

How to Update Xiegu G90 Firmware?

With every new firmware releasing, more and more new features are available.

You will find the latest firmwares, softwares and drivers from :

<https://www.passion-radio.com/hf-transceiver/x90-1013.html>

The following items are needed:

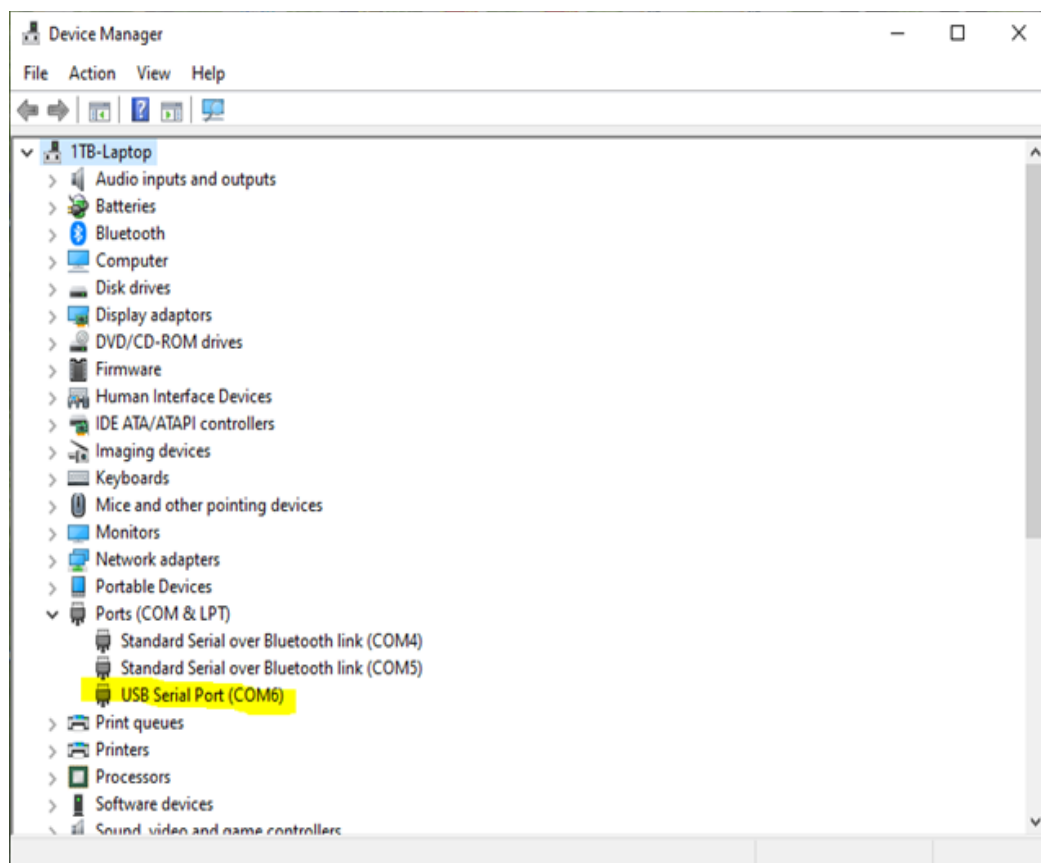
- A. USB-to-Serial cable
- B. G90
- C. A computer running the Windows (XP/Vista/7/8/10/11) operating system
- D. A 12-15V DC power supply (capable of supplying not less than 5A)

1. Install USB-to-Serial cable:

The very first thing is to make sure that the USB-to-Serial cable is working properly with the personal computer. The first time the cable is plugged into a USB port on the computer, the operating system will search for a driver file for this new hardware and automatically install the driver program. If all has gone well, we will be able to see the virtual serial port in the device manager program. If the driver file can't be automatically installed by the operating system we will need to install it manually.

(Note: very early Xiegu USB-to-Serial cables used the Prolific Chip, currently supplied cables use a chip from FTDI, the old cables tended to be black in colour, the newer ones blue.

After this action the virtual serial port and its port number will be visible in Windows Device Manager (which on the below computer you will see is COM6).

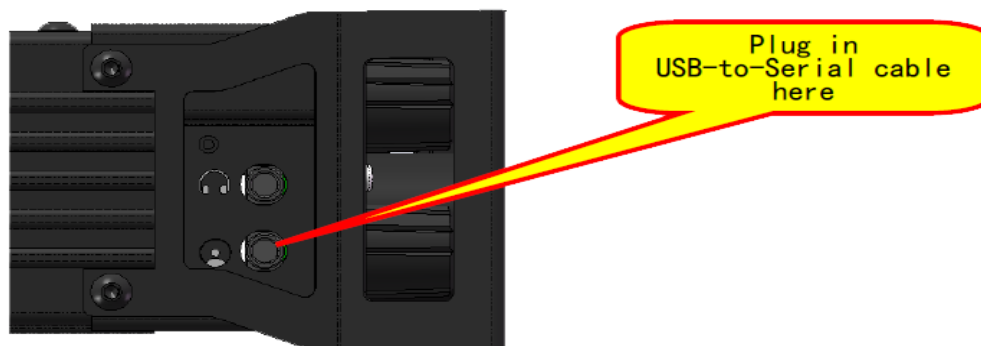


2. Wiring everything up:

2.1 Connect power cable



2.2 For updating the firmware in the head unit:



2.3 For updating the firmware in the base unit:



3. Update firmware via TeraTerm terminal software

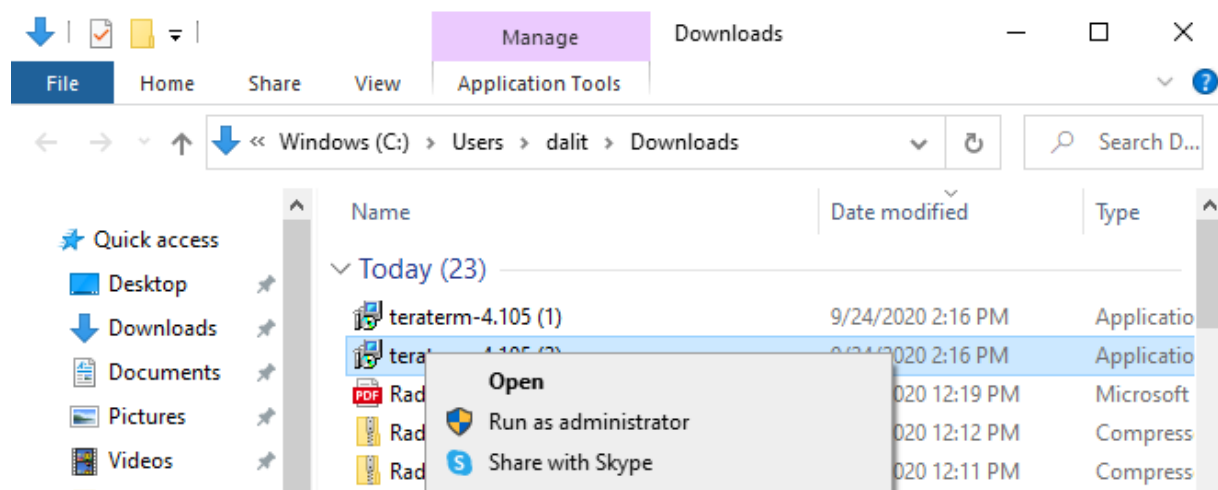
The program is supplied in firmware zip file if you don't already have it installed):

In order to transfer the firmware to the device, we use a serial terminal software program with XModem support called TeraTerm (other programs can also be used but this guide is for TeraTerm).

3.1 Install the TeraTerm terminal software

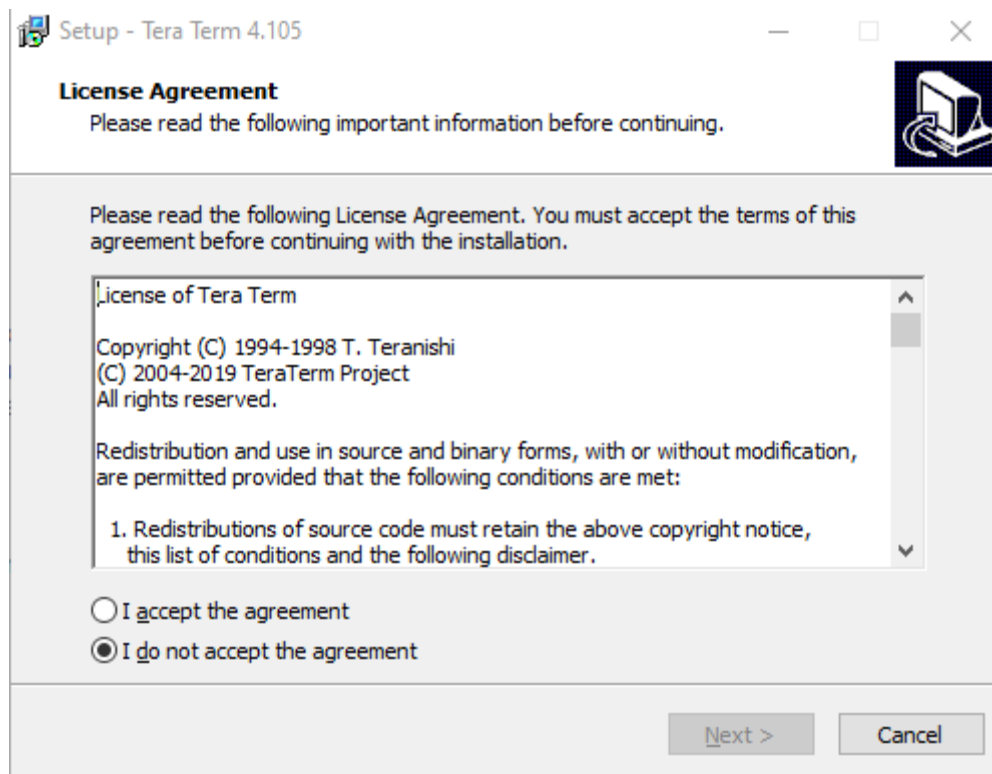
However, we are finding that some of the more aggressive Web Protection/Virus/Malware applications may be stripping the update and firmware files from the downloaded archive, or when the archive is extracted. The following link will allow you to download a certified virus-free Tera Term application used for the G90 update process.

