



PRODIG-1+ Configuration

**Test Equipment
Depot**
1-800-517-8431



SATELLITE HUNTER



PRODIG-1+

GETTING STARTED



- Thank you for buying PROMAX 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	3/4	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

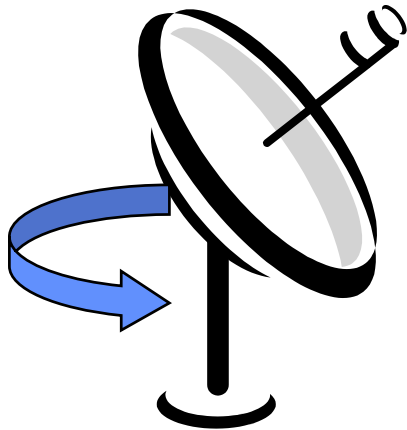




PRODIG-1+

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

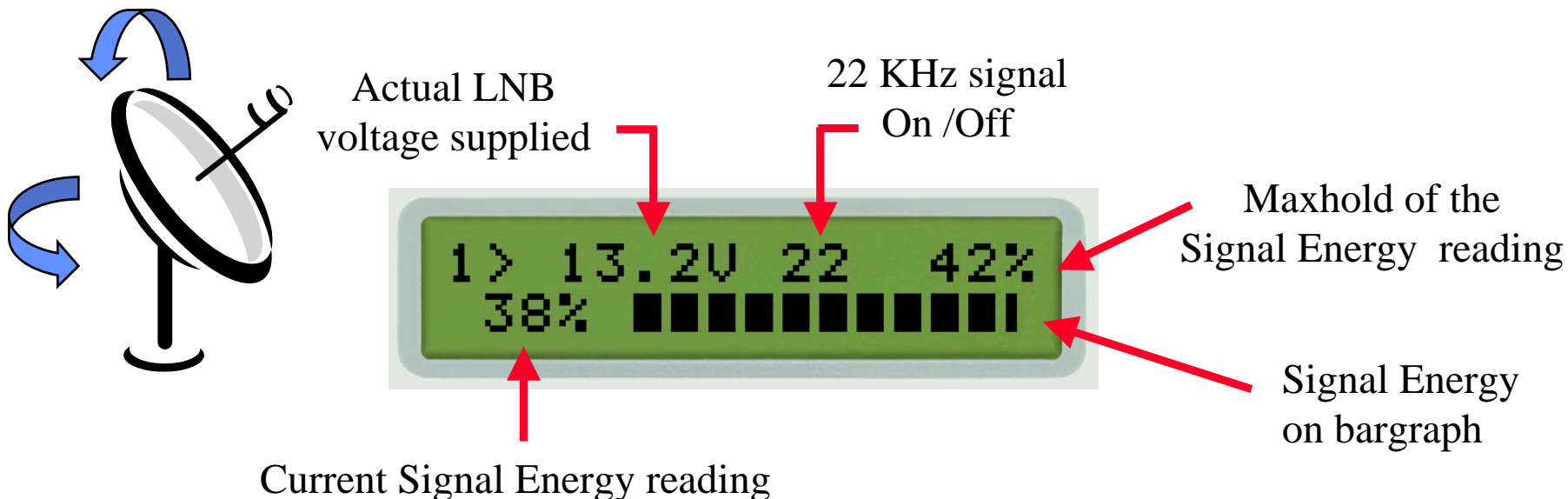




PRODIG-1+

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:





PRODIG-1+

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



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).



```
2> 13.2V  --  ----  
DISH . . . ?
```



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STEP 2 - IDENTIFYING A SATELLITE

