



TELE SATELLITE
AWARD & BROADBAND
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SATCATCHER DIGIPRO EXCEL-TV
Easy to use, extremely accurate
and with a brilliant display



SatCatcher Digipro Excel-TV

Small signal meter with TV display

Until a few years ago it was relatively easy to align a new antenna to a desired satellite positions. All that was needed was an analog receiver and you then slowly moved the dish until one of the analog channels came in clearly. These days, however, this method doesn't work any longer because most satellites almost exclusively transmit digital signals. From an economic point of view this development is only natural because with the same capacity that was taken up by a single analog channel, today up to ten digital channels are beamed back down to earth. So we've ended up with a virtually non-existent analog offering and thus no easy way to adjust our dishes.

Some of our readers might argue that digital receivers are perfectly suitable for this task thanks to their signal strength and signal quality meters, but all we can reply to them is: Try it out for yourself and you'll find that it is extremely difficult to reach an optimum alignment because these digital meters only react very slowly to signal changes, whereas professional devices (and also analog receivers) provide feedback in real time, which is what really counts.

For exactly that reason TELE-satellite presents signal meters for the alignment of satellite dishes every once in a while. Some of them cost about as much as a used small car, while others are designed for more budget-conscious buyers. British company SatCatcher has just launched its new Digipro Excel-TV to prove all those wrong who say inexpensive equals inefficient.

Their signal meter comes in a very robust carrying case made of aluminium and safely rests inside with foam padding all around, together with all the accessories that are part and parcel of the overall package.

The Digipro Excel-TV unit itself features a 3.5-inch LCD display and a total of 22 buttons plus arrow buttons on the front panel to operate the meter. On the top you find the satellite IF input socket, with the socket for the charger and

an interface for connecting the device to the PC being located on the bottom. When using the Digipro Excel-TV outside for adjusting the antenna a sturdy protective cover with viewing window protects it from the elements. A charger for the battery pack that is built into the Digipro Excel-TV, an adaptor for charging the meter in your car, a connecting cable for use between the Digipro Excel-TV and the PC, a CD-ROM with software and a comprehensive user manual with numerous illustrations which will also please laymen are all included in the package.

The standard of workmanship leaves an exceedingly positive impression and all buttons have a nice feel to them. The LCD display can be read well even under direct sunlight.

Everyday use

When we had a look at the technical specifications of the Digipro Excel-TV during our tests we were surprised to read that the meter is operational for up to five hours before the built-in battery needs to be recharged. When compared to many competing meters – whose batteries usually last no longer than two to three hours – this is a remarkable achievement, and one that we were able to verify in our test too. In order to ensure this long battery power the meter should be charged from the mains for at least four to five hours before



The Digipro Excel-TV comes with a robust carrying case made of aluminium and with all the accessory parts you will ever need.

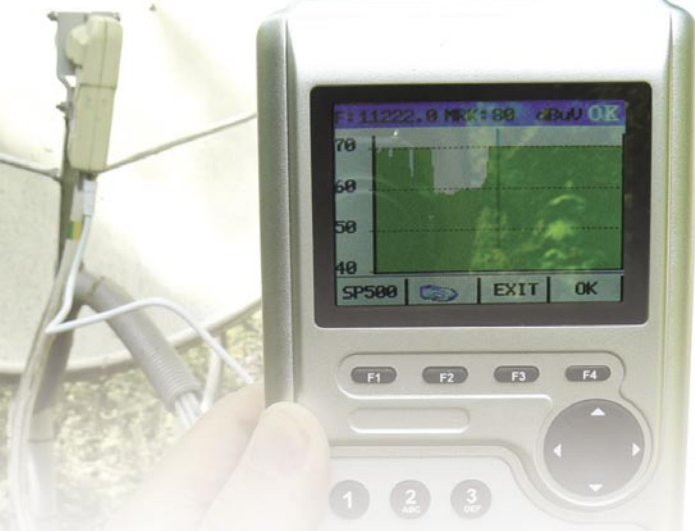
usage. Before starting to align the dish we recommend installing the software of the CD-ROM because in order to fulfill all its promises the Digipro Excel-TV needs a current transponder and satellite list as well as the exact geographic position of the

installation site. Both can be set very conveniently using the SatCatcher software. Dozens of cities worldwide are pre-stored so that in many cases it is not necessary to look up your own location and enter it manually. Of course the list can be edited

SatCatcher's Digipro Excel-TV in use: aligning an offset antenna to ASTRA 2B



Spectrum display



to add new entries and free online services such as Dish-Pointer.com for example are very handy tools for determining precise location data. The European software version includes an extensive list of 64 pre-stored satellite positions and whenever several satellites are co-positioned at the same orbital spot, each satellite is listed separately and can also be selected individually.

This is an important feature because even though several satellites often share the same position they frequently have different footprints which means that depending on the reception region only signals from specific satellites might come in strongly enough. ASTRA2D at 28.2° East is a classic European example for that: in the UK and Ireland its signals can be received with dish sizes of no more than 70 cm, while in Eastern Austria a diameter of three meters would be required to receive the exact same signal. On the other hand, ASTRA2A and ASTRA2B share the same position and can be received with small antennas all over Central Europe.

