
MagicFINDER
Plus
Digital SatLock
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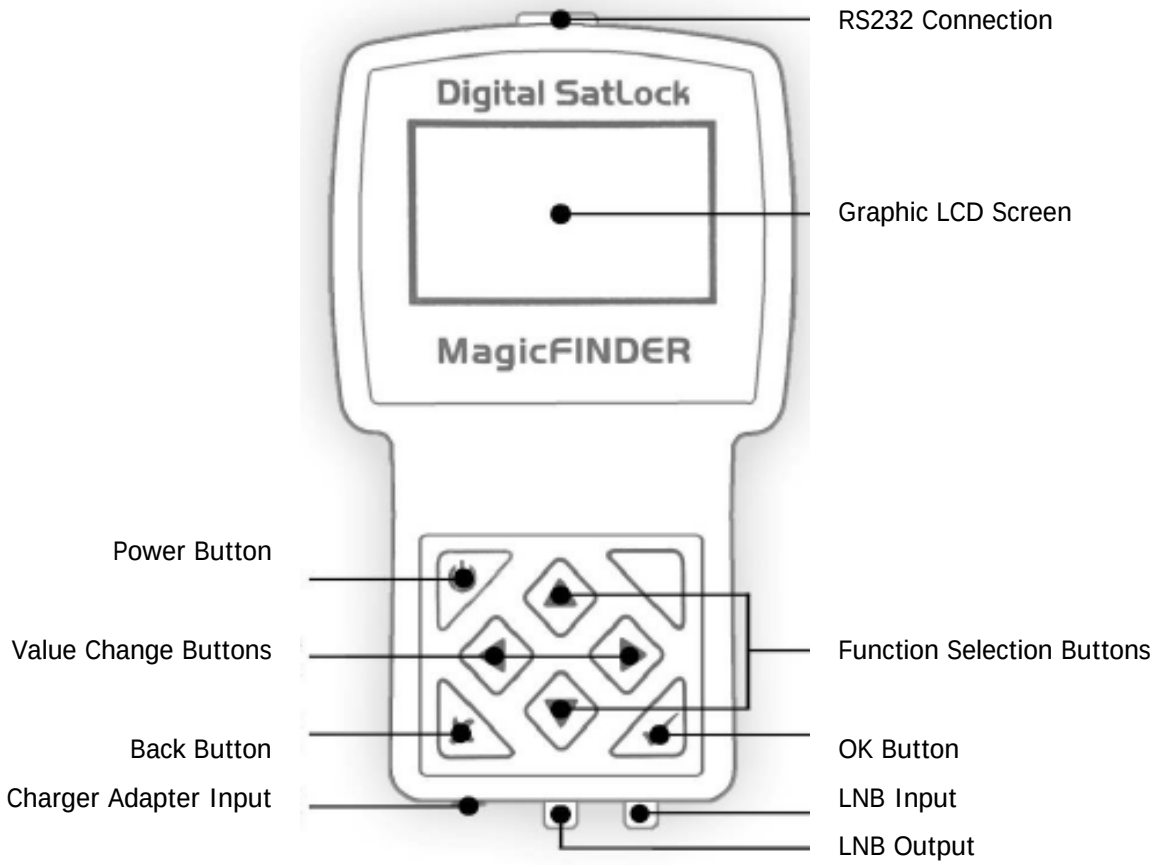
Plus
DISEqC SUCHEN
A:Astra 1A-1R 19E
B:Astra 1A-1R 19E
EINSTELLUNGEN
DISEqC:A
LICHT:
SPEKTRUM
Low
+6dB
SAT.SUCHEN
Astra 1A-1R 19E
S
Q

USER MANUAL

GENERAL FEATURES

Easy-to-understand user-friendly menu and keypad.
LNB short circuit protection.
Display of Analog Signal Level, Digital Signal Quality with % and Bar, audible notification.
Timer Lock, Data Lock and Digital Signal FEC type display.
Display of Digital Signal QBER (Bit Error Ratio) with Quantity and Bar.
Display of timing detection and shift.
Display of true carrier wave frequency and shift.
Rapid spectrum analysis and display and satellite recognition function.
Language options of Turkish, English, Dutch, and German.
Satellite and TP list updating with the RS232 connection.
Automatic shut down function.
Quick charge system and long term use with a single charge.
DiseqC Command support and DiseqC scanning function for Multiswitch and DiseqC switches.
32 Satellites, 256 TP Memories



Turning the device ON/OFF

To turn the device ON, hold the Power Button pressed for approximately 2 seconds. The logo will be displayed on the screen and the device will become ready for use.

