X5105 Firmware Update

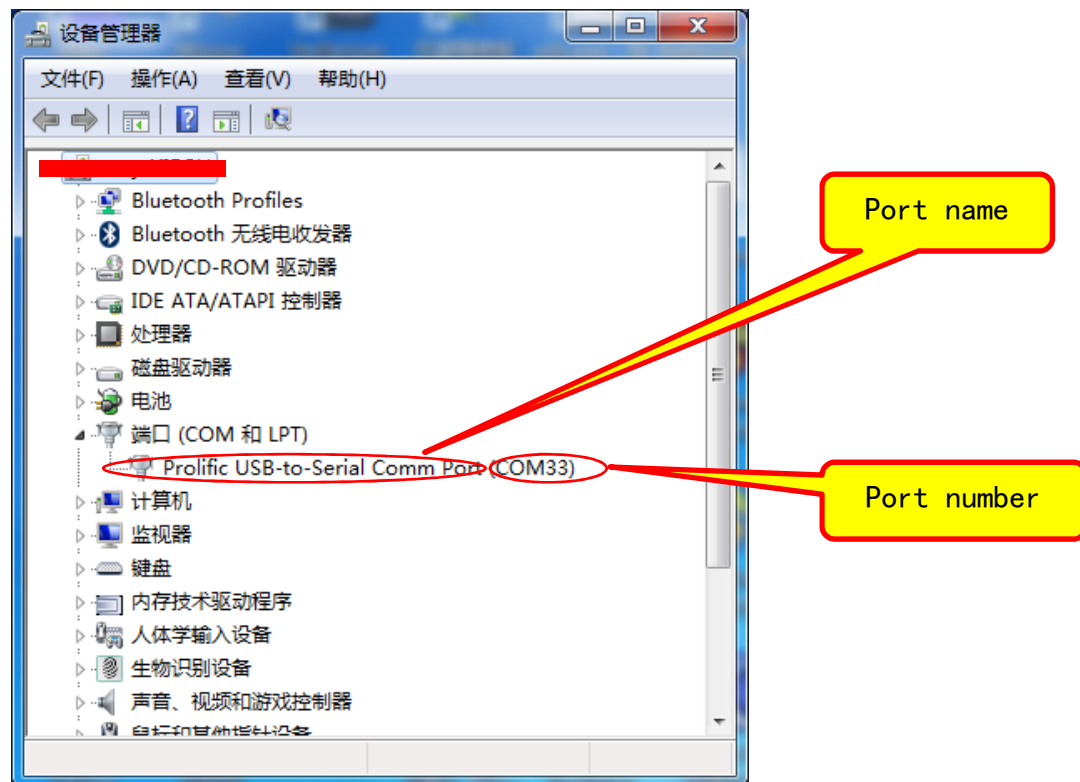# Instruction

Things to prepare for updating the firmware:

1. USB-to-Serial cable
2. X5105
3. A computer running windows(XP/Vista/7/8/10) operating system
4. A 12~15VDC(current ability not less than 1A) power supply

1. Install USB-to-Serial cable:

Firmware update is done through the serial port (which can be located at the right side panel named COM) of X5105. As modern computers generally no longer provide a serial port, so we need to use the USB-to-Serial cable to create a virtual serial port on the computer.

The very first thing is to make sure that the USB-to-Serial cable is working properly on the computer. After the cable is plugged into the USB port of the computer, the operating system will prompt to find the new hardware, and then the operating system will automatically install the driver of the new hardware. If all goes well, we can see the virtual serial port in the device manager of the computer. If the driver can't be automatically installed by the operation system then we need to install it manually (driver files can be found in the update pack).

After that, we can see the virtual serial port and its port number (which in my computer is COM33) in the device manager.

2. Entering the update mode of X5105:

a) Keep X5105 power OFF and disconnect the power cable.

b) Disconnect the 3.5mm stereo plug.

c) Press and hold both of the VOLUM+/- button.

d) Plug the power cable into the power jack.

e) The LCD will show an update mode screen.

f) When seeing this screen, release both of the VOL buttons and the update mode is ready.