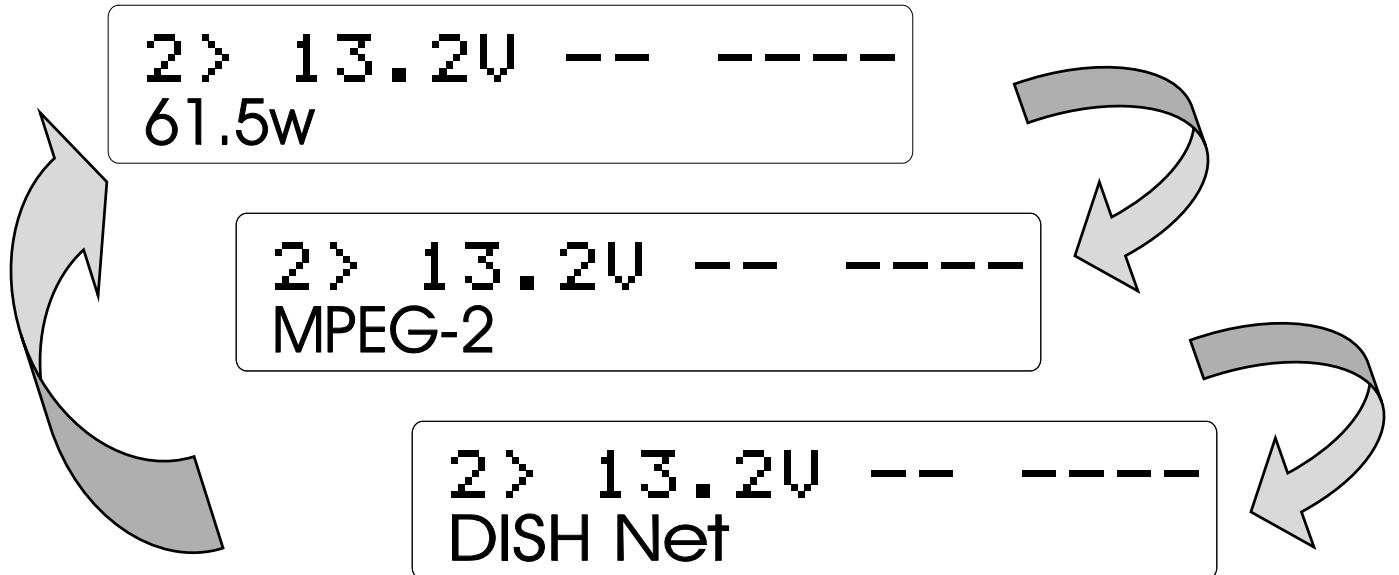
- Right after the label is displayed the PRODIG-1+ will start downloading information from the programmed transponder and will show it for your evaluation.



2> 13.2U -- ----
61.5w

2> 13.2U -- ----
MPEG-2

2> 13.2U -- ----
DISH Net

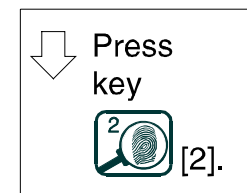
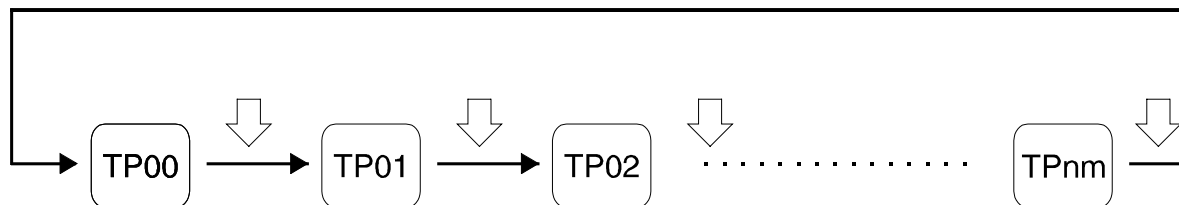




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STEP 2 - IDENTIFYING A SATELLITE

- 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.