Each satellite comes with a list of several transponder entries, which can also be edited or extended if the need arises. An updated list is made available for download by the manufacturer in regular intervals, or you can always turn to www.SatcoDX.com for up-to-date data or at the "World of Satellites" software delivered on CD-ROM with each issue of TELE-satellite.

Once all required parameters are entered or selected the meter needs to be hooked up to the PC with the included cable (serial COM port) so that all information can be transferred

to the measuring device in a breeze.

Antenna alignment

Before you can go about aligning your antenna you need to load the desired satellite on the meter first. All you need to do for that is press the FINDING button which calls up the satellite list which before was shown by the PC software as well. From that list you need to select your desired satellite. Each satellite on the list is divided into its horizontal and vertical polarisation and low and high band, because even if we are dealing with one satellite only, chances are that one polarisation or band targets a different market than the other and thus not all signals can be received at all locations.

With the FINDING menu and the ORIENTATION sub-item the meter calculates the elevation and azimuth settings required to correctly point the antenna to the chosen satellite. A virtual compass shows the approximate orientation of the antenna during the alignment process. Generally, your antenna should show first signs of life as soon as the settings suggested by the meter are implemented on the antenna.

Once that stage is finished the Digipro Excel-TV switches from finding mode to alignment mode and displays signal strength and signal quality with the help of two extremely sensitive bars. C/N, BER as well as signal strength are permanently measured and indicated in dB and/or dBµV. There is even an acoustic indicator representing the current measurement so that changes can be noticed even without looking at

the meter simply by listening to the changing pitch of the sound. That way you always have immediate feedback telling you if antenna movements improve or deteriorate the incoming signal. In case a signal does not come in right away you may decide to select a different transponder out of the pre-stored list. As soon as the best possible signal strength has been found you can press the TV button so that the Digipro Excel-TV reads out the NIT of the chosen transponder and displays the channels transmitted on that transponder.

If you were skeptical whether all that bars and pitching sounds actually led to something, now that you can actually watch TV on the Digipro Excel-TV signal meter you have proof that the antenna points to the right satellite. Any FTA channel can be displayed and using the arrow buttons you can even zap between channels.

A more experienced user will

use the quick route:

- press finding button
- select satellite needed
- press F4: this goes to spectrum to make the install
- press F4 again: this goes to signal screen for fine tune
- another press F4 to download tv channel for ultimate verification of the satellite found.

Each measurement result can be saved for later analysis with the touch of a button. This is a very handy feature in situations when you need to align a motorised or multi-feed antenna and you need to have reception data of all available satellites for reference once setup is completed.

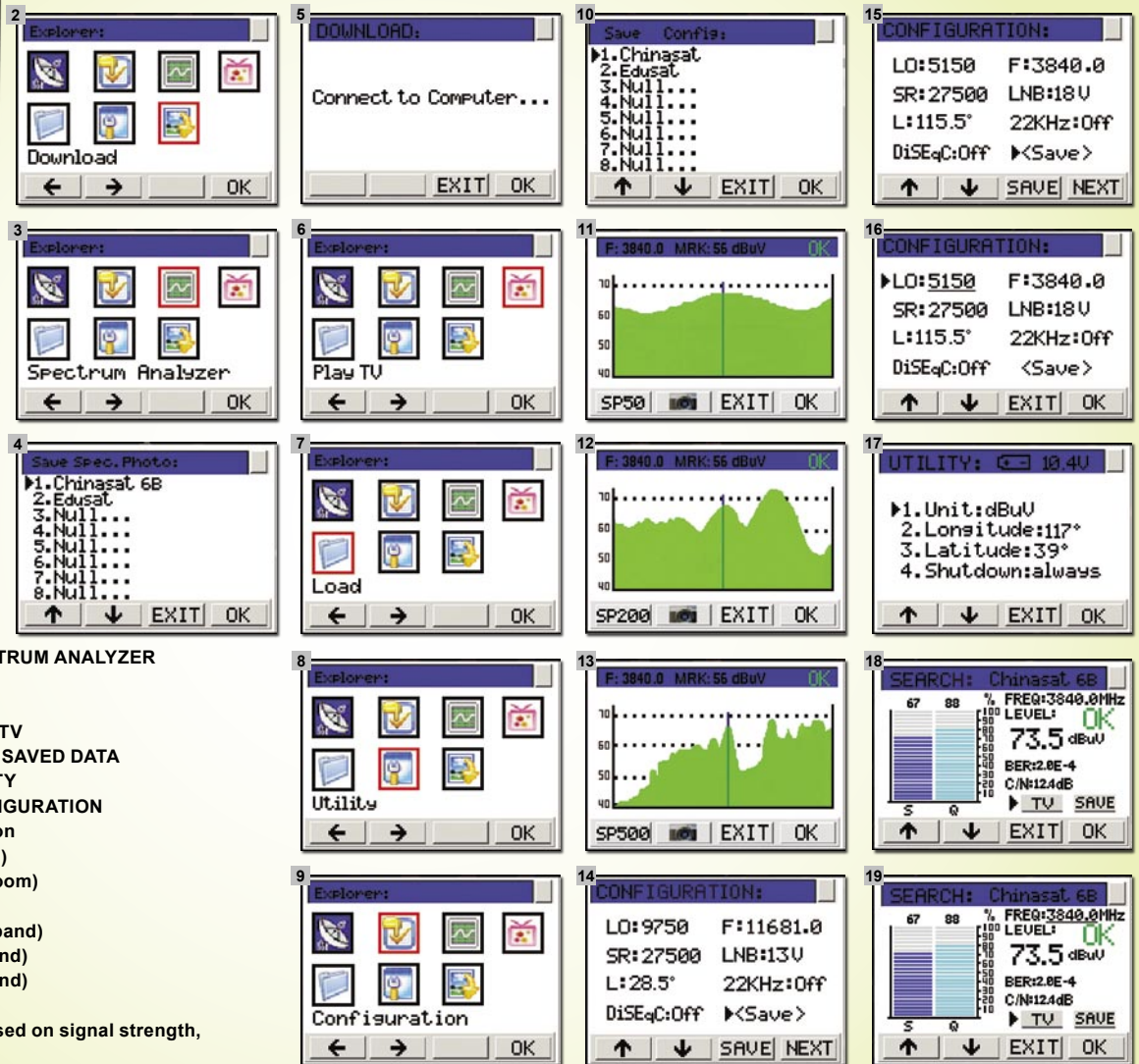
Apart from pre-stored transponder data or those edited on the PC it is also possible to add new transponder parameter directly in the meter. LOF, LNB power supply and the 22 kHz signal may just as well be adjusted right with the signal meter. That way you can use Digipro Excel-TV both for the Ku

