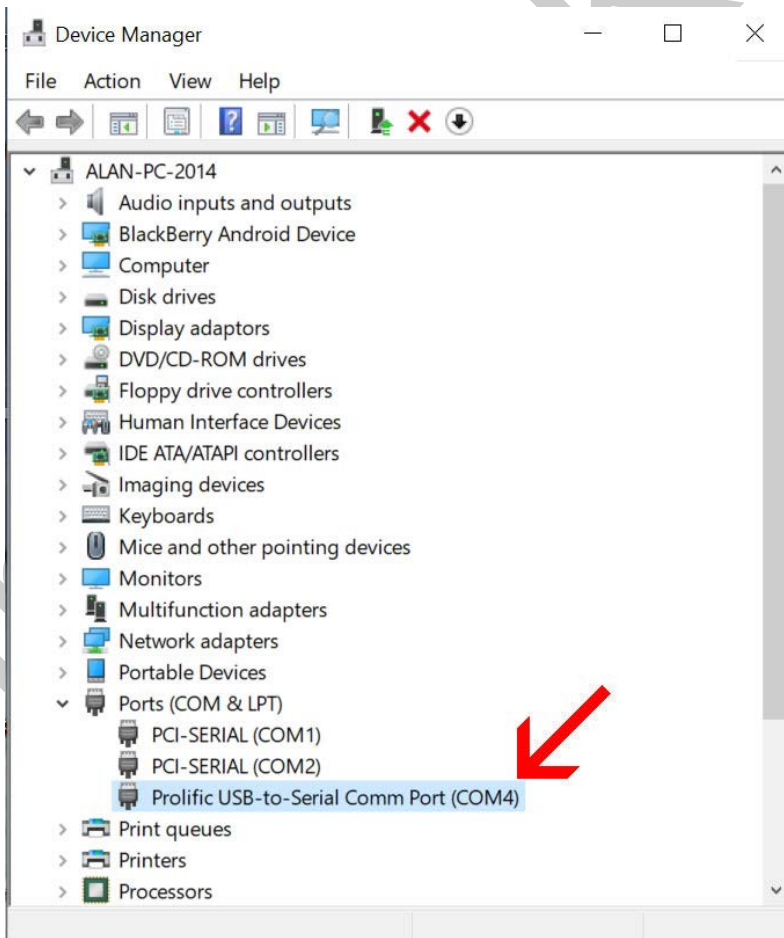   it from the Sinotel Website:

https://www.sinotel.co.uk/extra_files/PL2303_Prolific_DriverInstaller_v1190.zip
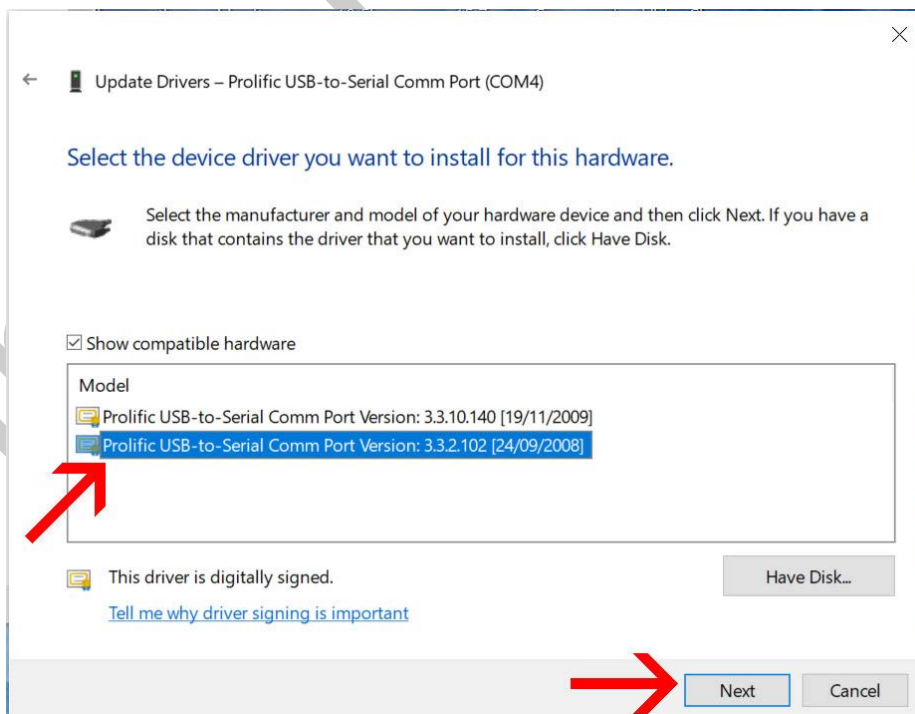
G. Once the driver has been successfully installed you will see the following message:

H. Click Close. You can now go back to Device manager to check that the driver has been correctly installed:
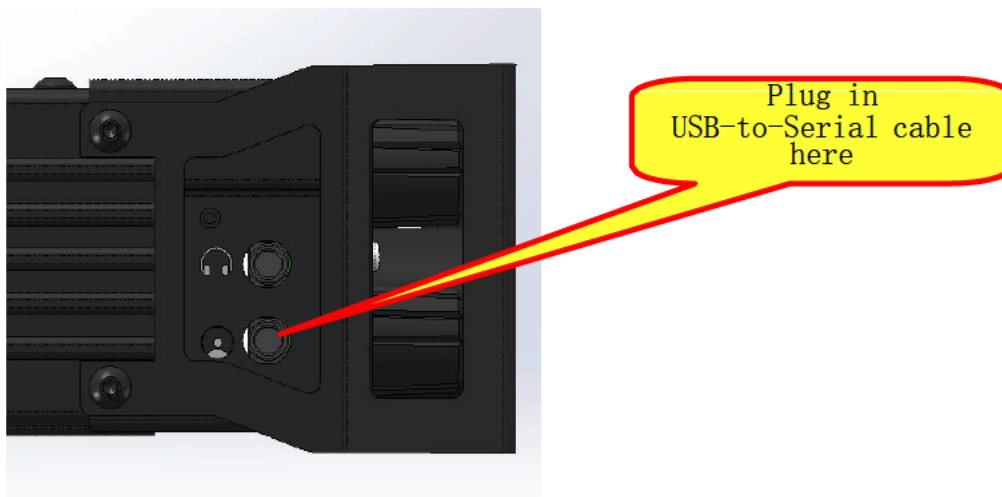

PLEASE NOTE: Windows may in its infinite wisdom decide to reinstall the later (non-functioning) driver the next time you plug the USB-to-serial cable into your PC. Always plugging the cable back into the exact same USB socket can prevent this, but not always, so you may have to go through the above procedure again.