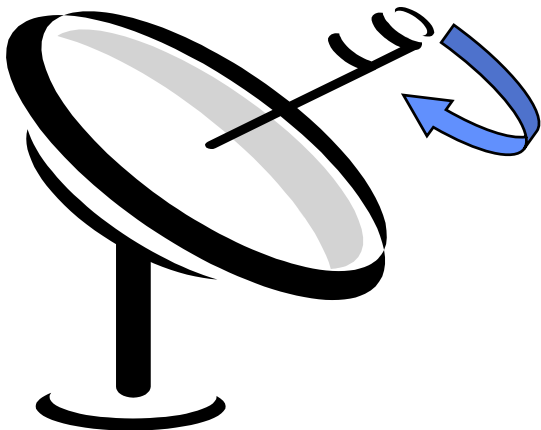




PRODIG-1+

STEP 3 - OPTIMISING THE QUALITY

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

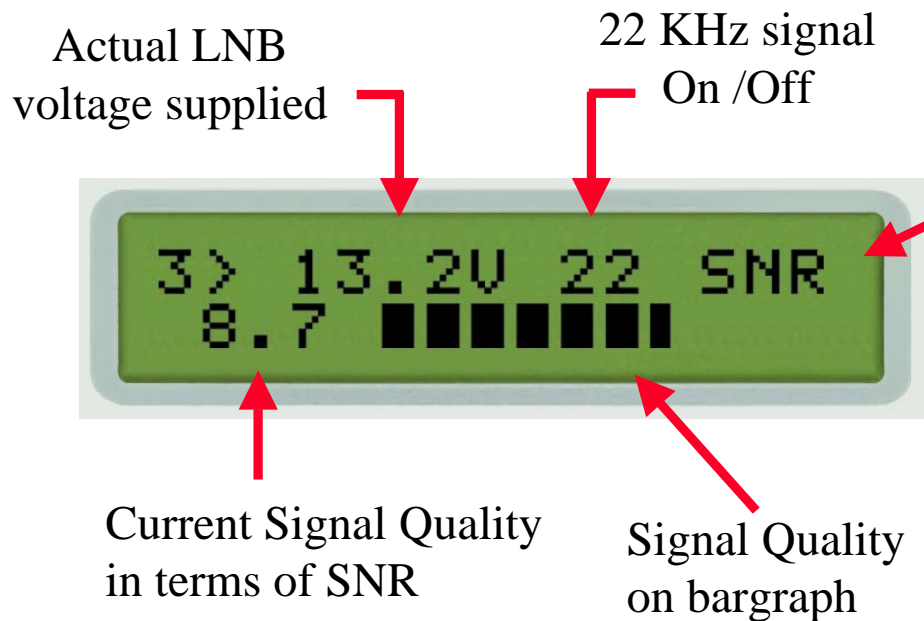




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STEP 3 - CHECKING QUALITY LIMITS

- The display will show some complimentary information as well



SNR PASS/FAIL:

snr (in small letters) means quality is not enough

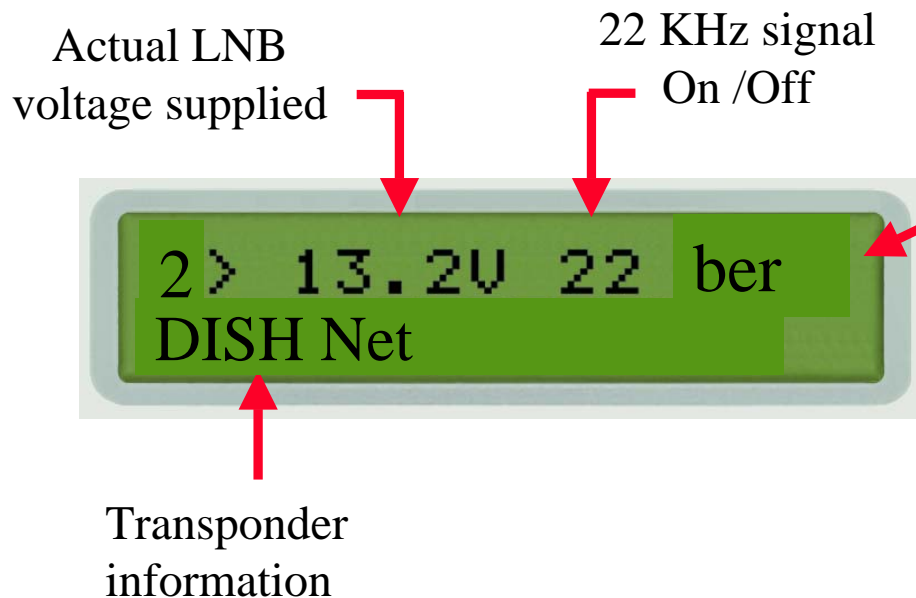
SNR (in capital letters) means quality is good enough



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



PRODIG-1+

GET INFORMATION...

Enter lyngsat
web site

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LyngSat - Lyngemark Satellite Chart

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Last update date: 2001-12-19

02:25 UTC on 2001-12-20

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Astra 2D and AMC 8 - 1 year old

Nasha Muzika, Kino Klassika and Udivitelny Mir on [Yamal 102](#)
Maharishi Open University on [Europe*Star 1](#)

Udivitelny Mir on [Eutelsat W4](#)
MTV China on [PAS 8](#)
Isik TV on [Eurasiasat 1](#)

[Astra 1A](#) reached 5 East
Napoli Network on [Express 3A](#)
TV Net on [Brasilsat B3](#)

NATV and BLTV on [Telstar 5](#)
Cubavisión Internacional on [Eurobird](#) and [Hot Bird 5](#)

New weekly [LyngSat](#) visit record for 11-16 Dec.: **1,257,573**
[LyngSat 6 Years](#) - 16 December 2001



PRODIG-1+

GET INFORMATION...