To turn the device OFF, at the Main Menu, hold the Power Button pressed for approximately 2 seconds. The device will shut down.

- If the battery level is very low, the device may not turn ON. Please wait until the charging process is completed.

- If the battery level drops below the critical level while the device is in use, the device will shut down automatically. This may be monitored with the flashing battery image on the top right-hand corner when the critical level is reached.

Automatic Shut Down Function

The SatLock device is equipped with the automatic shut down function to prevent unnecessary energy consumption. If the device is idle for approximately 5 minutes in any menu without pressing any keys, it will first automatically exit the menu in use and return to the main menu. If no operation is performed for the 5 minutes after this, the device will shut down automatically.

Battery Charge System

The SatLock device is supported with high technology Lithium-Ion batteries. This allows a long period of measuring and adjustment with a single charge. Furthermore, as these batteries have no memory impact, they may be charged whenever desired. There is no need to wait until they are completely discharged.

The SatLock device charges batteries in two stages. The charging process will start when you attach the 12VDC charger adapter or the vehicle charger apparatus provided with the device to the Charger Adapter Input. According to the state of the battery, first, quick charge will be applied, and later the 100% section of the battery capacity will be filled in a healthy way with slow charge.

If the device is OFF when the charge process is started, a battery image will be displayed on the screen and the charge status can be monitored with the moving bar in the battery. If the charge process is started when the device is ON, the same visual monitoring may be performed with the battery icon in the top right-hand corner. A moving bar will be displayed in the battery when quick charge is continuing. When the quick charge process is completed, a full battery image is displayed, which means that 80% of the device battery has been filled and the device is ready for use. However, there is benefit in leaving the device on charge for 1 more hour for the battery capacity to be 100% full with the slow charge process.

- The total charge time for completely discharged batteries may exceed 2 hours.
- If the device is in use during the charging process, the charge time will be longer.
- If the device is not going to be used for a long time, you must fully charge it in order to prevent the lifespan of batteries from shortening.
- Even if the device is not going to be used for a long time, it is recommended that you charge it max. once every three months. Because if lithium-Ion batteries are left uncharged for long periods, their lifespan may shorten.
- Do not apply voltage higher than 24VDC on the charge input.
- Use a min. charger adapter of 12VDC @ 1A. Adapters with a lower value may not charge the batteries fully even if you see the charging message on the screen.
- It is recommended that you do not use the device during the charging process. Because the ground returns between the network to which the charger adapter is connected and the networks of sources such as LNB, Receiver, Multiswitch with which measures are taken may cause serious damage on the device. The device must be simultaneously grounded from a single point only.
- There may be decrease in the battery performance in very cold weathers due to the chemical structure of lithium-ion batteries. This is normal.

LNB Short Circuit Protection

The SatLock device LNB power supply unit is equipped with an active short circuit protection system. When the LNB input is short circuited or draws an above normal current during measurement, the short circuit protection is enabled and SHORT CIRCUIT is displayed on the screen. Also, an audible alert is sounded with a constant beep. When the short circuit or the over current state is eliminated, the device returns to the last function in which measurement was made, and the measurement process is stopped. The measurement process should be restarted after troubleshooting. Short circuits do not cause any damage to the device.

MAIN MENU

You can select the menu that you want to use with the “Function Selection” Buttons, and by pressing the OK Button you enter the selected menu.

When in this screen, the device may be turned OFF by holding the “Power” Button pressed for 2 seconds. Other buttons are nonfunctional in this screen.