2. Connecting everything up:

2.1 Connect power cable

Plug in Power cable here

2.2 For Head updating:

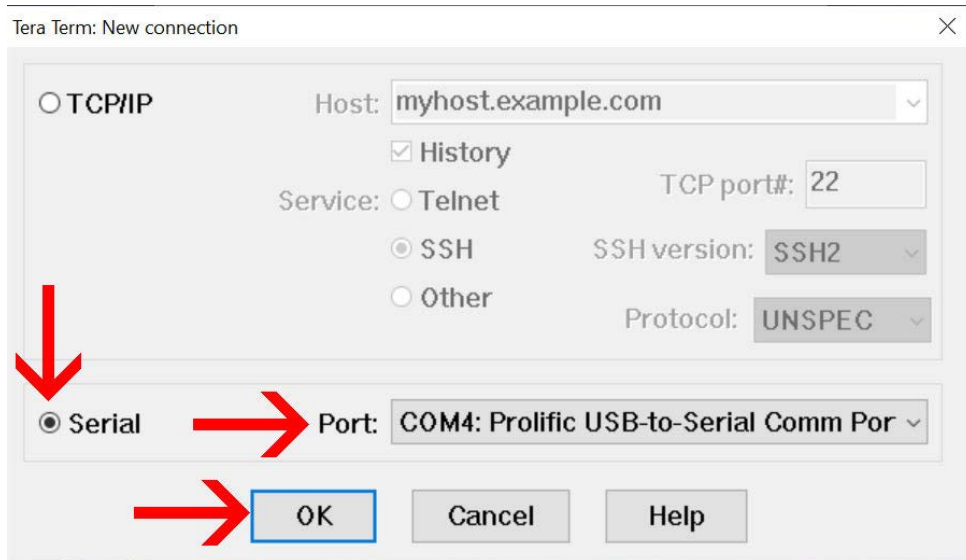Plug in USB-to-Serial cable here

2.3 For Base updating:
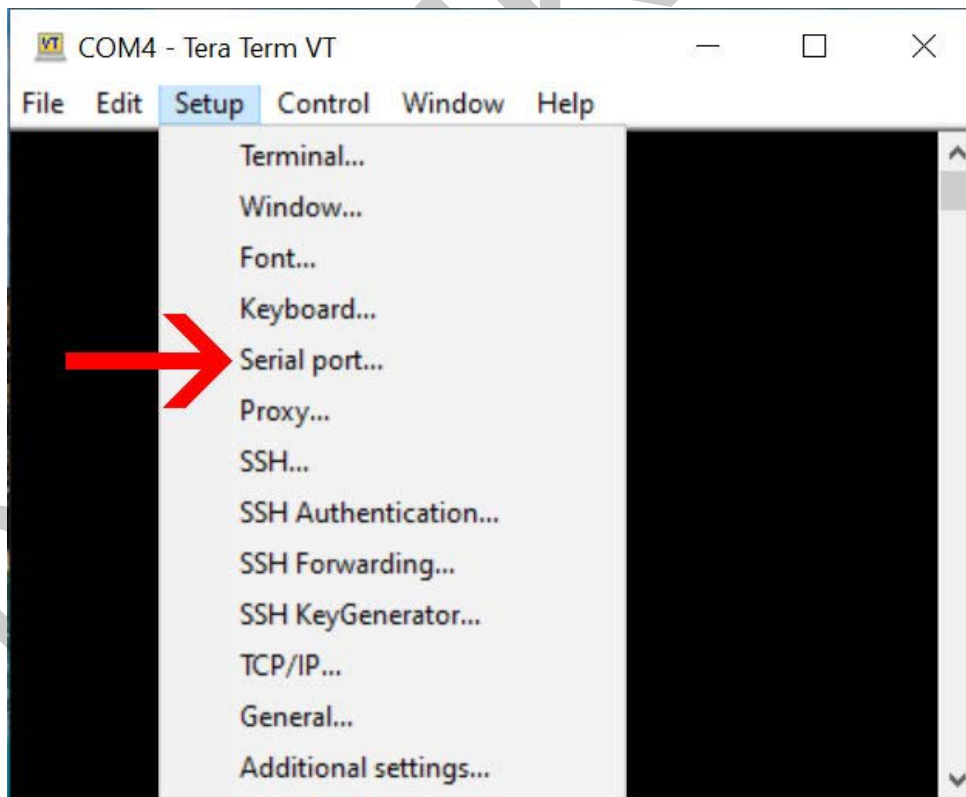

Plug in USB-to-Serial cable here

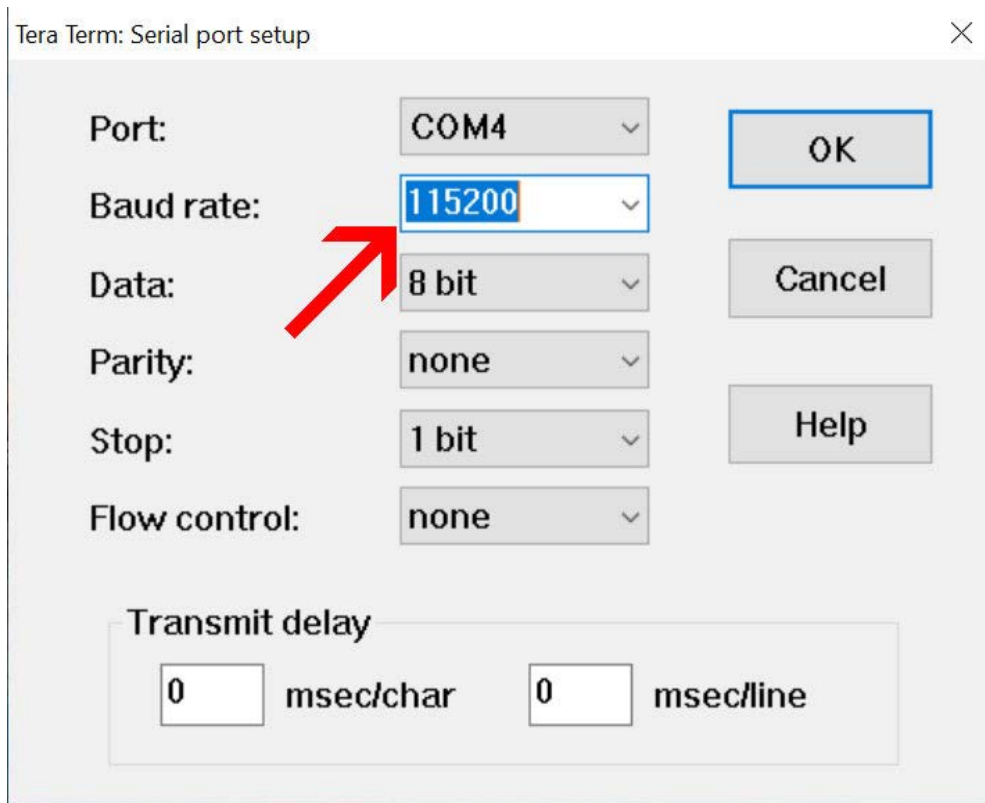### 3. Updating firmware using the TeraTerm communication program:

