Enabling full test / self adjustment mode Advanced
(Credit to Colin G4EML and Jason VK7ZJA)
Tested with AnyTone AT-D868UV, AT-D878 an d BTech DMR-6X2.
Warning: you can seriously mess up your radio with this adjus tment mode to the point that it may not transmit, receive, or even have a visible display with careless changes to certain values. If you do not know what you are doing, leave this alone.
By now you are probably familiar with the TEST mode on the 868, where you can set the operat ional bands using the top dial to adjust the value next to MODE. There is a way to enable the full test mode menu on the radio so you can not only alter the operational bands, but also things like setting Turbo, High, Mid & Low RF output power levels individually, fine tune the frequency, set the tight squelch values, change the received signal strength S-meter (RSSI) meter curve, even calibrate the battery voltage readout.
Begin by connecting your radio to the CPS software and take a screenshot of, or write down the information shown in the 'Local Information' screen. The process of activating full test mode will erase this information, but if you record it there is a way of replacing it back into the radio afterward.
Also ensure you have saved your current codeplug, as activating full test mode will also place the radio into MODE 00000. If you are using another MODE number, then the radio will reset and you will have to change MODE back to the same that you were previously using and reload your codeplug.
Download one of the following zip files that applies to your model:
http://members.optuszoo.com.au/jason.reilly1/AT868testmodes.zip (2kb) - for 868
http://members.optuszoo.com.au/jason.reilly1/AT878testmodes.zip (2kb) - for 878
http://members.optuszoo.com.au/jason.reilly1/6X2testmodes.zip (2kb) - for 6X2
Unzip your chosen file into a new folder. There are two sets of files in there, one to switch the radio into full test mode, and another to return back to normal test mode where only MODE is selectable.
While this step isn't necessary, if you would like to restore the 'Local Information' details you recorded earlier, hex edit the .CDD files to enter that information as you require. Most fields are 16 characters long, with the exception of area code of 4 characters, Manufacturer Code of 8 characters, and Maintained Description of 80 characters. Once you open the .CDD file in a hex editor, it will become obvious what goes where. When editing your details back in, ensure you only use standard numbers and letters, and do not use any leading or trailing spaces. Any unused space after your text MUST have the hex codes edited to be 00 (zeros). Spaces in between words are fine however. Save the file and you are ready to move on to the next step.
Connect your radio to the PC with it's programming cable
Start up the firmware / icon updating software, QXCodePro_Update
Point that updater to the new folder and select fulltestmode.spi file
Place the radio in icon update mode by holding PTT and the bottom side button together while turning on the radio, you should see UPDATE MODE appear on the radio screen

Make sure you have the right COM port selected and hit write, it will only take a fraction of a second to complete.

Turn the radio off and on again. The radio will take a few extra seconds more than normal to boot up, this is OK as it is reconfiguring internal memory

To activate test mode, turn off the radio, hold down the PTT + keypad 1 buttons until TEST MODE is displayed on the radio screen, then let the two buttons go.

The radio will boot up into it's full test / self adjustment mode.

If you want to go back to normal, follow the same steps above but select the normaltestmode.spi file instead. Again, sending this file to the radio will overwrite any 'Local

Information' and reset MODE back to 00000, so follow the steps above as shown to ensure everything goes smoothly.

Once you start test mode, scroll up and down between different test adjustment points using the zone up/down button. The following adjustments are available: