

Disclaimer: This is for experienced engineers only. If you have difficulty with generating a datafile for your SatHawk 4000 meter, use a default dataset from <http://sathawk.tv/SatHawk4000/Download/SatHawk-4000-Downloads.htm>

Dataset Parameters:

Field	Required	Start with	Details
Display name	Yes		Maximum 15 characters. Will be what is shown when the transponder is selected.
LNB LO	Yes		The local oscillator value of the LNB being used.
22KHz Off/On	Yes		Universal LNB's use a tone to switch between the low band (frequencies below 11700) and the high band. Selecting On will switch it to high band.
Frequency	Yes		The transponder frequency . Don't use feeds unless you are sure they are on all the time.
Reference frequency	Yes	Auto	This adjusts some flags in the chipsets in the meter, and experimenting with different values may help when dealing with low symbol rate (below 5000 ks/s) transponders. Typically we have found 2.5MHz a good starting point with these low symbol rates only. Otherwise use the Auto setting It may also help if the transponder is locking but the bar graph of signal strength/BER is unstable – rising and falling very rapidly. Just a matter of experimenting until a stable one is found.
Voltage 14/18 V	Yes		14V is used for transponders in vertical polarity (or Right in USA) and 18V for horizontal.
IQ Swap	No		Some broadcasters will transmit using IQ swap (for no good reason) and this may be an optional test parameter if you are having difficulty in getting lock on what should be a good transponder. It is also used when identifying C Band transmissions. The tuner cannot look for a negative value, so if the frequency is 4160 and the LNB 5150, the IQ swap turns it to a positive (1010). Tuner range is the normal 950 –2150.
User Cal Inhibit	No		No longer used
Default Level Cal	Yes	150	When a satellite is found the bar on the display shows the level. If the bar is too low or too high to be useful, the user can calibrate the meter to make it a useful level (not 99!).

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			When you know what the calibration setting should be you should put it in this box so that all other meters will be programmed with the correct setting. Start with 150.
Default BER Cal	Yes	50	Same as above but for the BER display bar graph. Start with 50.
DVB/DSS	Yes		DSS settings are for American satellites (but I suppose they might just end up being used here. The meter can only identify broadcasts of these two types. Never NTSC, PAL, Digicipher etc. If you use a DSS setting remember to change the FEC setting to suit.
Symbol rate	Yes		As published for the transponder by the broadcaster, or at www.lyngsat.com or http://www.satcodx.com/
Low Symbol Rate	Yes	Auto	Auto is usually good enough except when the symbol rates are very high or low. See reference frequency above.
FEC	Yes		As published, but beware! Not always accurate on lyngsat/Satcodx
Power Off Timer	Yes	5	The length of time in minutes that the meter stays on when not active. To save power. Make a longer setting if you always want to allow more time for installations that are difficult.
DiSEcQ Command	No	Blank	Used to supply switching signals to some types of LNB's that have multiple feeds.
Viterbi Error Period	Yes	128	Sometimes (especially when the signal from the satellite is very strong) it is difficult to calibrate the bar for BER to get a useful level (so that the installer can see the bar rise to a maximum and fall as he approaches and passes the 'sweet' spot). This setting is used to get the hardware to count over a longer or shorter time. It then shows either more or less errors on the bar graph. Setting the level high will slow down the meter's response speed. Start with 128

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