



XIEGU G90 Compact 24 Bit SDR TRANSCEIVER

0.5...30 MHz (RX) / 1.8...30 MHz (TX)

# How to update the Xiegu G90

Extract of Radioddity Extended manual  
for Xiegu G90

V1.0.0, July 10<sup>th</sup> 2025

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## About Radioddity

### 'You, our friend and customer, are our focus'

At Radioddity, our customers are important to us. As a customer, your time and money are important to you. When you buy radios online, you face a dilemma: buy from a reputable website at a higher price, or try to save money by choosing a retailer that may not offer quality goods, service or advice. At Radioddity.com, you don't have to choose between low prices and a safe shopping experience. Whether you are a first-time shopper or an experienced radio amateur, we always do our utmost to ensure that you get the best possible value for money. Over the past few years, Radioddity has continuously strived to better meet the needs of wireless equipment buyers and has become a reliable partner. We do this by offering the highest quality products at an affordable price and by providing you with first-class support after-sales support as well warranty cover. Because as our customer, you deserve nothing less.

### Our promise: To offer you the best shopping experience

Strong partnerships enable us to offer you the latest technologies with an excellent price/performance ratio under the Radioddity brand name. Our experienced and responsive customer service team helps us to deliver on our promise to you and better meet your everyday needs. Whether it's offering you the latest and greatest DMR, HF and analog radios, accessories and related products, providing outstanding technical support or working with amateur radio industry leaders to develop helpful content to assist you with your purchase: Your concern is our concern. We want to provide you with quality radios at great prices. If you feel we are not delivering on this promise in any way, please let us know by e-mail:

[support@radioddity.com](mailto:support@radioddity.com)

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## 1 Preface

This document is an extract of the Radioddity extended manual for the G90. The extract is purely focused on updating the Xiegu G90 only. You can order the complete 130+ page manual via [www.radioddity.com](http://www.radioddity.com).

Support is available via [support@radioddity.com](mailto:support@radioddity.com). If you find something in this document that should be corrected or added, please let us know via the same e-mail address.

Xiegu™, Windows™, Linux™, OS X™ and Anderson™ are trademarks of their respective owners. If a trademark assignment is missing, incorrect or erroneous, please contact us as soon as possible so that we can correct this immediately.

**Note:** *Throughout this document 3<sup>rd</sup>-party software is mentioned. Radioddity can not provide any support on such 3<sup>rd</sup>-party software.*

## 2 Revision history of this document

We are constantly striving to update our manuals in line with changes resulting from manufacturer's new firmware versions. If you miss an aspect in this document or believe that something has been described incorrectly or misleadingly, please give us feedback via our central e-mail address [support@radioddity.com](mailto:support@radioddity.com). We will do our best to make the next version of this document even better for our customers.

revision	changes	released
V1.0.0	<ul style="list-style-type: none"><li>• First version, based on the July 2025 version of the Radioddity extended manual for the Xiegu G90.</li><li>• <b>This version is based on APP V1.80b02 and BASE V1.80 firmware.</b></li></ul>	2025-07-10

### 3 Updating the Xiegu G90 firmware

The base unit as well as the display unit are updated separately from each other. Updating is relatively easy and just requires a terminal program that is capable of doing XMODEM transfers with 1k block size.

**Note:** *The Xiegu G90 must be connected to a stable 13.8V power supply during the entire update process in order to update the firmware. Before you start the update process, perform a factory reset of the Xiegu G90. After the update has been completed, turn off the radio again, power it on and apply once more a factory reset*

#### 3.1 Check installed firmware versions

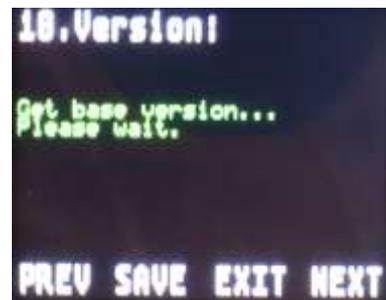
1. To check which current firmware versions are installed on your XIEGU G90, long press the [FUNC] button  to enter the system menu. You will see the first submenu for 'Handle Up Down'.



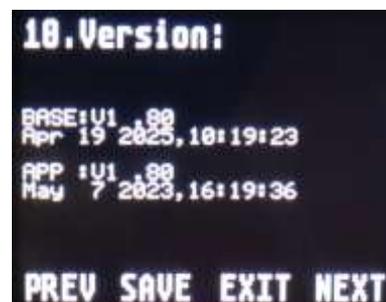
2. Now press the [PRE] button  momentarily to navigate to the 'Version' submenu.

3. When this function gets triggered, the initial display will state:

**Get base version ...  
Please wait.**



4. Shortly thereafter the current version details will be displayed.



**Note:** *Only the full version number is shown, such as 'V1.80'. Any suffix such as 'b01' will not be shown. However by using the date and time of the firmware you can look up the full version details section 4 'Firmware release notes'.*

## 3.2 Perform factory reset before update

It is very important to perform a factory reset before and right after a firmware update.

1. With the radio off, press and hold the [FUNC] button  in and press the [POWER] button  quickly on the radio to start the restoration of factory settings.
2. Press the [PRE] button  to confirm the reset. Press the [VM] button  to cancel the operation.

This assures that internal memory locations that might be used for storing a different parameter in a future firmware will not interfere with those.

## 3.3 General preparation for update process

To update the base unit or the display unit you need:

1. Xiegu G90
2. USB-to-Serial cable (that came with your Xiegu G90)
3. A personal computer that supports the USB-serial cable.
4. A Terminal program, such as Tera Term, that communicates via the computer`s virtual serial port to the G90 display unit or base COMM port as appropriate.
5. A 12-15V DC power supply (capable of supplying not less than 5A)

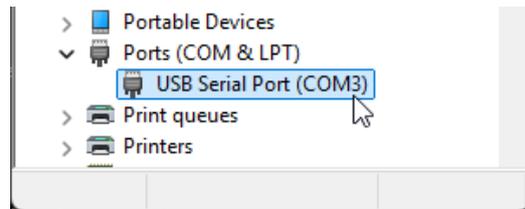
**Notes:** *macOS-users may either choose to additionally install 'Bootcamp' and Windows OS onto their MacBook or use 'g90updatefw' by Dale Farnsworth which is found at <https://www.farnsworth.org/dale/g90updatefw/>.*

### 3.3.1 USB2SER programming cable

The very first thing is to make sure that the USB-to-Serial cable is working properly with the computer. The first time the USB-side of the supplied programming 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, you will be able to see the virtual COM-port in the device manager program. If the driver file can't be automatically installed by the operating system you will need to install it manually (driver files are available from the Radioddity G90 support page).

**Note:** *Very old Xiegu USB-to-Serial cables used a Prolific Chip. Currently supplied cables use a chip from FTDI. The old cables tended to be black in colour, the current programming cables have a blue enclosure on the USB-side.*

After this action the virtual serial port and its port number will be visible in Windows Device Manager (which on the below screenshot you will see is COM3).



### 3.3.2 Obtain Tera Term

For Windows there is a free terminal emulation program that also supports the required X-modem file transfer protocol available, called Tera Term. Other programs that provide a terminal emulation and 1k block size X-modem file transfer can also be used but we recommend to use Tera Term.

You find Tera Term at:

<https://github.com/TeraTermProject>

To download the current version visit:

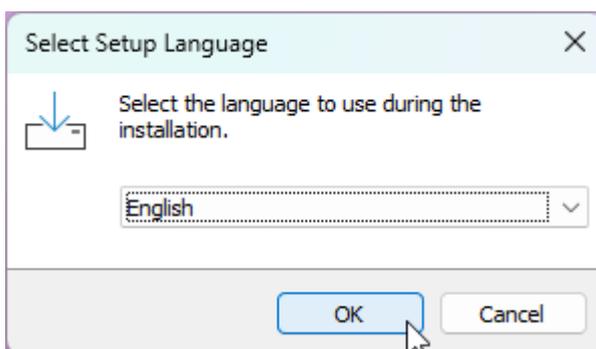
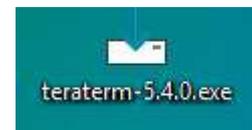
<https://github.com/TeraTermProject/TeraTerm/releases>

'Tera Term Ver 5.4.0' is the most current one.



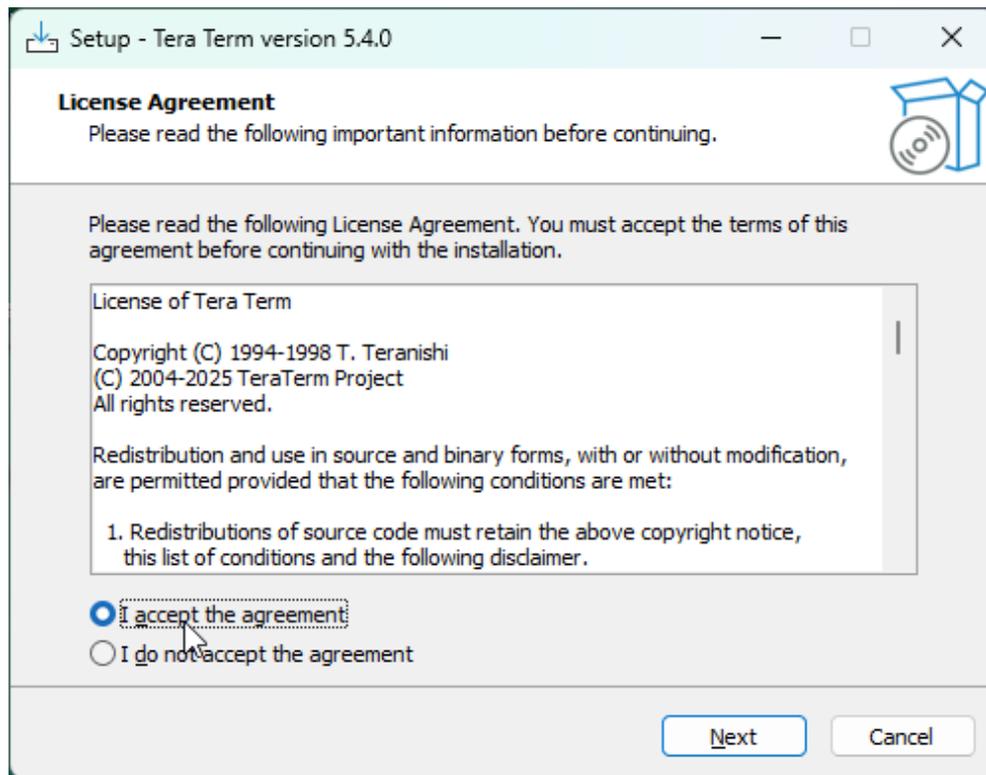
### 3.3.3 Install Tera Term

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. If you are not the administrator, you will see a login screen for the administrator where that password will have to be entered.

