PROMAX

PRODIG-1

SATELLITE HUNTER

PRODIG-1

GETTING STARTED

- Thank you for buying our PRODIG-1 Satellite Hunter
- Aligning a satellite dish to a digital satellite will be quick and easy with the PRODIG-1

PRODIG-1

GETTING STARTED

- This document takes you through a step by step procedure to get familiarised with the PRODIG-1 use and applications

- ***We recommend you to take few minutes to read it carefully because it can be very helpful for you***

PRODIG-1

GETTING STARTED

- PRODIG-1 needs to be programmed before use with transponder information from the satellites you need to work with.

- Each set of transponder data (frequency, FEC, ...) will become a test point on board the PRODIG-1 which you can label to identify it easily.

PRODIG-1

GETTING STARTED

- Please, check if the satellites / transponders pre-programmed in the PRODIG-1 you have just taken from the box are good for your application

TEST POINT	**NAME** (4 characters)	**FREQUENCY** (IF)	**LNB VOLTAGE**	**22 KHz** (Yes or No)	**FEC** (2/3, 3/4, …)	**Symbol Rate**
TP0	DISH	1186	18	No	¾	20000
TP1						
TP2						

PRODIG-1

GETTING STARTED

- ***If the configuration is not good for your application, please, go to the "MODIFYING CONFIGURATION" section.***

PRODIG-1

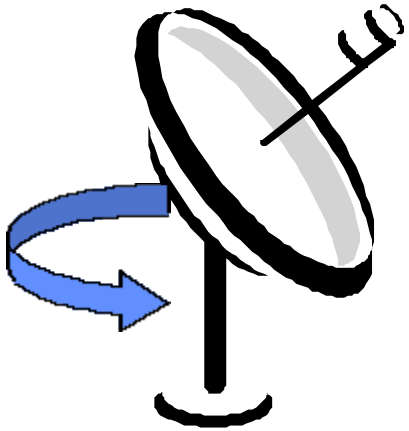
STEP 1 - DETECTING A SATELLITE

- Make sure batteries are charged and eventually charge them for few hours using the AL-101 power adapter supplied
- Connect the dish LNB to the PRODIG-1
- Switch on by pressing on key # 1 for more than a second

PRODIG-1

STEP 1 - DETECTING A SATELLITE

- Move the dish towards the position where you'd expect to find the satellite you wish to align
- As soon as you receive signals from a satellite the bargraph will show some activity and the acoustic indicator will beep



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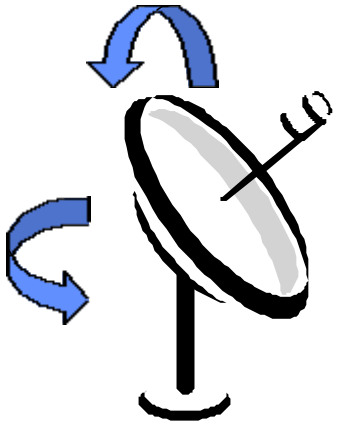
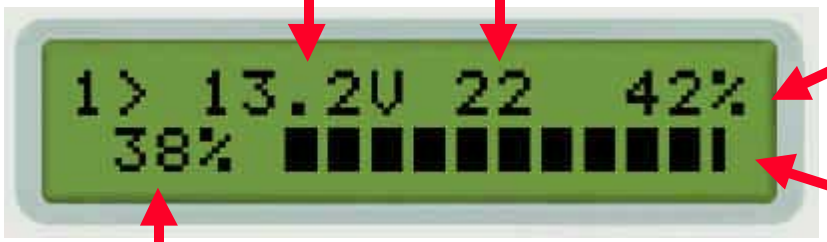
PRODIG-1

STEP 1 - DETECTING A SATELLITE

- Move the dish smoothly up down left and right to get the maximum bargraph deviation
- Display will be also showing some additional information:





Actual LNB voltage supplied

22 KHz signal On /Off

Maxhold of the Signal Energy reading

Signal Energy on bargraph

Current Signal Energy reading

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STEP 1 - DETECTING A SATELLITE

- These are some of the messages you can get on the display:

  - "CABLE SHORT" Look for a short circuit in the cable to the LNB, connectors, LNB itself...

  - "NO LNB" Check connectors and LNB. Check that the cable run is not too long

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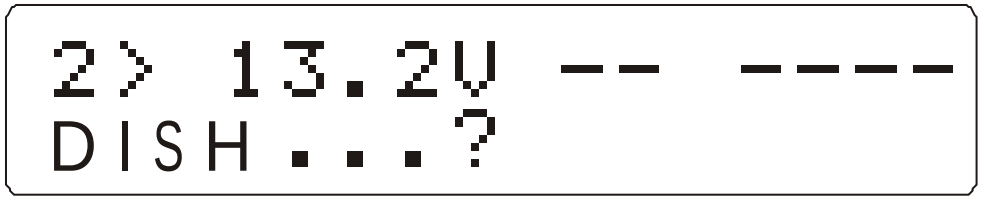
PRODIG-1

STEP 2 - IDENTIFYING SATELLITE

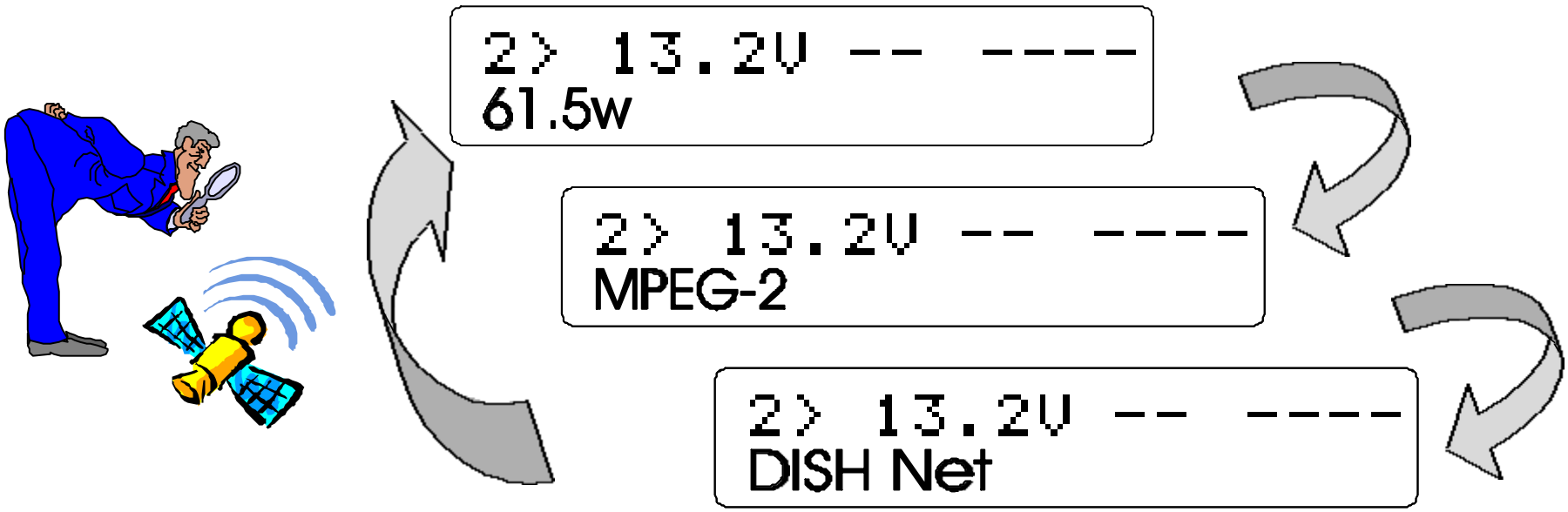
- Once you have the maximum bargraph deviation then press key # 2. The label of the first test point will be displayed (say DISH).