Click on:

-->Digital Packages

-->America

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

LyngSat Digital Packages North & South America

61.5°W	EchoStar 3	DISH Network	Freq.	SID		011214
61.5°W	EchoStar 3	Sky Angel	Freq.	SID		011109
70.0°W	Brasilsat B1	Globosat	Freq.	SID		000109
71.8°W	Nahuel 1	TDH - TV Directa al Hogar	Freq.		ChNo	011206
85.0°W	XM Roll	XM Radio			ChNo	011003
91.0°W	Nimiq 1	ExpressVu	Freq.	SID	ChNo	011207
93.0°W	Telstar 6	WGSNet	Freq.	VC		011120
95.0°W	Galaxy 8I	DirecTV Brazil			ChNo	011217
95.0°W	Galaxy 8I	DirecTV Latin America			ChNo	011110
99.0°W	Galaxy 4R	HITS	Freq.	VC		011120
101.0°W	AMC 4	Fox Sports	Freq.			010402
101.0°W	DirecTV 1R/2/3	DirecTV USA			ChNo	011206
103.0°W	AMC 1	Fox Sports	Freq.	VC		010209
103.0°W	AMC 1	In Demand	Freq.	VC		000927
107.3°W	Anik F1	Star Choice	Freq.	VC	ChNo	011011
109.8°W	DirecTV 1	DirecTV USA			ChNo	010709
110.0°W	EchoStar 5	DISH Network	Freq.	SID		011216
111.1°W	Anik E2	Star Choice	Freq.	VC	ChNo	010905
113.0°W	Solidaridad 2	Sky México			ChNo	011218
115.0°W	XM Rock	XM Radio			ChNo	011003
118.8°W	DirecTV 6	DirecTV USA			ChNo	011120
119.0°W	EchoStar 4/6	DISH Network	Freq.	SID		011218



PRODIG-1+

GET INFORMATION...

Click on the
desired
satellite:

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[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 Network	 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	 MPEG-2 Nagravision	20000 - 3/4	4098-104	Conus	J Hotsenpiller 010408
12282 R tp 5					Conus	J Hotsenpiller 001205
12297 L tp 6	 DISH Network	 MPEG-2 Nagravision	20000 - 3/4	4098-106	Conus	J Hotsenpiller 011014
12311 R tp 7					Conus	J Hotsenpiller 001205
12326 L tp 8	 DISH Network	 MPEG-2 Nagravision	20000 - 3/4	4098-108	Conus	J Hotsenpiller 011214
12355 L tp 10	 DISH Network	 MPEG-2 Nagravision	20000 - 3/4	4098-110	Conus	J Hotsenpiller 010629
12384 L tp 12	 DISH Network	 MPEG-2 Nagravision	20000 - 3/4	4098-112	Conus	J Hotsenpiller 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	 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	 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		DISH Network		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		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 - TID	NID - TID Audio	Beam	Source Updated
12239 L tp 2	 DISH Network	 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	 MPEG-2 Nagravision	20000 - 3/4	4098-104	Conus	J Hotsenpiller 010408



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

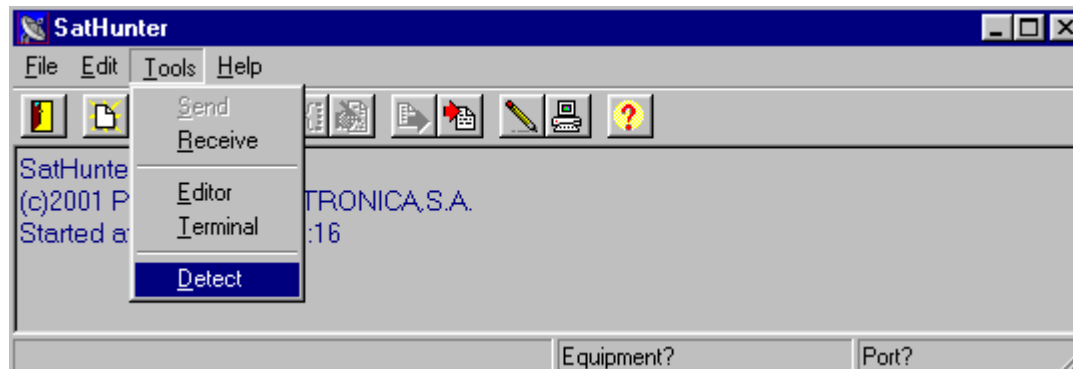




PRODIG-1+

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.

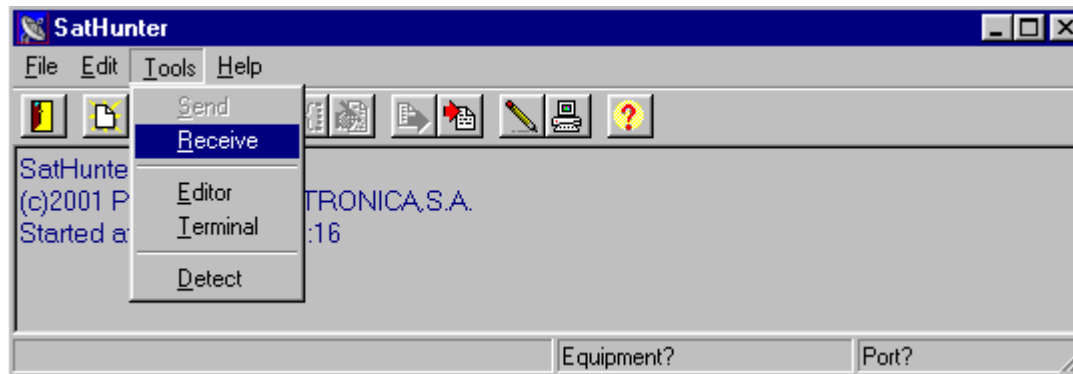




PRODIG-1+

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+.

