

DVB S DVB S2

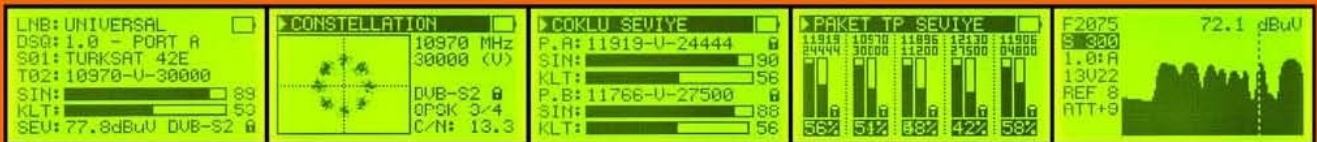
DiSEqC 1.0

DiSEqC 1.1

DiSEqC 1.2

# DVB S2 SATFINDER 3 HD<sup>®</sup>

SIGNAL METER



## SATFINDER 3 HD USER GUIDE

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## GENERAL SAFETY

### Issues to Pay Attention:

Observe the following instructions absolutely in order to avoid any damage on yourself or on your device.

Pull the plug or turn it off via the On/Off button before cleaning the device, and clean it with a dry cloth.

Do not use any accessories or additional apparatus that are not advised by the manufacturer of the device since it may damage your device and invalidate its warranty. Protect your device against any crash or fall while you carry it; otherwise it may be damaged. Absolutely carry your device in its bag, and do not carry it in boxes such as tool sets, and do not carry it along with any equipment that may damage it.

Do not use your device in open areas in order to avoid its contact with fluids in rainy and snowy weather. Fluid contact may damage your device and put it out of the scope of warranty.

Charge your device with the advised charge adapter and vehicle lighter charging equipment. Chargers that are not suitable to be used may damage the batteries of your device as well as lead to overheating and explosion, and it may damage you as well; such cases are under the responsibility of the user. While you use the charge adapters make sure they supply 12 volt (mid +) power. Do not leave the device on, as the batteries inside the device left on will lose their function in time. Life of use of lighter charge, charge adapter and batteries depend on their usage, and are therefore outside the scope of warranty. Be careful for short-circuit occurrences while you connect your device to LNB, otherwise the LNB and your device may be damaged.

### Issues Regarding Service:

Do not try to repair your device yourself. Your device will be outside the scope of warranty if you remove the cover of your device. Contact your dealer or technical service for all the services regarding your device.

## KEY FEATURES:

<ul style="list-style-type: none"> <li>- Diseqc 1.0 , 1.1 ,1.2</li> <li>- Diseqc-c Switch Support</li> <li>- Multiswitch Support</li> <li>- Real Spectrum (With Span)</li> <li>- Cross Polarisation</li> <li>- Packet Search</li> <li>- Multi Levels</li> <li>- Constellations Diagramm</li> <li>- Auto Diseqc Search</li> <li>- Auto Sat Find</li> <li>- DVB-S and DVB-S2 Levels</li> <li>- Hd and Sd Levels</li> <li>- Ber , Per , C/N , Offset Levels</li> <li>- Qpsk, 8psk Levels</li> <li>- Dbuv, Dbm Levels</li> <li>- 13v, 18v, 21v / 650 mA</li> </ul>	<ul style="list-style-type: none"> <li>- 30 Lnb Types</li> <li>- 128x64 Pixel Display</li> <li>- Input -65 Dbm / -25 Dbm</li> <li>- 32 Sat 512 TP</li> <li>- Manual Frequency</li> <li>- Manual LOF</li> <li>- Short Cut Circuit</li> <li>- Easy Lnb Adjust</li> <li>- 6 Languages</li> <li>- 2 Hours Fast Charge</li> <li>- 4 Hours Li-Ion Battery Time</li> <li>- Leather Bag</li> <li>- 6cm x 14cm x 8cm</li> <li>- BER , C/N , MER Levels</li> <li>- Software Update and Database update from PC</li> </ul>
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Touch Membrane : Quick and easy to use with touch-sensitive keys.

USB Port Connection : You may update the software for your device and upload frequencies via the USB Port connection.

ST Tuner : You may adjust the signals quickly and with precision via the ST processor Tuner.

Easily Charged: You may easily charge your device in any condition with the charging adapter and with the lighter charging equipment in your vehicle.