PRODIG-1

STEP 2 - IDENTIFYING A SATELLITE

- Right after the label is displayed the PRODIG-1 will start downloading information from the programmed transponder and will show it for your evaluation.



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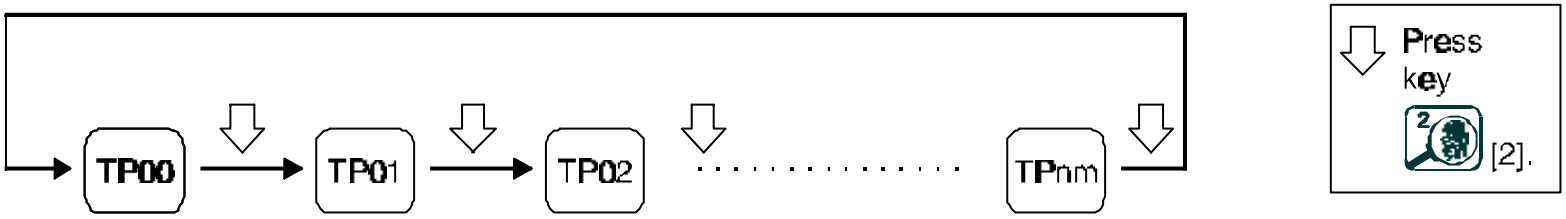
STEP 2 - IDENTIFYING A SATELLITE

- The information displayed can be
  - MPEG-2
  - Orbital position
  - Operators name
  - Bouquet name
- Every time you push the key # 2 the next text point will be selected in a cyclic sequence



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STEP 3 - OPTIMISING THE QUALITY

- Once you know you are on the right satellite press key # 3
- Another bargraph will appear on the display but this will be proportional to quality of the QPSK demodulated signal and not signal energy as in step 1.

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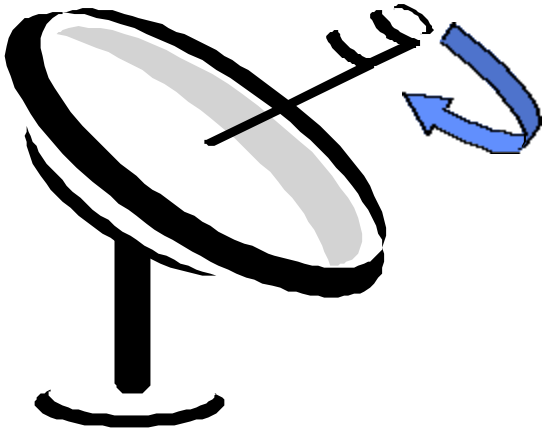
STEP 3 - OPTIMISING THE QUALITY

- Move the LNB to maximise the bargraph deviation and eventually try very small dish fine tuning

MAXIMUM DEVIATION

OPTIMUM CROSS-POLARIZATION



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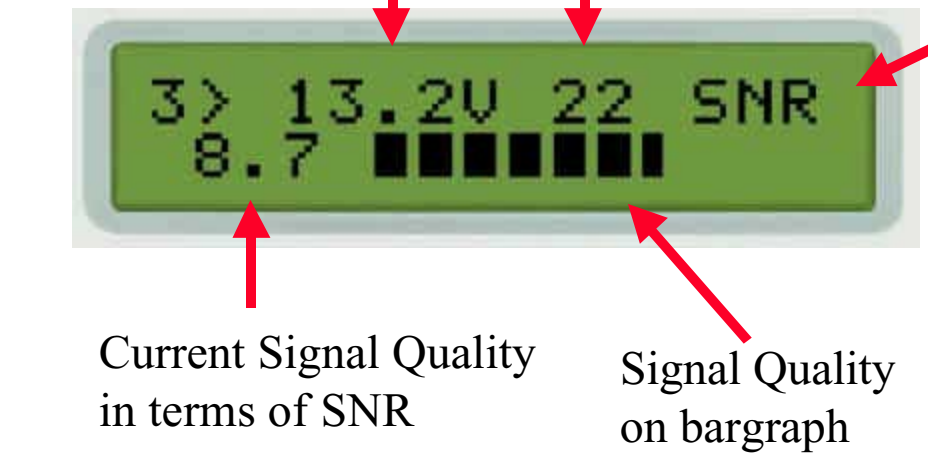
STEP 3 - CHECKING QUALITY LIMITS

- The display will show some complimentary information as well



SNR PASS/FAIL:

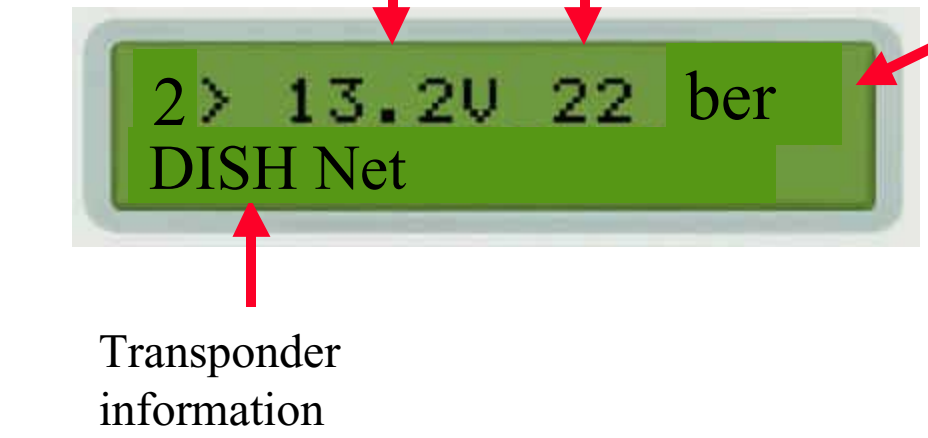
snr (in small letters) means quality is not enough

SNR (in capital letters) means quality is good enough

PRODIG-1

STEP 3 - CHECKING QUALITY LIMITS

- You may be interested to press key #2 to check Bit Error Rate



BER PASS/FAIL:

ber (in small letters) means it is not good

BER (in capital letters) means it is good enough

PRODIG-1

MODIFYING CONFIGURATION

- If you wish to work with satellites different to those pre-programmed from origin or wish to change the test points in any way you should proceed as follows:

  – **Get information** on the satellites and transponders of your choice
  – **Edit the configuration** file accordingly by using the RM001 software supplied and change the programming of the PRODIG-1 using the communications cable included as well

PRODIG-1

GET INFORMATION...