RE: teraterm-4.105 <https://tera-term.en.lo4d.com/windows>

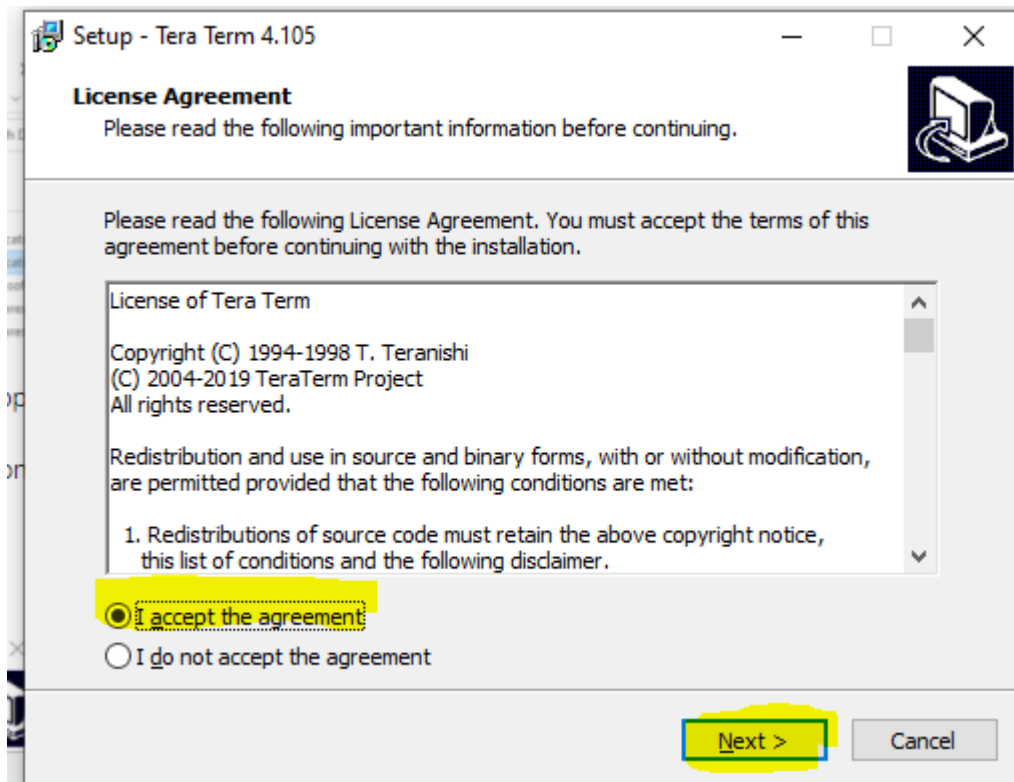


On any executable application, **Right-Clicking** on the app will open a selection box in which **Run as Administrator** is an option. Selecting Run as Administrator will ask for your permission to let the app make changes to your computer - **Click YES**

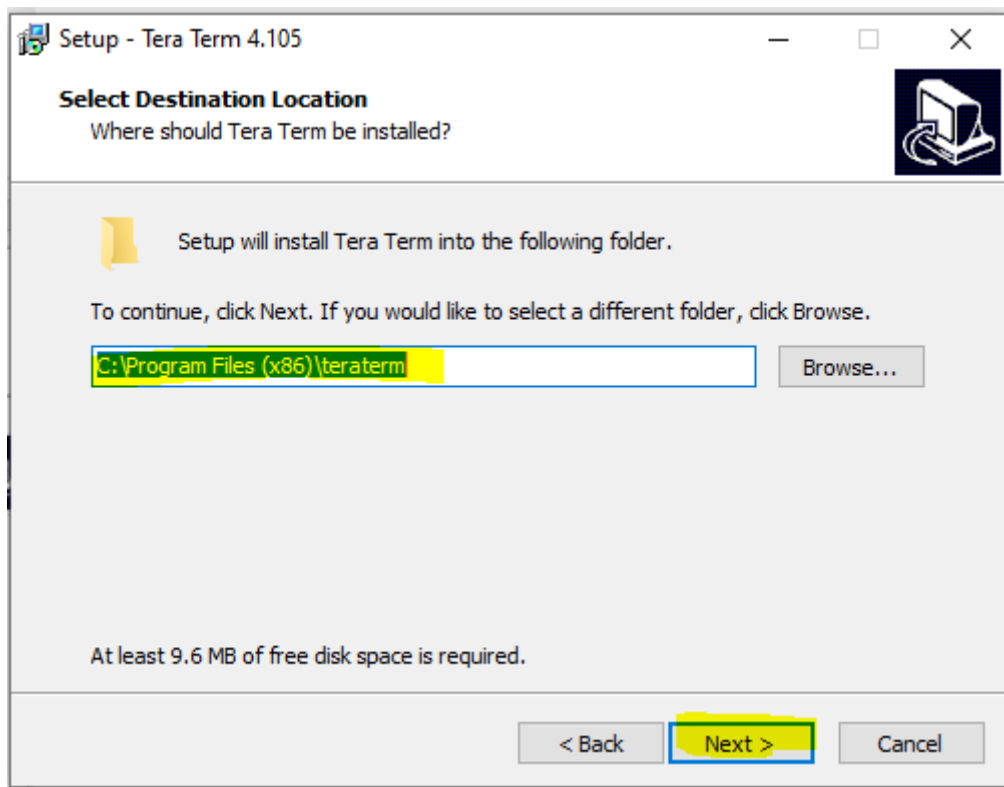
You will next see this:



Click on the **I accept the agreement** option and click Next

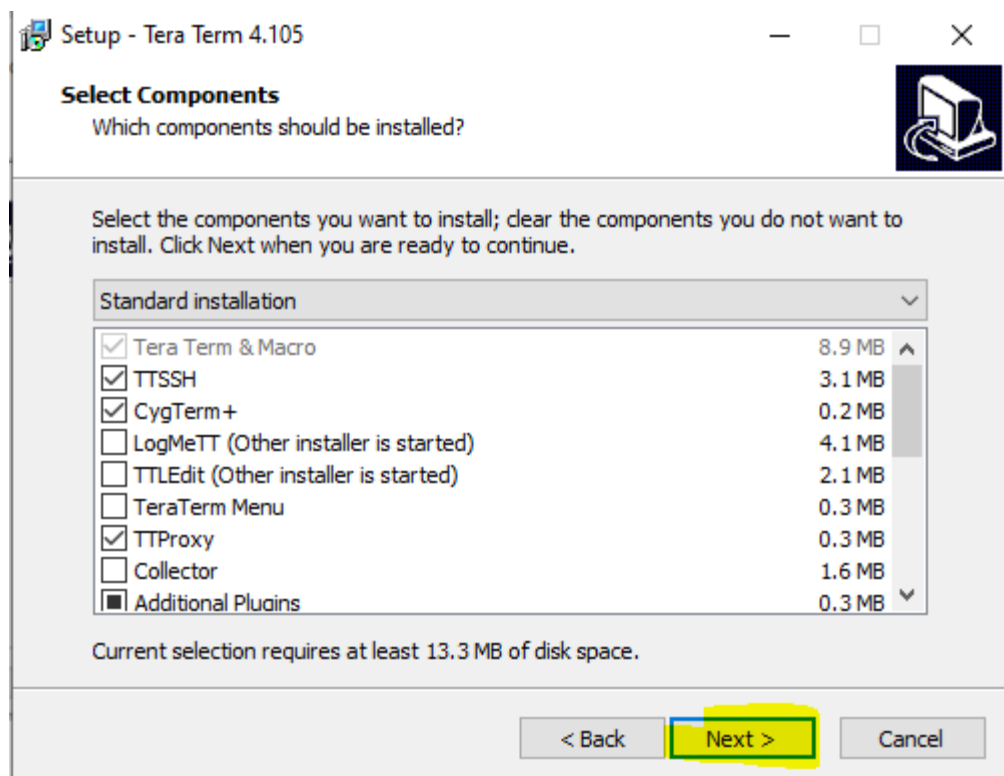


You will be given the option to accept the default installation location or Browse for a new one:

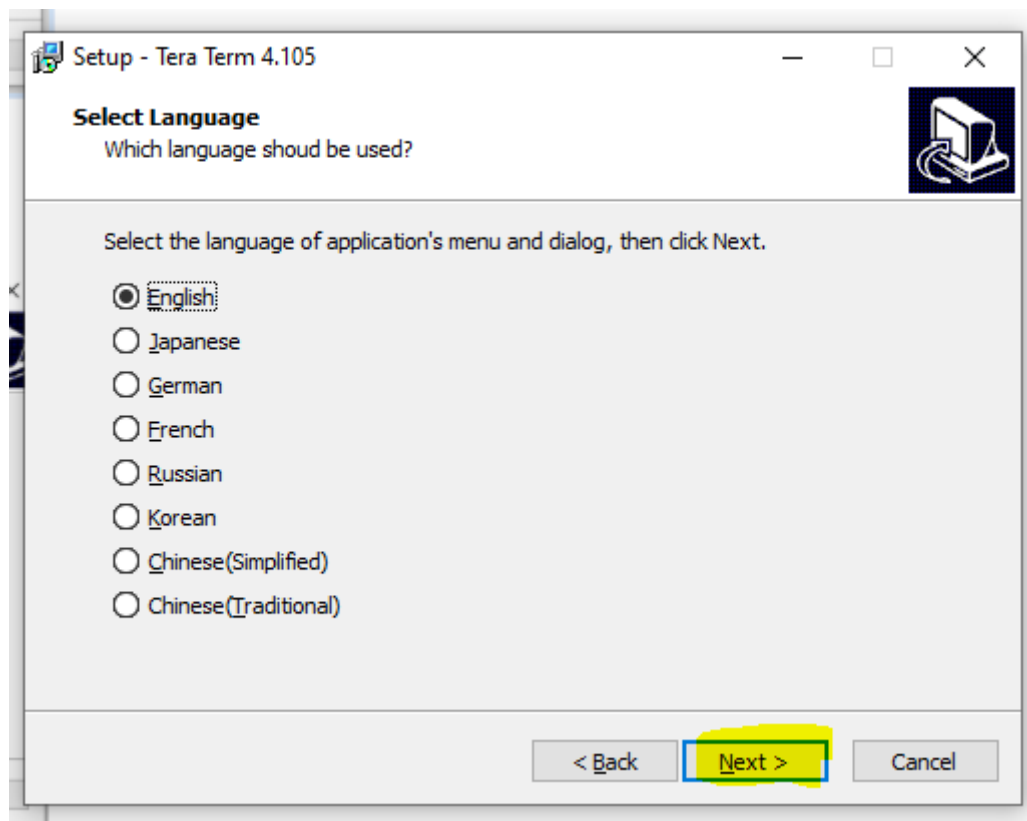


Click Next

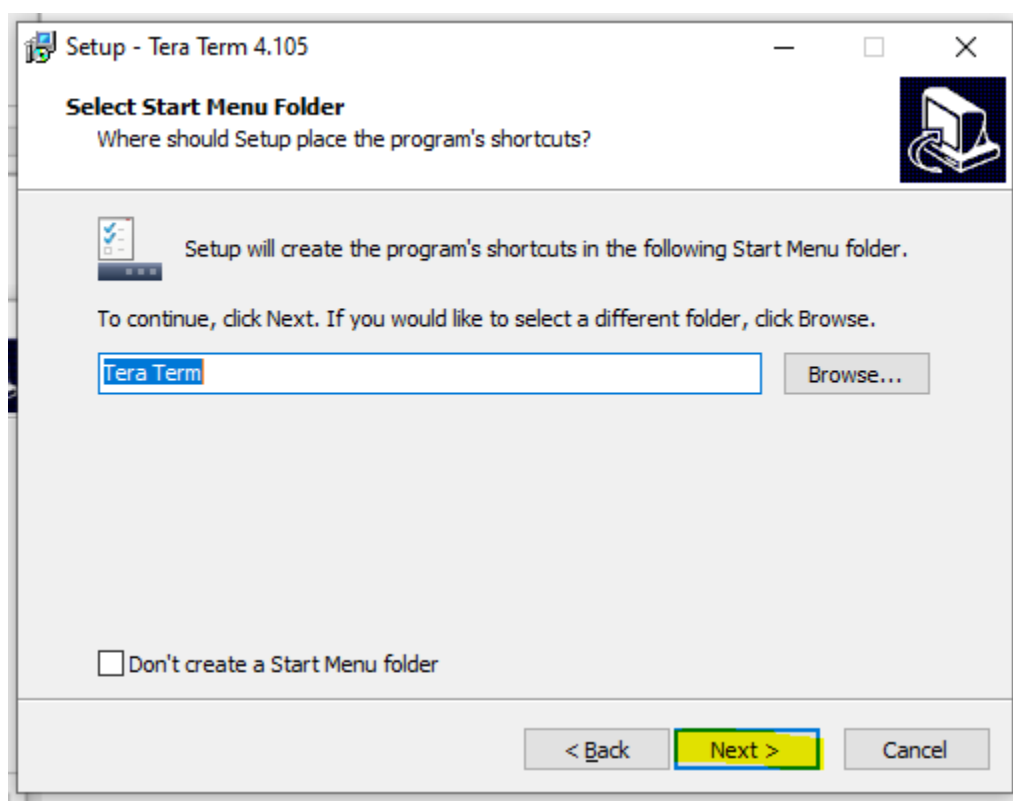
Accept the defaults and click Next



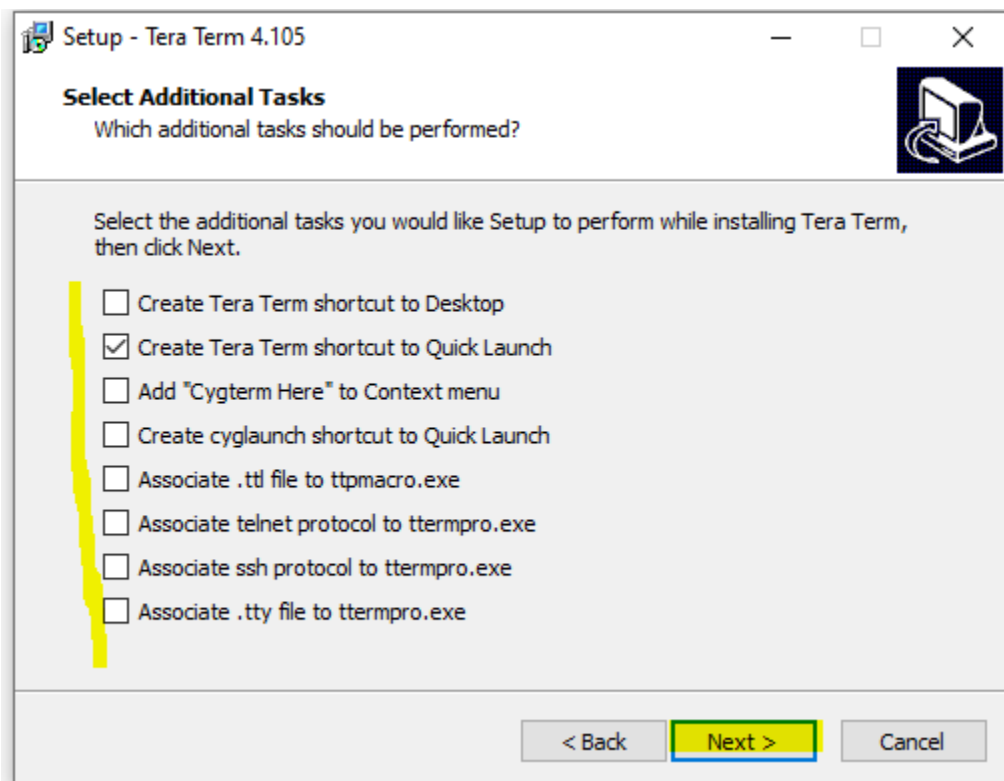
Select Language and click Next



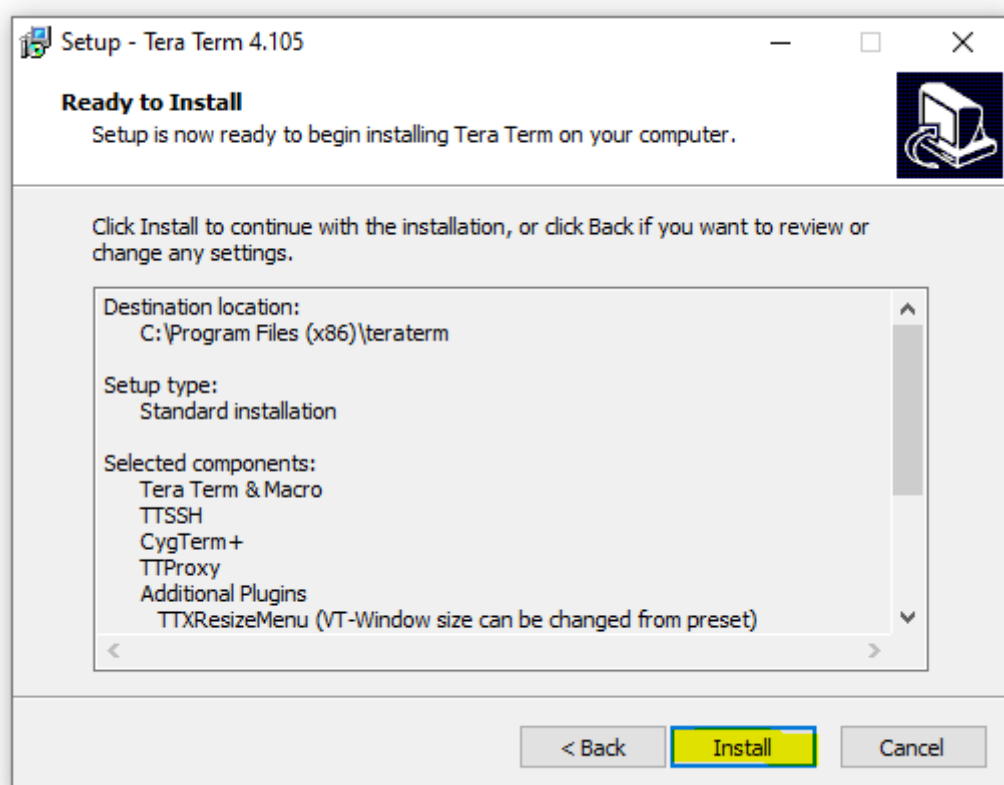
Select default or Browse for Start Menu Folder and click Next