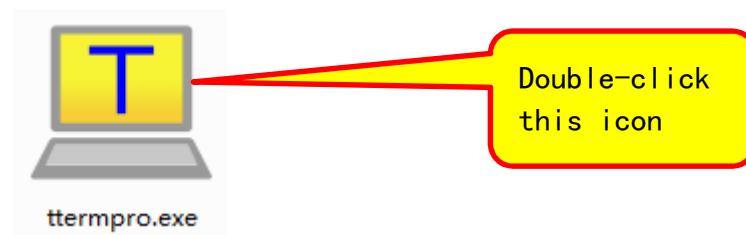g) The X5105 will apply internal flash memory erasing process.

h) Erasing finished

Note: Don't unplug the power cable during the erasing process.

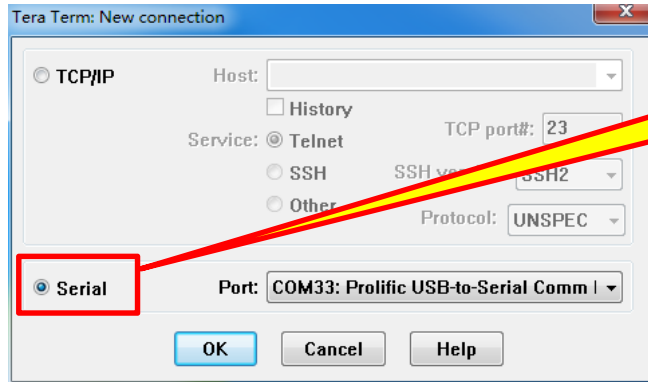i) If such a screen does not appear, try again from **Section 2 step a)**.

3. Use the Hyper terminal software:

In order to transfer the firmware to the device, we use serial hyper terminal software which is named TeraTerm4.96.
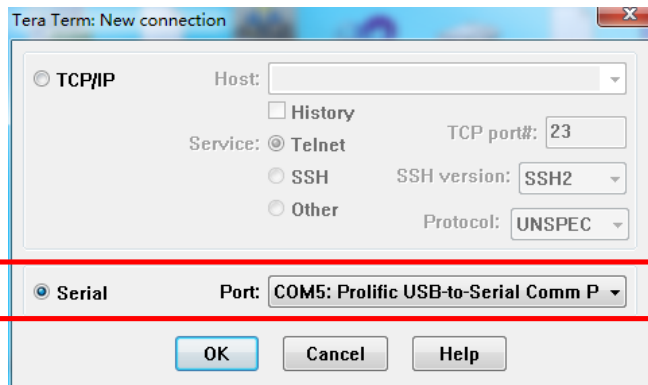