- Satellite and transponder information is available through different sources
- Several websites offer reliable data which can be used to configure the PRODIG-1.

www.lyngsat.com

www.satcodx.com

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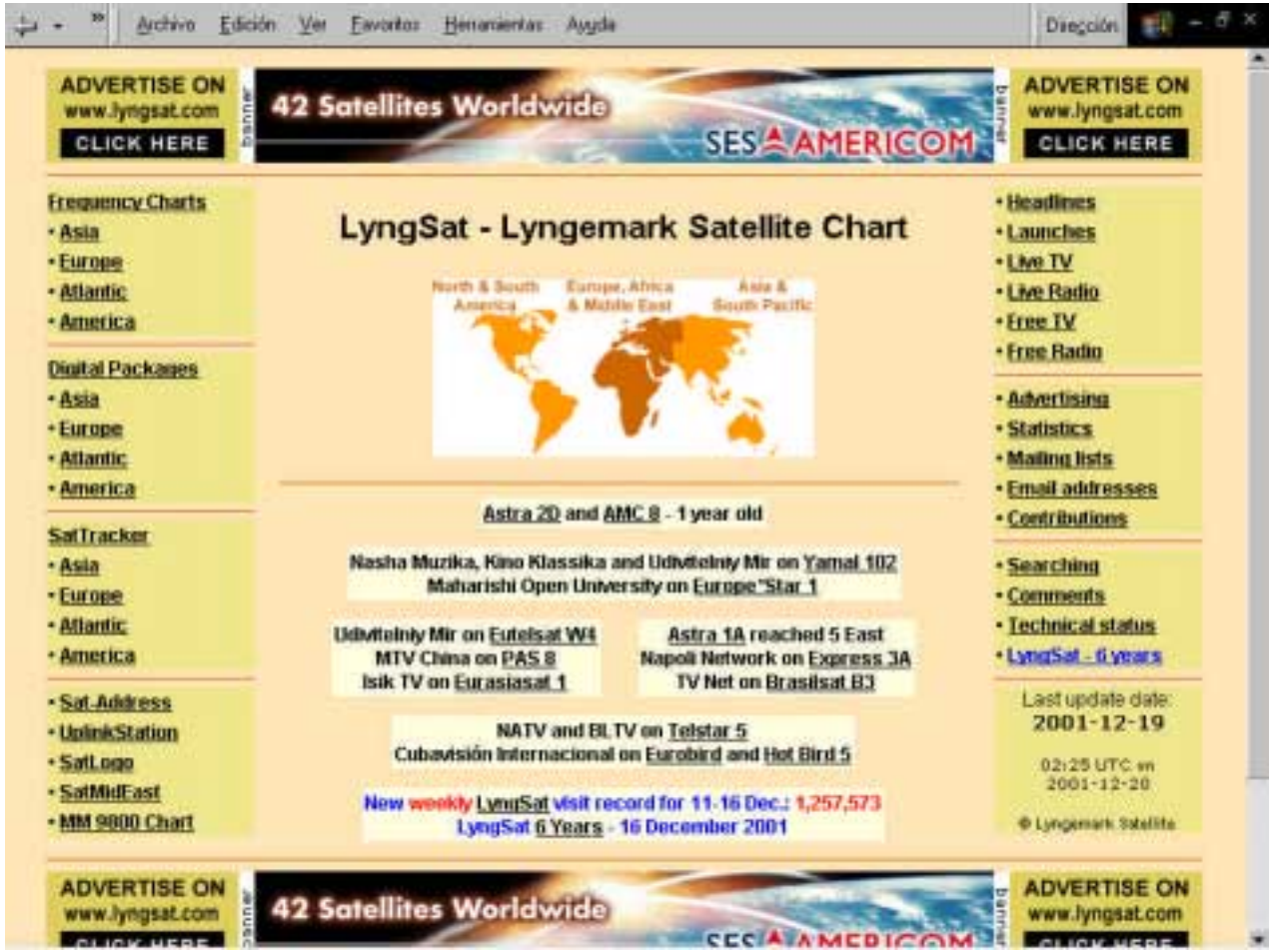
PRODIG-1

GET INFORMATION...

