Configuration & SatPC32 Setup Guide: ST2 Satellite Ant. Tracking Interface

ST2: **LCD Satellite Antenna Tracker & Rotor Controller**
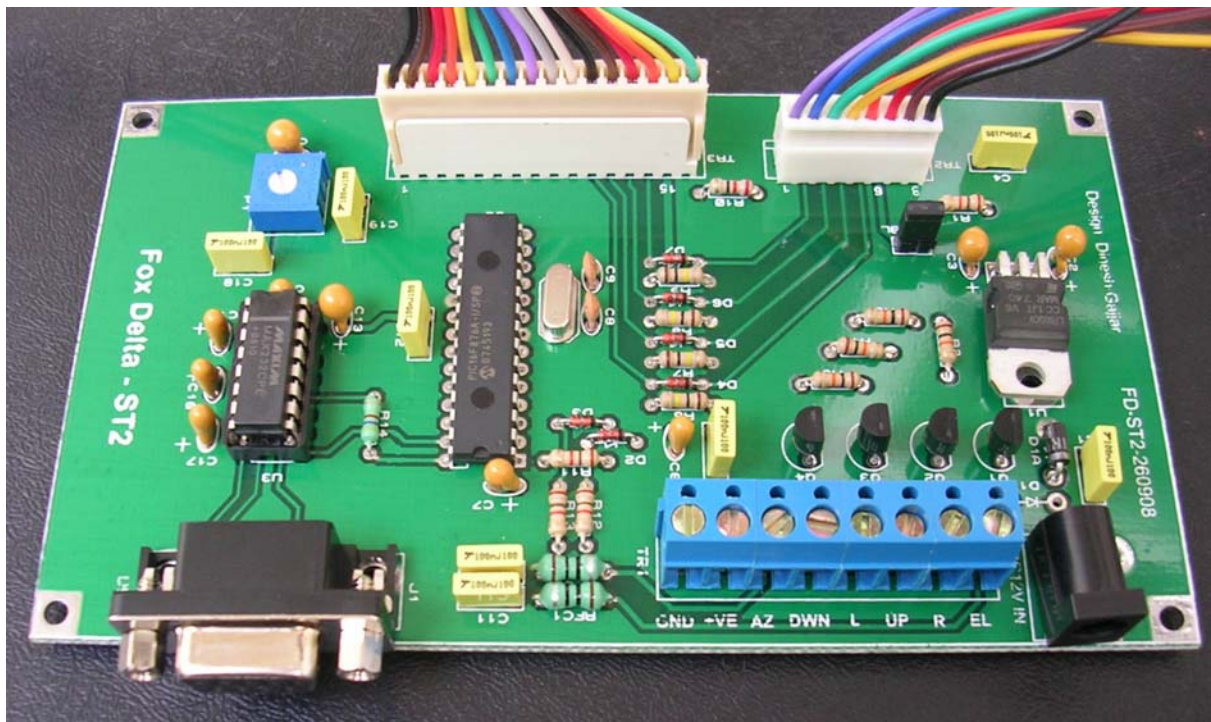
Setup Procedure: By Howard G6LVB for LVB/ST2 Tracker

Additional comments for SatPC32 & G-5500

By Brian Kay Walker / K9BKW

Setup Guide for ST2 & G5500:

Calibration from the serial port (in my case COM1, if you use a USB to serial cable, be sure you follow the setup, you may need to go into Device Manager to get the baud etc… set up).

(1)
Connect to the unit using a terminal emulator at 9600 bps, 1 stop bit, no parity and no handshake. (I used HyperTerminal that is included with Windows -- Start, All Programs, Accessories, Communications, HyperTerminal. Setup 9600 bps, 8 bits, 1 stop bit, no parity, Flow Control to None -- all this can be set from properties under file..).

(2)
Check for communication by typing the 'C' key followed by the enter key. Note that there is no echo of your keystrokes (so you don't see your keystrokes). Commands are also not case sensitive (N is the same as n). The azimuth should be returned, although it will be the uncalibrated value.

(3)
Using either the rotator control box switches or the optional front panel switches, move the rotator to its counter-clockwise end stop (zero degrees), which should be due North or due South depending on your rotator.

(4)
Move the elevation to zero degrees.

(5)
To set the left-most azimuth, type these four keys in sequence:
'F', 'A', 'S', Enter. You will receive a response like: Az Offset=0099

(6)
To set zero degrees elevation, type the four keys in sequence:
'F', 'E', 'S', Enter. You will receive a response like: El Offset=0326

(7)
Using either the rotator control box switches or the optional front panel switches, move the rotator clockwise 360 degrees for both (a) 360 degree maximum azimuth rotators and (b) 450 degree South CCW stop rotators. For 450 degree North CCW stop rotators, move the rotator clockwise to 450 degrees. (I have a G-5500 so and use CCW North, so I go to 450 degrees (E)).

(8)
Move the elevation to either 90 degrees, or 180 degrees, depending on the end stop of your rotator. (again the G-5500 go to 180 degrees)

(9)
To set the right-most azimuth for both (a) 360 degree maximum azimuth rotators and (b) 450 degree South CCW stop rotators, type these four keys in sequence: 'F', 'A', 'E', Enter. For 450 degree North CCW stop rotators, type the four keys in sequence: 'F', 'A', 'F', Enter. In either case, you will receive a reponse like: Az mul=0.897 (G-5500 North CCW so I entered F,A, F, Enter)

(10)
For 90 degree elevation rotators only: to set 90 degrees elevation, type the four keys in sequence: 'F', 'E', 'N', Enter. For 180 degree elevation rotators only: to set 180 degrees elevation, type the four keys in sequence: 'F', 'E', 'E', Enter. In either case, you will receive a response like: El mul=1.234 (I have the G-5500 so I entered 180 setup -- F, E, E, Enter)

(11)
If you have a South CCW stopping rotator, you should key in the three key sequence 'F', 'S', Enter. For a North CCW stopping rotator (default), key in the three key sequence 'F', 'N', Enter. (again I am using North CCW so F, N, Enter)

(12)
To commit this to EEPROM, type the three keys in sequence: 'F', 'W', Enter. (do it...;-))

(13)
When you reset or switch the unit on and off, the calibration parameters should be remembered.