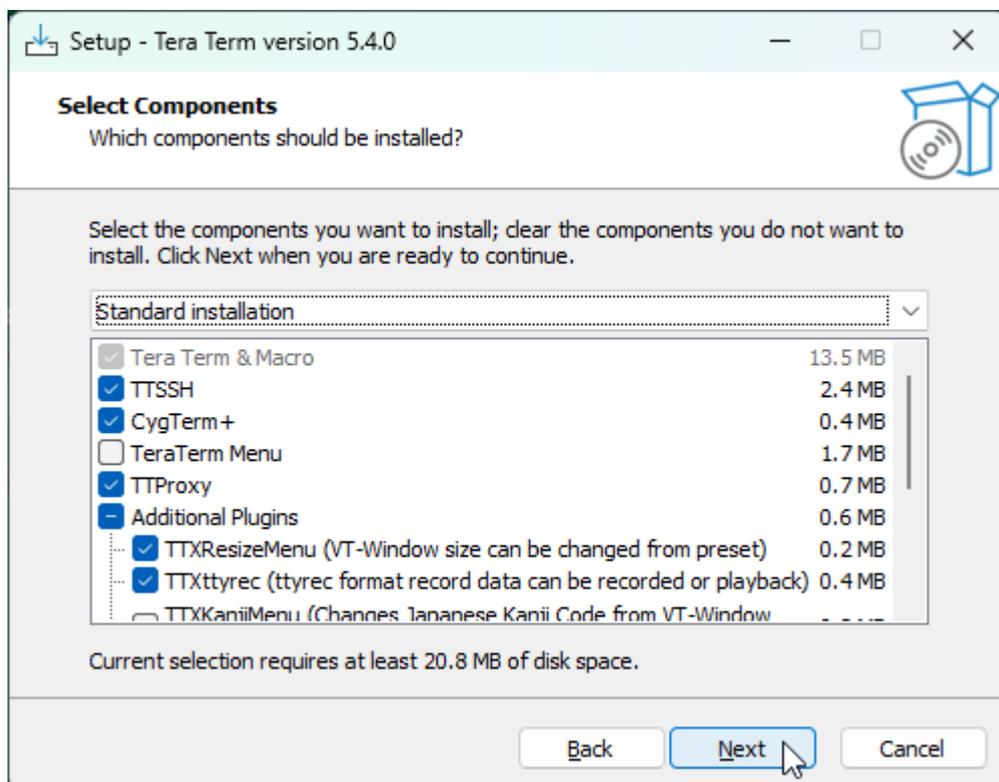


Chose the language you wish to be used during the installation process (we chose English in this example) and hit the 'OK' button.

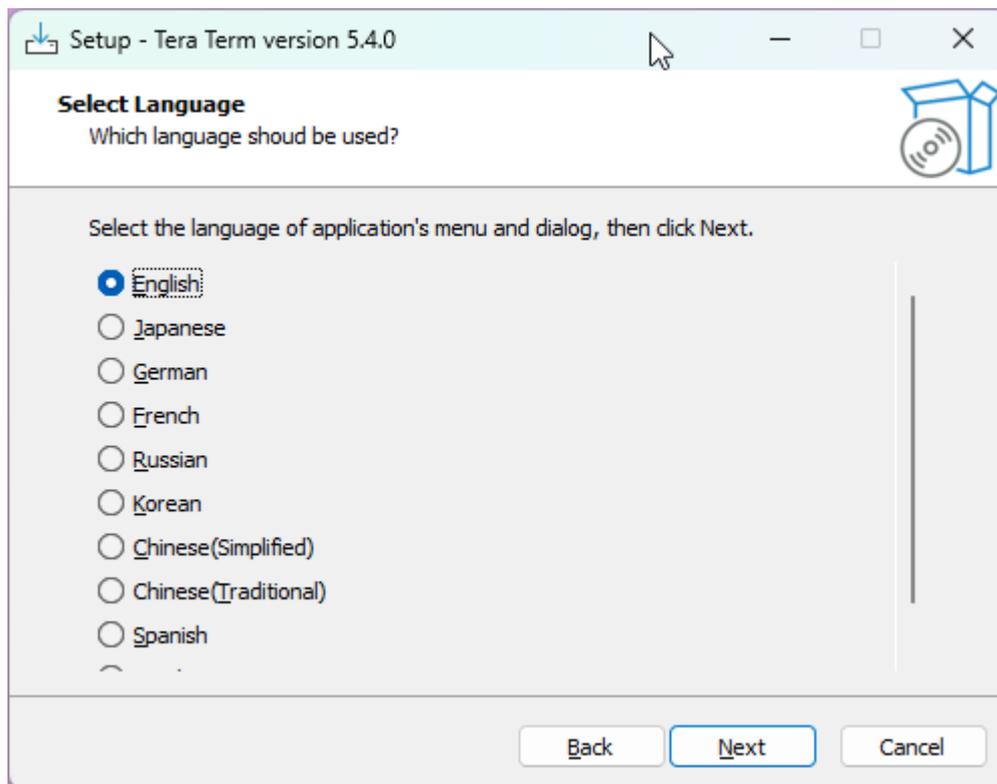
In order to be able to proceed, then select 'I accept the agreement' and click on the 'Next' button.



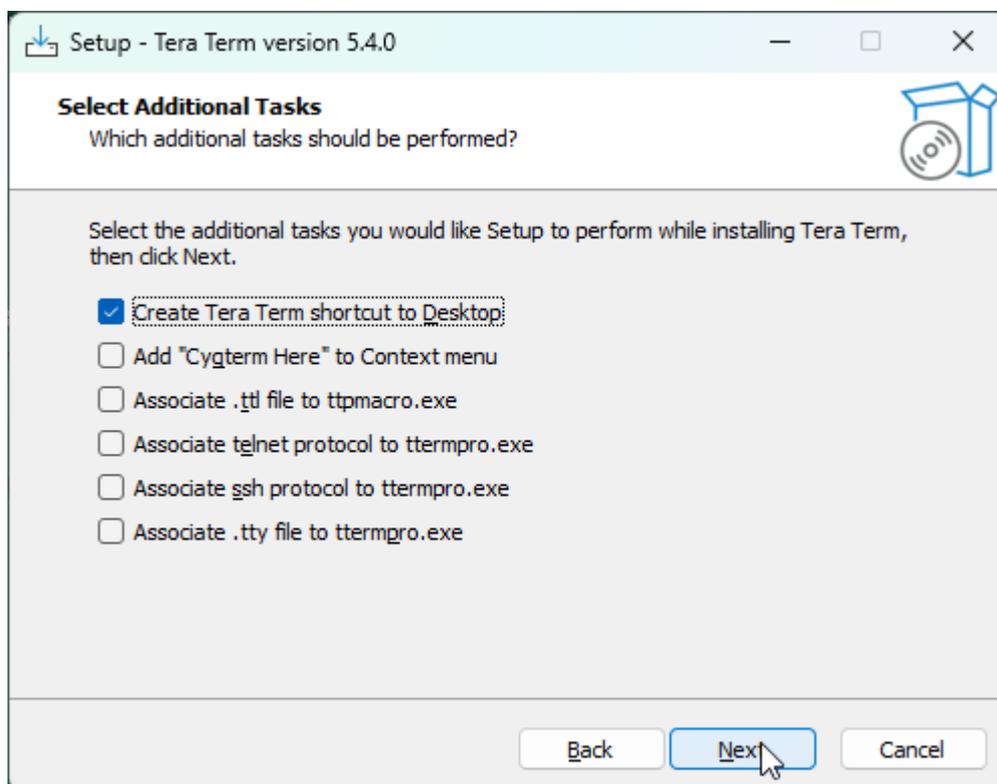
You can leave the settings on the next page as they are as you need only a very small portion of Tera Term's capabilities.



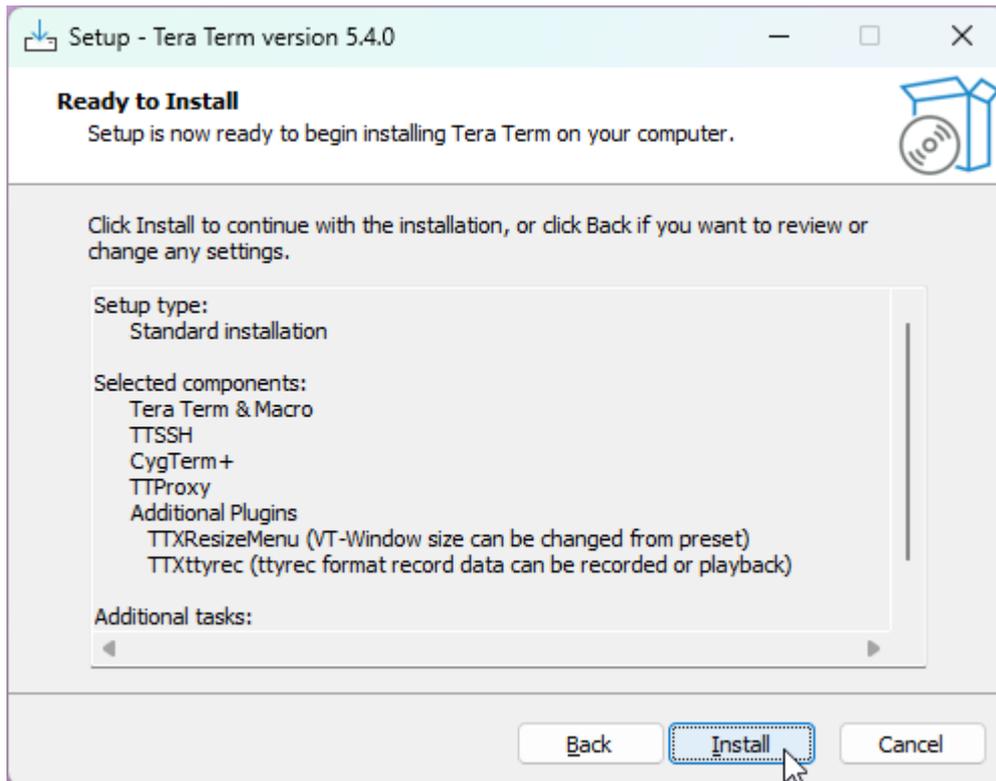
Next, you will be prompted to select the language of the Tera Term application's menu and dialogs. After you did make your selection, hit the 'Next' button to continue the installation process.