Enter lyngsat web site



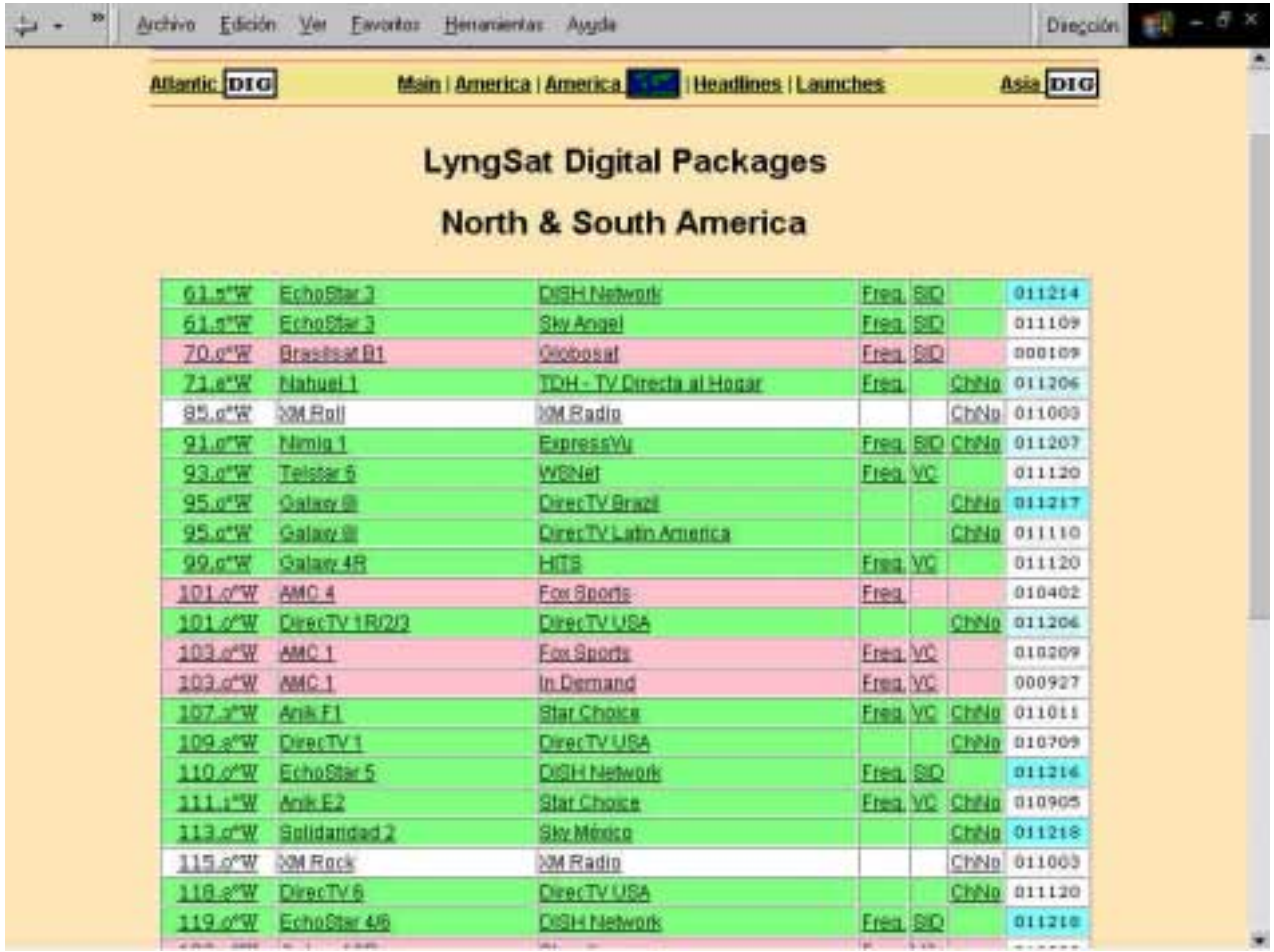
PRODIG-1

GET INFORMATION...

Click on:

-->Digital Packages

-->America



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PRODIG-1

GET INFORMATION...

Click on the desired satellite:

Archivo Edición Ver Favoritos Herramientas Ayuda Dirección

Atlantic Main | America | America DIG | America | Headlines | Launches Asia

58.0°W <C> 65.0°W SatTracker 58.0°W <Ku> 71.8°W

Lyngemark Satellite Chart

EchoStar 3 at 61.5°W

EchoStar 3 © Lyngemark Satellite, last updated 2001-12-19 - http://www.lyngsat.com/echo3.shtml

Freq. Tp		Provider Name Channel Name		Video Encryption	SR - FEC SID - VPID	NID - TID Audio	Beam	Source Updated
12239 L tp 2	dish	DISH Network	DIG	MPEG-2 Nagravision	20000 - 3/4	4099-102	Conus	J Hotzenplitz 011129
12253 R tp 3							Conus	J Hotzenplitz 011014
12268 L tp 4	dish	DISH Network	DIG	MPEG-2 Nagravision	20000 - 3/4	4099-104	Conus	J Hotzenplitz 010408
12282 R tp 5							Conus	J Hotzenplitz 001205
12297 L tp 6	dish	DISH Network	DIG	MPEG-2 Nagravision	20000 - 3/4	4099-106	Conus	J Hotzenplitz 011014
12311 R tp 7							Conus	J Hotzenplitz 001205
12326 L tp 8	dish	DISH Network	DIG	MPEG-2 Nagravision	20000 - 3/4	4099-108	Conus	J Hotzenplitz 011214
12355 L tp 10	dish	DISH Network	DIG	MPEG-2 Nagravision	20000 - 3/4	4099-110	Conus	J Hotzenplitz 010629
12384 L tp 12	dish	DISH Network	DIG	MPEG-2 Nagravision	20000 - 3/4	4099-112	Conus	J Hotzenplitz 011129

PRODIG-1

GET INFORMATION...

Transponder frequency: 12.239 MHz
The PRODIG-1 expects the IF frequency which is:
12.239 MHz - LNB Local Oscillator Frequency

EchoStar 3 © Lyngemark Satellite, last updated 2001-12-19 - http://www.lyngsat.com/echo3.shtml

Freq. Tp		Provider Name Channel Name		Video Encryption	SR - FEC SID - VPID	NID - TID Audio	Beam	Source Updated
12239 L tp 2		DISH Network	DIG	MPEG-2 Nagravision	20000 - 3/4	4098-102	Conus	J Hotsenpiller 011129
12253 R tp 3							Conus	J Hotsenpiller 011014
12268 L tp 4		DISH Network	DIG	MPEG-2 Nagravision	20000 - 3/4	4098-104	Conus	J Hotsenpiller 010408

PRODIG-1

GET INFORMATION...

Polarization: L after the frequency means Circular Left hand side. Depending on the type of LNB used this will determine what voltage (13/18 Volts) should be supplied to the LNB

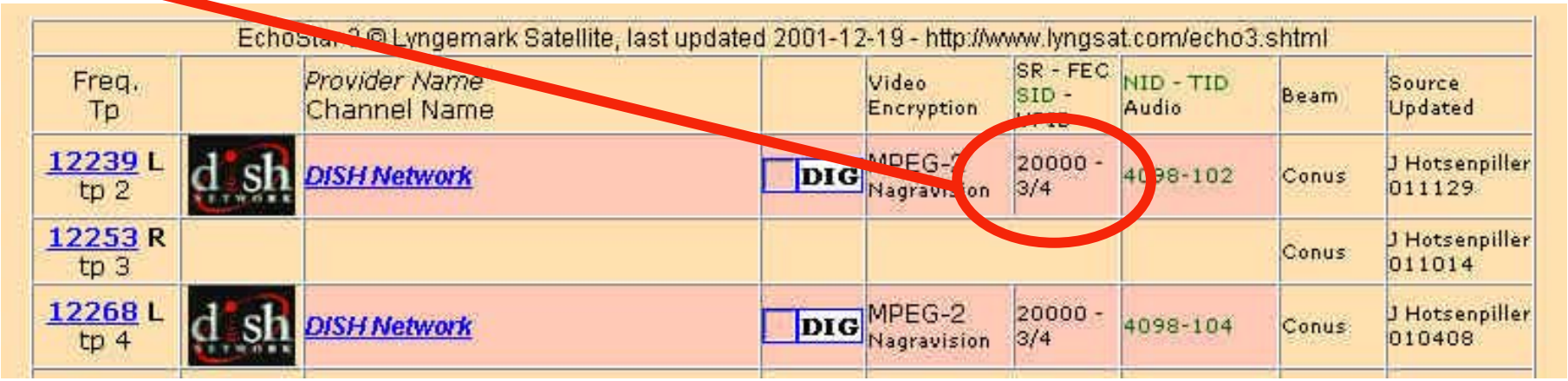
EchoStar 3 © Lyngemark Satellite, last updated 2001-12-19 - http://www.lyngsat.com/echo3.shtml

Freq. Tp		*Provider Name* Channel Name		Video Encryption	SR - FEC SID - VPID	NID - TID Audio	Beam	Source Updated
12219 L tp 2	d sh	*DISH Network*	DIG	MPEG-2 Nagravision	20000 - 3/4	4098-102	Conus	J Hotsenpiller 011129
12253 R tp 3							Conus	J Hotsenpiller 011014
12268 L tp 4	d sh	*DISH Network*	DIG	MPEG-2 Nagravision	20000 - 3/4	4098-104	Conus	J Hotsenpiller 010408

PRODIG-1

GET INFORMATION...

