Changes:

- The motor index field now allows numeric input instead of just a selection which was cumbersome to use with indices going up to 50 or so.
- There was a performance issue with the tuning screen as it was using the scanner screen. The required code is now isolated and tuning selection works much faster.
- The tune screen now correctly points to the satellite and transponder of the currently playing service. The tuning screen now identifies the correct transponder as predefined – if indeed it is.
- The motor index field is now correctly filled-in after selection of the satellite.
- Fields are added to specify an X coordinate for the gotoX command. This field is automatically set according to the satellite tuned but can, of course, be filled in manually as well.
- A gotoX command is added under the yellow button (USALS use).
- The auto-focus function is added under the red button.
- USALS calibration is added under the red button.
- Additional parameters are added in the advanced satellite section of the tuner setup screen to specify the detailed characteristics of the rotor is use.
- A log function is added under the ‘info’ button to log the details of all steps and measurement values, including the exact diseqc parameters. All actions are also shown to the user in a status bar on the screen.

The rotor parameter defaults are reasonably universal but you should supply your rotor parameter is known. The rotor speeds are in degrees/sec, one for horizontal and one for vertical polarisation. These are only used to estimate the rotor movement time. The ‘step size’ is in degrees and is more critical as it determines the actual resolution used in the position calculations.

The requirement for using auto-focus is that there must be a signal that the tuner locks on. The auto-focus search range is artificially limited to +/- 5 degrees. The calculation uses the weighted average, not the maximum signal position. All measured values are logged. Use the ‘info’ button to access the log. There should not normally be more than 1 step between the center of the beam and the maximum signal position. The auto-focus position can be stored in a motor index. The search directions are randomized to avoid bias. The calculation of the auto-focus position should be reproducible. If not, the rotor probably suffers from wear and tear and should be considered for replacement.

The USALS calibration is a way to determine a misalignment – if any – on your rotor installation. Especially useful if the physical rotor setup is difficult to reach. At least three measurements are needed, one on each opposite side of your rotor range and one in the center. If the readings on the opposites e significantly different, there is something wrong with the physical setup. If the deviation on each end of the rotor range is about the same, an opposite shift could be applied to the site longitude to correct for a longitude misalignment.

The requirement for using the calibration is that the target is within +/- 10 degrees. This is an artificial limit to prevent inadvertent full-scale moves. The search directions are unbiased.

There is something in Diseqc called Re-calculate. This is largely undocumented by Eutelsat and does not seem to be implemented in most rotors. The usefulness is questionable and is presently not supported.