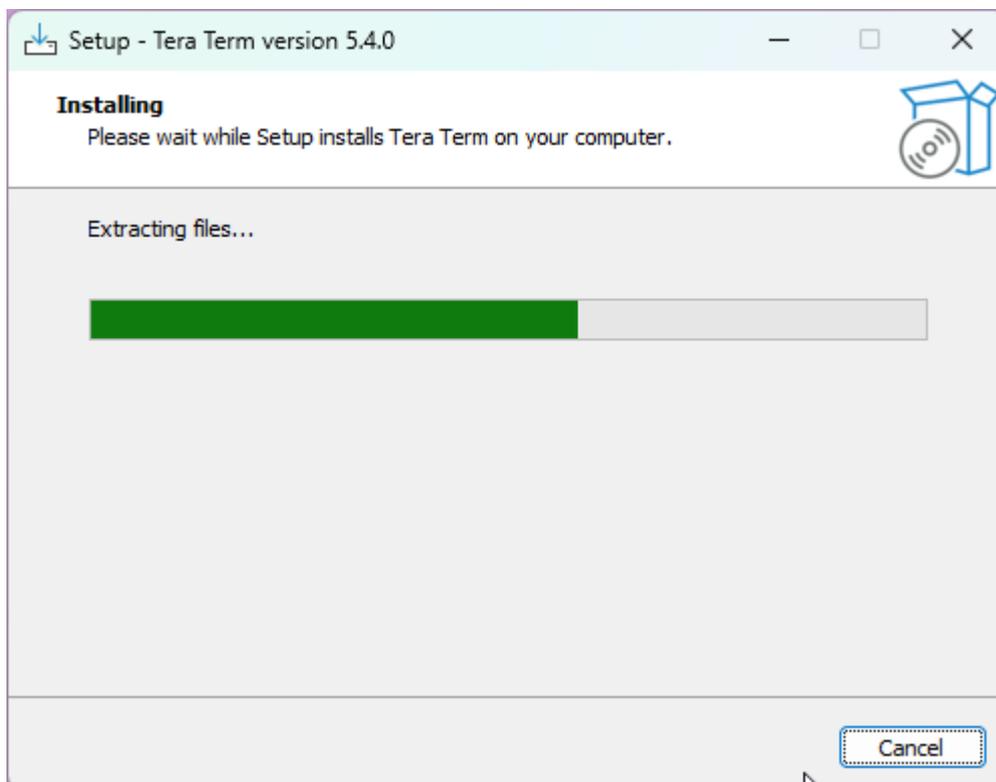
Once more you may activate additional tasks. However, the easiest is to just leave the prefilled selections untouched and just click on 'Next' to continue.



A summary of your selections will be displayed.



As soon as you confirm those by clicking on the 'Install' button, the actual installation will start.



After just a few seconds, the final installation screen will be shown and you may check the box 'Launch Tera Term' before clicking on 'Finish'.



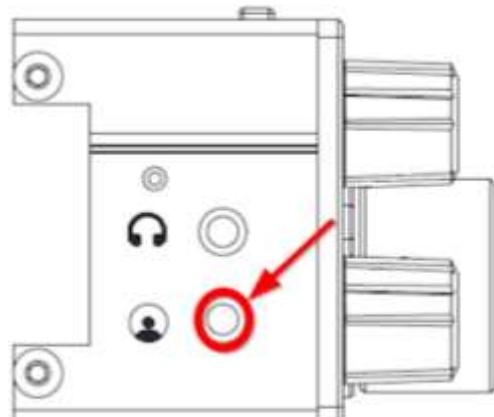
This completes the installation of Tera Term. Now you are ready to update the base unit or the display unit of your Xiegu G90.

### 3.4 Updating the Xiegu G90 display unit (APP)

With every new firmware release, new features get added or existing ones get changed. The user-interface firmware (APPLICATION) resides within the display unit. It is also referred to as the APP firmware. The firmware within the base unit is referred to as the BASE firmware.

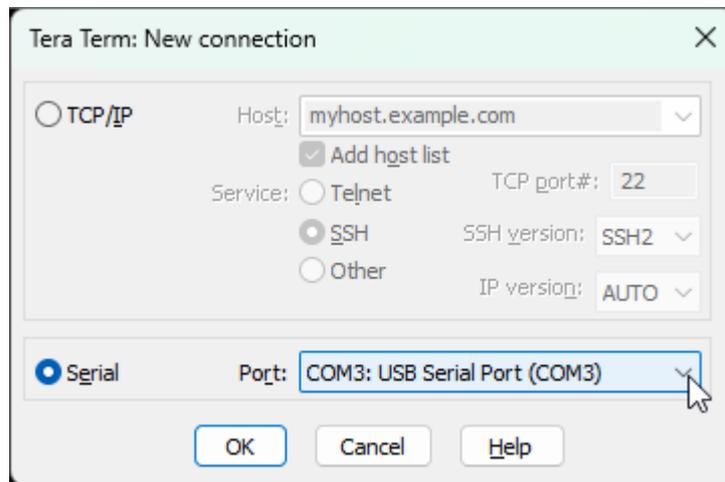
Before you start the update, prepare as described in the previous section 3.2 'Perform factory reset'.

Connect the 3.5mm TRS end of the supplied programming cable to the COMM port located on the left-hand side of the display unit. Do not use the upper 3.5mm TRS jack as that is used for earphones. The lower TRS socket is for COMMunications and is indicated by a remote operator in a circle symbol.

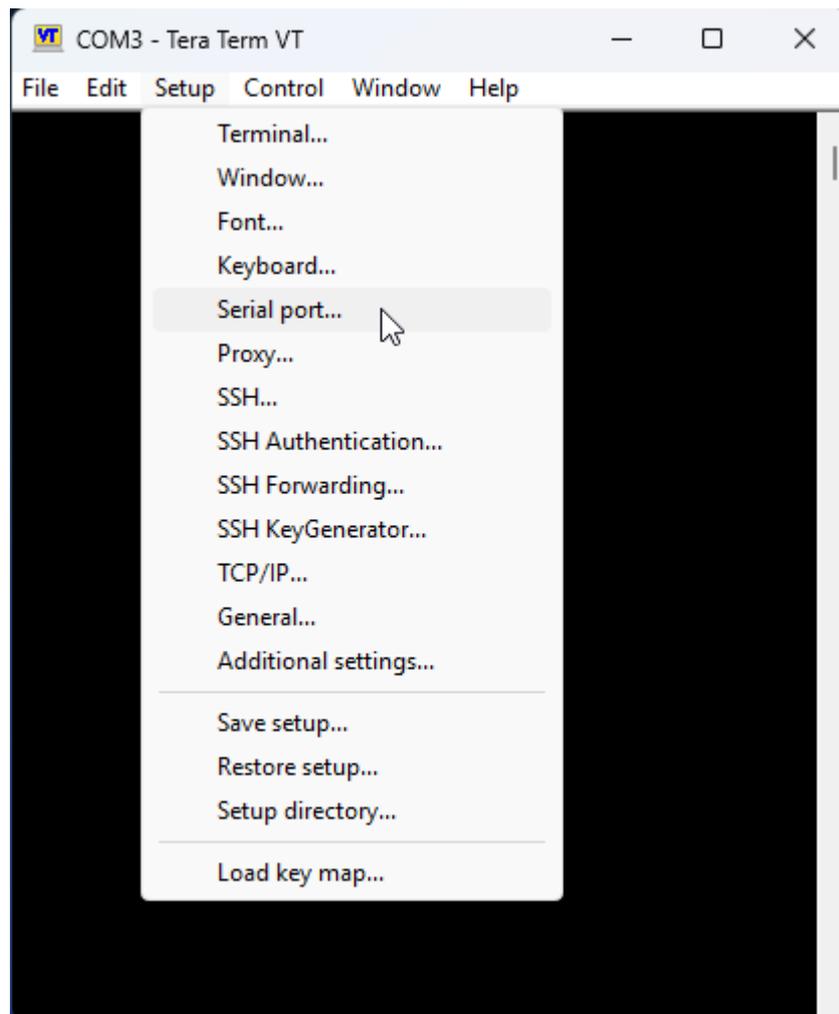


Start Tera Term, choose 'Serial' and make sure the virtual COM port that had been assigned by Windows to the programming cable is selected.

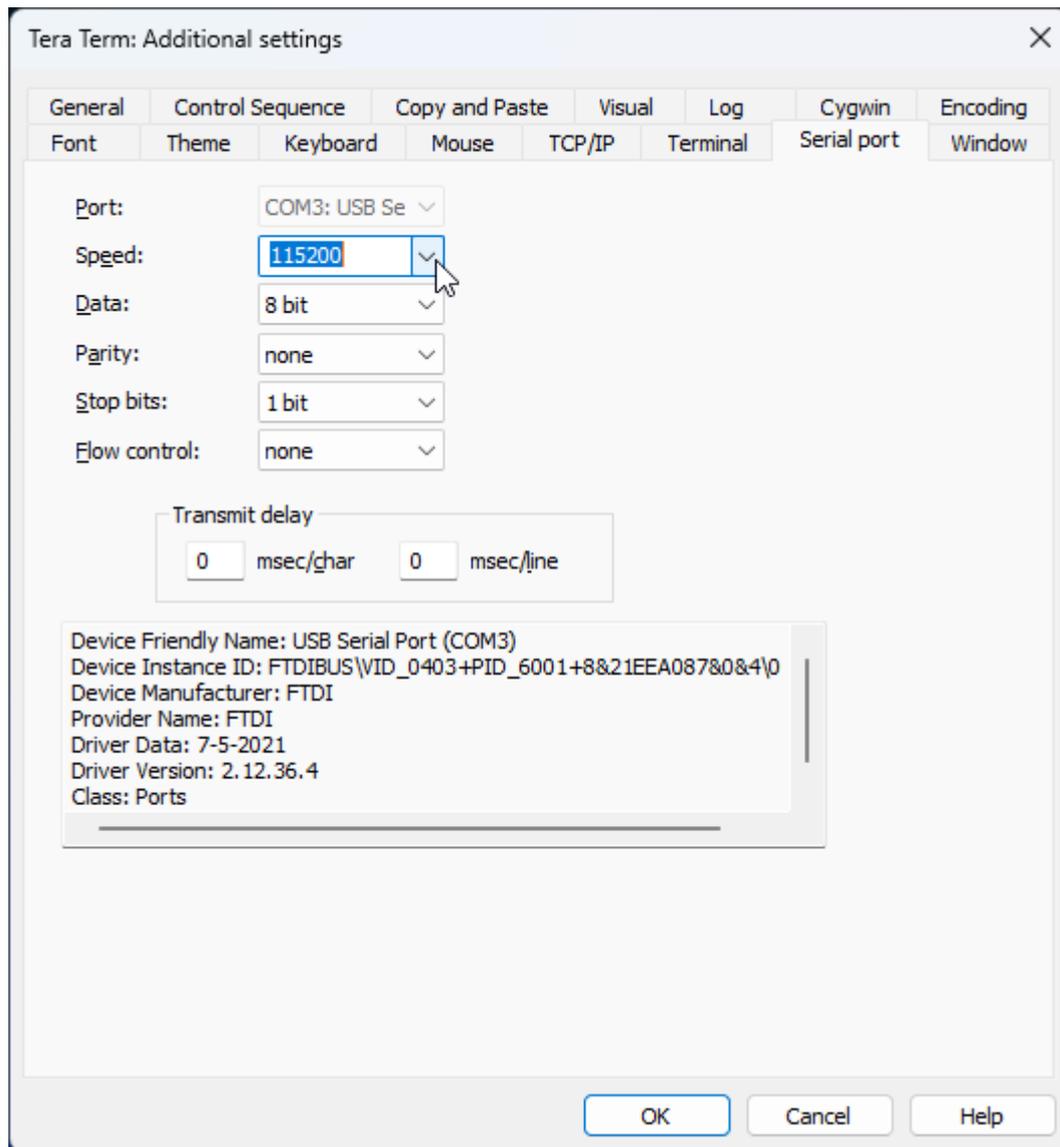
Using Windows 'device manager' you may double check you have the correct virtual COM-port.



