

SatLink WS-6980

SATLINK WS-6980 DVB-S2/C/T2 Combo Digital Satellite Finder Meter User Manual

Model: WS-6980

1. INTRODUCTION

This manual provides detailed instructions for the operation and maintenance of the SATLINK WS-6980 DVB-S2/C/T2 Combo Digital Satellite Finder Meter. The WS-6980 is a versatile handheld device designed for the installation and verification of digital satellite, terrestrial, and cable television signals. It features a 7-inch high-definition TFT LCD screen, DVB-S/S2, DVB-T/T2, and DVB-C compatibility, and includes advanced analysis tools such as a constellation analyzer and spectrum analyzer.

2. SAFETY INFORMATION

- Do not expose the device to rain or moisture.
- Avoid extreme temperatures. Operate and store the device within recommended environmental conditions.
- Use only the provided power adapter and car charger cable.
- Do not attempt to open or repair the device yourself. Refer all servicing to qualified personnel.
- Ensure proper ventilation during operation to prevent overheating.

3. PRODUCT OVERVIEW

The SATLINK WS-6980 is equipped with a robust set of features for signal analysis. Below are key components and an overview of the main menu interface.



Figure 3.1: Front view of the SATLINK WS-6980 displaying the main menu. The screen shows icons for various functions including DVB-S/S2, DVB-T/T2, DVB-C, Spectrum analysis, Loop Search, Other tools, Multimedia, and System Settings. A keypad and navigation buttons are visible on the right.



Figure 3.2: Rear view of the SATLINK WS-6980, illustrating the connectivity ports. These include HDMI IN/OUT, DC IN, and various antenna/LNB connections.

4. SETUP

4.1 Initial Charging

Before first use, fully charge the device's internal 7.4V/5000mAh Li-ion battery using the provided 12V power charger. The charging indicator light will show the charging status.

4.2 Powering On/Off

Press and hold the power button located on the device to turn it on or off. The device will display the main menu upon startup.

4.3 Basic Connections

- **Satellite (DVB-S/S2):** Connect the LNB cable from your satellite dish to the F-type connector labeled 'LNB IN'.
- **Terrestrial/Cable (DVB-T/T2/C):** Connect your antenna or cable signal to the female type connector labeled 'ANT IN' or 'CABLE IN'.
- **AV/HDMI:** Use the AV IN/OUT or HDMI IN/OUT ports for connecting to external displays or receiving video input.

5. OPERATING INSTRUCTIONS

5.1 Main Menu Navigation

Use the directional buttons and the 'OK' button to navigate through the main menu. The main menu provides access to all primary functions of the device.



Figure 5.1: The System Setting menu on the WS-6980, showing options for Country Setting, OSD Language, TV Format, Video Output, TV Resolution, Digital Audio Output, Time Zone, Channel Lock, and PWR Unit.

5.2 Satellite Signal Finding (DVB-S/S2)

1. From the main menu, select 'DVB-S/S2'.
2. Navigate to the 'Satellite Find' screen.
3. Select the desired satellite from the list or manually enter parameters such as Local Frequency, Transponder, Frequency, Symbol Rate, and Polarity.
4. Adjust DISEQC settings (1.0/1.1/1.2) and 0/22kHz Tone as required for your setup.
5. The device will display signal strength and quality. Use the 'Auto Scan' or 'TP Scan' functions to find channels.



Figure 5.2: The Satellite Find menu on the WS-6980, allowing selection of satellite, local frequency, transponder, frequency, symbol rate, polarity, tone, beep tone, and DiSeqC mode.



Figure 5.3: Signal measurement screen on the WS-6980, showing power (PWR), carrier-to-noise ratio (CN), bit error rate (BER), and modulation error ratio (MER). It also includes an electronic compass for azimuth (AZ) and elevation (EL) angle calculation.

5.3 Terrestrial/Cable Signal Finding (DVB-T/T2/C)

Similar to satellite finding, select 'DVB-T/T2' or 'DVB-C' from the main menu. Configure the input frequency and

other relevant parameters. The device supports auto and manual scanning for channels.

5.4 Constellation and Spectrum Analyzer

Access these advanced analysis tools from the main menu under 'Spectrum' or within the DVB-S/S2/C/T2 modes. These features provide visual representations of signal quality and interference, aiding in precise antenna alignment and troubleshooting.

5.5 Optical Power Detection

The device includes an optical power detection function. Connect the optical fiber to the designated port to measure optical signal strength.