3.1. Configuration of TeraTerm4.96:
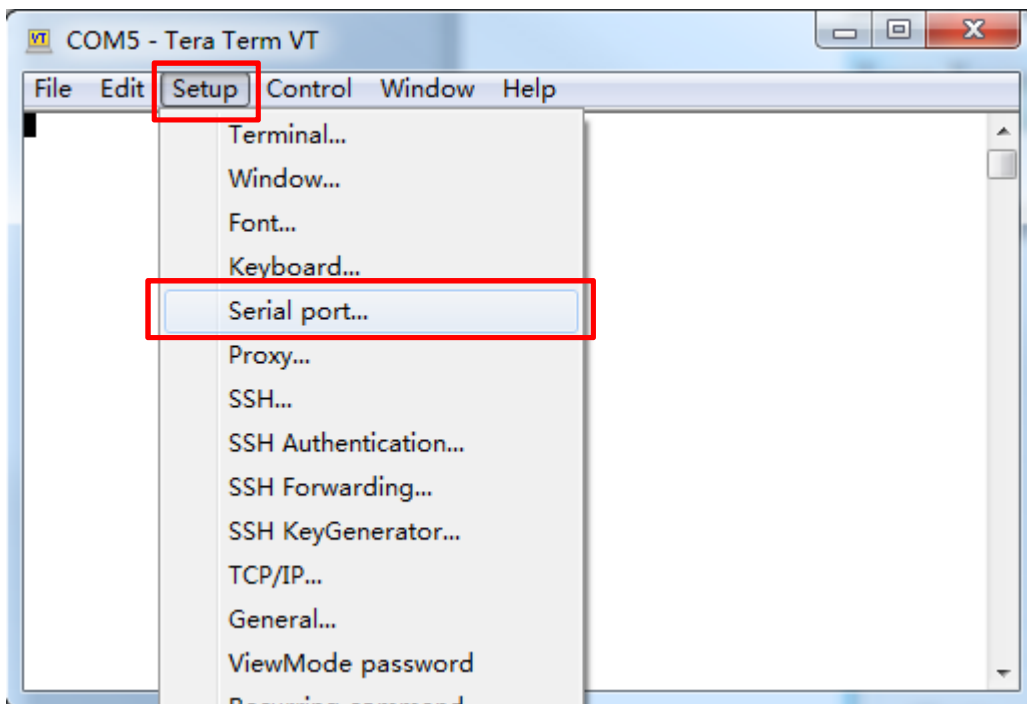
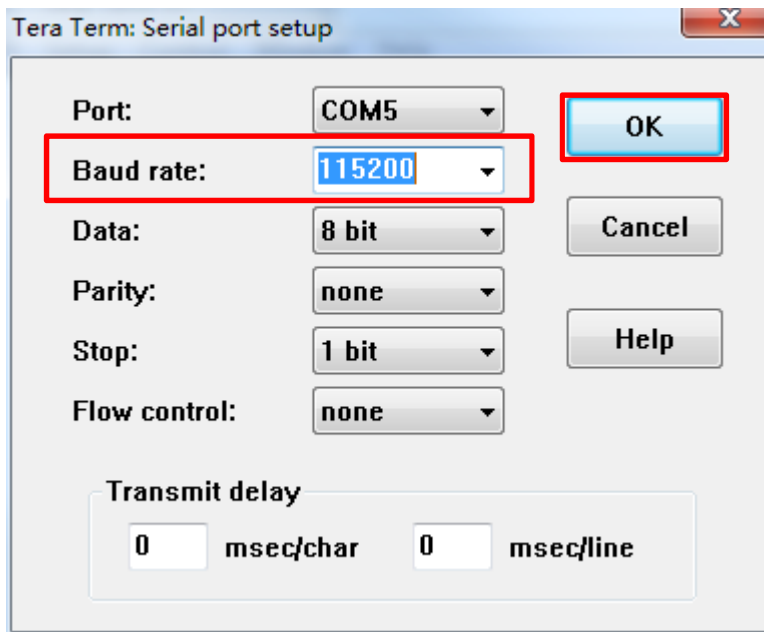a) Select the serial port:

Select this first

Click the drop list to select the right serial port

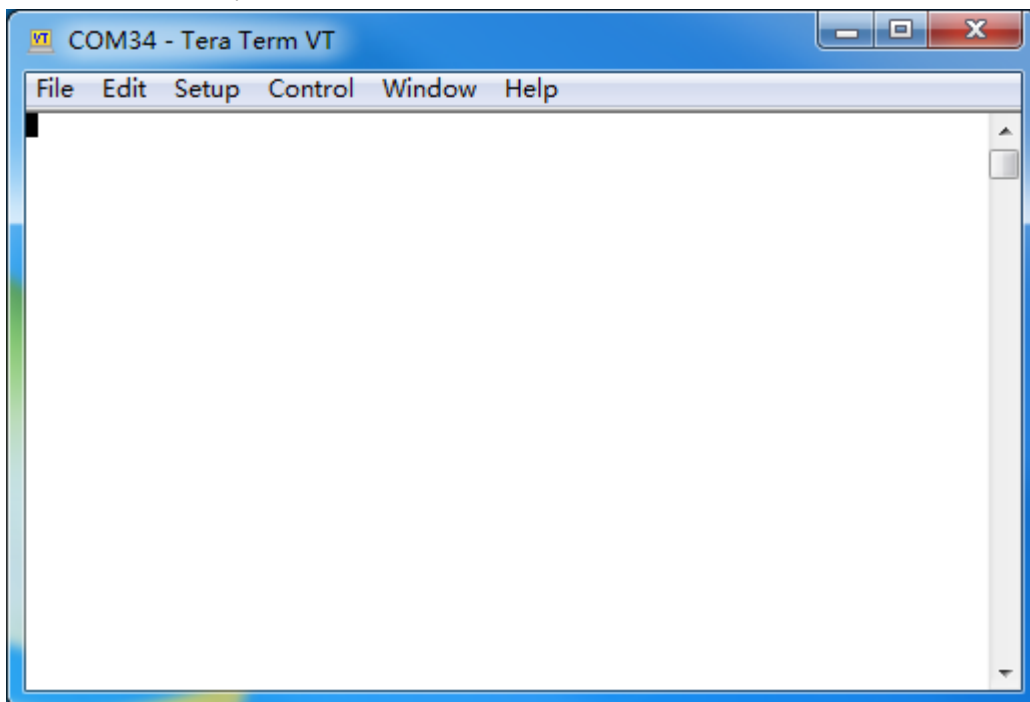b) Select the baud rate:

Click **Setup** → Click **Serial port...**

Click **Baud rate droplist** and select **115200**
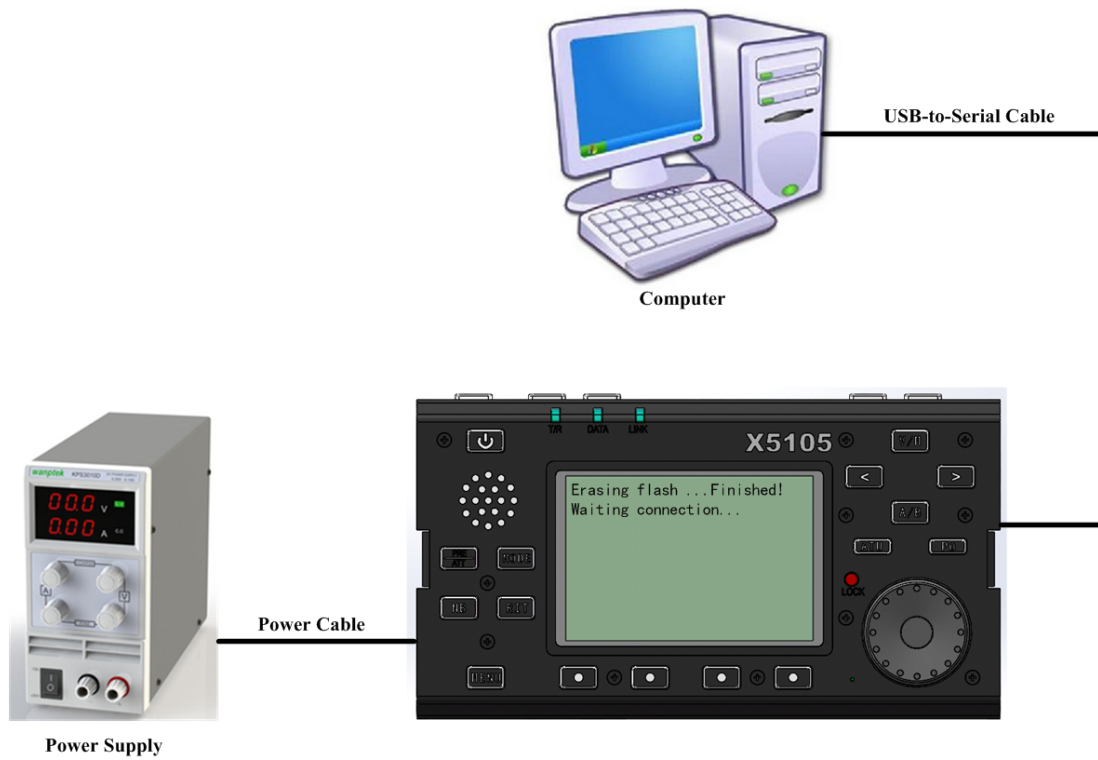Click OK

c)   The main workspace:

d) Insert the 3.5mm stereo plug into the COM jack.