LCD Screen : You may use your device at noon and night with its 128x64 pixel led illuminated LCD screen.

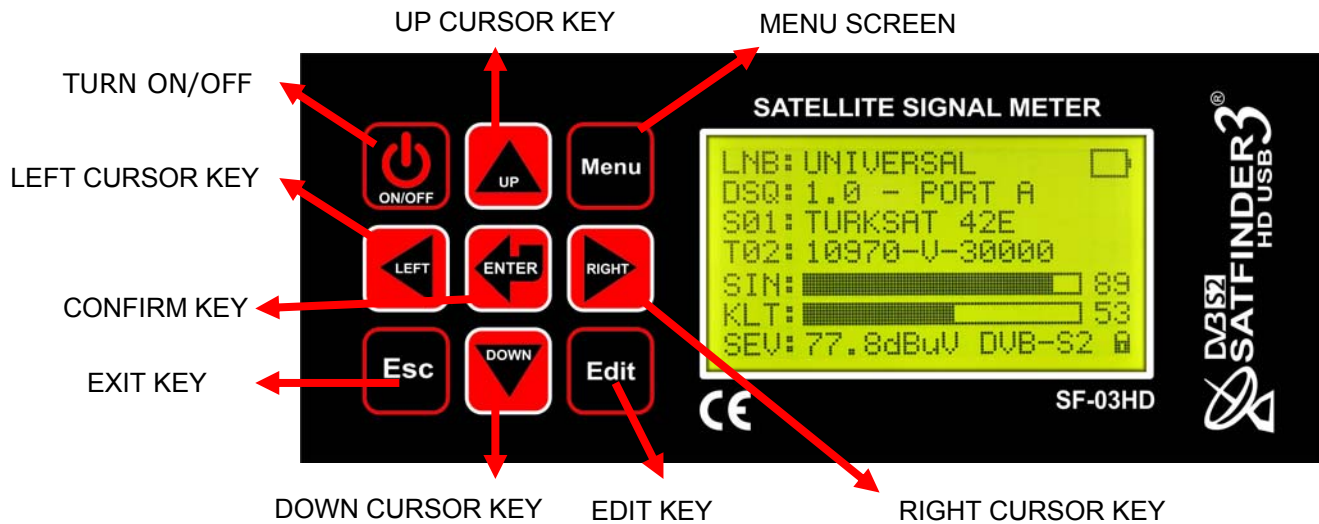
Protection Bag: Your device will be even more durable with its robust and durable bag which may be worn on your waist and neck.

Automatic Satellite and Diseqc Detection: You may use the AUTOMATIC SATELLITE or AUTOMATIC Diseqc option on the menu and your current satellite will be indicated on the screen.

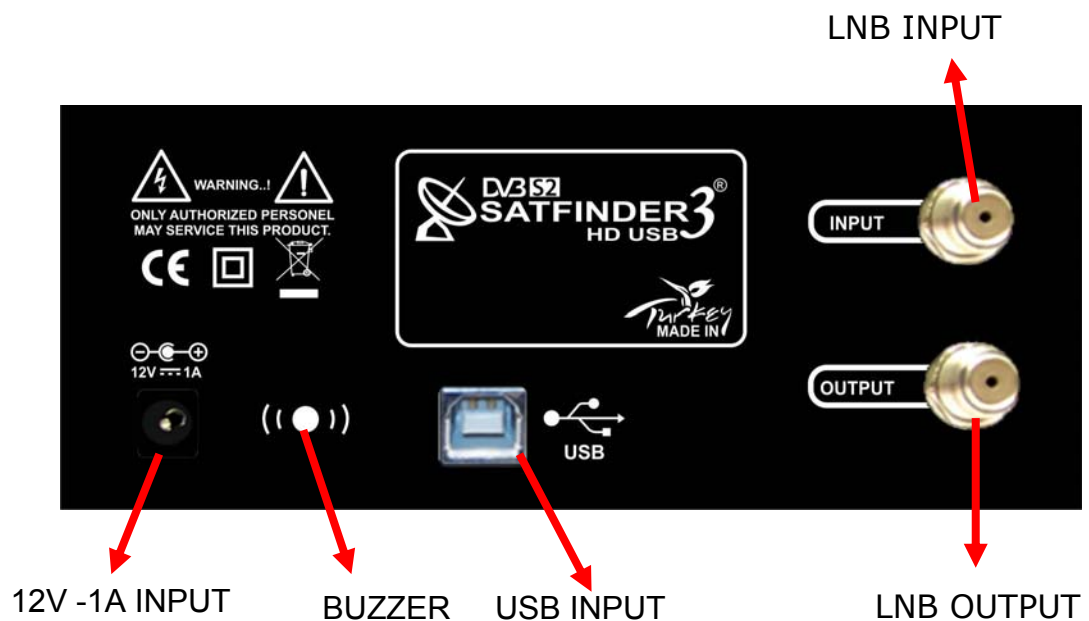
6 Different Languages : Turkish – English – Dutch – German – Spanish – French