5.6 Other Features

- **Electronic Compass:** Automatically calculates Azimuth (AZ) and Elevation (EL) angles for satellite dish alignment.
- **Flashlight:** Built-in flashlight for use in low-light conditions.
- **DC12V Output:** Provides 12V DC power output for external devices.
- **LNB/ANT/DC12V Short Protect:** Integrated protection against short circuits on LNB, antenna, and DC12V output ports.

6. MAINTENANCE

6.1 Battery Care

To prolong battery life, avoid fully discharging the battery frequently. Recharge the device regularly, especially if it will be stored for extended periods.

6.2 Cleaning

Clean the device with a soft, dry cloth. Do not use liquid cleaners or solvents. Keep the screen free of dust and smudges for optimal visibility.

6.3 Software Upgrade

The device's software can be upgraded via the USB port. Refer to the official SatLink website for the latest firmware and instructions.

7. TROUBLESHOOTING

- **No Power:** Ensure the battery is charged or the device is connected to the power adapter. Check the power button.
- **No Signal Detected:** Verify all cable connections are secure. Check LNB/antenna alignment and settings (frequency, symbol rate, polarity, DiSEqC). Ensure the correct DVB mode (S/S2, T/T2, C) is selected.
- **Poor Signal Quality:** Adjust antenna/dish alignment. Check for obstructions. Inspect cables and connectors for damage. Use the spectrum and constellation analyzers to identify interference.
- **Screen Issues:** If the screen is unresponsive or displays incorrectly, try restarting the device. If the issue persists, contact support.

8. SPECIFICATIONS

Feature	Specification
Display	7 Inch High Definition TFT LCD Screen (1024*600)
Compliance	Fully DVB-S/S2, T/T2/C, MPEG-2/MPEG-4 compliant
Video Decoding	MPEG-2/MPEG-4 H.264 Hardware decoding (8 Bit, does not support 10 Bit)
Satellite Input Frequency	950 to 2150 MHz
Terrestrial/Cable Input Frequency	48 to 862 MHz
LNB Supply	13V/18V, I _{max} 400mA
ANT Supply	5V, 12V/24V I _{max} 100mA
Demodulation Type (Satellite)	QPSK, 8PSK, 16APSK
Demodulation Type (Terrestrial/Cable)	QPSK, 16QAM, 64QAM, 256QAM
Battery	7.4V/5000mAh Li-ion Battery
Dimensions (WxDxH)	250mm x 156mm x 40mm (9.85 x 6.14 x 1.57 inches)
Net Weight	1 Kg (2.2 pounds)
Connectivity	USB (for software upgrade), AV IN/OUT, HDMI IN/OUT

9. PACKAGE CONTENTS

The following items are included with your SATLINK WS-6980:

- 1x WS-6980 DVB-S2/C/T2 Combo HD Satellite Finder Meter
- 1x 12V Car charger cable
- 1x 12V Power Charger
- 1x Carrying case
- 1x Neck Strap
- 1x AV cable
- 1x User Manual (CD)

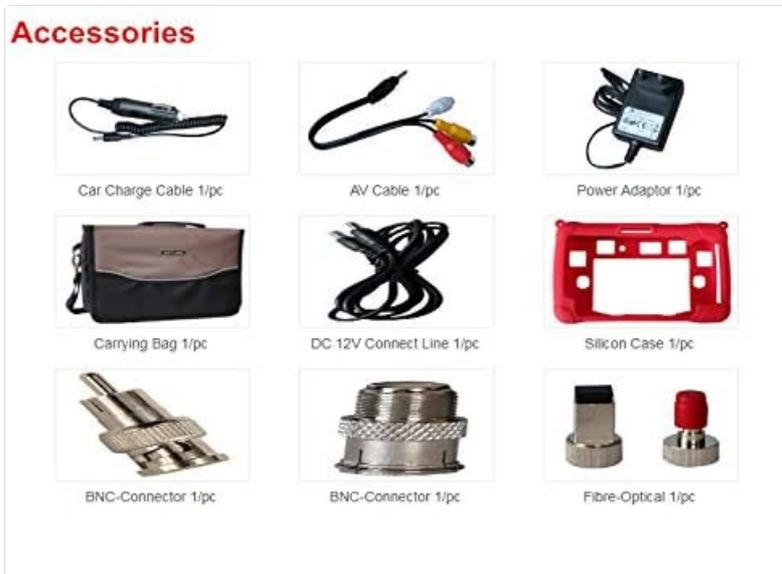


Figure 9.1: Visual representation of the accessories included with the WS-6980, such as charging cables, AV cables, carrying case, and various connectors.

10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or visit the official SatLink website. Keep your purchase receipt as proof of purchase for warranty claims.