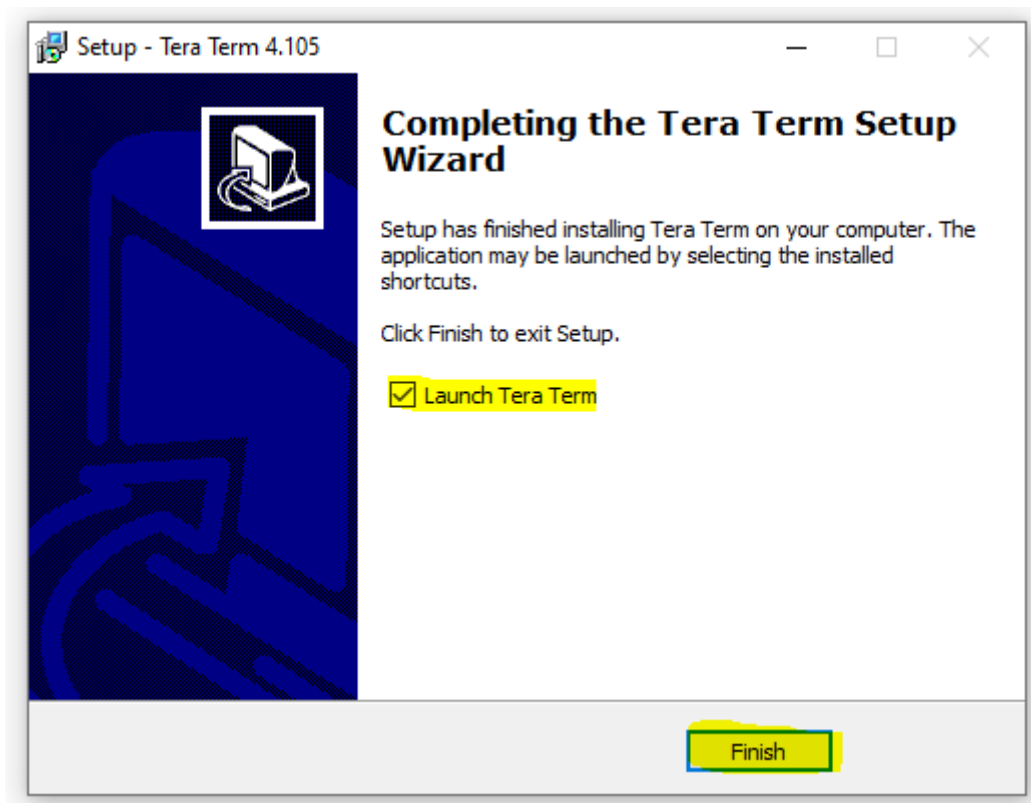
Select additional tasks/options and click Next



Confirm installation options and click **Install**



Select Launch Tera Term and click Finish

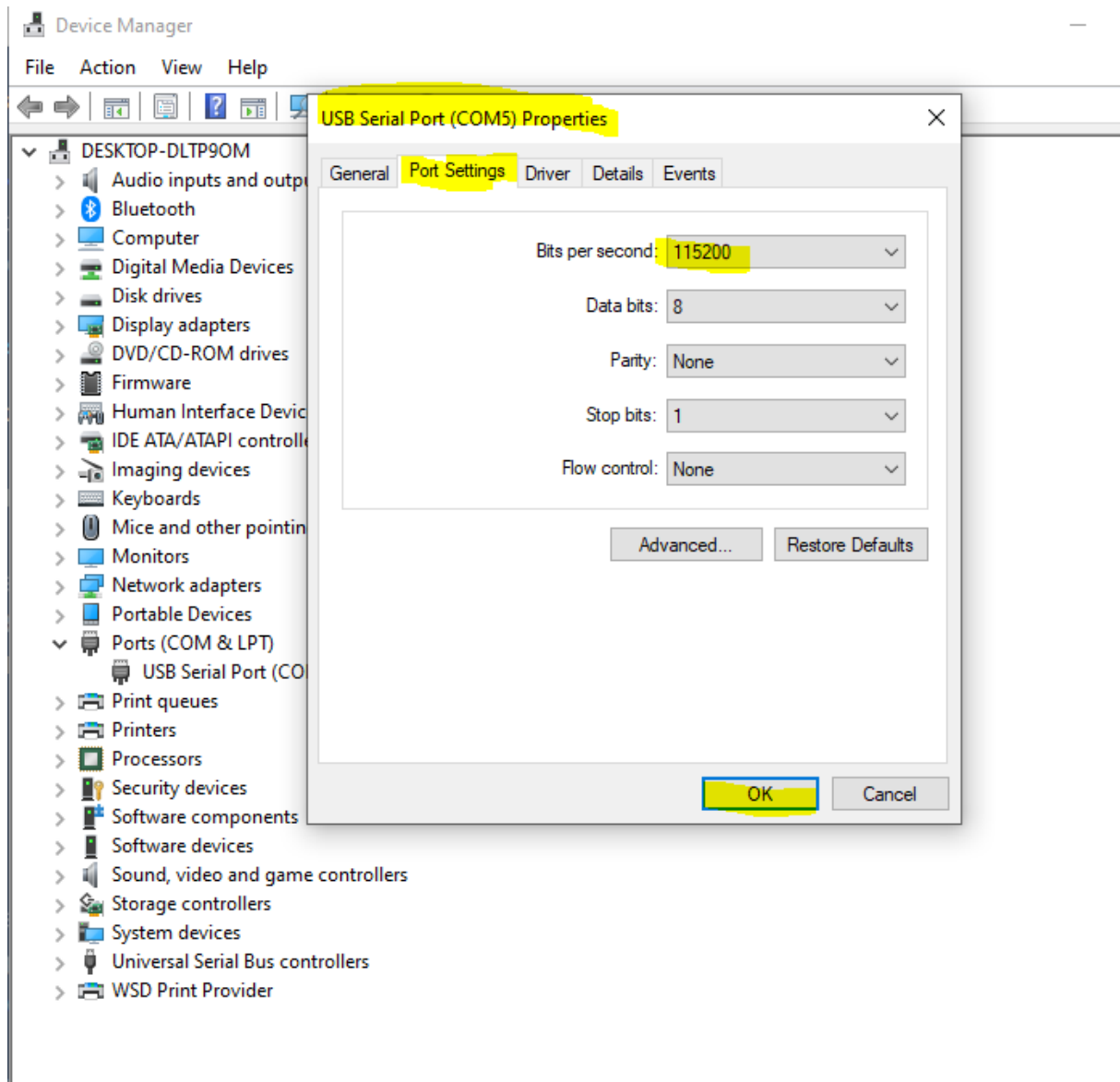


3.2 Confirm your COM Port

Open **Device Manager**, Click on **Ports (COM & LPT)**

Observe Port number -- **Right-click** on the **USB Serial Port (COMx)** --x is the Com Port Number.

Select **Properties**, then **Port Settings**. Confirm Bits per seconds is **115200**. Click **OK**