From the pull-down menus select 'setup'. From the expanded menu, select 'Serial port ...'



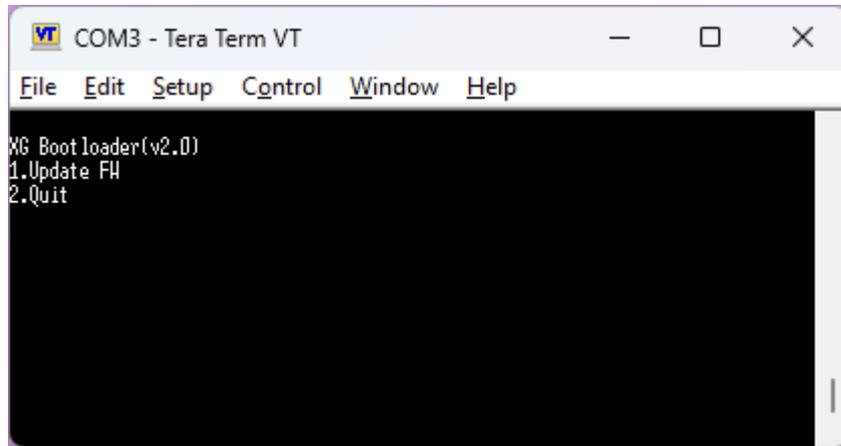
Within the additional settings dialog you only need to change the 'Speed' to '115200' bps and confirm your settings by clicking the 'OK' button.



Now you are ready to start the firmware update.

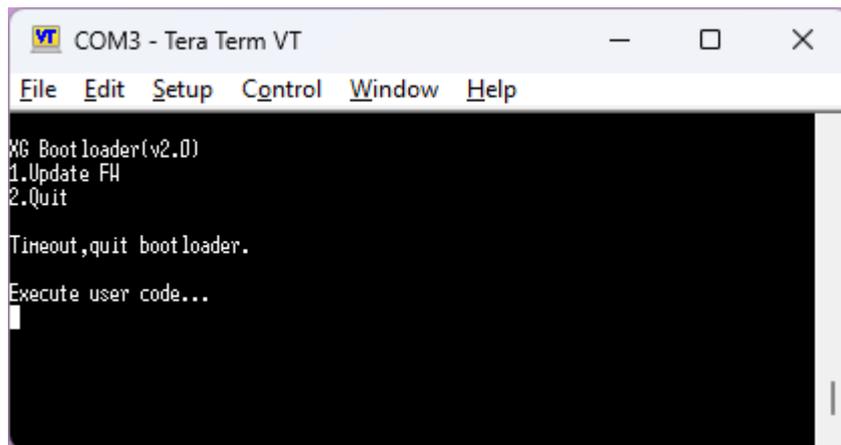
### 3.4.1 Initiate update mode if serial number starts with 'V'

All Xiegu G90 with a serial number that starts with 'V' have a new bootloader. In order to enter the update-mode of these radios you need to keep the volume knob pushed, while powering on the Xiegu G90. The Tera Term display will look as follows:



```
COM3 - Tera Term VT
File Edit Setup Control Window Help
XG Bootloader(v2.0)
1.Update FH
2.Quit
```

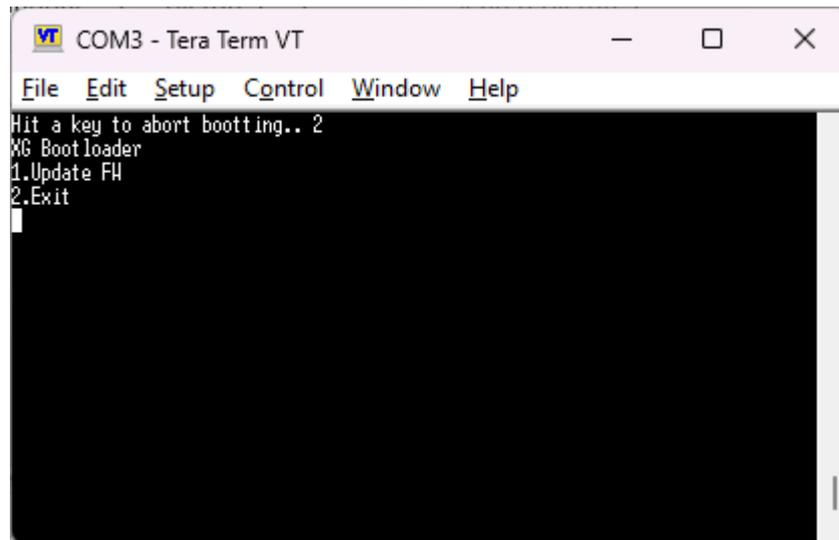
If you do not enter '1' or '2' on the PC keyboard, the bootloader will automatically be terminated after about 10 seconds and the radio will do a normal start-up.



```
COM3 - Tera Term VT
File Edit Setup Control Window Help
XG Bootloader(v2.0)
1.Update FH
2.Quit
Timeout,quit bootloader.
Execute user code...
█
```

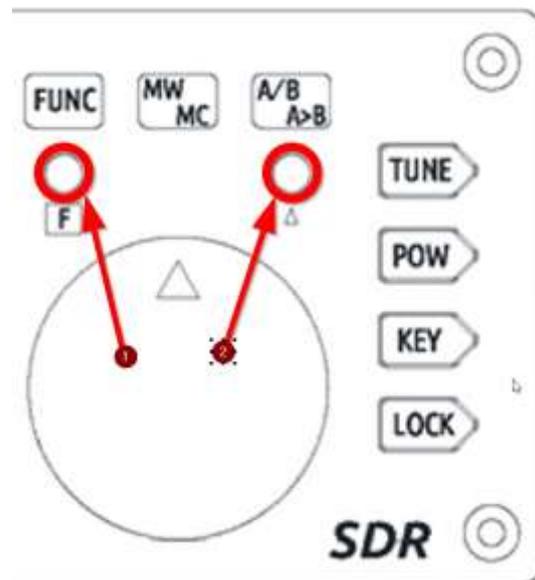
### 3.4.2 Initiate update mode if serial number does not start with 'V'

Older Xiegu G90 radios with serial numbers not starting with 'V' have a bootloader different to those with serial numbers starting with 'V'. Those radios require a constant sending of 'blank' characters during power on of the radio to enter the FW-update-mode. To do so, with the Tera Term application in focus (click anywhere in the terminals black area) then press the space bar of your PC keyboard and keep it depressed and power on the radio. The Tera Term display will look as follows:

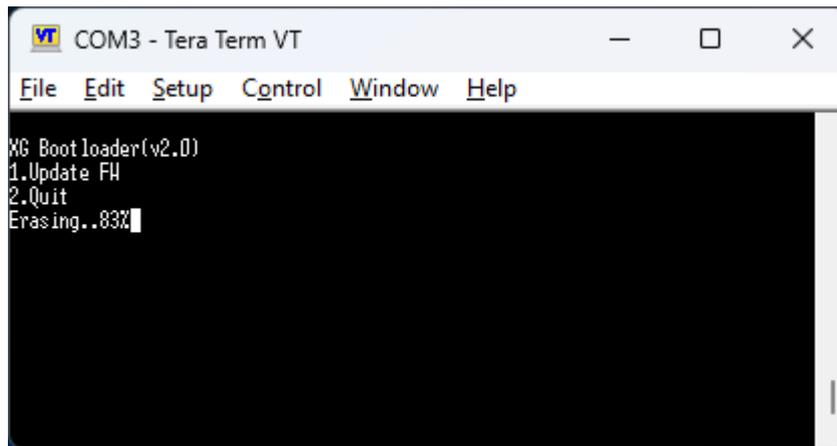


### 3.4.3 Select 'Update FW'

Press number "1" on your PC keyboard to select "Update FW". Before a new firmware can be written to the display unit, the current firmware will be erased. The display of the Xiegu G90 will be black. The 'F' LED **F** will be flashing fast and the CW decoding LED **△** will light yellow.