And it all worked...

SatPC32 Setup:

First off,

If you have SatPC32 version 12.7 and want to go to the latest version, you need to uninstall it and download version 12.8... you need to know your call and your password to reinstall the software as a registered version... I am guessing version 12.7 will work fine, but if you have Vista, I would go to 12.8. I like to use the latest software when ever possible...

Go to "add and delete programs" in the control panel (start, control panel), and delete the old SatPC32, reboot, empty the trash and see if anything is left in the C:\program files\SatPC32

Then install the download of 12.8...

**Start SatPC32 and go to the Setup tab on the top, select rotor setup.**

Select SAEBRTrackBox for the rotor interface, I also tried both 90 and 180 (both worked) in the max elevation box... hit store and then OK...

Now exit and restart SatPC32 (you change something, you must exit and restart to have the change take effect)...

This time down in your task bar (down at the bottom of your monitor the blue bar, you should see a tab "EComm300/160" click on it to open it up... you will now have Server EasyComm1, go to setup and select the COM port (1 in my case), the Baud is hard coded to 9600 in the ST-2 so set the baud to 9,600, the pacing delay I set at 10 ms and I have the Attach CR + LF box checked (the Attach CR box is unchecked). Hit Save and exit from SatPC32 and start it again...

You are now set!

I am using a real RS-232 port for the ST-2 and a USB to RS-232 device for the radio... all is working well now!
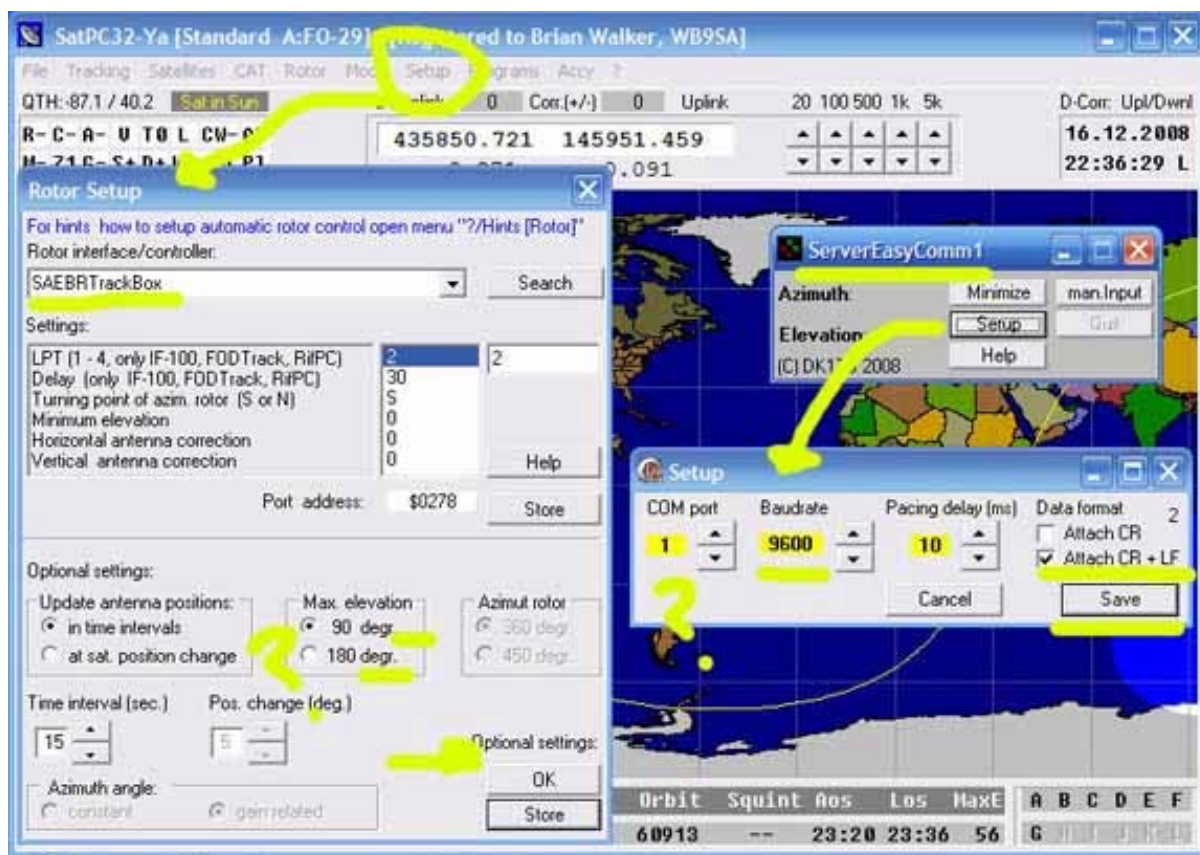
(Brian Kay Walker / K9BKW)

Thank you Brian for help
73/ Dinesh Gajjar
For more details, please visit Project Page: http://www.foxdelta.com