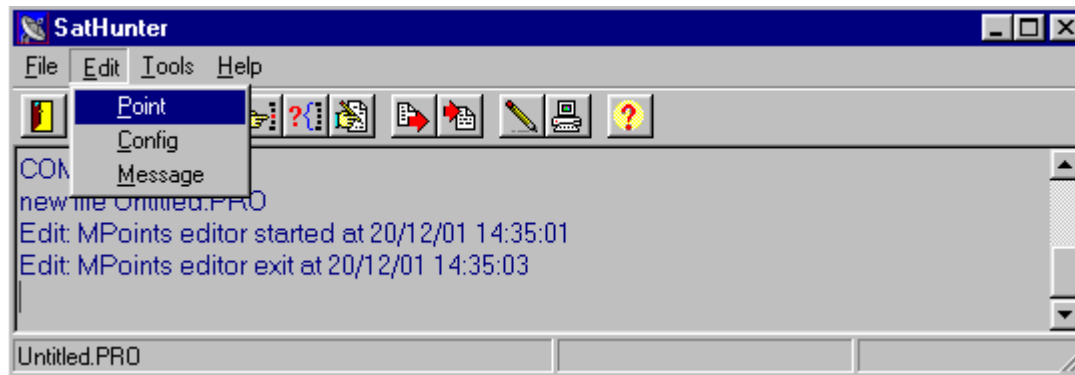




PRODIG-1+

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.

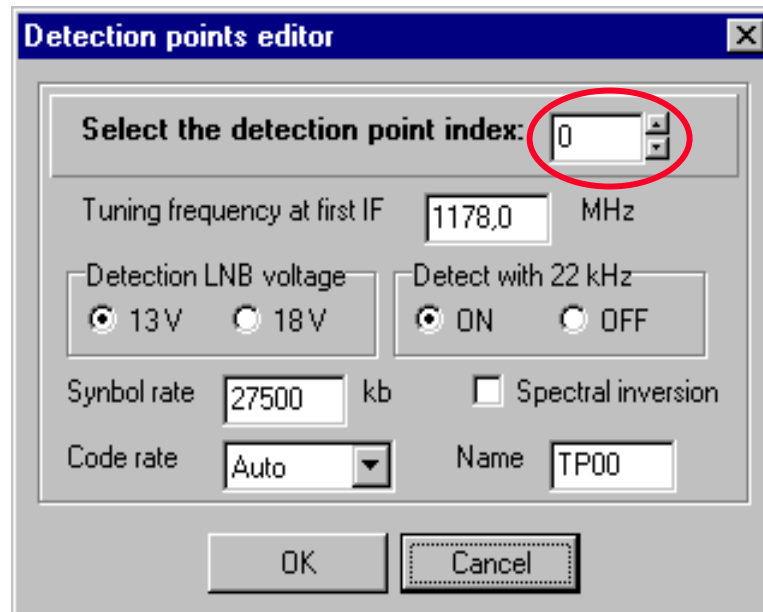




PRODIG-1+

EDIT THE CONFIGURATION...

- Select the detection point which you want to edit.





PRODIG-1+

EDIT THE CONFIGURATION...

- Enter the IF frequency of the desired transponder.