Symbol Rate: 20.000
FEC: 3/4



EchoStar 3 @ Lyngemark Satellite, last updated 2001-12-19 - http://www.lyngsat.com/echo3.shtml

Freq. Tp		Provider Name Channel Name		Video Encryption	SR - FEC SID -	NID - TID Audio	Beam	Source Updated
12239 L tp 2		DISH Network	DIG	MPEG-2 Nagravision	20000 - 3/4	4098-102	Conus	J Hotsenpiller 011129
12253 R tp 3							Conus	J Hotsenpiller 011014
12268 L tp 4		DISH Network	DIG	MPEG-2 Nagravision	20000 - 3/4	4098-104	Conus	J Hotsenpiller 010408

PROMAX

PRODIG-1

EDIT THE CONFIGURATION...

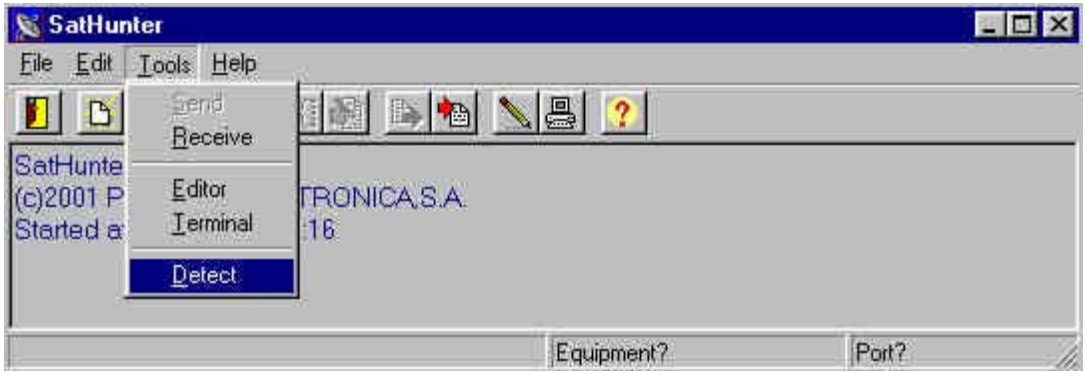
- Install the RM-001 software supplied in your PC
- Connect the included cable to the RS-232C port
- Start the PRODIG-1 in SERVICE MODE

To do so just press keys #1 and #3 at the same time (the unit will beep twice and will show SERVICE MODE on the display

PRODIG-1

EDIT THE CONFIGURATION...

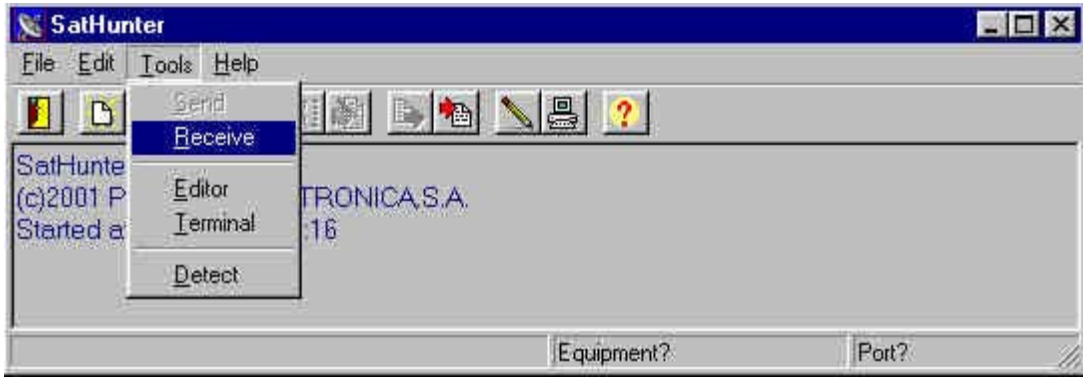
- Run the software SATHUNTER.
- Select **Tools→ Detect** from the menu.
  - Software should then display “PRODIG-1 detected” on whichever “COM port” it was connected.
- If PRODIG-1 is not detected, check the connections and try again.



PRODIG-1

EDIT THE CONFIGURATION...

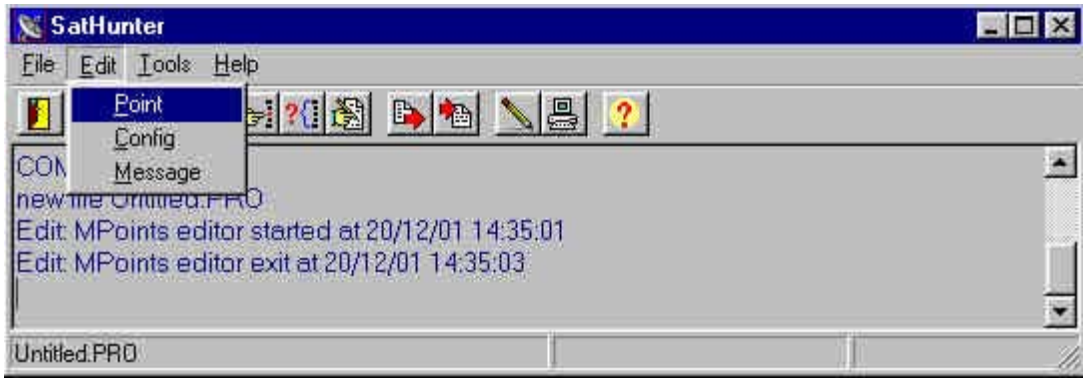
- Select **Tools → Receive** from the menu.
  - Software should then take a few seconds to extract the test points which are currently installed on the PRODIG-1.



PROMAX **PRODIG-1**

EDIT THE CONFIGURATION...

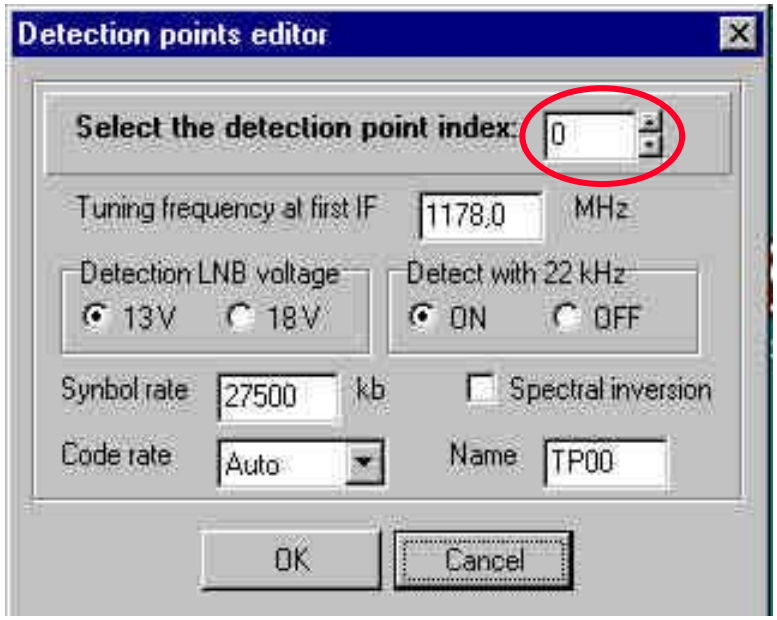
- Select **Edit → Point** from the menu.
  - You should then get the screen where you can modify the test points as you need.