A. Start Teraterm. The following window will open:

B. Select the *Serial* button, then select the COM port that Windows allocated to your cable from the dropdown *Port* menu. Click OK.

C. The main TeraTerm window will open. Select *Serial port* from the *Setup* menu. Set the *Baud rate* to 115200 using the dropdown menu.
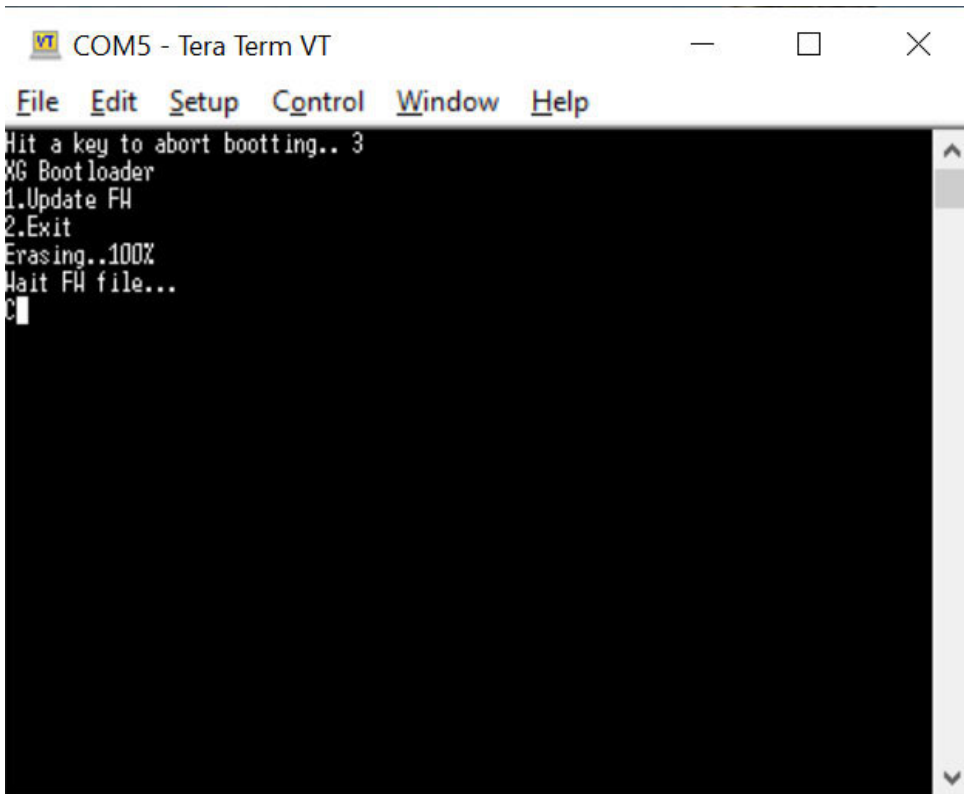
D. Plug the power cable into your G90 and the USB-to-serial cable into the base unit COMM port as