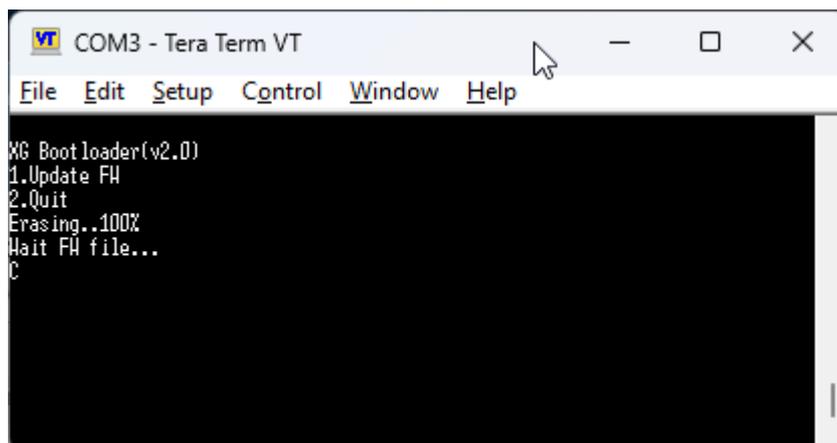
You will see a progress dialog that indicates the deletion of the current firmware.



```
COM3 - Tera Term VT
File Edit Setup Control Window Help
XG Bootloader(v2.0)
1.Update FH
2.Quit
Erasing..83%
```

**Note:** *It is not possible to brick the radio. If, for what ever reason, the firmware update process did not work as expected or was interrupted, just turn off the Xiegu G90 and restart the update process.*

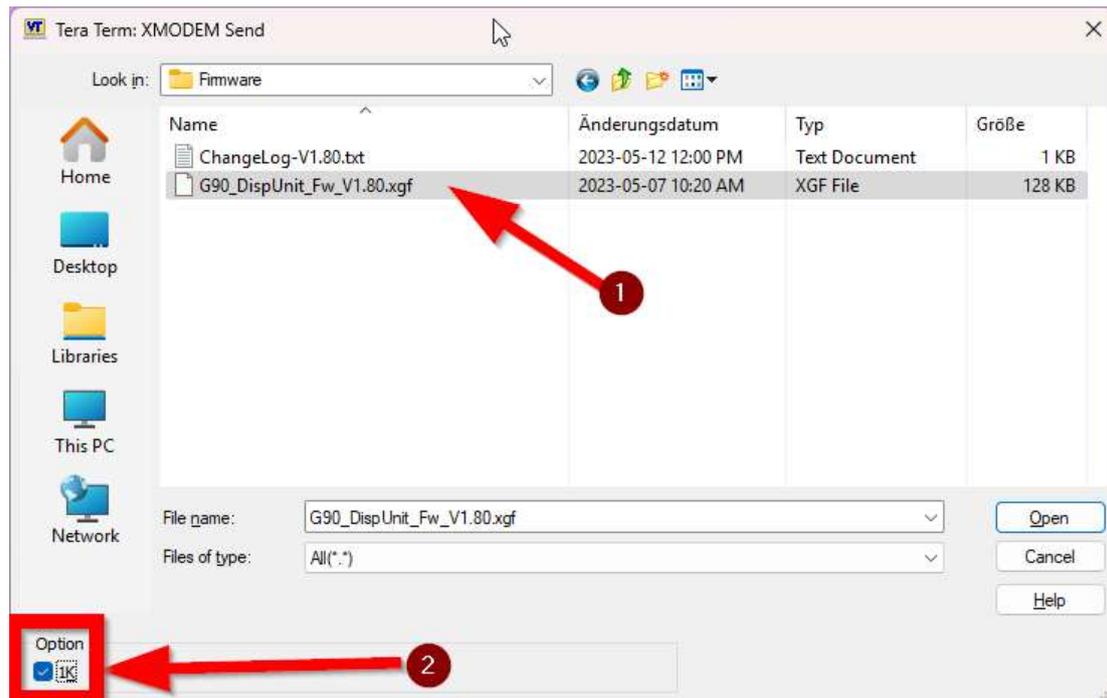
As soon as the old firmware has been completely erased, the Xiegu G90 will wait for the new firmware file to be transferred to the radio.



```
COM3 - Tera Term VT
File Edit Setup Control Window Help
XG Bootloader(v2.0)
1.Update FH
2.Quit
Erasing..100%
Wait FH file...
C
```

The firmware file is transferred using X-modem protocol and with 1k block size. To do so, select 'File' → 'Transfer' → 'XMODEM' → 'Send...' from the pull-down menu.

You will be prompted to select the corresponding file with extension '.XGF' (1).

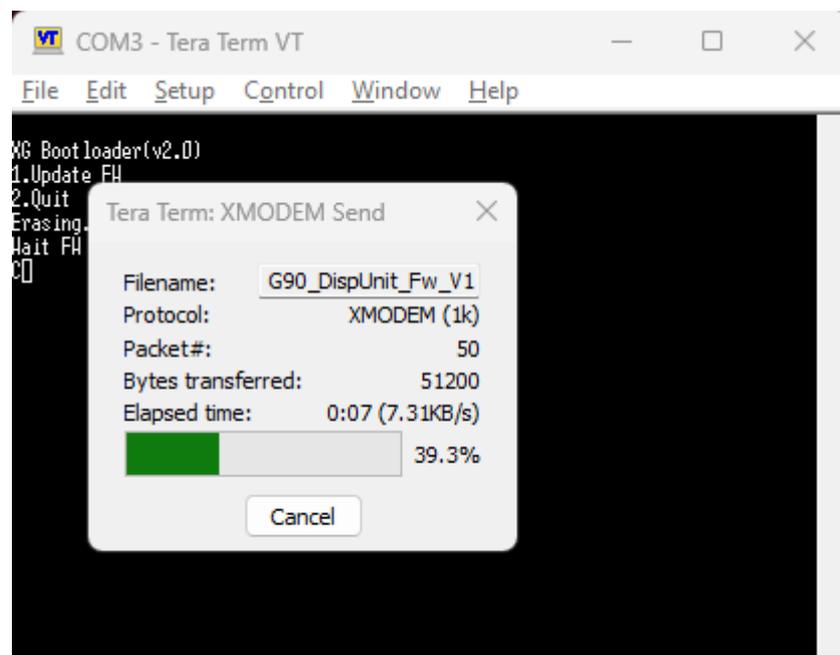


Do not forget to check the 1K option (2).

**Note:** The most common mistakes when applying a firmware update are:

1. Selected the base unit firmware and tried to write it to the display unit.
2. Forgot to check the 1K option box

During X-modem transfer of the new firmware a popup progress bar indicates the update status.



As soon as the transfer has completed, the Xiegu G90 will automatically reboot and you should again see the normal screen on the Xiegu G90 display.

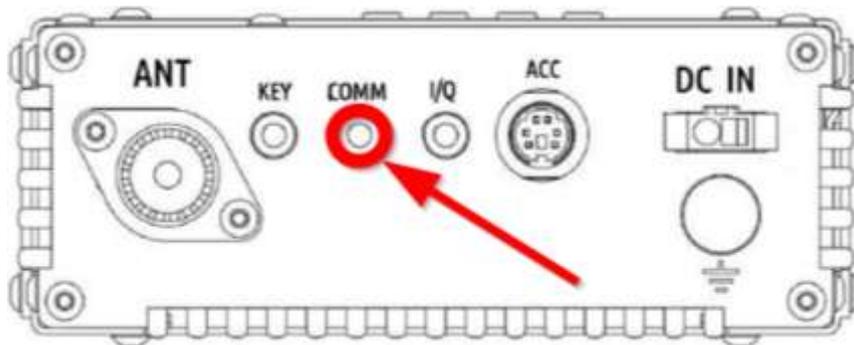
### 3.5 Updating the Xiegu G90 base unit (BASE)

With every new firmware release, new features get added or existing ones get changed. The user-interface firmware (APPLication) resides within the display unit. It is also referred to as the APP firmware. The firmware within the base unit is referred to as the BASE firmware.

Before you start the update, prepare as described in the previous section 3.2 'Perform factory reset'.

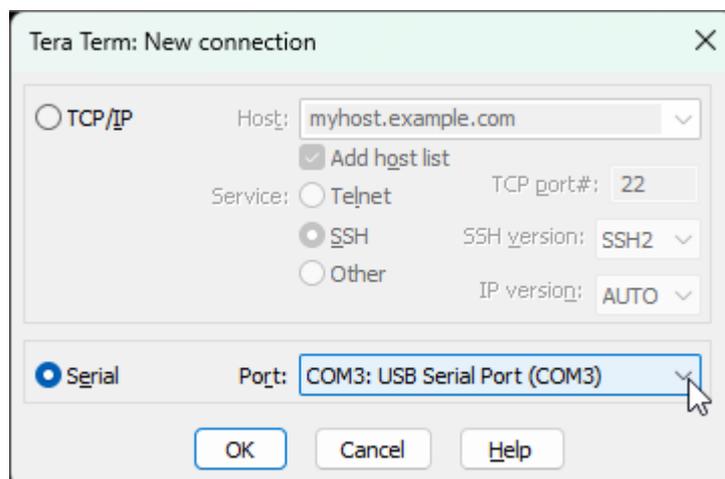
**Note:** Before starting to update the base unit firmware, unplug the DC-connection between the Xiegu G90 and your external power supply. Wait at least a minute in order for the capacitors within the Xiegu G90 to discharge. Then reapply the external power supply to the DC-connection of the Xiegu G90 and start the update process as described in the following paragraphs.

Connect the 3.5mm TRS side of the supplied programming cable to the COMM port located on the back of the base unit.

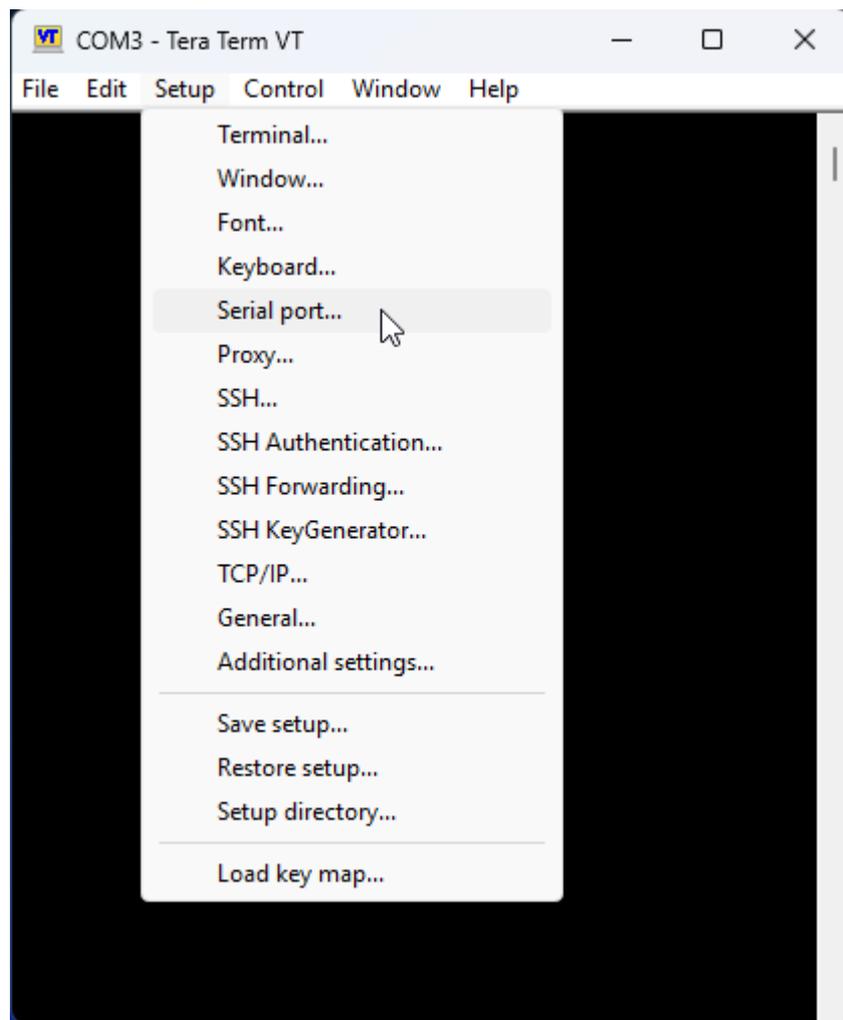


Start Tera Term, choose 'Serial' and make sure the virtual COM port that had been assigned by Windows to the programming cable is selected.