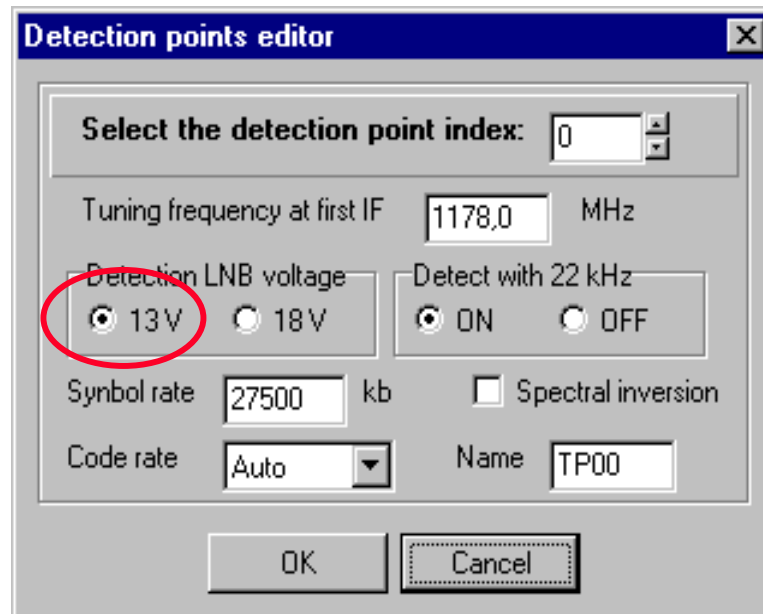
A screenshot of a software dialog box titled "Detection points editor". The dialog box has a blue title bar with a close button (X) on the right. The main area is light gray and contains several configuration options. At the top, there is a label "Select the detection point index:" followed by a text box containing the number "0". Below this is a label "Tuning frequency at first IF" followed by a text box containing "1178,0" and the unit "MHz". The "1178,0" text is circled in red. Below the frequency field are two groups of radio buttons. The first group is labeled "Detection LNB voltage" and has two options: "13V" (selected) and "18V". The second group is labeled "Detect with 22 kHz" and has two options: "ON" (selected) and "OFF". Below these are two more fields: "Symbol rate" with a text box containing "27500" and the unit "kb", and "Spectral inversion" with an unchecked checkbox. At the bottom left are "Code rate" with a dropdown menu showing "Auto" and "Name" with a text box containing "TP00". At the very bottom are two buttons: "OK" and "Cancel".



PRODIG-1+

EDIT THE CONFIGURATION...

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

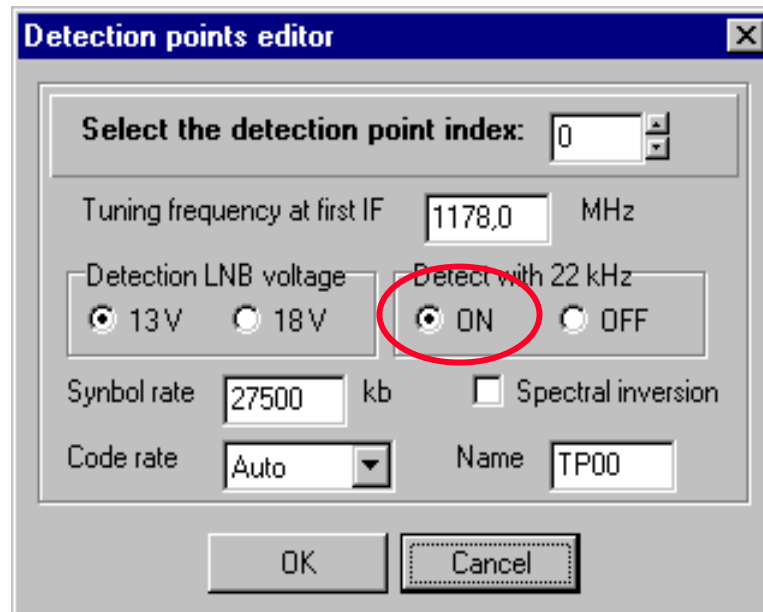




PRODIG-1+

EDIT THE CONFIGURATION...

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





PRODIG-1+

EDIT THE CONFIGURATION...

- Enter the Symbol rate for this transponder.

A screenshot of a software dialog box titled "Detection points editor". The dialog box has a blue title bar with a close button (X) in the top right corner. The main area is light gray and contains several configuration options:

- "Select the detection point index:" followed by a text box containing the number "0" and a small up/down arrow icon.
- "Tuning frequency at first IF" followed by a text box containing "1178,0" and the unit "MHz".
- "Detection LNB voltage" with two radio buttons: "13V" (selected) and "18V".
- "Detect with 22 kHz" with two radio buttons: "ON" (selected) and "OFF".
- "Symbol rate" followed by a text box containing "27500" and the unit "kb". This text box is circled in red.
- A checkbox labeled "Spectral inversion" which is currently unchecked.
- "Code rate" followed by a dropdown menu showing "Auto".
- "Name" followed by a text box containing "TP00".