shown above. Turn the PSU on, hold down the space bar on your PC and keep it held down while you press the power button on the G90. You can release the space bar when you see the following appear on the TeraTerm screen:
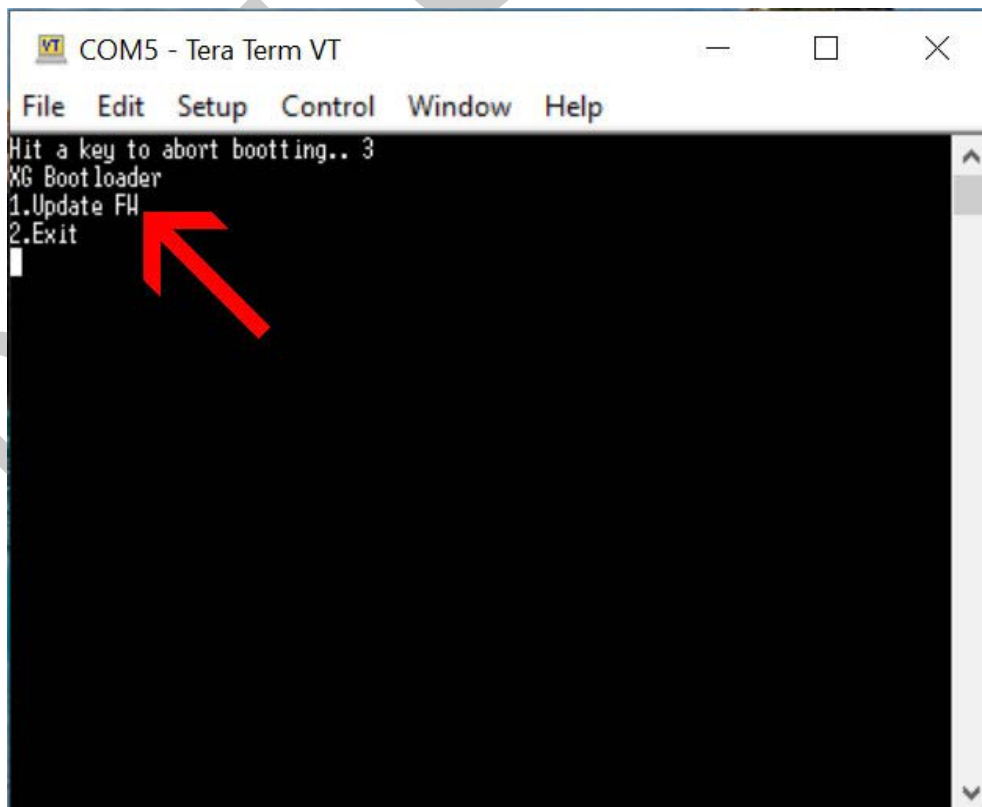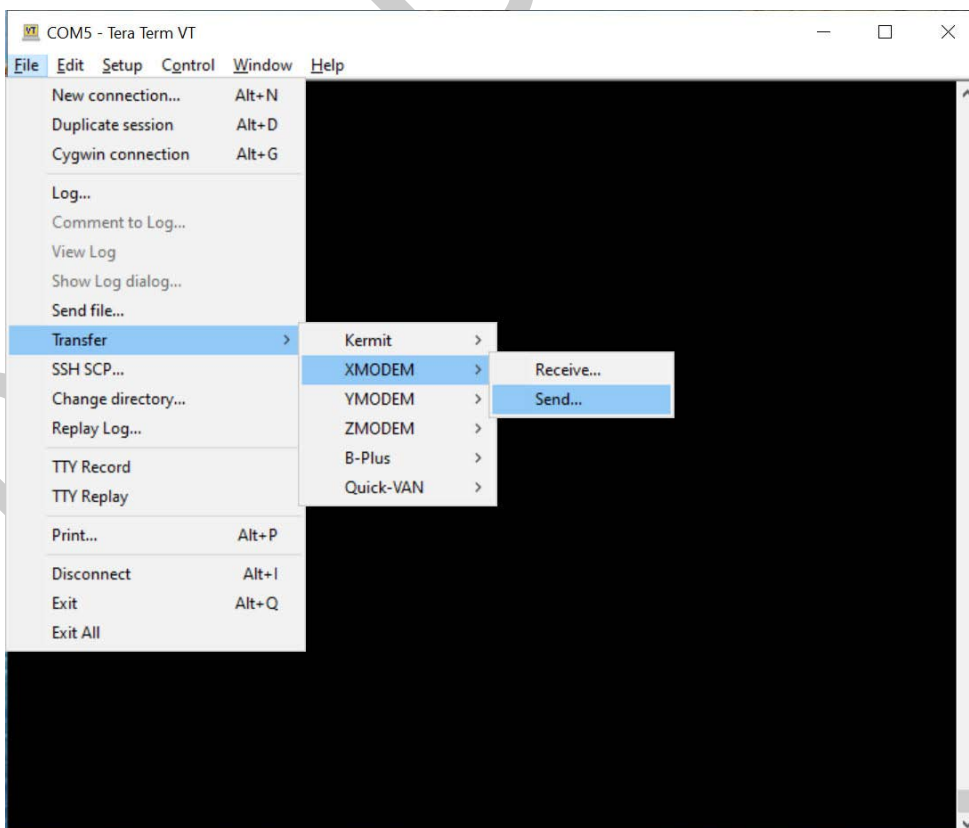
E. Hit 1 on your PC keyboard. The existing firmware will be erased. You will see the following message when the G90 is ready for the new firmware to be installed:

F. Select *File>Transfer>XMODEM>Send...*

G. Before you do anything else, tick the 1K box at the bottom right of the window. The firmware update will not work successfully unless you do so.

H. Navigate to the location of the base unit firmware file on your PC using the *Look in:* dropdown pick button and click *Open.*
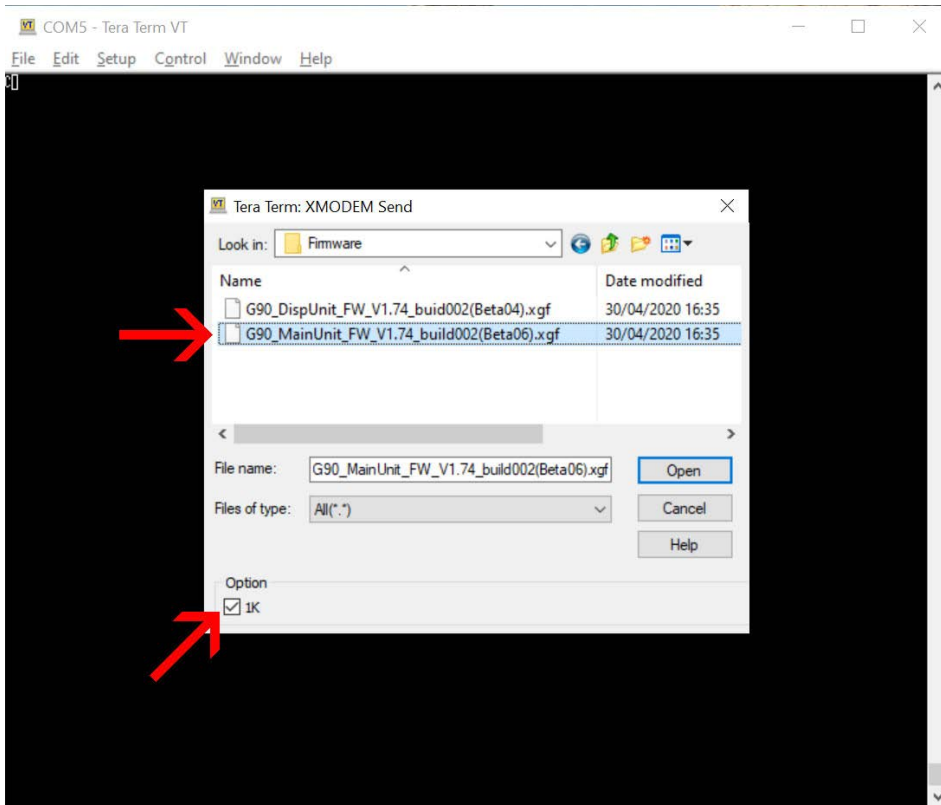
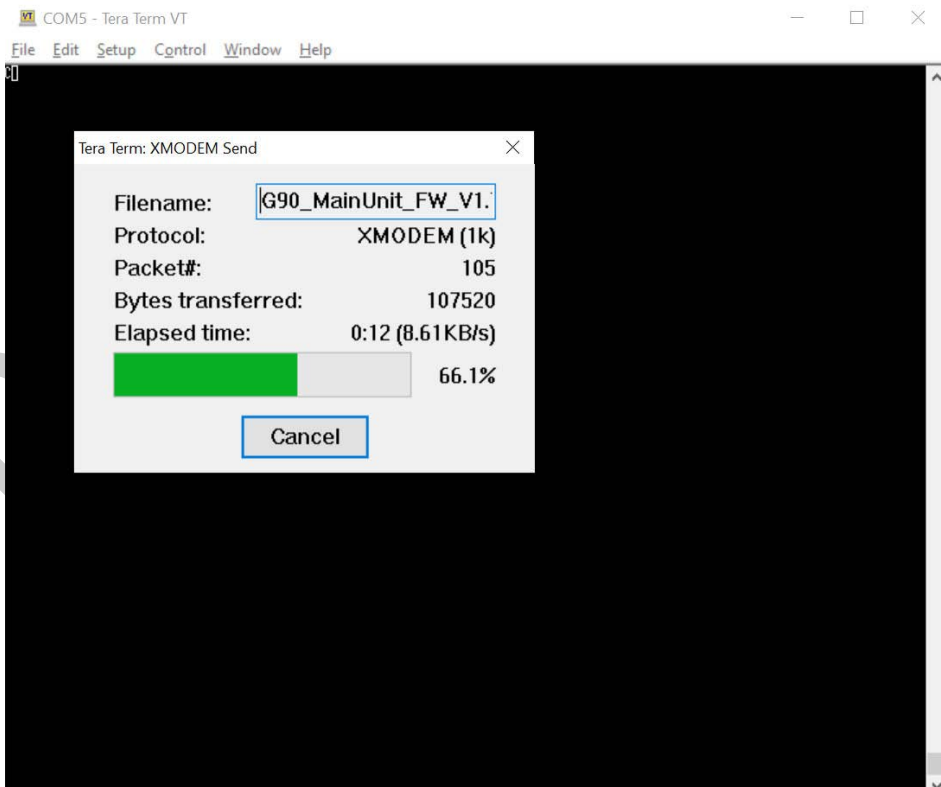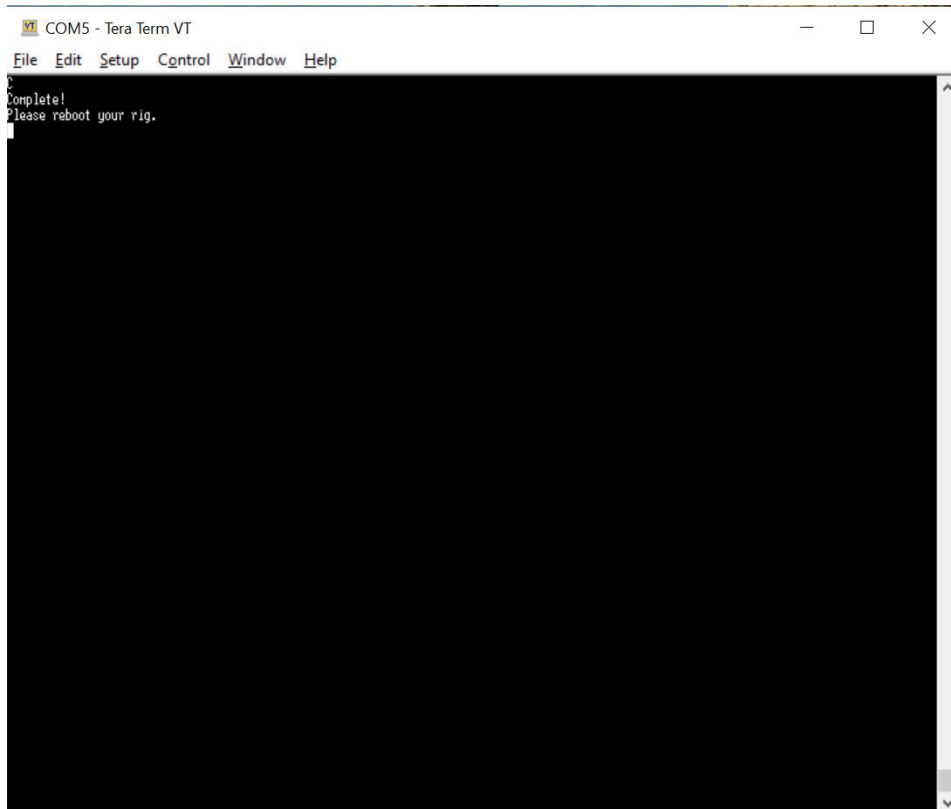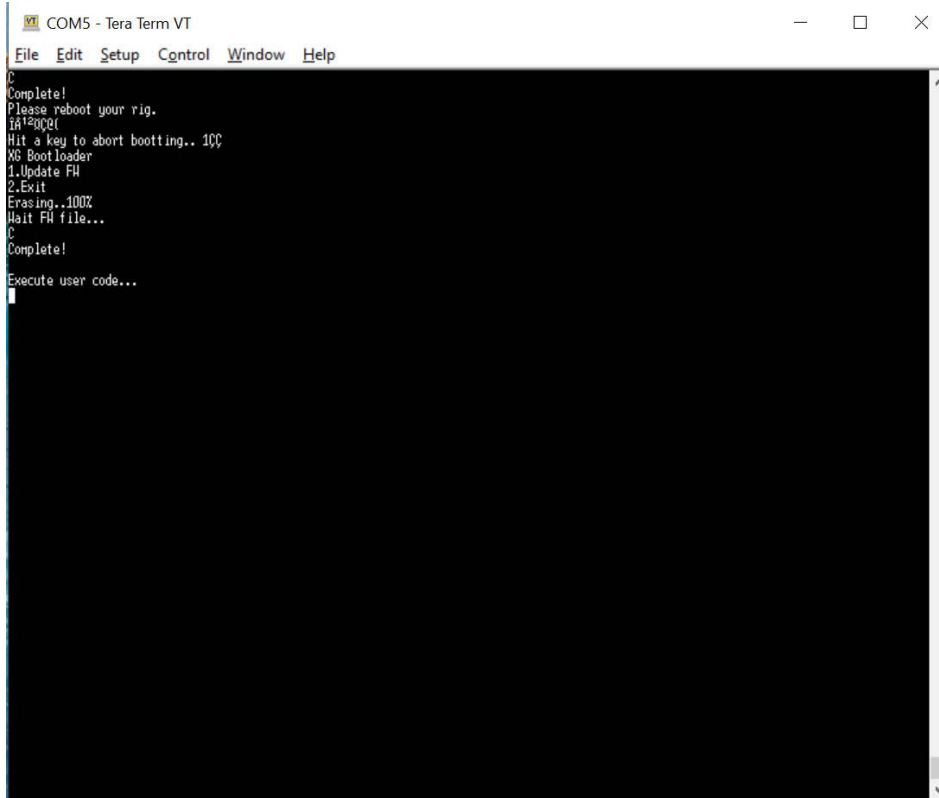I. You will see a progress bar as the firmware is installed:

J.   The following message will appear when the firmware update is complete:

K.   Disconnect the power lead from the G90 for five seconds and plug it back in. Insert the USB-to-serial cable plug into the COMM port on the head unit, as shown above. Hold down the space bar on your PC and keep it held down while you press the power button on the G90.

L.   Repeat steps E to I above, selecting the head unit firmware file at step H.

M.   The message *"Execute User Code"* will appear when the firmware update of the head unit has completed.

N.   Disconnect the power lead from the G90 for five seconds and plug it back in. Hold down the F key and press the G90 power button. Keep the F key pressed until you see a message on the G90 screen *"Main Reset."*

O.   Press the PRE button bottom left of the G90 display screen.

P.   You're good to go.

If for some reason the firmware update does not complete successfully, and you get a blank screen or a *"Comm Lost"* message, simply repeat the update process.

```
C
Complete!
Please reboot your rig.
íÁ¹²0Ç0(
Hit a key to abort bootting.. 1ÇÇ
XG Bootloader
1.Update FW
2.Exit
Erasing..100%
Wait FW file...
C
Complete!

Execute user code...
```

The information in this document is provided on the understanding that you use it at your own risk.

No liability will be accepted if you cause damage to your equipment or anything else as a result of its use.