

**Important Notice:** After update the firmware, you need to do the reset to the radio first, power off the radio first. Then power it on while holding the PTT and the PF1 button below the PTT at the same time. The radio will start up with a note on the display stating MCU Reset, Please Wait – and do not turn the radio off while it restarts. \*\*\*\*\* See the Separate FW Update Instructions for Details \*\*\*\*\*

- Install the Customer Program Software (CPS) by running the **D878UV CPS Setup x.xx.exe** setup program in the CPS Program Folder
- After installing a new D878UV CPS version go to the top Menu -> Tool-> Options in the CPS to set GPS, BT, 500 Hour Record and APRS options as needed

**Please make sure the codeplug is saved to PC before your do the update and reset.**

\*\*\* **USB Drivers** - Many users have found the D878 radio USB will connect in Windows 10 without loading the AnyTone virtual drivers. The PC found Windows the driver that worked just by plugging in and turning on the radio. If you get a new radio and your PC is Windows10 system, do not install the GD32 virtual driver. \*\*\* Just plug the radio USB cable in to the USB port on your PC and let windows find the driver. \*\*\* If Windows 10 fails to load a USB driver please see the separate Virtual USB Driver Installation Instructions.

### **D878UV firmware update V1.14 (dated 2019-9-2)**

change list ( SCT base band update is required)

1. Resolve the issue that sometimes bluetooth TX no audio when use with the BT headset.
2. Improve the issue that the display disappear rapidly after call end which cause it looks like signal drops.
3. Roaming icon bug fixed (green R although search negative)
4. Correct the issue that Optional setting - display - call display, the name display is bigger when choose Name based.
5. Add options under APRS TG in CPS and radio menu.
6. Increased the auto repeater offset setting in CPS, allows set 2 different offsets in one band.
7. Increase AES256 encryption setting in CPS
8. Add multi colors settings for the callsign and channel name in CPS.
9. Allows select different GPS mode in CPS, default is only GPS.  
Both GPS & BDS (\$PCAS04,3)  
Single only BDS (\$PCAS04,2)  
Single Only GPS (\$PCAS04,1)
10. Optional Setting -> STE -> Ste Time, Increase the decode time setting for the CTCSS, recommend setting is 250ms for normal use. If the channel with CTCSS doesn't work well in new 1.14FW, please try set the Ste time to 250ms.

### **D878UV firmware update V1.13 (dated 2019-6-8)**

Change List

1. Increased to 200,000 digital contacts.
2. Add "BT RX Delay" in radio BT menu and CPS->Option Setting->VOX/BT  
BT Rx Delay Setting - For Digital Mode Only - this allows for a time delay to be set before the RF radio BT Rx will capture the automobile audio. Recommended setting should be off. If there are short RF radio Rx issues that cause BT RF radio Rx to interrupt background music too soon, a delay from 30ms, 1s, 1.5s, or 2s can be set to avoid false RF radio BT Rx.

- An example could be user PTT bursts to activate a repeater -> ( "kerchunking" ) that may cause the RF radio BT Rx to lock onto the automobile audio and stop music when there is no actual RF Radio BT conversation)
- 3.Add "CTCSS/DCS set" in CPS->Optional Setting->Key function, it allows the radio access CTCSS/DCS set promptly.
  - 4.Modify the "BT Mic Gain" default set to 1.
  - 5.Make the TOT beep independently from public setting, the beep is there when TOT function is on.
  - 6.Change the "Working Mode" in CPS->Optional Setting->Other to match the radio bands, i.e when the radio is at amateur band, the working mode is default at amateur mode.
  - 7.Resolved the issue that SSID in APRS doesn't update when open a new codeplug.
  - 8.Fixed an error, that "auto repeater offset frequency" settings are not being imported
  - 9.corrected band limits for Amateur Europe 0003

#### Important Notice for bluetooth:

- Although Bluetooth version 4.2 is compatible to many newer car entertainment systems, it cannot be guaranteed that it will work with all of these devices.
- Anyone will continue improving Bluetooth to allow more car models connect to our radios, but time is not guaranteed.

#### **D878UV firmware update V1.12 (dated 2019-4-30)**

##### Change List

- 1.Resolved the issue that Wide band set up was missing in the radio menu.
- 2.Resolved the issue that RX display is incorrect when set up the talker alias.
- 3.Resolved the issue that BT PTT battery voltage show on D878UV PLUS screen is incorrect.
- 4.Resolved the issue that BT PTT disconnect once D878UV PLUS is reboot.

In case the BT PTT doesn't reconnect when D878UV PLUS is reboot, please refer to "D878UV BT PTT firmware Upgrade" for updating the BT PTT.

After the firmware update, the BT soft Version should be ET12\_AQQX\_V10024.



#### **D878UV firmware update V1.11N (dated 2019-4-9)**

Change the "Startup Reset" to be default ON.

But it still requires to set "Startup Reset" to "On" in CPS after the first time V1.11N firmware update.

- 1.) Update FW to V1.11N
  - 2.) Use V1.11 CPS to read the radio data
  - 3.) Go to Optional Setting - > Power On menu and set Startup Reset to "ON"
  - 4.) Write the Code Plug to the radio.
  - 5.) Hold pressing PTT & PF1, at the same time power on radio, it will do a Reset.
- It doesn't require to set "Startup Reset" in all the future firmware update operations.