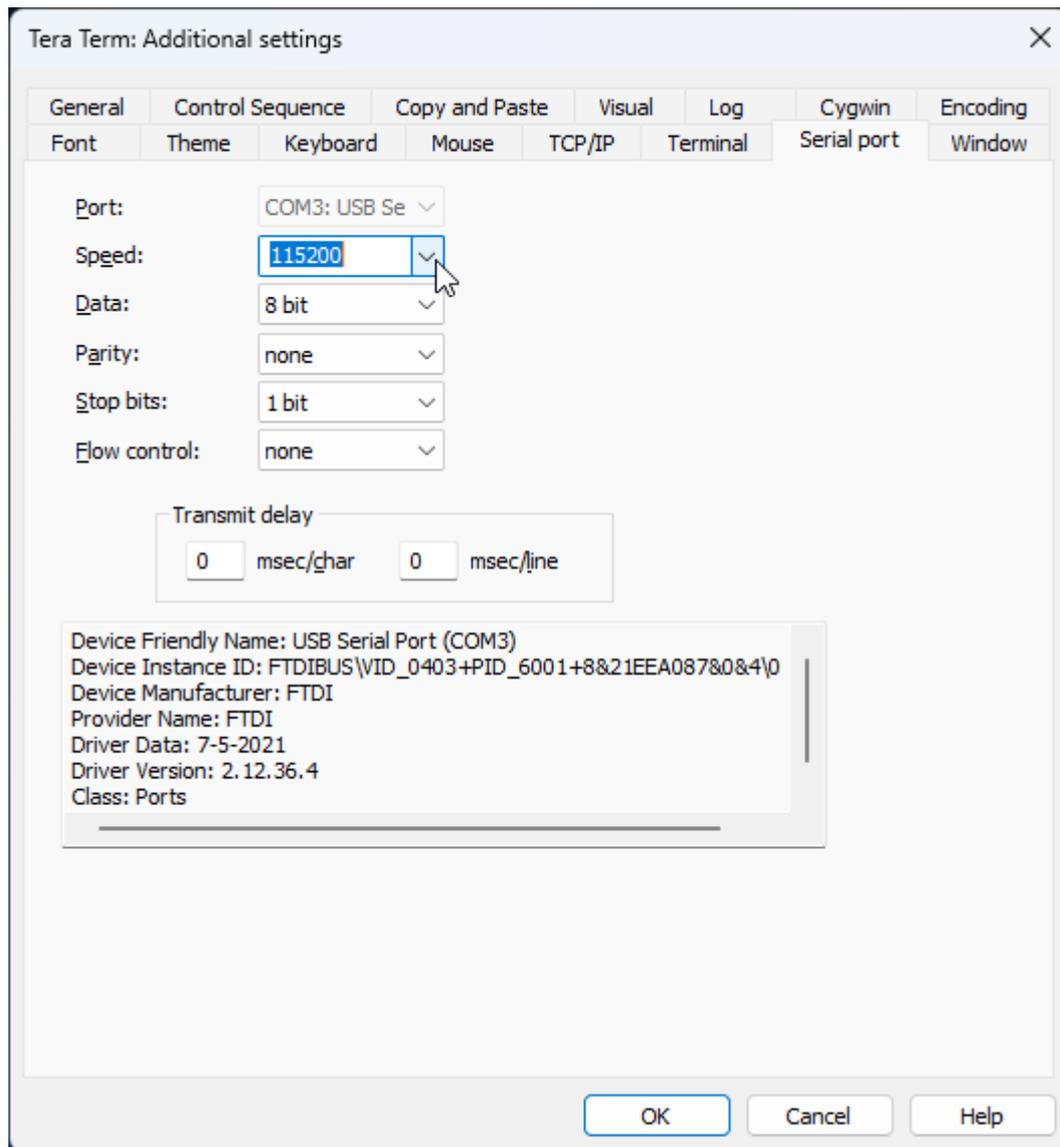
Using Windows 'device manager' you may double check you have the correct virtual COM-port.



From the pull-down menus select 'setup'. From the expanded menu, select 'Serial port ...'

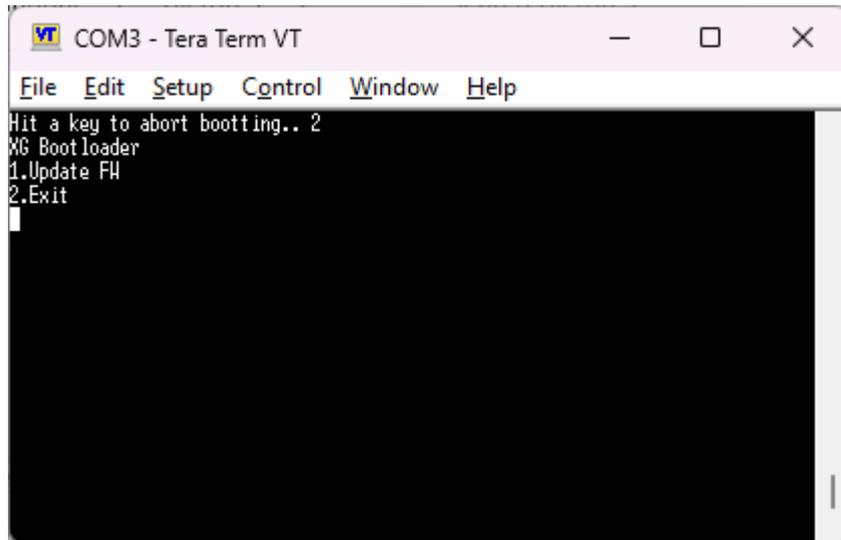


Within the additional settings dialog you only need to change the 'Speed' to '115200' bps and confirm your settings by clicking the 'OK' button.



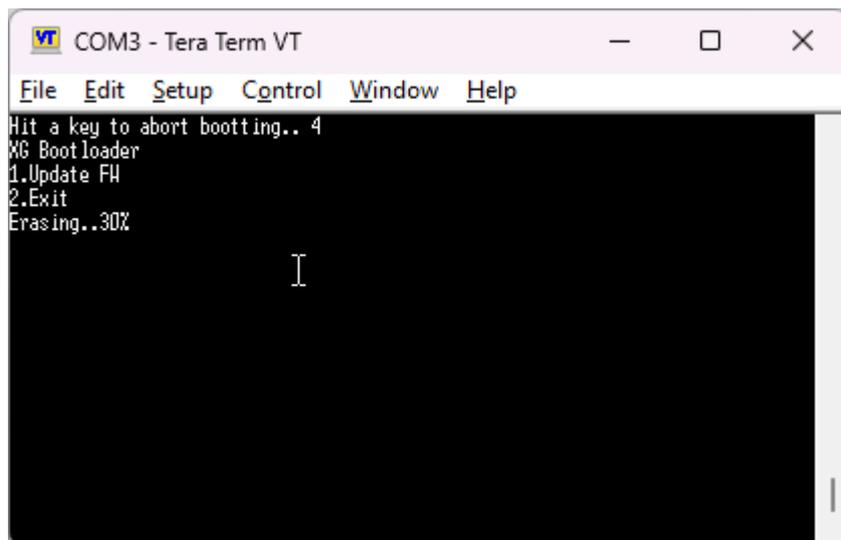
Now you are ready to start the firmware update.

To do so, with the Tera Term application in focus (click anywhere in the terminal's black area) then press the space bar of your PC keyboard and keep it depressed and power on the radio. The Tera Term display will look as follows:



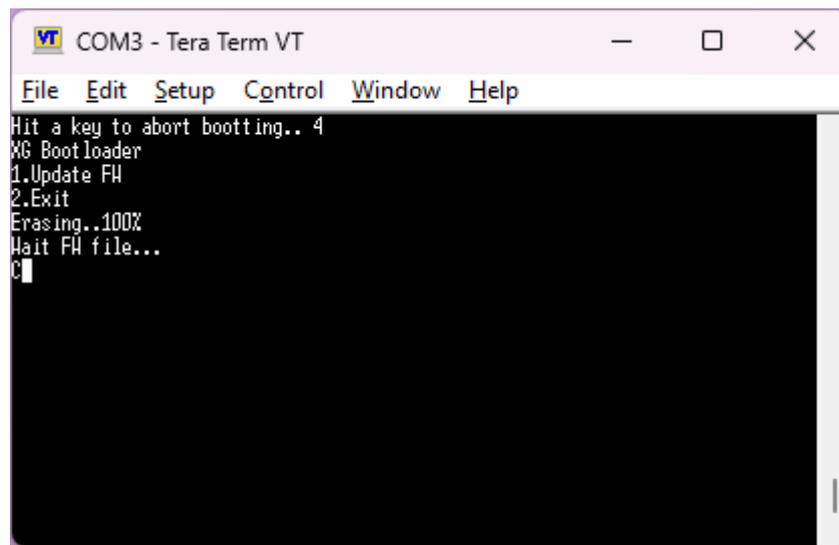
### 3.5.1 Select 'Update FW'

Press number "1" on your PC keyboard to select "Update FW". Before a new firmware can be written to the base unit, the current firmware will be erased. The display of the Xiegu G90 will show 'COMM LOST' in red letters blinking on the Xiegu G90 display to indicate that normal communication between the base unit and the display unit is currently not taking place. The 'F' LED **F** will be flashing fast and the CW decoding LED **△** will light yellow.