PRODIG-1

EDIT THE CONFIGURATION...

- Select the detection point which you want to edit.

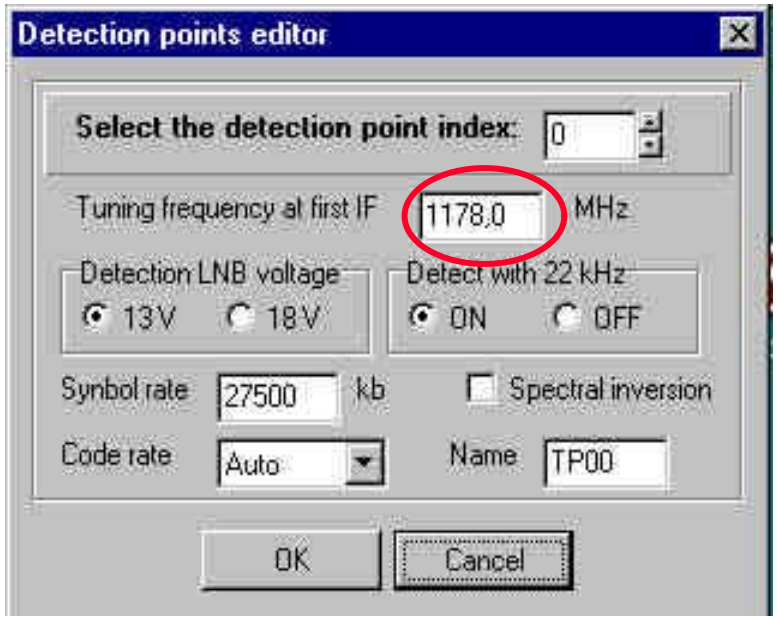


PROMAX

PRODIG-1

EDIT THE CONFIGURATION...

- Enter the IF frequency of the desired transponder.

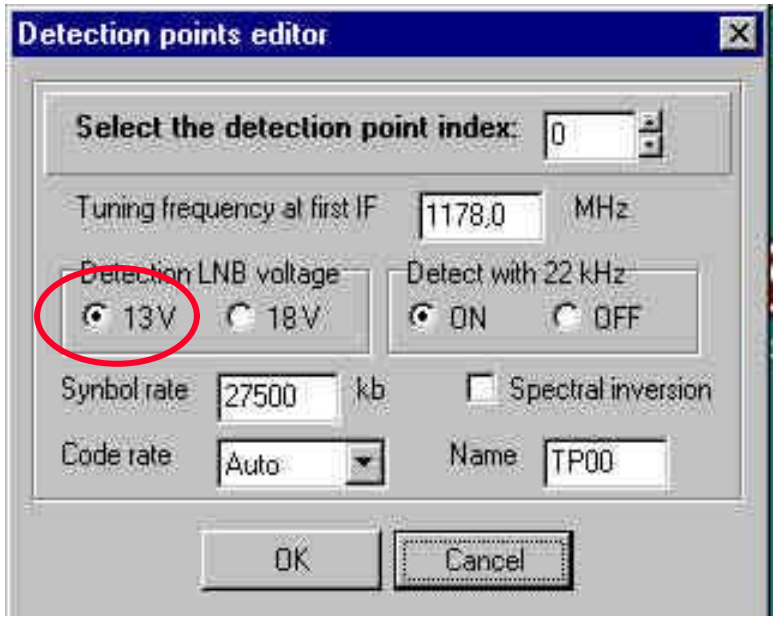


PROMAX

PRODIG-1

EDIT THE CONFIGURATION...

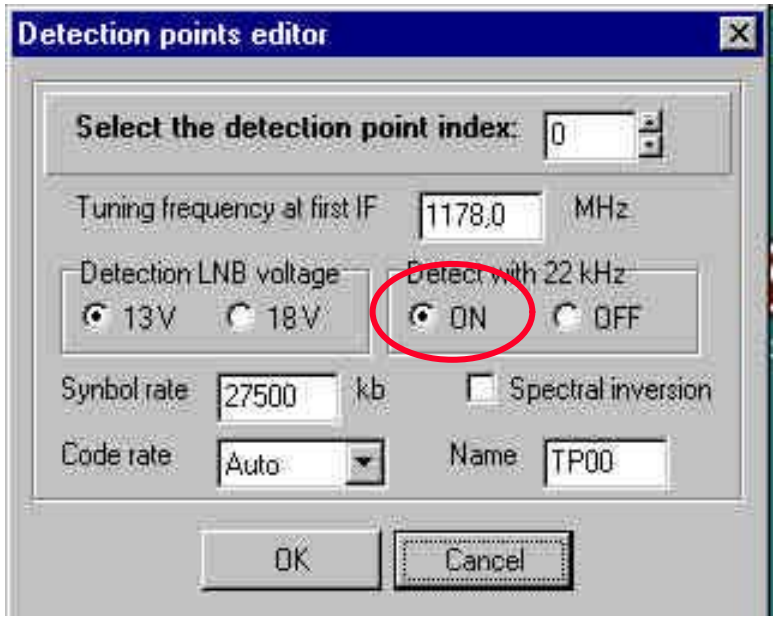
- Select the LNB voltage (13 V or 18 V depending on which polarization the transponder is coming from).



PROMAX **PRODIG-1**

EDIT THE CONFIGURATION...

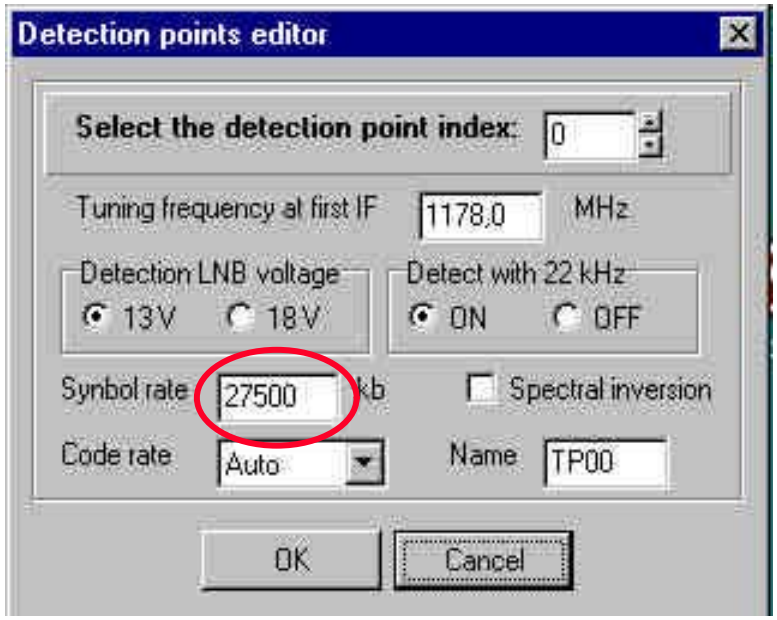
- Select ON/OFF for the 22 KHz switching signal if needed.