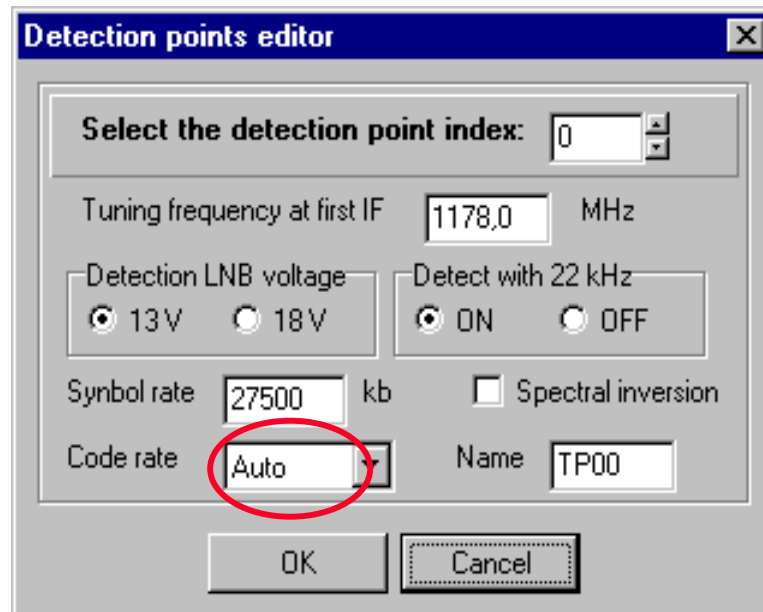
At the bottom of the dialog box, there are two buttons: "OK" and "Cancel".



PRODIG-1+

EDIT THE CONFIGURATION...

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





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+.

A screenshot of a software dialog box titled "Detection points editor". The dialog box has a blue title bar with a close button (X) in the top right corner. The main area is light gray and contains several configuration options:

- "Select the detection point index:" followed by a text box containing "0" and a small up/down arrow icon.
- "Tuning frequency at first IF" followed by a text box containing "1178,0" and "MHz".
- "Detection LNB voltage" with two radio buttons: "13V" (selected) and "18V".
- "Detect with 22 kHz" with two radio buttons: "ON" (selected) and "OFF".
- "Symbol rate" followed by a text box containing "27500" and "kb".
- "Spectral inversion" with an unchecked checkbox.
- "Code rate" followed by a dropdown menu showing "Auto".
- "Name" followed by a text box containing "TP00", which is circled in red.

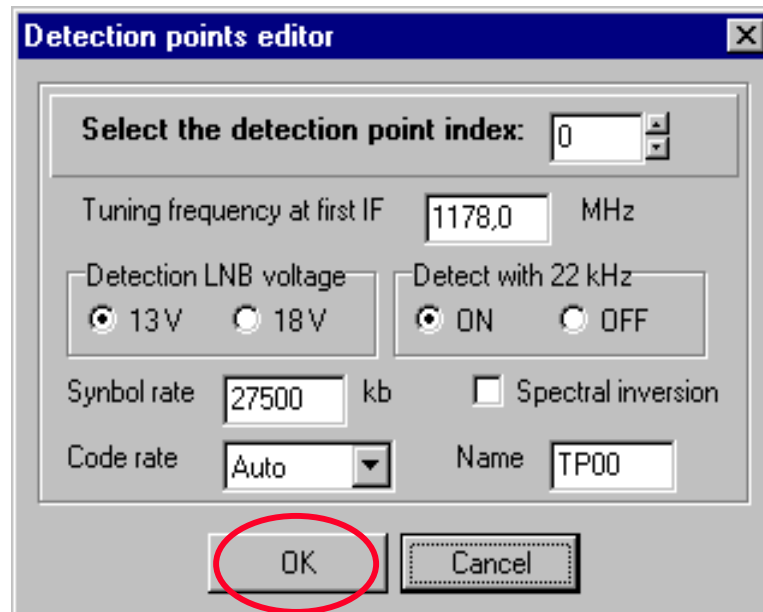
At the bottom of the dialog box are two buttons: "OK" and "Cancel".



PRODIG-1+

EDIT THE CONFIGURATION...

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





PRODIG-1+

EDIT THE CONFIGURATION...

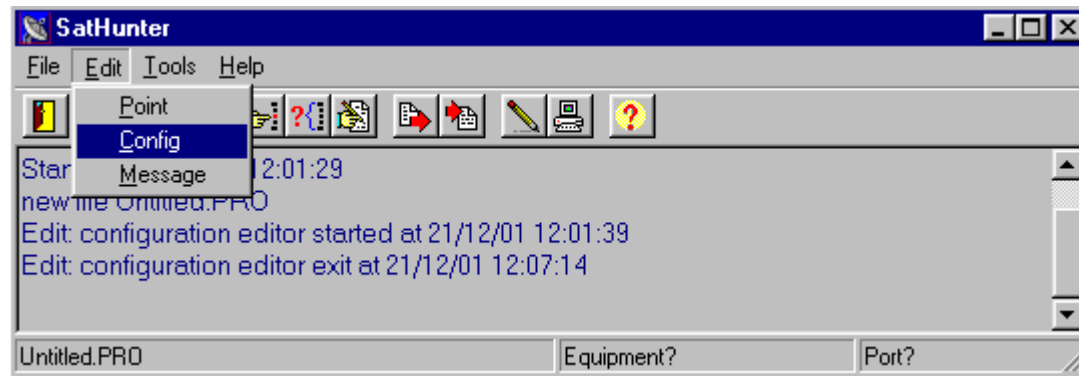
- You should perform the same procedure for every test point you need to change.