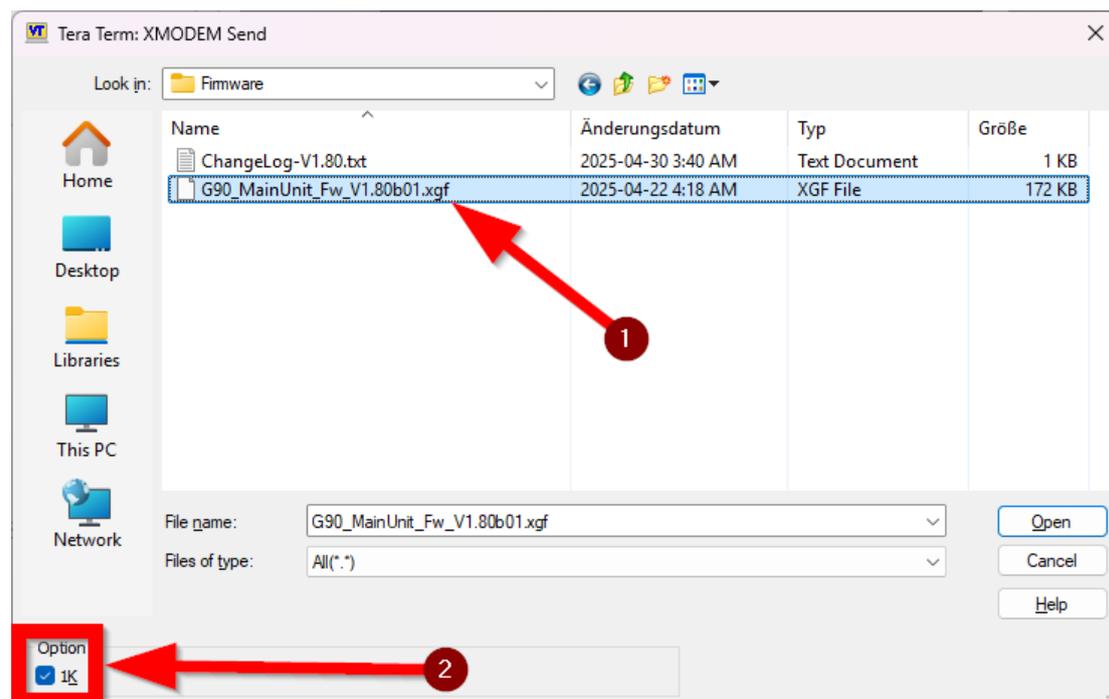


**Note:** It is not possible to brick the radio. If, for whatever reason, the firmware update process did not work as expected or was interrupted, just turn off the Xiegu G90 and restart the update process.

As soon as the old firmware has been completely erased, the Xiegu G90 will wait for the new firmware file to be transferred to the radio.



The firmware file is transferred using X-modem protocol and with 1k block size. To do so, select 'File' → 'Transfer' → 'XMODEM' → 'Send...' from the pull-down menu. You will be prompted to select the corresponding file with extension '.XGF' (1).

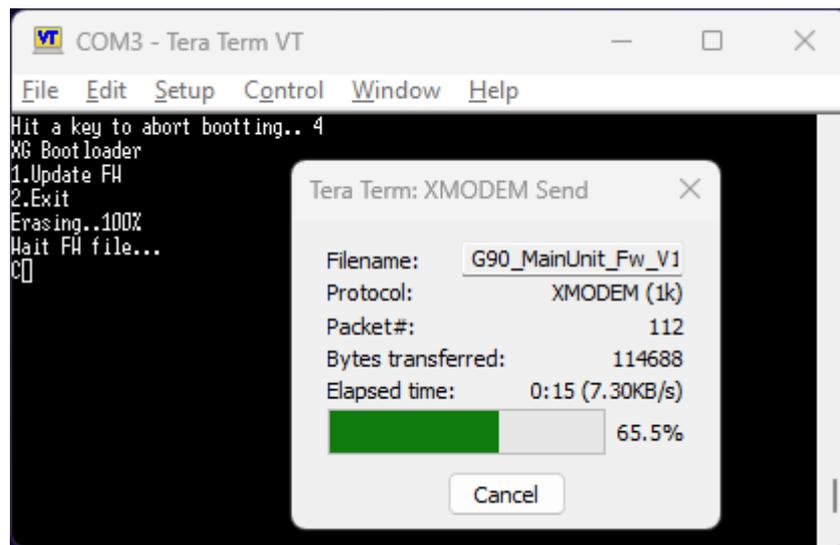


Do not forget to check the 1K option (2).

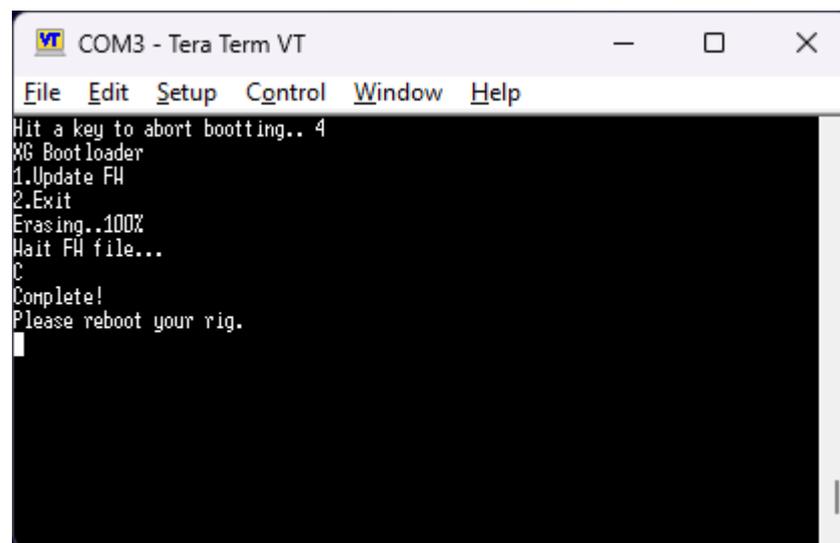
**Note:** The most common mistakes when applying a firmware update are:

1. Selected the display unit firmware and tried to write it to the base unit.
2. Forgot to check the 1K option box

During X-modem transfer of the new firmware a popup progress bar indicates the progress of the update.



As soon as the transfer has completed, you need to reboot the radio.



To do so, just power off the radio, wait 15 seconds and power it on again.

**This completes the update process.**

For older versions of the Xiegu G90 firmware, please visit our support area at <https://radioddity.com/pages/xiegu-download>.

**Note:** *Never install any firmware not originating from Radioddity or Xiegu. To confirm that what you have is official, check the availability of the update archive on the Radioddity support page for the Xiegu G90 and download a fresh copy from there prior to performing any update.*

### 3.6 Perform factory reset after update

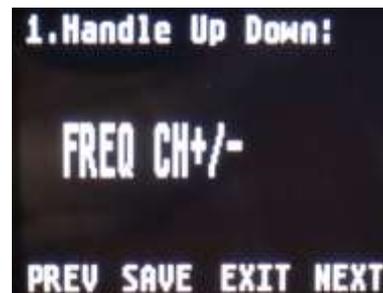
It is very important to perform a factory reset before and right after a firmware update.

1. With the radio off, press and hold the [FUNC] button  in and press the [POWER] button  quickly on the radio to start the restoration of factory settings.
2. Press the [PRE] button  to confirm the reset. Press the [VM] button  to cancel the operation.

This assures that internal memory locations that might be used for storing a different parameter in the new firmware will not interfere with the value of those memory location as used in the old firmware.

### 3.7 Check new firmware version details

5. To check which current firmware versions are installed on your XIEGU G90, long press the [FUNC] button  to enter the system menu. You will see the first submenu for 'Handle Up Down'.



6. Now press the [PRE] button  momentarily to navigate to the 'Version' submenu.

7. After a few seconds the current version details will be displayed.



**Note:** Only the full version number is shown, such as 'V1.80'. Any suffix such as 'b01' will not be shown. However by using the date and time of the firmware you can look up the full version details section 4 'Firmware release notes'.

## 4 Firmware release notes

The following table lists details of changes implemented with new versions of the Xiegu G90 firmware. Generally previous updates are included in the latest version. However, features available in previous versions may be altered or even removed in future versions. Best example of such is the support for the GSOC Add-on. The GSOC is only supported up to V1.78!

**Note:** *Never update your radio if it is not really necessary, or in other words:*

***Don't fix it if it's not broken!***

*This cannot be emphasized often enough. To update the Xiegu G90, only use the software found on our support pages. Before carrying out an update, make sure that the release package is still available for download on our support page. All software updates for the Xiegu G90 are supplied with 'Release Notes'.*

**Please carefully read the 'Release Notes' and all documents contained in the firmware archives before applying the change!**

The base unit (referred to as BASE) will be updated with a firmware file such as "XIEGU G90\_MainUnit\_Fw\_V1.80b01.xgf". The display unit (referred to as APP) will be updated with a firmware file such as "XIEGU G90\_DispatchUnit\_Fw\_V1.80.xgf".

### 4.1 V1.80b01 (BASE only)

Revision	Changes	released
V1.80b01 BASE only	<ul style="list-style-type: none"> <li>Fixed bug FFT display occasionally freezes</li> <li>AGC algorithm optimized (lower background noise)</li> </ul>	2025-04-19

### 4.2 V1.80 (APP only)

Revision	Changes	released
V1.80 APP only	<ul style="list-style-type: none"> <li>To work with JTDX/WSJTX (or some other data mode software), add CI-V commands 0x25,0x26</li> <li>Add CI-V command 0x1d 0x19 to read the XIEGU RADIO ID</li> </ul>	2023-05-07

### 4.3 V1.79b03

Revision	Changes	released
V1.79b03	<ul style="list-style-type: none"> <li>Fix AM/NFM filter issue</li> <li>New colour map for waterfall</li> </ul>	2022-10-26