MANUAL SEARCH

In line 1, one of the 32 satellites in the memory are selected. To change the satellite, you move to the UYD (satellite) line with the “Function Selection” Buttons, and change the satellite with the “Value Change” Buttons. By holding the “Value Change” Buttons, you can change quickly between the satellites.

In line 2, one of the 8 TP’s entered for the relative satellite is selected. The selection method is the same. You go to the PRG line with the “Function Selection” Buttons and change the TP with the “Value Change" Buttons. In line 3, as TP is changed, the Frequency, Polarization, and Symbol Rate will be displayed for the selected TP. The “OK” Button is used to start the signal measurement process. The “Back” Button may be used to return to the main menu.

In the measurement screen, S and the Analog Signal Level are displayed as % and Bar. If the digital carrier cannot be caught, “SEARCHING” is displayed in line 2. When the Timing Value for the Digital Signal is caught, the key icon is displayed under PRG, and the Digital Signal / Band Noise rate is given in the bottom line with Q. Also, an increasing audible alert and LNB setting may be made as the Signal/Noise rate increases. If both Timing and Data are caught, the “LOCK” icon appears next to the key icon. In this case it means that the LNB setting is completed.

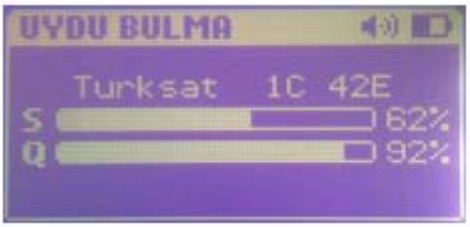
You may use the “OK” Button to reach detailed information such as more precise setting and QBER, True Frequency.

When you enter the sensitive adjustment screen, the TP name selected in the title section is displayed. Respectively, FQR and the true carrier frequency in which the broadcast is, BDR and the true Symbol/Seconds ratio for the broadcast, the FEC Value, and the QBER rate are displayed. The frequency shift LNB may be determined by checking the values in the first two lines. Also, the key values for the Carrier Wave and Timing loop are specified with the key icons to the right of the lines. If a question mark is displayed, this means that the carrier wave or the timing value has not been determined.

In the BER section, the error rate is displayed in writing and with the Bar. The lower the BER rate, the better and cleaner the quality of the broadcast. Sensitive adjustment may be made in LNB with the BER indicator.

The “Back” Button is used to exit these screens.

SATELLITE DETECTION / IDENTIFICATION

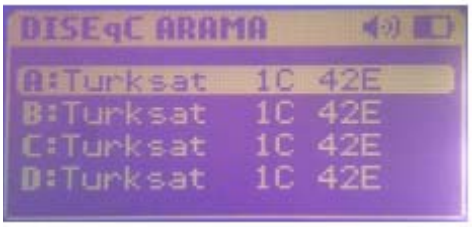


On this screen, the S and Q show the Analog Signal Level and the Digital noise rate like in the Manual search menu. If a digital data is caught, and if there is an attempt to identify which satellite this data belongs to, and the attempt is a successful one, the name of the satellite identified is written on the screen. This is how the satellite identification system works: At the moment any digital data is identified, it is compared to the first TP information for the top 12 satellites in the memory. If any of the top 12 satellites are in accord with the TP's in the top rows, the name of the satellite in accord is written. Therefore, do not forget that when updating TP information from the PC, only the top 12 satellites are used in this function. Also, since only the first TP information for the top 12 satellites are going to be compared, make sure that the first TP information are current. Otherwise, this function will not operate well. Furthermore, to accelerate the speed of Satellite identification, make sure that the Symbol rate for the first TP information is high. Because TP’s with high symbol rates can technically be detected much quicker. The recommended Symbol rate is at least 22MS/Seconds.

Finally, to prevent incorrect identification on this screen, make sure that the first TP information that you have entered does not conflict amongst different satellites. For example, if there is a TP on Hotbird and Turksat with the same frequency and symbol rate, do not write this in the first row.

The “Back” Button is used to exit from this screen.

DiseqC SEARCH



In Multiswitch systems, this menu is used to figure out which satellite is in which channel.