**Attention** : Design and features may be modified without notification.

## FRONT PANEL KEYPADS :



## REAR PANEL :



## ACCESSORIES :

### AC 220 V Charge Adapter:



With your 12 Volt power supplied charge adapter you may keep your device charged and thus use your device in places where no power is available. Prevent your charge adapter from squeezing, crashing, overloading and other similar situations. Do not open it for repair or examination.

### Vehicle Lighter Charge Adapter:



With your 12 Volt power supplied charge adapter you may keep your device charged and thus use your device in places where no power is available. You may charge your device in your vehicle while you travel with this charger. Prevent your lighter charge adapter from squeezing, crashing, overloading and other similar situations. Do not open it for repair or examination.

### SATFINDER 3HD Leather Bag with Strap :

With your SATFINDER 3HD leather bag you may protect your device from rainy environments and from impacts that may damage your device. You may wear it on your waist or neck. It provides easy transportation.

### USB Cable for Software and Frequency Update :

You may download software, frequency adjustments and various updates via your computer to your SATFINDER 3HD device with the USB cable.



## SCREEN OPTIONS

### SATELLITE SEARCH:

Connect the cable plugged to the LNB of your dish antenna to the Lnb Input of your SATFINDER 3HD. Turn on the device by pressing the On/Off button. Your device will be opened and the SATELLITE SEARCH menu will appear on the Lcd Screen.



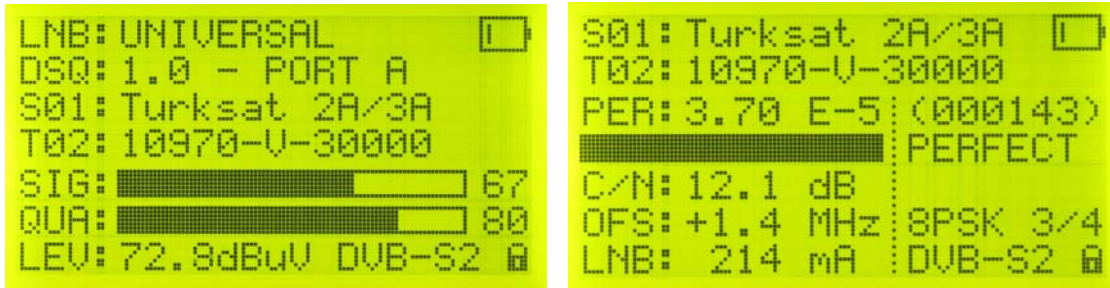
During the selection of LNB, select one of the options according to the LO property of the LNB used in your dish antenna, and then select the Diseq-c port if you have Diseq-c switch, or select NO DISEQ-C if you do not have one. Select the satellite you would like to find from the setter beginning with S01 and then choose a TP frequency which you are sure that it works pertaining to the satellite you selected and press ENTER. The SIGNAL and QUALITY level and the signal gain in terms of dBm or dBuV will appear on the screen. The device has 32 Satellite and 512 TP frequency memory. You may see the other TPs by pressing the RIGHT and LEFT keys while monitoring the levels. This way you may check the entire satellite.

You shall move the Dish Antenna that you mounted and adjust it in the right direction. While you do it you will see the values on the Signal Level Menu move and increase. The logic here is to complete the highest level dish antenna adjustment. When you see that the level is not increasing any more (at this moment a LOCK IMAGE should appear on the screen. If it does not, keep adjusting) you will need to make the LNB polarity adjustment. With this adjustment you will ensure the LNB power is utilized at full potential. When you complete the LNB adjustment the LOCK IMAGE will appear on the screen completely and will not fade.

In this menu you may also move the marker to TP frequency or Satellite and press EDIT to make changes.