### 4.4 V1.79b02

Revision	Changes	released																								
V1.79b02	<ul style="list-style-type: none"> <li>Improved the AGC algorithm.</li> <li>Improved the Filter's algorithms.</li> <li>New data mode: U-D; L-D, for USB DIG; LSB DIG In data mode: ACC port LINE IN is connected to the modulator (hand mic is muted); LINE OUT is enabled.</li> <li>The band-pass filter is changed to 2 BPFs combination. The default value of each working mode is: <table border="1" data-bbox="443 981 1134 1227"> <thead> <tr> <th>Mode</th> <th>BPF1</th> <th>BPF2</th> <th>bandwidth</th> </tr> </thead> <tbody> <tr> <td>SSB</td> <td>300 ~ 3000</td> <td>300 ~ 3000</td> <td>2700</td> </tr> <tr> <td>SSB DIG</td> <td>100 ~ 3100</td> <td>100 ~ 3100</td> <td>3000</td> </tr> <tr> <td>CW</td> <td>-250 ~ 250</td> <td>-250 ~ 250</td> <td>500</td> </tr> <tr> <td>AM</td> <td>-3000 ~ 3000</td> <td>-3000 ~ 3000</td> <td>6000</td> </tr> <tr> <td>NFM</td> <td>-4500 ~ 4500</td> <td>-4500 ~ 4500</td> <td>9000</td> </tr> </tbody> </table> <p data-bbox="451 1234 1129 1397"><b>Note:</b> Negative numbers for frequency indicate that the frequency is to the left of the center of the spectrum (e.g., the lower sideband).</p> </li> <li>Adjust the bandpass filter operation logic: Short press MFK to select the bandpass filter When the FUNC light is on: When Bandpass Filter is selected: <ul style="list-style-type: none"> <li>Short press the MFK button to switch between BPF1/BPF2</li> <li>Turn the MFK encoder to adjust the selected BPF</li> <li>Long press the MFK key to exit the selection</li> <li>Press the FUNC key to exit the selection</li> <li>Press other menu keys (such as POW, KEY, etc.) to exit the selection</li> </ul> When the FUNC light is on: <ul style="list-style-type: none"> <li>Press CMP/F-L key to set BPF1 to default</li> <li>Press NB/F-H to set BPF2 to default</li> </ul> <p data-bbox="451 2000 1147 2076"><b>Tips:</b> B2700 above the filter icon means bandwidth=2700Hz</p> </li> </ul>	Mode	BPF1	BPF2	bandwidth	SSB	300 ~ 3000	300 ~ 3000	2700	SSB DIG	100 ~ 3100	100 ~ 3100	3000	CW	-250 ~ 250	-250 ~ 250	500	AM	-3000 ~ 3000	-3000 ~ 3000	6000	NFM	-4500 ~ 4500	-4500 ~ 4500	9000	2020-10-22
Mode	BPF1	BPF2	bandwidth																							
SSB	300 ~ 3000	300 ~ 3000	2700																							
SSB DIG	100 ~ 3100	100 ~ 3100	3000																							
CW	-250 ~ 250	-250 ~ 250	500																							
AM	-3000 ~ 3000	-3000 ~ 3000	6000																							
NFM	-4500 ~ 4500	-4500 ~ 4500	9000																							

	<ul style="list-style-type: none"> <li>• Adjust the operation logic of the secondary menu Press the FUNC key in the secondary menu without saving and exit</li> <li>• FFT SCALE option is fixed to AUTO</li> <li>• Optimize the FFT automatic level algorithm, the visual effect is smoother.</li> <li>• GSOC no longer supported by firmware</li> </ul>	
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#### 4.5 V1.78b01

Revision	Changes	released
V1.78b01	<ul style="list-style-type: none"> <li>• Fine tuning of AGC algorithm to improve audio quality</li> <li>• Fix some issues of ALC algorithm <ul style="list-style-type: none"> <li>- Tx power more accurate</li> <li>- Fix the issue that ATU inaccurate or fail to tune due to the instability of ALC algorithm</li> </ul> </li> <li>• AM Tx power equal to set power</li> <li>• Display ALC level range 0-100</li> </ul> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p><b>Tips</b> ALC level equal to 0: over driving, decrease input signal level. ALC level equal to 100: under driving, increase input signal level. When doing Digi, the audio baseband signals are almost constant amplitude, adjust the PC soundcard volume to make ALC level between 20-80 to get good linearity</p> </div> <ul style="list-style-type: none"> <li>• Fix a built-in keyer bug (has chances losing dot/dash when performing squeeze operation)</li> <li>• Add CI-V command for ATU operation</li> <li>• Last release that supports the GSOC</li> </ul>	2022-01-20

#### 4.6 V178b2 (BASE) - V1.77b2 (APP)

Revision	Changes	released
V1.78b BASE	<ul style="list-style-type: none"> <li>• Added the receiving audio Modification filter to improve the sound quality and suppress high-frequency noise components.</li> </ul>	2021-12-31 BASE
V1.77b APP	<ul style="list-style-type: none"> <li>• Improved the AGC algorithm to eliminate the spike noise caused by it.</li> <li>• Improve the granularity of volume adjustment, the volume value of 0-26 is stepped to 1dB, and the volume value of 27-36 is stepped to 2dB.</li> </ul>	2021-03-21 APP

## 4.7 V1.77b

Revision	Changes	released
V1.77b	<ul style="list-style-type: none"> <li>Improved the AGC algorithm.</li> <li>Improved the isolation of close to channels (increased by about 30dB).</li> <li>Eliminated the impact noise of the speaker when switching between receiving and transmitting.</li> <li>When connected to GSOC, all sounds in CW mode will be played by XIEGU G90 speakers. If the modem function is turned on, the sound still will be played via the GSOC.</li> </ul> <p style="text-align: center;"><b>Compatible with GD MCU and ST MCU</b></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Note:</b> XIEGU G90 after the product serial number X04G211600001 must use the firmware version after V1.77 (including 1.77V), if it is updated to the firmware version before 1.77V, it may not work normally.</p> </div>	2021-03-21

## 4.8 V1.77

Revision	Changes	released
v1.77 this version has never been officially released	<ul style="list-style-type: none"> <li>Improved AGC algorithm</li> <li>Improved the isolation of close to channels (increased by about 30dB).</li> <li>Eliminated the impact noise of the speaker when switching between receiving and transmitting.</li> <li>When connected to GSOC, all sounds in CW mode will be played by the XIEGU G90 speakers. If the modem function is turned on, the sounds will be played via the GSOC.</li> </ul>	2021-03-21

## 4.9 V1.75

Revision	Changes	released
V1.75	<ul style="list-style-type: none"> <li>• New system menu operation logic, change system menu item by pressing BAND Up/Down key (Equivalent to press PREV/NEXT)</li> <li>• New Multi-function adjustment knob operation logic</li> <li>• Press and hold Multi-function adjustment knob to enter menu</li> <li>• Rotate Multi-function adjustment knob to choose desired function</li> <li>• Press Multi-function adjustment knob to save and exit menu</li> <li>• New filter Center/BW operation logic</li> <li>• Narrow FM mode is available but just for testing</li> <li>• Add RF GAIN to the Multi-function adjustment knob function list</li> <li>• Lower CW Tone volume (-15dB lower than the original level)</li> <li>• Set Narrow FM modulation frequency deviation to about +/-3.5kHz</li> <li>• Add Narrow FM SQL</li> </ul>	2020-09-05

## 4.10 V1.74

Revision	Changes	released
V1.74	<ul style="list-style-type: none"> <li>• Fixed the problem that MIC Gain is relatively high</li> <li>• Added auto FFT scale</li> <li>• Added background VFO frequency display function under channel mode</li> <li>• Widened the maximum bandwidth of CW filter</li> <li>• Optimized the filter bandwidth/center frequency point adjustment and CW Tone adjustment range under CW mode               <ul style="list-style-type: none"> <li>- If CW Tone is adjusted under CW or CWR mode, the range of CW Tone is the upper and lower limits of filter under current mode</li> <li>- If CW Tone is not adjusted under CW or CWR mode, the range of CW Tone shall be within the upper and lower limits of filter under CW and CWR mode</li> </ul> </li> <li>• Changed RF GAIN to directly act on receiving channel gain Adjustment range: 1~100% (default: 50%), corresponding gain (on the basis of receiving channel gain): -19.6~+20dB, step=0.4dB               <ul style="list-style-type: none"> <li>- Note: RF GAIN will influence the value of Table S and FFT</li> </ul> </li> <li>• Added microphone filter of SSB mode to attenuate partial low frequency component of microphone signal and improve emission efficiency</li> <li>• Changed the color of lines in frequency spectrum picture into green and fill color into semitransparent green</li> <li>• Optimized the encoder to prevent it from interference or impulse as the first one</li> <li>• Optimized stack and enhanced the stability</li> <li>• Optimized the control characteristics of AGC and ALC</li> <li>• Fixed the bug of channel storage function</li> <li>• Fixed the spectrum display bug during emission</li> <li>• Fixed the bug of standing wave detection threshold</li> <li>• Fixed the problem of interrupted voice during low power emission.</li> <li>• Updated version number can be checked in 10th item of system menu. (It takes about 3s to read version information once entering this item)</li> </ul>	2020-11-06

#### 4.11 V1.73

Revision	Changes	released
V1.73	<ul style="list-style-type: none"> <li>• Rotate encoder driver is optimized, smoother and less loss of step</li> <li>• Total RF GAIN=1/4 RF GAIN setting when AGC is off, prevent sudden volume increase</li> <li>• Rx volume step is optimized</li> <li>• Lower the MIC GAIN, prevent picking up too much background noise</li> </ul>	2019-11-27

#### 4.12 V1.72

Revision	Changes	released
V1.72	<ul style="list-style-type: none"> <li>• CW timing is optimized, solved the issue of randomly losing DOT/DASH.</li> <li>• T/R switch timing is optimized, faster switching time (<math>t \leq 53\text{ms}</math>).</li> <li>• Add ALC meter, display below the TX power meter when TXing. It is mainly for digital mode, to get the good linearity. adjust driving level or Line IN volume to make the ALC meter value within 30~90. Max level of Line IN should not be more than 600mVp-p, or it will overload the input amplifier.</li> <li>• PO meter is optimized, more accurate.</li> <li>• Rotate encoder driver is optimized, less losing of steps.</li> <li>• ACC LINE OUT is optimized, main volume will not affect its output level anymore.</li> <li>• ACC Band Voltage switching output is optimized, solved the issue of wrong voltage for 12m band.</li> <li>• TS max digit change from 10k to 100k when pushing the main tuning knob.</li> <li>• RIT function added: Press and hold main tuning knob to activate</li> </ul>	

**4.13**    **V1.71**

<b>Revision</b>	<b>Changes</b>	<b>released</b>
V1.71	<ul style="list-style-type: none"><li>• RF Gain Control: After a long press of the AGC button. Rotate the main VFO knob to change the RF gain (this does not affect the S meter or FFT scales).</li><li>• DSP Filter: A momentary press of the Multi-function adjustment knob allows setting of the DSP center frequency and the bandwidth of the filter.</li><li>• FFT Averaging: Pressing the FUNC button and then the LOCK button opens the setting of the averaging function. Adjust it to your personal preference.</li></ul>	

## 5 Where to look for further information?

On the Internet you will find a variety of sources with information about the Xiegu G90. When watching videos make sure that the Xiegu G90 in the video is at the same firmware levels (BASE, APP) as yours (features can change and bugs may be fixed between firmware revisions).

### 5.1 Radioddity support area

Please note that you can find all firmware, software and Xiegu user manuals in the support section of our official Radioddity website by following these steps:

<https://www.radioddity.com/> → Support → Xiegu → XIEGU G90

For the Xiegu G90, the resulting support page looks something like this:



As soon as a new file is available (e.g., firmware updates, updated Xiegu manuals or other items), these files will be published in our support area.

**Note:** The list 'Manuals & Software' can be found below the 'Software' section on the website. Use the scroll bar to navigate.

**Throughout this extract of the Radioddity extended manual for the Xiegu G90 3<sup>rd</sup>-party software is mentioned. Radioddity can not provide any support on 3<sup>rd</sup>-party software.**