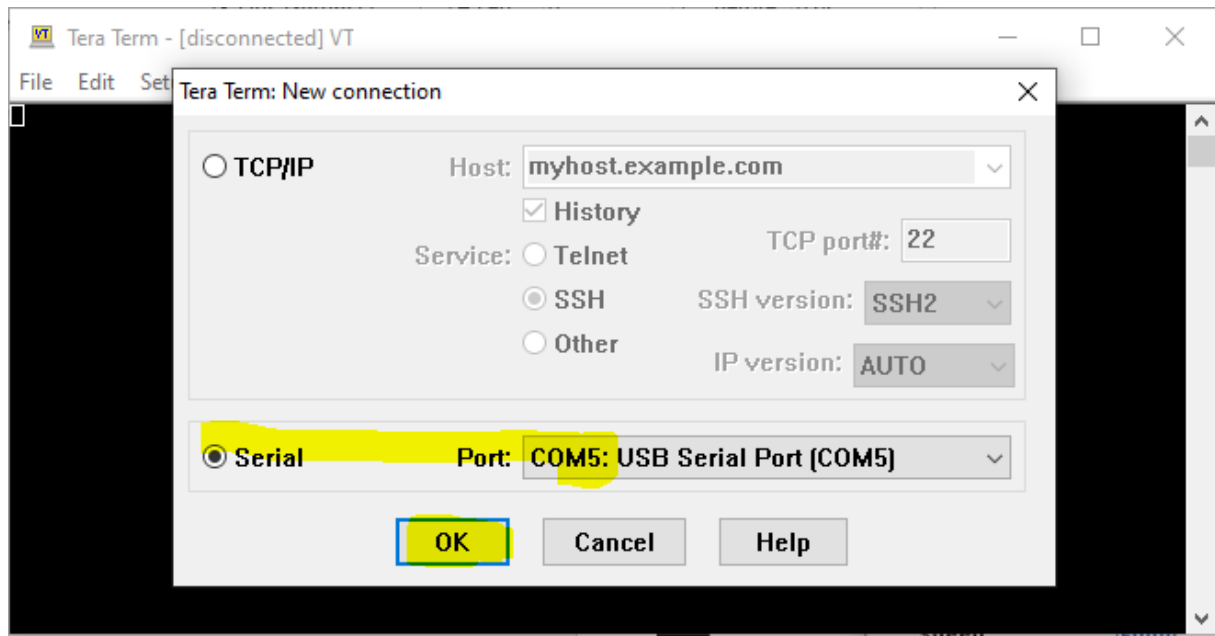


3.3 Configuration of TeraTerm

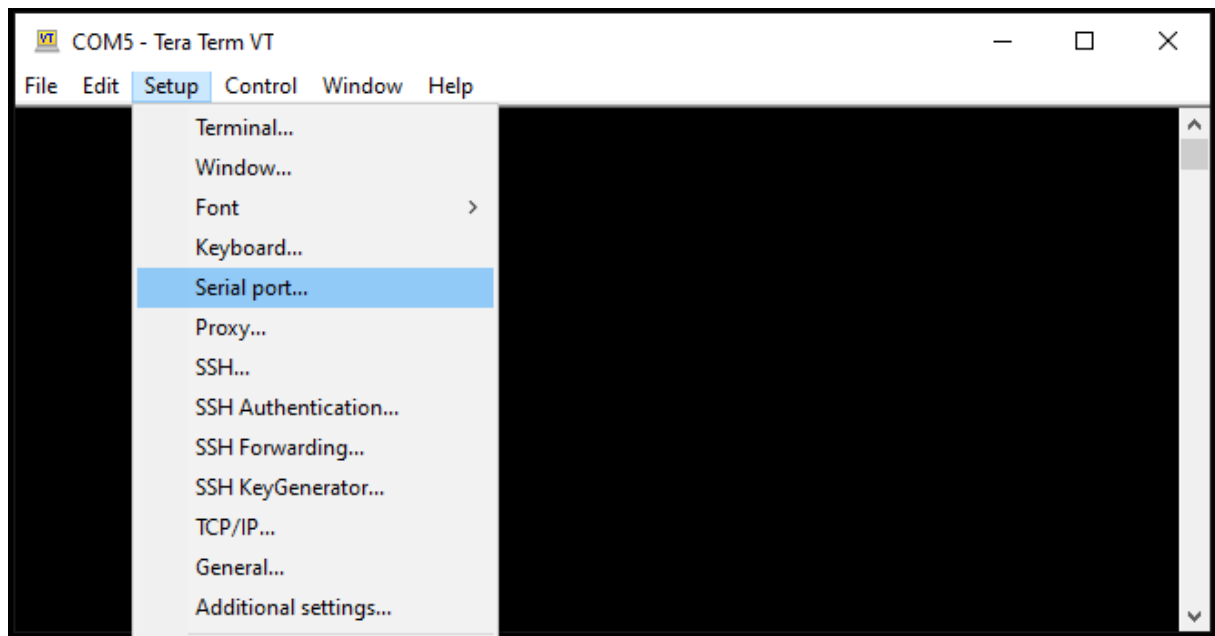
a) Select the serial port:

From the upper bar, select File/New Connection and then when the panel opens, the serial radio button.

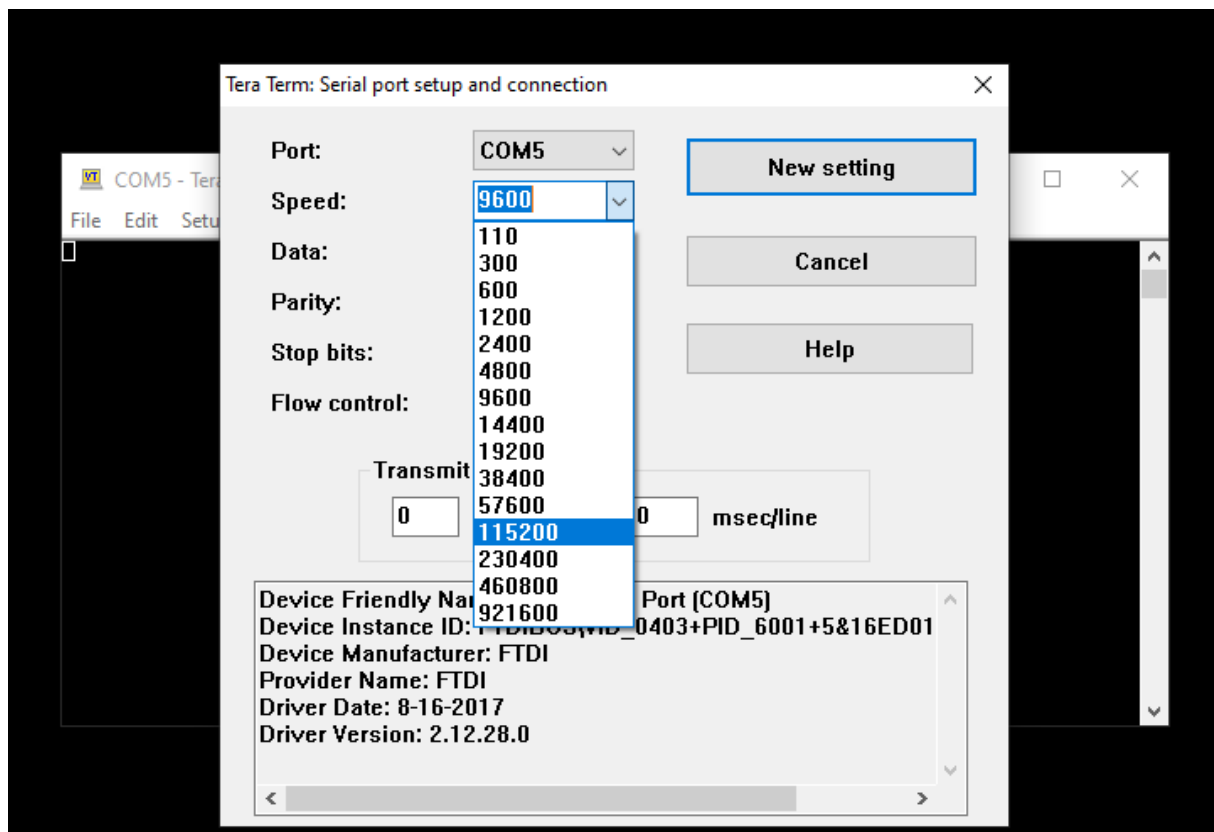
This is where we enter the com port (COM5 in the below case, yours could be different) which we saw in Device manager earlier – select it from the list of available ports from the drop-down list.



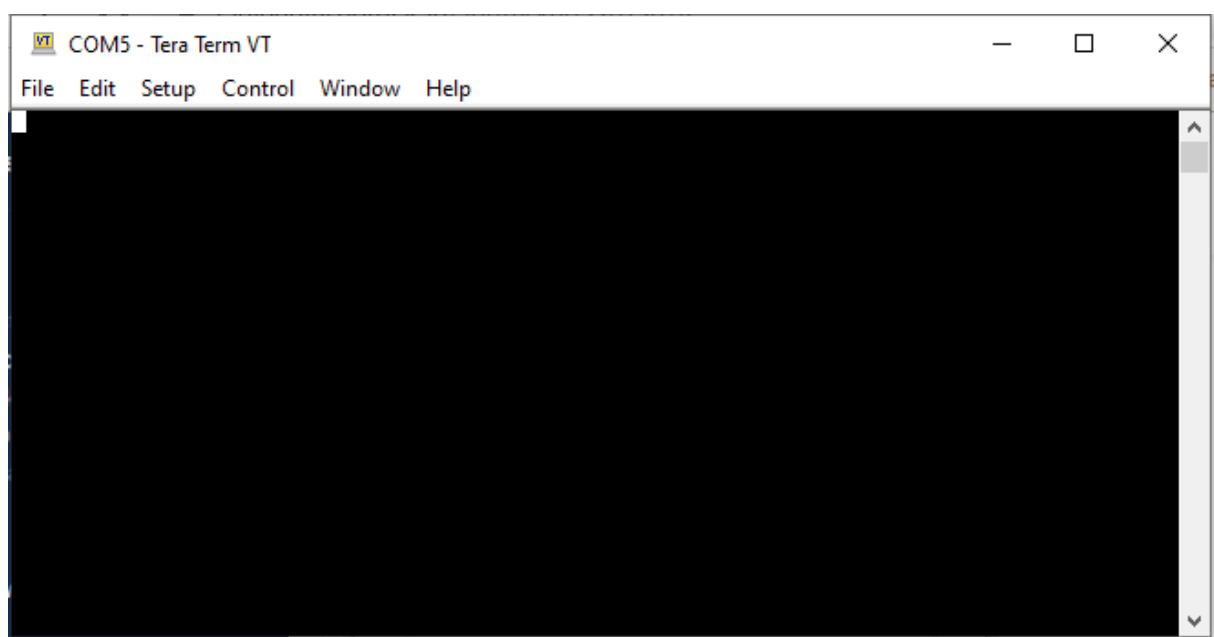
b) Now we set the communications baud rate: Select Setup/Serial port.