You may also press ENTER in the SATELLITE SEARCH menu and see the BER and C/ N and other parameters of the frequency. Now all the operations are complete and the level of the frequency you selected on the satellite you wish to configure has been adjusted to the highest value.



BER / PER : The lower the value of BER in DVB-S1 signals and PER in DVB-S2 signals the better our signal adjustment is.

C/N : The higher this value the clearer are our signals.

OFS : It shows the LO deviation of your LNB.

You do not need to use the charge adapters while you adjust your dish antenna or the Lnb polarity since your device is charged. If your device is out of charge you may use the charge adapters to re-operate your device. You may continue to mount using the charge adapter.

### **SPECTRUM :**



Frequency, Span, Diseqc, Polarity, Band, and AT REFERENCE adjustments are made on the Spectrum Screen and the full frequency band ranging from 950 to 2150 MHz is scanned and the received RF signal levels are displayed on the graphic screen. The peak spots on the screen indicate the areas which are strong in terms of signal power. Moreover, if we are using the Diseqc 1.2 Engine we may choose Dis1.2 from this menu and make the EAST and WEST adjustments, and see the levels on all satellites. You may change the bandwidth with Span. You may see the signal levels in various areas of the band by changing the frequency and the location of the ruled marker on the screen. By pressing OK in this menu we have the device scan the satellites in its memory and find which satellite the spectrum image belongs to.



### CROSS POLARIZATION :



The aim of this menu is to make the LNB adjustment according to the signal level in the counter polarity of the frequency that we selected. As we enter the menu the Satellite Search screen appears, and from here we make satellite adjustment. Then we press OK and adjust so that the upper signal level reaches the highest level. The lower signal shall either move in the same direction as the upper one or move in the opposite direction. After the highest level adjustments are made, the operation is complete.

### PACKET TP LEVEL :



In the PACKET TP LEVEL menu we may see the first 5 TP frequencies of the selected satellite simultaneously so that we may see how the different frequency TPs respond according to our dish antenna adjustment. In the PACKET TP LEVEL menu we select the LNB type that we use, the SATELLITE we wish to see and the Diseqc switch if we have one, then we press ENTER and the SIGNAL LEVELS menu appears. In this menu we may see that all the signals are locked and are at the highest signal level and thus complete our operation.

### MULTI LEVEL :



We may see that 2 different satellites in the memory of the device come simultaneously from different Diseqc ports and we may thus make the best adjustment, and we may quickly test the results in the Multiswitch and Diseqc switches, and see the signal and quality details received from the selected TPs.

### CONSTELLATION 8=5; F5A A :



In this menu you may visually see the accuracy of I/Q values after you make the antenna adjustment of the TP and the satellite. When the black points form the smallest circle it means the best adjustment is made. 4 small circles shall form in QPSK signals and 8 in the 8PSK signals. If the signal has not been locked the points will be loose.

### AUTO DISEQ-C SEARCH :



In this menu we may see which satellites are connected to which ports of our Diseq-c Switch. The DISEQ-C 1.0 and Diseqc 1.1 protocols are loaded in your device and are ready to be used. You may use it with all quad and octal Diseqc switches.

### AUTOMATIC SEARCH :



Select this menu by pressing "ENTER" if you want the device to show which satellite among those in the memory we have turned the dish antenna to, without selecting a satellite and frequency.

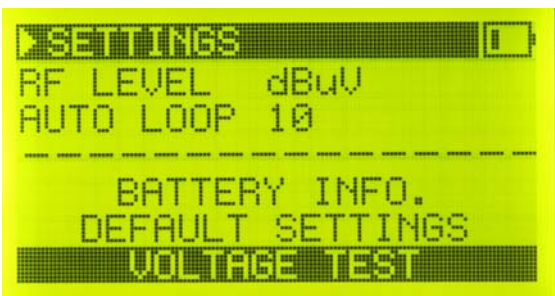
### SATELLITE ADJUSTMENTS :



You can make the LNB and Diseqc adjustments of the satellites that are in the memory of the device. These adjustments will allow you to have quick access to commands in the other menus.