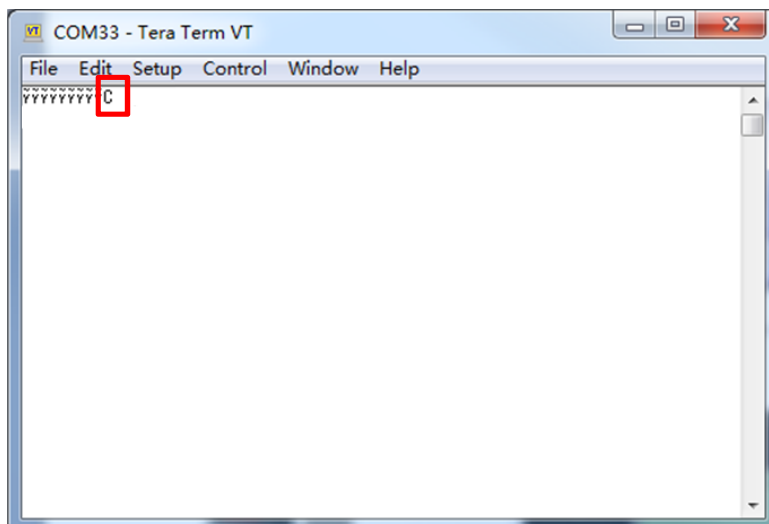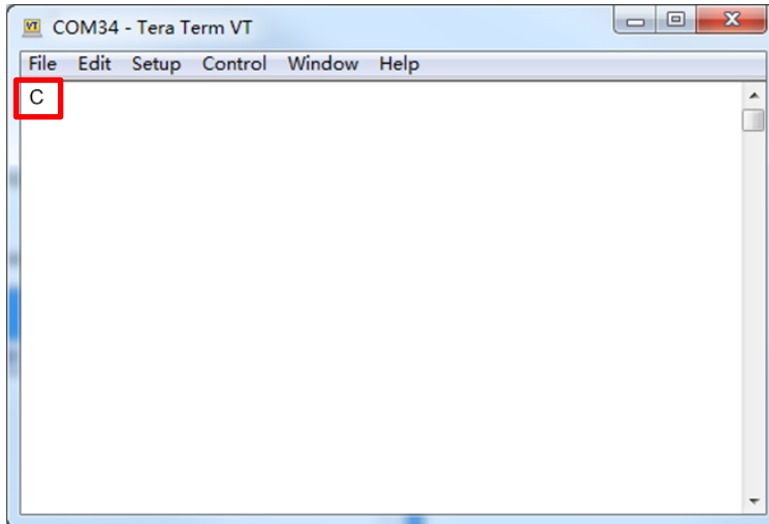*After doing so, the firmware file transfer is ready to go.*