Confirm the Speed is **115200** Click **New Setting**



c) We are now presented with the main terminal window:



d) Now with G90 connected to a 13.8 Volt DC Power source capable of at least 6 amps current capacity, we start the G90 and want to enter the maintenance menu:

If updating from an early version of firmware to the current version press the space bar within the first 10 seconds of the start-up. If a normal boot occurs try again with the space bar on the computer held down and with the terminal program “having focus” i.e. selected.

If updating from a recent version of firmware press the volume button on the radio as you turn the radio on. Again, if this fails, try the process holding the space bar down and powering the G90 on.

Both of these actions interrupt the normal booting procedure and present you with a menu as shown below.

Why?

HOLD SPACEBAR DOWN and press G90 Power Button

(for G90 radios with Serial Numbers not containing the letter V as the prefix)

Press Volume Knob and power-on the Display Unit

(for G90 radios with Serial Numbers containing the letter V as the prefix (ONLY those containing a V as the first character of the Serial Number))

e) The firmware update menu will appear:

(When updating the main unit, there is a count-down timeout during which time you need to press 1 – when updating the display unit, there is no timeout, it waits for you).



Step 1: Press 1. Update FW

Step2: “Erasing.. 100%” and “Wait FW file...” will be displayed – the old firmware in the radio has now been erased and the menu is waiting for you to supply the new firmware code.



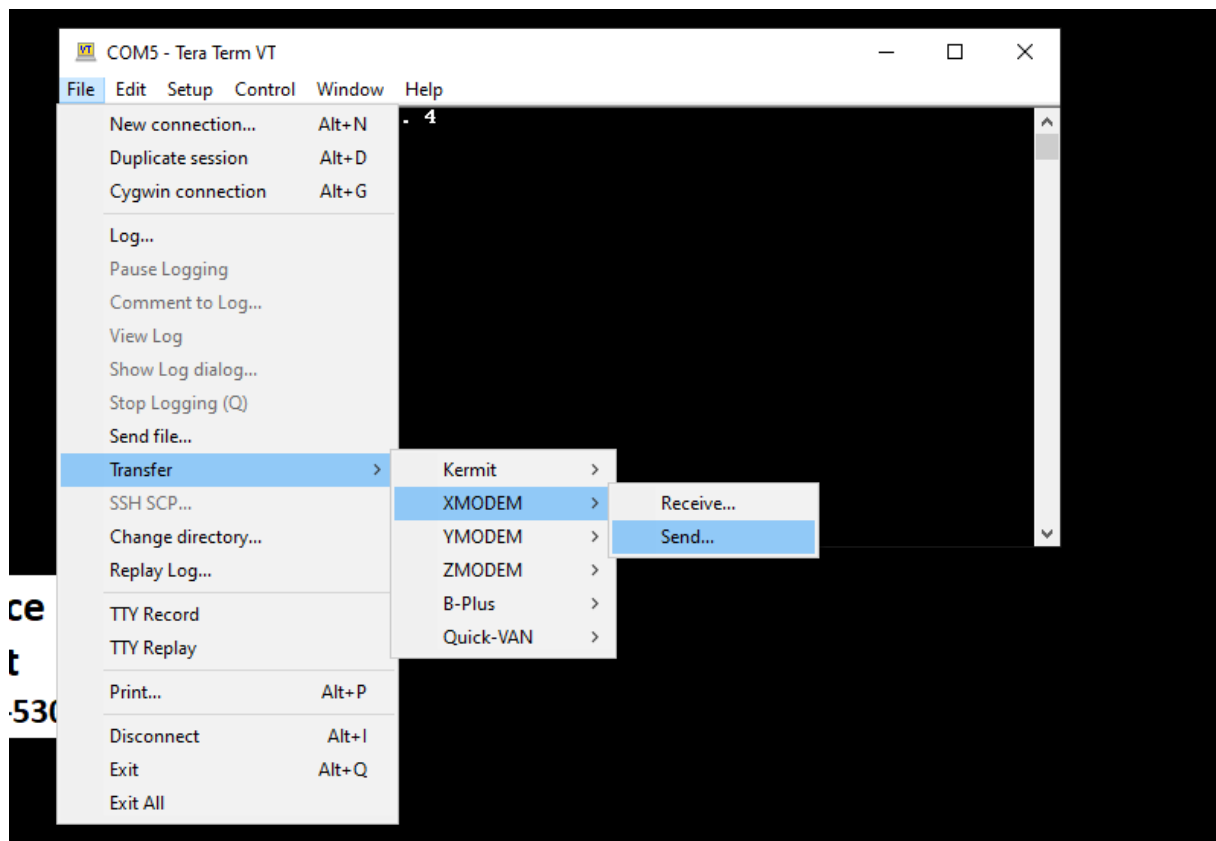
```
COM5 - Tera Term VT
File Edit Setup Control Window Help
Hit a key to abort bootting.. 4
XG Bootloader
1.Update FW
2.Exit
Erasing..21%
```

When the old firmware is erased and the message displayed is **Wait FW File**,

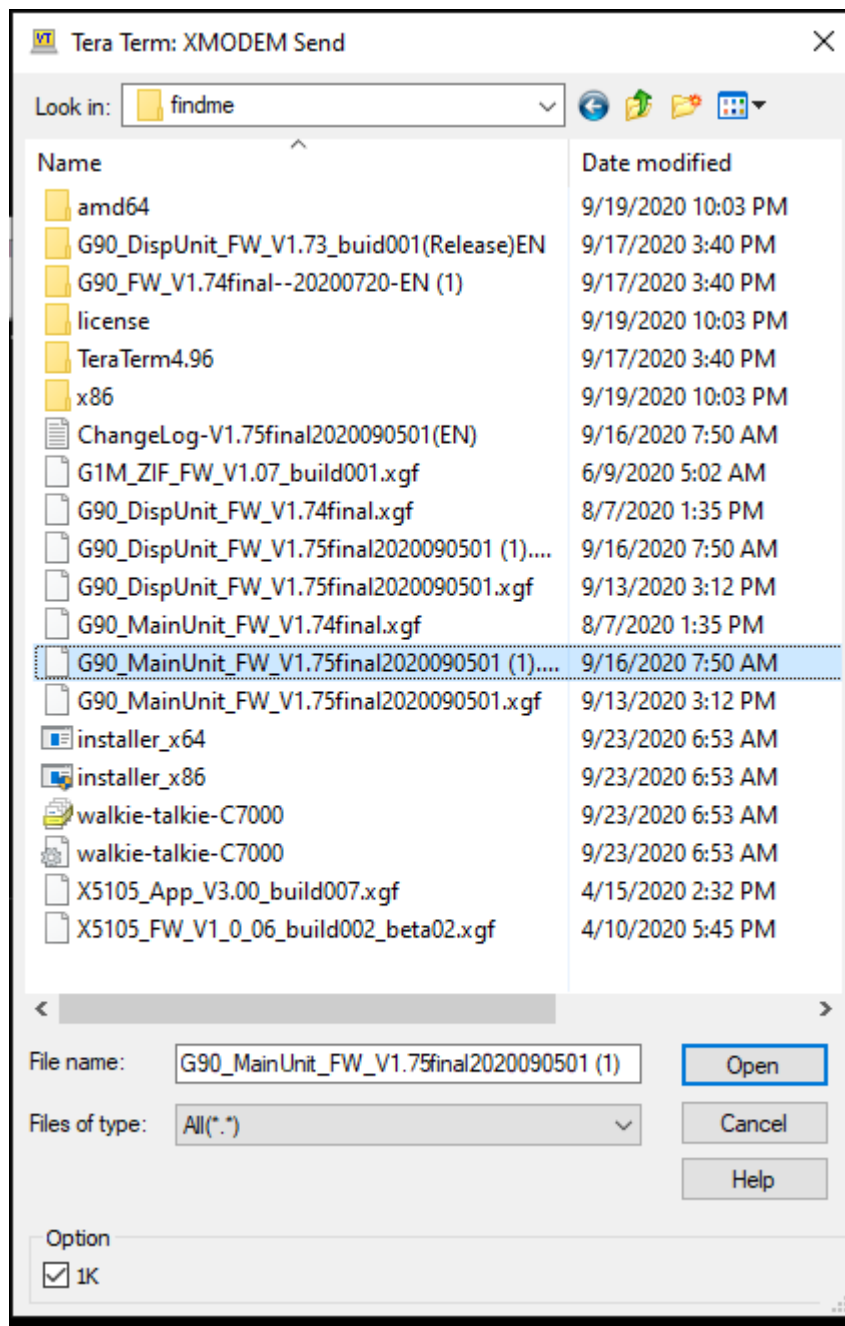


```
COM5 - Tera Term VT
File Edit Setup Control Window Help
Hit a key to abort bootting.. 4
XG Bootloader
1.Update FW
2.Exit
Erasing..100%
Wait FW file...
C
```