**SETTINGS MENU :**

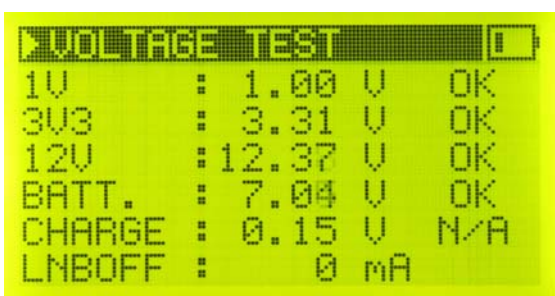


In the SETTINGS menu, you can adjust the Screen Light and the saturation of letters, open and close the Notification sounds, choose among 6 Languages the one that suits you, change the Auto Closing time of your device or turn it off, change the level indicator as dBm or dBuV, and replace the number of satellites in Auto Searches with Auto Cycle numbers.



You may also revert to the Default settings and see the Capacity and Remaining duration of your Battery. This way you may see how long you may use your device.

**SUPPLY VOLTAGE :**



You may check all the supply values used during the operation of your device, and there is a menu that makes it easier for you to contact the technical service in case of failure of your device. You may follow the details regarding the maintenance or calibration of your device on this screen as well.

## **TROUBLESHOOTING :**

### **If You Cannot Turn On Your Screen or Device:**

Your device might have run out of charge. Plug your device to charge adapters and wait for 10 minutes. Your device will be opened.

You may not have turned your device on via the On/Off button.

There might be short-circuit on Lnb or the LNB cable that you use. This may damage your device and put it out of Scope of Warranty.

If you removed the batteries in order to replace them you may not have placed them in correct position.

Your device might have been damaged or broken. Consult your service or dealer in accordance with the scope of Warranty Conditions. In no way try to repair it yourself, otherwise your device will be out of the Scope of Warranty.

### **If Your Device Cannot Be Charged:**

The Batter indicator on the upper right of the LCD screen will be full when you plug the Charger.

If you removed the batteries in order to replace them you may not have placed them in correct position.

Your device might have been damaged or broken. Consult your service or dealer in accordance with the scope of Warranty Conditions.

In no way try to repair it yourself, otherwise your device will be out of the Scope of Warranty.

### **If Your Device Does not Indicate Any Signal or Quality During the Adjustment of Satellite Direction:**

You may not have adjusted your Dish Antenna in the right direction.

There might be obstacles in front of your dish antenna such as a tree, building or electric pole.

You may not have Selected the correct Lnb Setting on the menu. Exit the menu and re-check your lnb settings and the LNB values on your Dish antenna.

You may not have Selected the correct Satellite on the menu. Exit the menu and re-check your settings.

The frequency you selected may not be broadcasting anymore. You may check this frequency on "www.flysat.com" and download updated frequencies with the www.satmarket.de SATFINDER 3HD Downloader software.

There might be short-circuit or loose contact and similar problems on your Lnb cable.

Your Lnb might be out of order. Your device might have been damaged or broken. Consult your service or dealer in accordance with the scope of Warranty Conditions. In no way try to repair it yourself, otherwise your device will be out of the Scope of Warranty.

## TECHNICAL SPECIFICATIONS :

Frequency	: 950 MHz – 2150 MHz
Sat Memory	: 32 SAT
TP Memory	: Each Satellite 16 TP / Total 512
SymbolRate	: 2000 - 45000
FEC	: Auto QPSK /8PSK Modes
Max. Input	: -65 dBm ~ -15dBm
22 KHZ	: Auto
Lnb	: 30 Lnb Types
Shgort Cut Circuit	: LnbP21
Diseq-C Supports	: Diseq-C 1.0 , 1.1 , 1.2
Spectrum	: Full band levels with span
AutoDiseq-C	: Which Diseq-C Port Which Satellite
Auto Sat Find	: Fast Satellite find
BER Levels	: Real BER
Screen Light	: Green/Yellow Light
Sizes	: 6cm x 14cm x 8cm
Weigh	: 500 gr
LNB out	: 13V / 18V (+- 1V)
Max. Current	: 750 mA
Battery	: 200mAH 7.4V Lit-Ion
Charge Time	: 2 Hours
Battery Work Time	: Normally 220 Minutes
Charger	: 220V AC / 12VDC / 1A
RF Connector	: F Type
PC Connection	: USB Port
PC Software	: Windows 98/Xp/Vista/Win7 – 32&64 Bit
Tuner	: ST Solution
Sound	: Buzzer
Language	: Turkish , English , French , Deutch , Nederlands , Spanish
Companents	:SMD

### Accesories :

- Leather Bag
- User Guide
- Charger
- Car Charger
- USB Cable





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