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.

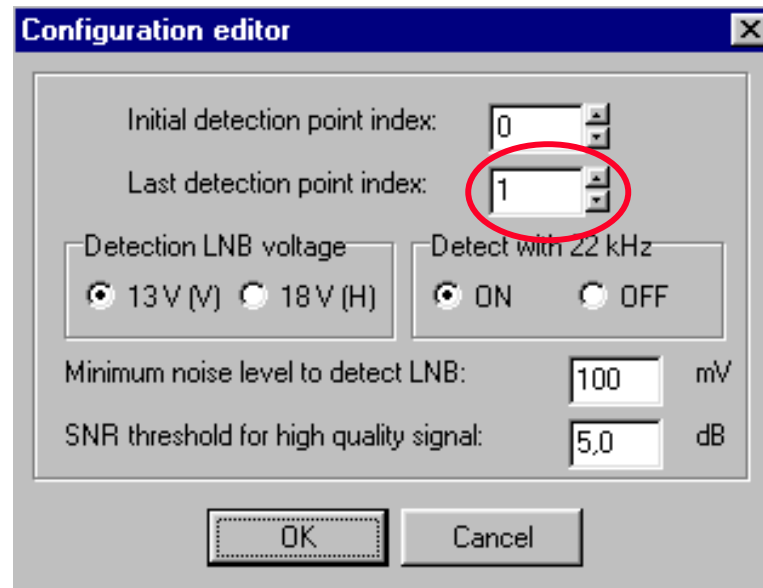




PRODIG-1+

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.

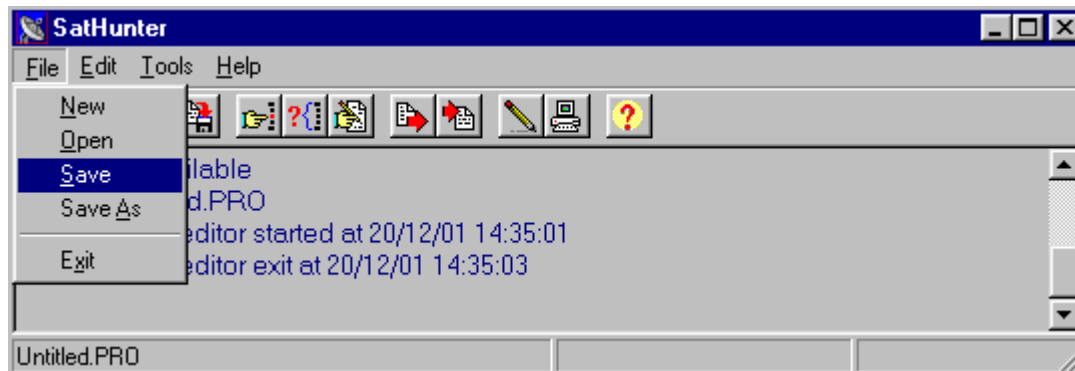




PRODIG-1+

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.

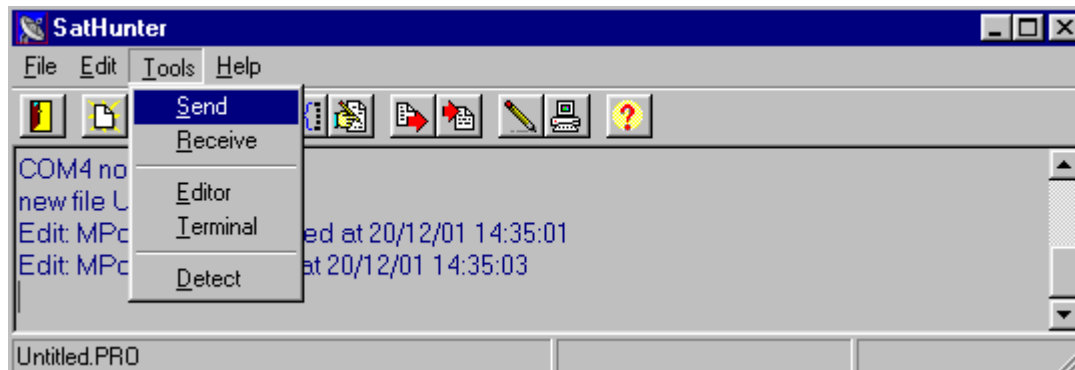




PRODIG-1+

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+.