PROMAX **PRODIG-1**

EDIT THE CONFIGURATION...

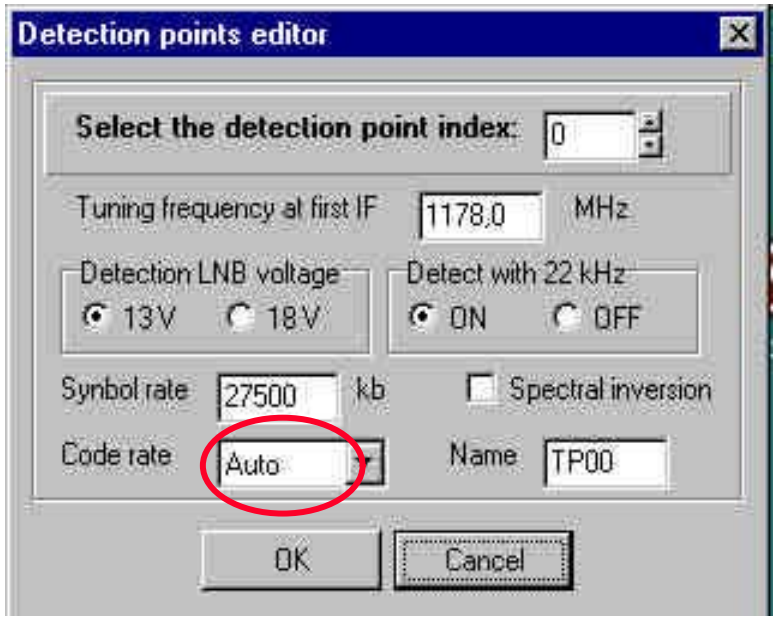
- Enter the Symbol rate for this transponder.



PROMAX **PRODIG-1**

EDIT THE CONFIGURATION...

- Select the Code rate for this transponder or leave it in Auto if you don't know the value.



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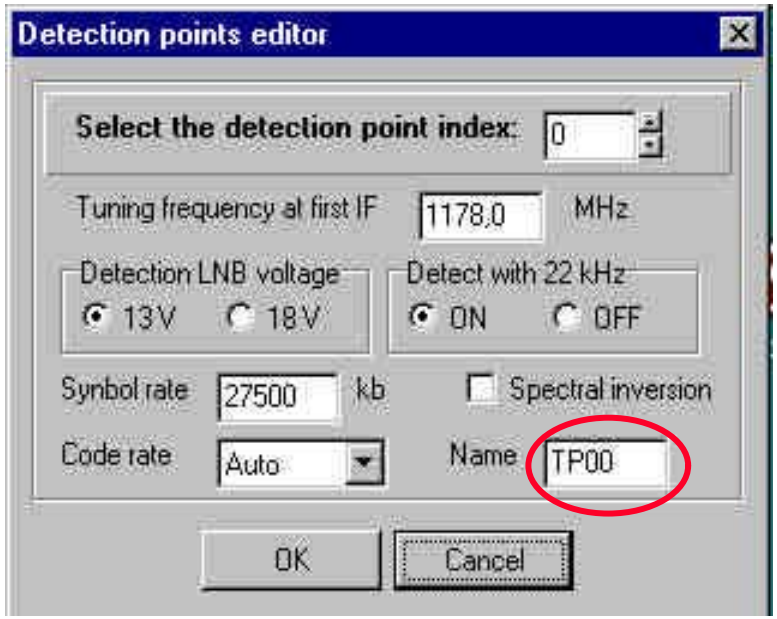
PRODIG-1

EDIT THE CONFIGURATION...

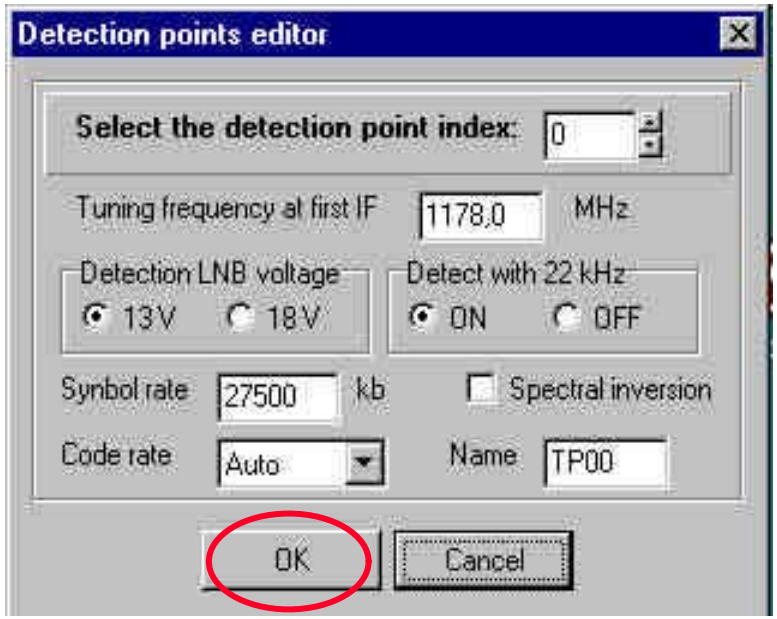
- Enter a label name (4 characters) so that you can identify it when you see it on the PRODIG-1.



PRODIG-1

EDIT THE CONFIGURATION...

- Select OK to save or CANCEL to disregard the changes.



PROMAX **PRODIG-1**

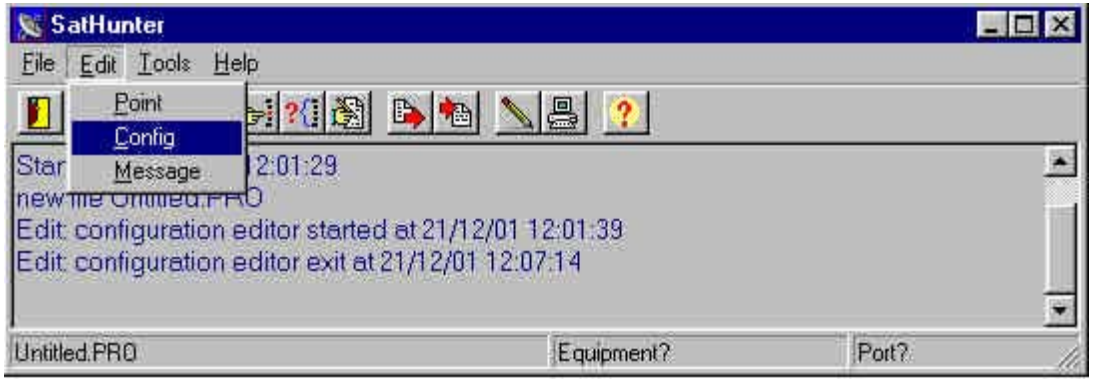
EDIT THE CONFIGURATION...