### **D878UV firmware update V1.11 (dated 2019-3-22)**

**→ This firmware update requires an Icon Update.**

#### **Change List**

1. Resolved the issue that "go to Bluetooth and in Paired List - when I want to delete say No 2 = Chevrolet MyLink = it deletes the one above the one I want to delete"
1. Make the band changes, separate the amateur band and commercial band
2. Resolved the issue that the 5Tone encode is incorrect.
3. Add black background for menu.
4. Resolved the issue that some car BT require 6digit code for connection.
5. Resolved the issue that the BT name is incorrect after the re-connection.
6. Resolved the issue that the car player doesn't show the BT name.
7. Resolved the issue that no audio when re-connect the BT.
8. When in roaming, allow the user press PTT, the talk is effective when roaming is successful.
9. CPS->Tool->Firmware update, rename to Firmware and Icon Update.
10. Resolved the issue that Exclude Channel from Roaming was not exported.
11. Resolved the issue that amateur band is not compatible with Contact Manager.
12. Hot keys Import/Export feature added in CPS.
13. This CPS update includes a new Startup Reset option to turn off/on MCU Reboot - Reset.  
In the CPS-> Optional Settings menu -> Power On menu -> Startup Reset field, the Default is set to "OFF" preventing MCU Reboot. To restore the MCU Reboot feature after installing the new CPS, go to Options menu -> Power On menu and turn Startup Reset to "On", save the code plug and then write the code plug to the radio. This will allow future MCU Reboot to be enabled using the **PTT & PF1** hold down during radio turn on.
14. Roaming > Out Range Note > Note Kind > Beep is now working.
15. Resolve the issue that TX TG doesn't match to the display TG.
16. Resolve the issue that voice come out from BT earpiece when transmit analog APRS.
17. Add 60S and 120S BT hold time options in BT menu.
18. Make the BT disconnect to car player after the call is done.
19. Make the radio return to main screen once finish the zone setup.
20. Add display "Booting... Please Wait!" when power on the radio.

### **D878UV firmware update V1.10 (dated 2018-12-30)**

21. Add new menu item in radio Menu->GPS-> Start Test or CPS ->Optional Setting->Power On->Startup GPS Test. With both the Start Test and GPS function are ON, when power on radio, it will enter into GPS test mode first and stay 1minute at GPS test mode before it goes into normal mode. This function may improve the GPS lock speed. Either Start Test or GPS is OFF, the radio will start up at the normal mode.
22. Change the color of roaming icon, red means the roaming is failed, green means the roaming is successful.
23. Add the Analog APRS Signal Path in the Radio Menu - APRS.
24. In CPS ->Channel, add a function "Exclude channel from roaming", when this function is on, the roaming function is invalid in this channel.
25. Add the ON/OFF for date time display.

- 26. Revise the auto power off, when there is a signal come in or user press PTT key, the auto power off count time will be cleared and re-count.
- 27. Resolve the issue that the backlight is not off in set time when RX analog signal.
- 28. Add the “repeater check interval” and “times of repeat reconnections” in the radio menu - Roaming.
- 29. In CPS->Optional Setting ->Auto repeater-> Repeater out of range reminder (times), it will allow the user set up the reminder times for the “Repeater out of range” to show on screen.

#### **D878UV firmware update V1.09(dated 2018-11-28)**

- 30. Change the TG to red color when the roaming is successful.
- 31. Resolved the issue that the Radio will re-start when in radio check
- 32. Resolved the issue that when install the CPS at C:/Program Files(X86), the Firmware Upgrade can not run well.
- 33. Resolved the issue that Export Data Conversion File doesn't work if there are 2 Radio ID.
- 34. Allow the CPS to open DCF file.

#### **D878UV firmware update V1.08(dated 2018-11-10)**

- 35. Resolved the problem the PF3 not allow for Turbo power switch.
- 36. In VFO mode, change the up key to increase the frequency by 1MHz, down key to reduce the frequency by 1MHz.
- 37. Add “Roaming Effect Wait” on roaming menu of radio.
- 38. Move the A or B indication behind the last call.
- 39. Increase the TG display when the roaming is successful.
- 40. CPS->Tool->Export Data Conversion File, allow convert the codeplug for Contact Manager use.
- 41. CPS->Channel->Analog-> Customs CTCSS, allow customize the CTCSS code.

#### **D878UV firmware update V1.07 (dated 2018-10-23)**

- 42. CPS->Public->Optional Setting->Auto Repeater->Roaming Display, it allows set up the roaming return channel to be current channel or the roaming channel.
- 43. CPS->Public->Optional Setting->Key function, add the Mute Timing function, it allows mute the radio at the set time. After it reach the set time, it will return to normal volume. The mute timing can be set in CPS->Public->Optional Setting->Other->Mute timing
- 44. Allow load the codeplug into radio when the roaming zone is null.
- 45. Resolved the problem that R icon and A icon is mixed in display when radio switch from digital channel into analog channel.
- 46. Resolved the problem that Repeater Out of Range is always on display.
- 47. Resolved the problem when assign the PF3 key to Power Switch function, it cannot switch to Turbo power.

#### **D878UV firmware update V1.06 (dated 2018-9-30)**

- 48. Resolved the issue that DMR APRS cannot work on Motorola Repeater.
- 49. Delete the roaming setup in each channel in CPS. All the roaming setup please refer to CPS->Public->Optional Setting-> Auto repeater.
- 50. Allow start the roaming function in a simplex channel.
- 51. CPS->Public->Optional Setting-> Auto repeater->Alert Out of Repeater range, it has Off, bell and voice for optional.
- 52. Change the date time display to be standard.
- 53. CPS->Public->Optional Setting->Display->Channel name color, allow set up the channel name to yellow or

white color.

- 54. CPS->Public->Optional Setting->Display->Receive Backlight Delay, it will allow you turn off the backlight when RX.
- 55. Allow set the APRS TG in radio menu.
- 56. In VFO mode, press up and down key will allow to adjust the frequency at 1MHz step.
- 57. Resolved the issue that time slot can be switched in analog channel.
- 58. Hide the roaming icon in analog channel.
- 59. Resolved the issue that talker alias set up cannot be saved in CPS.