f) In Tera Term Click File → Transfer → XMODEM → Send In that order

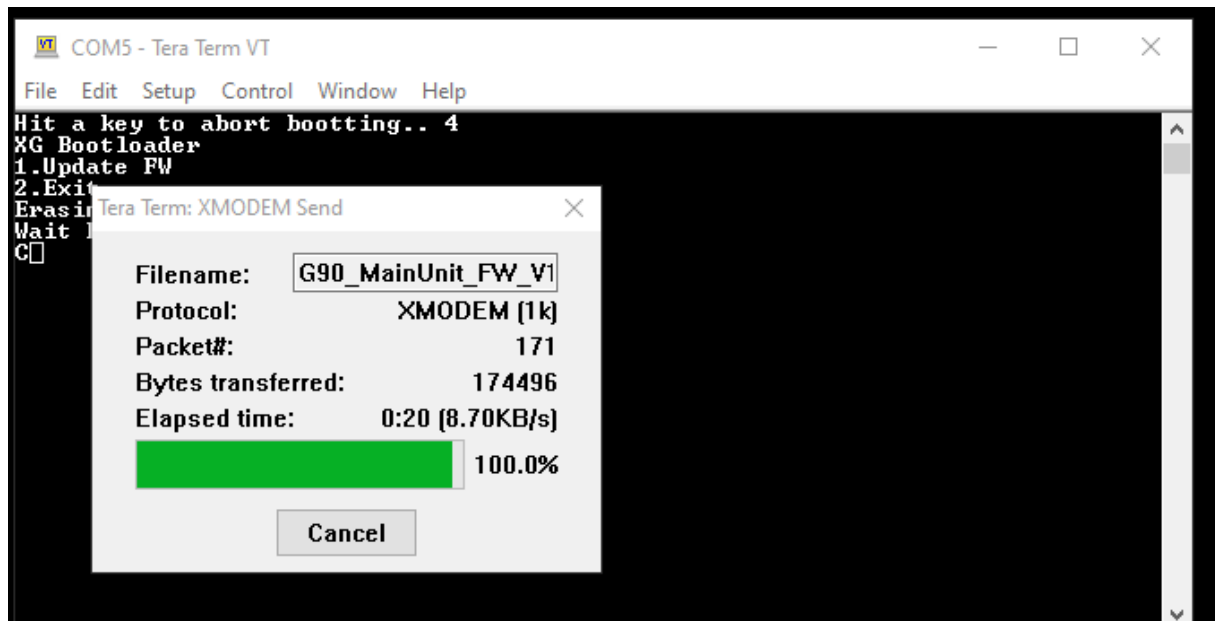


Select **Main Unit** firmware update file (download the latest G90 firmware), click Open

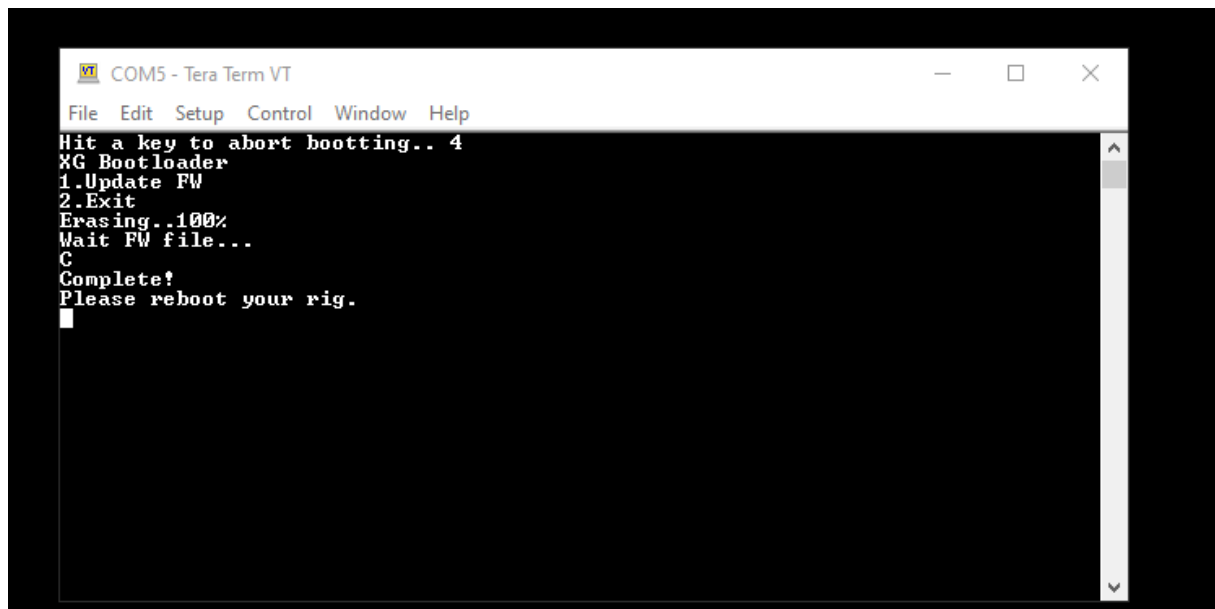


Check the 1K Option Box The transfer will not work if you do not do this!

g) The transfer will start loading



h) Wait until the transfer finishes



Once the transfer has successfully completed the G90 will restart automatically.

i) If you need to update both parts of the radio (head and main units)

Remove power count to 5 and reconnect power

Remove the plug from the rear and insert in the lower left-hand socket on the Display Head

If updating from an early version of firmware to the current version press the space bar within the first 10 seconds of the start-up. If a normal boot occurs try again with the space bar on the computer held down and with the terminal program “having focus” i.e. selected.

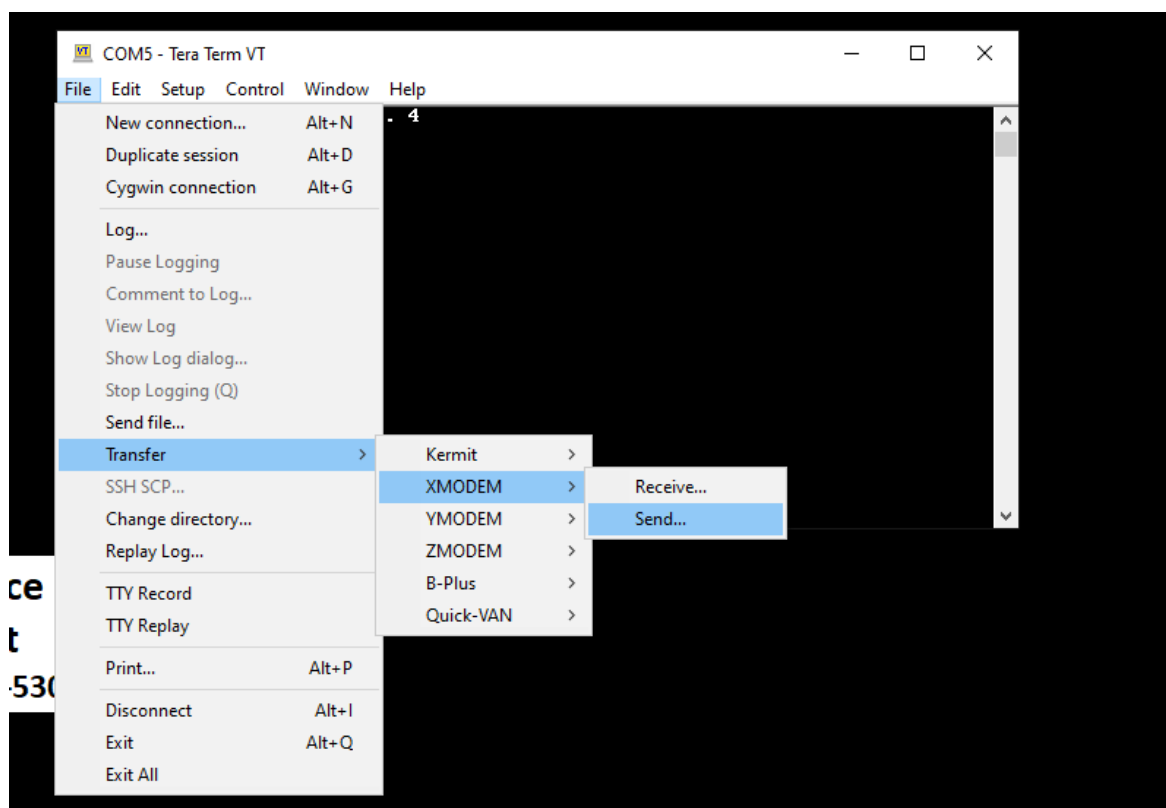
If updating from a recent version of firmware press the volume button on the radio as you turn the radio on. Again, if this fails, try the process holding the space bar down and powering the G90 on.

Both of these actions interrupt the normal booting procedure and present you with a menu as shown below.