4. Wiring diagram:

5. Start transferring firmware file:

a) After inserting the 3.5mm stereo plug into the COM jack, a character "C" will appears in the main workspace. It means the X5105 is ready to receive the firmware file.
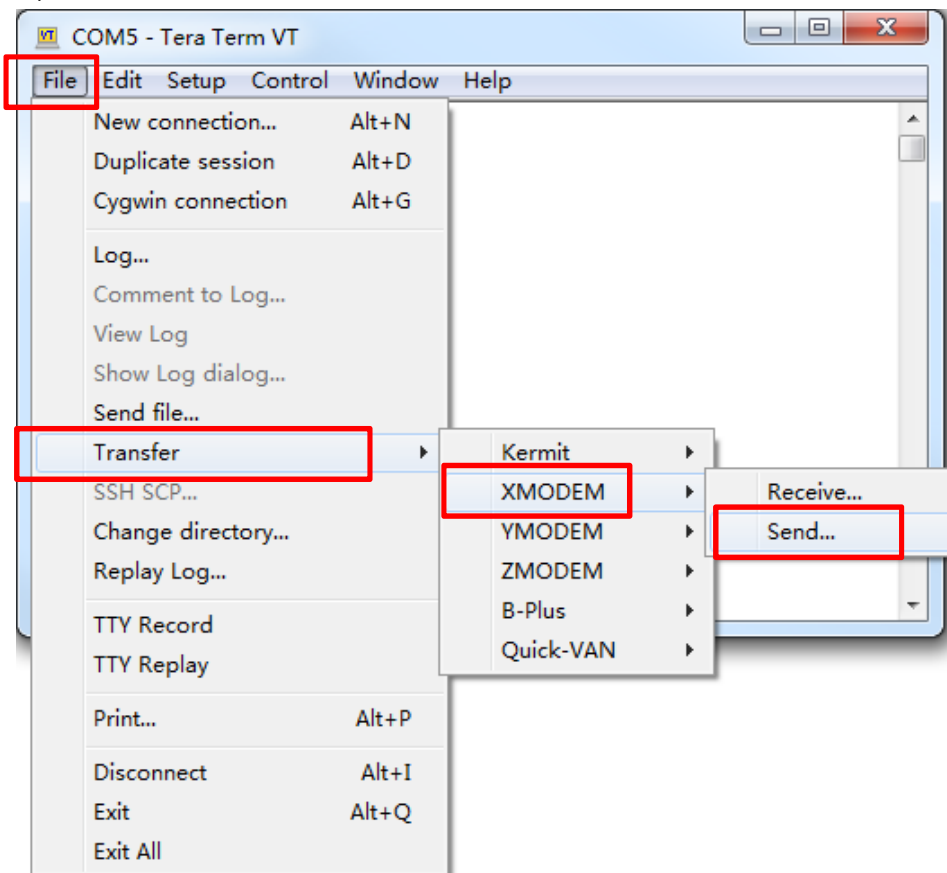There might be some meaningless character(s) appears in the main workspace area due to the interference of stereo plug inserting but it's OK, just ignore them.
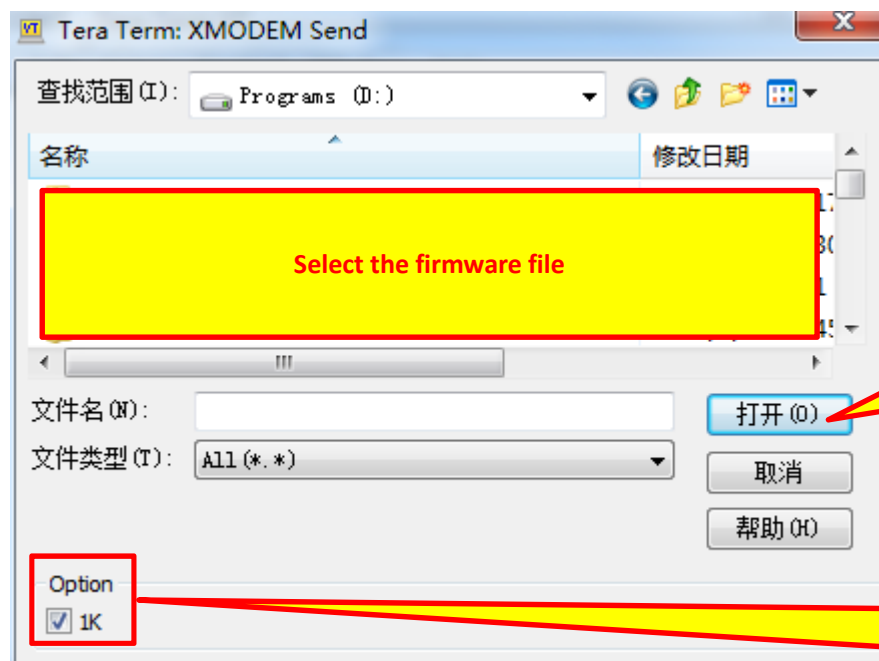

If the "C" does not show up, do as following:

◆ Unplug the 3.5mm stereo plug and plug it into COM jack again
◆ Unplug the USB-to-Serial cable and plug it into USB jack again
◆ Close the Tera Term and restart it
◆ Reconfigure the Tera Term according to **Section 3**
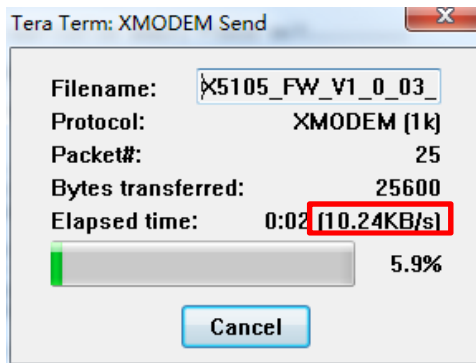◆ Do **Section 5** from start again

b) Select the firmware file:

Click **File→Transfer→XMODEM→Send**…

Check **1K checkbox.**

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

c) Transfer start

If you forgot to check the 1K checkbox, the speed will drop down to about 4KB/s instead of 8~10KB/s and the transfer will fail. So better keeping eyes on it.

6. Configurations after update

There might be some random data stored in the internal EEPROM of X5105, so after the updating, configurations need to be done.

a) Power ON the X5105.

b) If the keypad of X5105 is not respond, Press the **LOCK KEY** for several times, and make sure the **LOCK ICON** is disappeared.

c) Press and hold **MENU KEY** for about 2 seconds to entering the System Setting Menu, Press Left or Right button to select MENU#21, Tuning the **MAIN DIAL KNOB** to change the menu item to YES, Press YES button to apply main reset.

d) Check other configurations:

Select 0x59A03360

Select Enable

--End-of-instruction--