G90 Firmware Update

Instructions

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 (driver files are available from the Radioddity G90 support page).

(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 my computer you will see is COM6).



2. Wiring everything up:



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

(supplied in firmware zip file from Radioddity):

In order to transfer the firmware to the device, we use a serial terminal software program with XModem support called TeraTerm.

3.1 Configuration of TeraTerm

a) Select the serial port:

This is the port (COM6 in my 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:

🚾 COM5 -	Tera Term VT	
File Edit	Setup Control Window Help	
	Terminal	A
	Window	
	Font	
	Keyboard	
	Serial port	
	Proxy	
	SSH	
	SSH Authentication	
	SSH Forwarding	
	SSH KeyGenerator	
	TCP/IP	
	General	
	ViewMode password	-
	Posturing command	

Select Setup/Serial port.

Port:	COM6	New setting
Speed:	115200	~
Data:	8 bit	Cancel
Parity:	none	~
Stop bits:	1 bit	√ Help
Flow control:	none	~
0	msec/char	0 msec/line
Device Friendly Device Instance Device Manufact	Name: USB Seri ID: FTDIBUS\VID urer: FTDI	al Port (COM6))_0403+PID_6001+5&4F13A2:

Click on Baud rate and from the drop-down list select 115200, then click New Setting

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



d) Now power on the G90:



Press the SPACE bar on the computer to interrupt the booting procedure before the countdown reaches zero. If you take too long the prompt "enter user command" will appear, if this happens restart the G90 to try again

e) The firmware update menu will appear:

<u>m</u> c	ОМ34	- Tera T	erm VT						×	-
File	Edit	Setup	Control	Window	Hel	р				
XG	Bootl	oader								*
1.	Updat	te FW								
2.	Exit									
Ena	asing.	. 100%								
Wai	t FW	file								
С										
										-

Step1: Press 1

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.

f) Select the file transfer mode and the firmware file:

M	COM5 - Tera Term VT					
File	e Edit Setup Control	Window	Help			
	New connection	Alt+N				•
	Duplicate session	Alt+D				
	Cygwin connection	Alt+G				
	Log					
	Comment to Log					
	View Log					
	Show Log dialog					
	Send file					
	Transfer	•	Kermit	> 1		
	SSH SCP		XMODEM	► E	Receive	
	Change directory		YMODEM	•	Send	
	Replay Log		ZMODEM	- • T		
	TTV Record		B-Plus	- + L		-
	TTY Replay		Quick-VAN	•		
	Print	Alt+P				
	Disconnect	Alt+I				
	Exit	Alt+Q				
	Exit All					

Click File / Transfer / XMODEM / Send ...

I Tera Term: XMODEM Send	X	
查拔范围(I): Programs (D:) 🗸	G 🏚 📂 🖽 -	
名称	修改日期	
Select the firmware file		This button
		an "Open"
又任名(0): 文件类型(T): ▲11(**)	打开(0)	
Option	取消 帮助(H)	Make sure to check this!

Check 1K option checkbox.

Browse and select your new firmware file, and click the "Open" button.

g) The transfer will start

era Term: XMODEM Sen	nd 🚬 🗙
Filename: 📃	
Protocol:	XMODEM (1k)
Packet#:	25
Bytes transferred:	25600
Elapsed time:	0:02 (10.24KB/s)
	5.9%
Can	cel

h) Wait until the transfer finishes

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

If you need to update both parts of the radio (head and main units) – then repeat the process from step 2 above.

--End-of-instructions-

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