Done! The dish points to the right satellite and the Digipro Excel-TV now becomes a miniature TV.





DigiPro Excel TV Screenshots:



- 1 – Main menu, menu item FINDING for aligning the antenna
- 2 – Main menu, menu item DOWNLOAD for exchanging data with the PC
- 3 – Main menu, menu item SPECTRUM ANALYZER
- 4 – Saving spectrum photo
- 5 – Downloading data to the PC
- 6 – Main menu, menu item PLAY TV
- 7 – Main menu, menu item LOAD SAVED DATA
- 8 – Main menu, menu item UTILITY
- 9 – Main menu, menu item CONFIGURATION
- 10 – Saving satellite configuration
- 11 – Spectrum photo (high zoom)
- 12 – Spectrum photo (medium Zoom)
- 13 – Spectrum photo (low Zoom)
- 14 – Satellite configuration (Ku band)
- 15 – Satellite configuration (C band)
- 16 – Satellite configuration (C band)
- 17 – UTILITY menu
- 18 - Display shot for aligning based on signal strength, C/N and BER
- 19 – Saving spectrum photos



USB interface for connecting the device to the PC next to the socket for power supply.



F-socket for connecting the LNB on the top side.

and C bands, or any other available band for that matter.

The DigiPro Excel-TV can also be operated when connected to a multiswitch since it supports DiSEqC 1.0 (for up to eight LNBs).

The manufacturer has also equipped its latest meter with DiSEqC 1.2 as well as USALS (DiSEqC 1.3) which the manufacturer claims is the only meter in the world with USALS.

With its front panel buttons the motor can move the antenna to position 0 with a single touch of a button and with the SET button the motor can be commanded to rotate the dish directly to the position of the currently selected satellite. Similar to the measurement results, all changes to the satellite list can also be saved directly in the meter for later use. As an alternative to using the signal strength

and signal quality indicators for antenna alignment you may decide to switch to spectrum mode with three different zoom levels, which is used to move the antenna until the spectrum that corresponds to the chosen satellite is displayed.

To facilitate this process a number of spectrum photos are pre-stored in the meter or can be added at a later stage so that current measurement results can be compared to default spectrum photos.

The UTILITY menu allows customising the DigiPro Excel-TV according to personal preferences. If you cannot or do not want to use the provided PC software for whatever reasons you can enter your actual geographic location there. Furthermore, you can set a specified period of time after which the signal meter

shuts down automatically to save valuable battery capacity.

During our tests we aligned a number of antennas and one DiSEqC rotary dish with the help of DigiPro Excel-TV and in each case were impressed with the ease of use and intuitive interface of this measurement device. We particularly liked the perfectly readable LCD display and the acoustic signal indicator. Thanks to the sturdy carrying case and its protective cover this meter is the perfect match for any satellite dish installer, no matter whether it's up on the roof or down in the back yard.

The provided PC software can be used to update the DigiPro Excel-TV's internal database at any time and the manufacturer offers relevant data for download from its website in an exemplary way.