The potential 4 DiseqC port is scanned. If any digital data is caught, an attempt is made to identify which satellite the data belongs to, and if identified, it is written next to the relative DiseqC port. The satellite identification system is identical with the "Satellite Search / Identification" menu. Thus, the same measures are valid for this screen as well.

The “Back” Button is used to exit from this screen.

SPECTRUM ANALYSIS

Spectrum Analysis is the screen which enables the display of the analog signal levels received by scanning the frequency band in the 950-2150 MHz range on the graphic screen. The peak points on the screen show the parts that are strong in terms of the signal. With the options on the right-hand side of the screen, respectively, the Horizontal/Vertical polarization selection, Upper-Lower band selection, Signal level, Noise Filter, DiseqC port selection may be made. You can move to the desired option with the “Function Selection” Buttons, and make the selection with the “Value Change” Buttons.

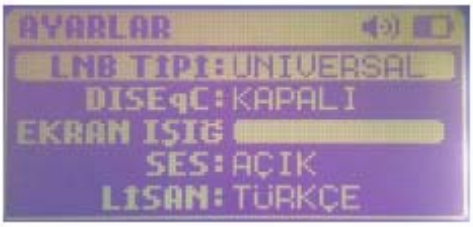
The graph on the screen is examined after the Polarization and Band selection is made. If the signal levels are very low or very high, the dB value may be changed to enable easy monitoring. Generally the noise section that remains low at the spectrum curve does not mean anything. The “Noise Filter” may be activated to prevent the display of this field. In this case, “SUPP” will be displayed in line 4, and the section remaining under the curve will not be drawn. With the DiseqC option in the last line, any DiseqC port may be selected. Through this, signals received from various ports may be compared.

The spectrum screen may be used during satellite search as it operated fast. After LNB is set in a way that the values on the screen are at the highest level, it is possible to find to which satellite the curve belongs to with the “Quick Satellite Identification” function. Pressing the “OK” Button is enough for this process.

If the satellite can be identified, the satellite name will be written on top of the Spectrum Graph. The satellite identification system operates similarly to the previous menus. Thus, the same precautions are valid for this screen as well.

The “Back” Button is used to exit from these screens.

SETTINGS



This is the section in which all device settings are made. The required parameter is selected with the “Function Selection” Buttons, and the value may be changed with the “Value Change” Buttons.

In line 1, the LNB Type is selected.

In line 2, the DiseqC port selection is made. It must be left closed at times it is not used. Measurement operations will be accelerated because of this. If a value is selected here, the device will spend time to send the required DiseqC commands before each measurement.

In line 3, the intensity of the screen backlight may be adjusted. It is recommended that you do not keep it any higher than necessary. Because it will decrease the lifespan of your battery even if by little.

In line 4, the device volume output may be turned up and down.

In line 5, the device language may be selected.

If the “OK” Button is pressed after the selections are made, the changes are saved and the device returns to the Main Menu. If the “Back” Button is used, you will return to the “Main Menu” without saving the changes that were made.

Technical Specifications	
Battery	8.4V 2000mA Lithium-Ion Type
LNB Signal Level	-65dBm / -25dBm
LNB Input Socket	F Female Type
LNB Feeder	13/18V, Max 600mA 0/22KHz 1Vpp modulation With short circuit protection
LNB Input Impedance	75Ohm
Symbol Rate	2000 – 45000 Ksymbol/Seconds
Supported FEC	1/2, 2/3, 3/4, 5/6, 7/8 (Automatic)
Frequency Range	950-2150 MHz
Polarization Selection	13/18 V (LNB, DiseqC Switch) DiseqC (Multiswitch)
Band Selection	0/22KHz (LNB, DiseqC Switch) DiseqC (Multiswitch)
DiseqC Interface	2.0
Satellite Memory	32
Number of TP's Per Satellite	8 (Total 32x8=256 TP)
Supported LNB's	Universal OneTouch Single C Single
Keypad	6 + 1 Keys
Charger Adapter	12VDC 1A SMPS

Magic FINDER PLUS

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