Select **1 Update FW**

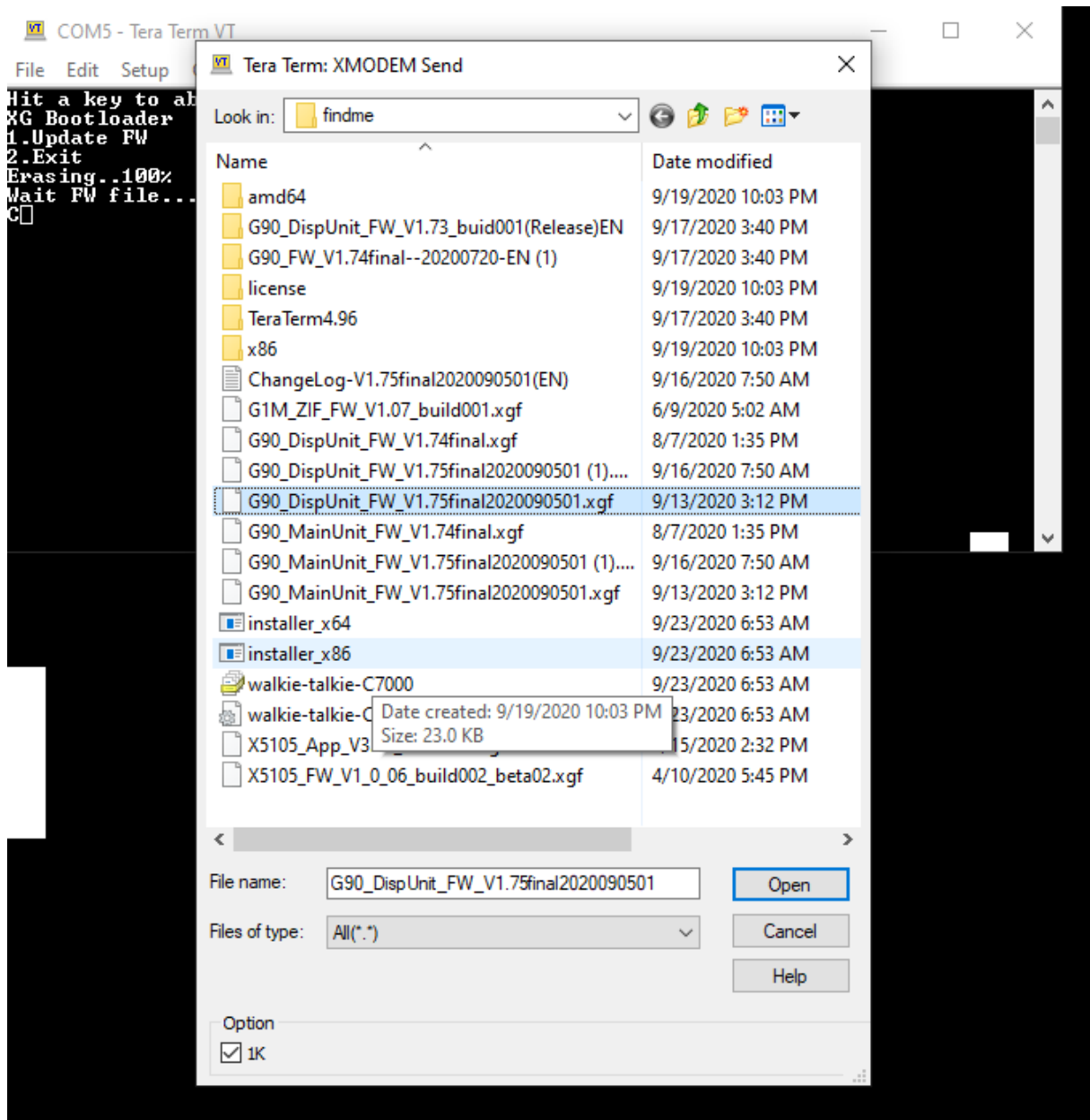
When the TeraTerm displays **Wait FW File**

In this order, select : **File > Transfer > XMODEM > Send**



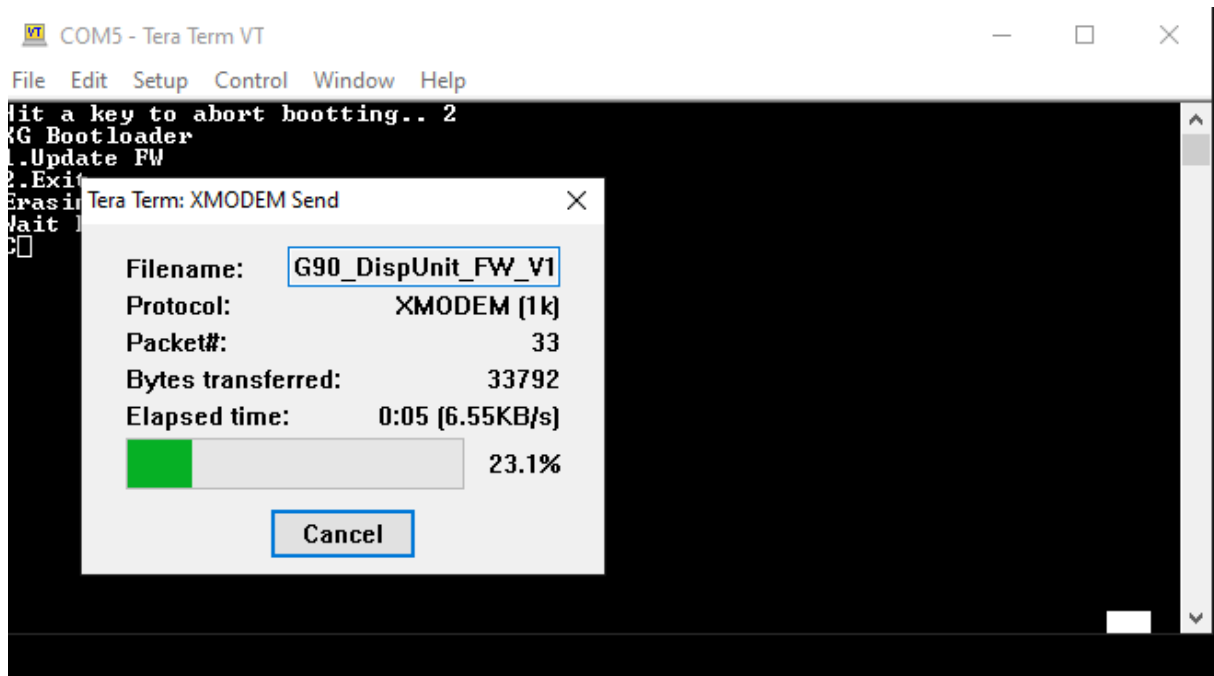
Select **Display** Firmware file

Place a Check mark in the 1K Box

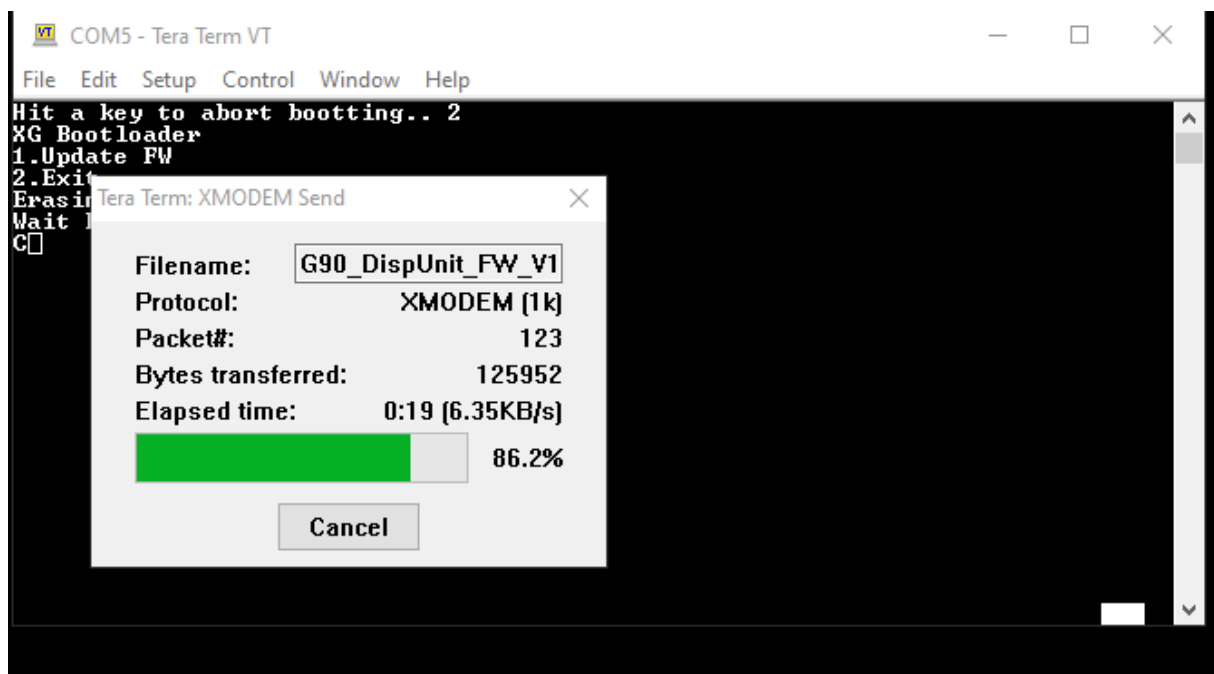


Click Open

Loading.....



Loading.....



IGNORE THE LOST COMM Message if it appears

On Completion, **remove power from the G90 and count to 5**

Re-Connect power to the G90. turn radio on.

j) After restarting the radio, hold Function button in for 2 seconds, check the firmware levels through option 10 in the system menu.



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