- You should perform the same procedure for every test point you need to change.

PRODIG-1

EDIT THE CONFIGURATION...

- Select **Edit → Config** from the menu.
  - You should then get the screen where you can modify the configuration of all points.

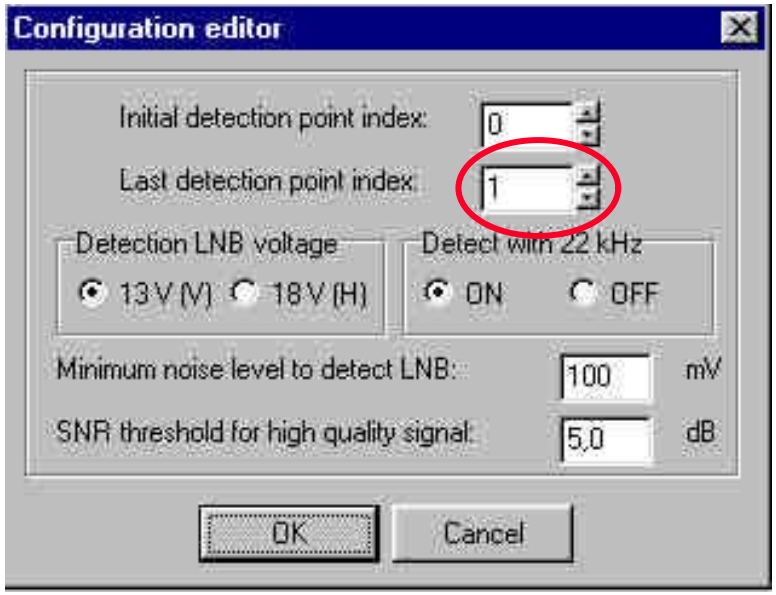


PROMAX

PRODIG-1

EDIT THE CONFIGURATION...

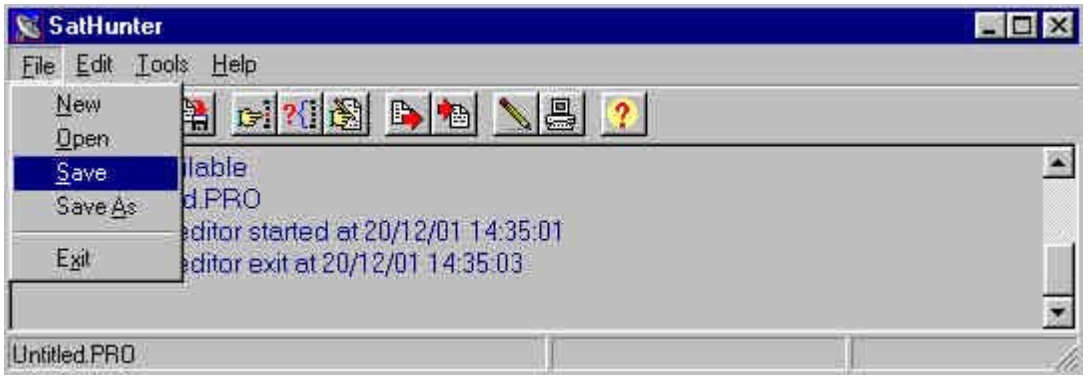
- Select the number of test points that you want to be active on the PRODIG-1.
  - If, for instance, you have edited 7 test points, you should enter “6” as the last detection point.



PROMAX **PRODIG-1**

SAVE THE CONFIGURATION...

- Once all changes have been made you should save the file, either with the same name, thus erasing the original, or with a different name thus keeping the original for future reference.
- Select **File → Save** from the menu.
  - You should then get a regular WINDOWS screen where you can name and save the edited file.

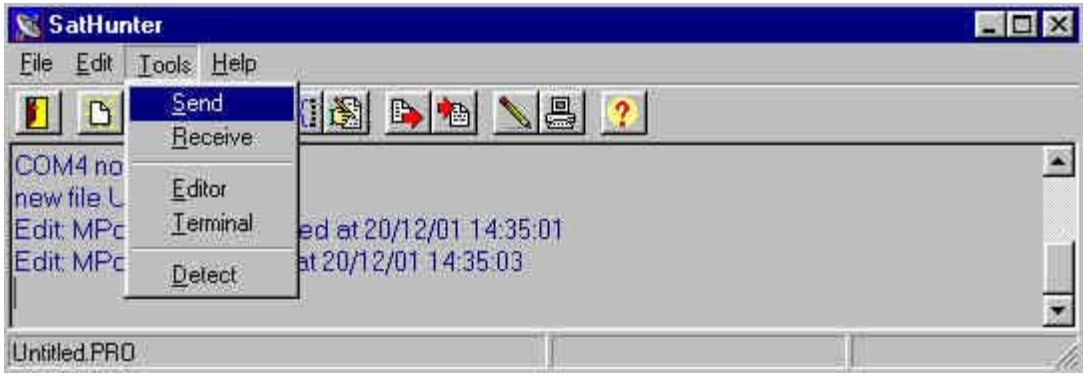


PROMAX

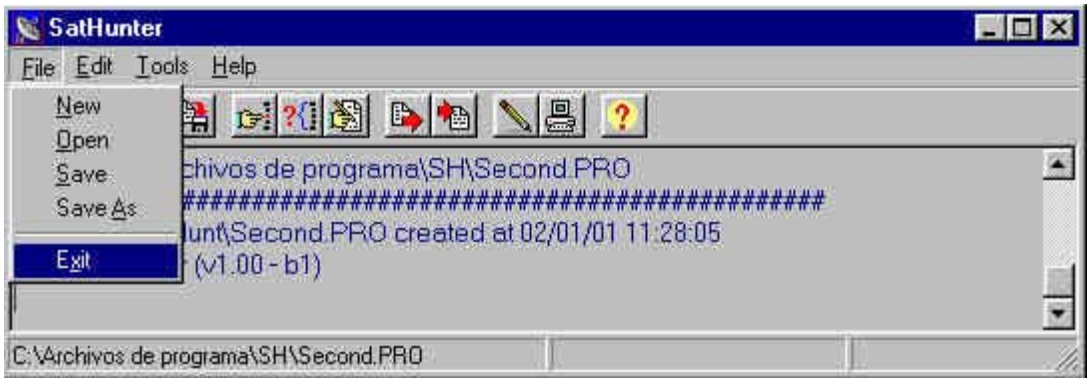
PRODIG-1

INSTALL THE NEW CONFIGURATION

- Select **Tools** → **Send** from the menu.
  - Software should then take a few seconds to install the NEW configuration onto the PRODIG-1.
- Note that this will install the last file that you have been working on and that you have already saved.



PRODIG-1

START WORKING

- Select **File**→**Exit** from the menu.
- Turn OFF the PRODIG-1 and disconnect the cable from the computer.
- You are now ready to work with a new configured PRODIG-1.