

Satlink SP-2100

SATLINK SP-2100 DVB-S/S2 Digital Satellite Finder Meter User Manual

Model: SP-2100

1. INTRODUCTION

The SATLINK SP-2100 is a DVB-S/S2 and MPEG-2/4 H.264 compliant handheld digital satellite finder meter. Designed for ease of use, this compact and lightweight device provides essential functions for the installation and verification of digital satellite TV services. It is suitable for both residential homes and multi-dwelling units, offering signal measurement, channel management, and system configuration capabilities.

2. SAFETY INFORMATION

- **Power Supply:** Use only the provided DC12V/1.5A power adapter. Using an incorrect adapter may damage the device or cause fire.
- **Battery Care:** The device contains a Li-Ion battery. Do not expose it to extreme temperatures, puncture, or disassemble. Dispose of batteries according to local regulations.
- **Moisture:** Keep the device away from water and high humidity. Do not operate with wet hands.
- **Ventilation:** Ensure proper ventilation to prevent overheating. Do not block ventilation openings.
- **LNB Short Protection:** The device features LNB short protection. If a short circuit is detected, disconnect the LNB immediately.
- **Cleaning:** Disconnect power before cleaning. Use a soft, dry cloth. Do not use liquid cleaners or aerosols.

3. PRODUCT OVERVIEW

3.1 Front Panel and Controls

The front panel features a 3.5-inch TFT LCD screen for displaying menus and signal information, along with various control buttons and indicator lights.



Image 3.1: Front view of the SP-2100, highlighting the display and control interface.

- **LCD Screen:** 3.5-inch High Definition TFT LCD (320x240 RGB) for menu navigation and signal display.
- **Indicators:** Power (red), 13V/18V (green for LNB power), Lock (signal lock), Charge (battery charging status).
- **Navigation Buttons:** MENU, OK, Directional Arrows (Up, Down, Left, Right), EXIT.
- **Function Keys:** F1, F2, F3, F4 (context-sensitive functions).
- **Numeric Keypad:** 0-9 for data entry.
- **Special Function Buttons:** MUTE, SCAN, SAT, BACK, PAUSE, INFO, TV/R.

3.2 Rear Panel

The rear panel includes product information and the integrated speaker.



Image 3.2: Rear view of the SP-2100, indicating the speaker and product label.

3.3 Side and Top Ports

Various input and output ports are located on the sides and top of the device.



Image 3.3: Side view with HDMI, AV OUT, and AV IN ports.



Image 3.4: Top view with F-connector, USB Type A, and DC power input.

- **F-Male Connector:** Satellite input (950-2150 MHz).
- **USB Type A:** For software upgrades and file transfer (USB 2.0).
- **DC IN:** Power adapter input (DC12V/1.5A).
- **Power Switch:** On/Off toggle for the device.
- **HD-MI OUT:** HD-MI 1.3a output for connecting to an external display.
- **AV OUT:** 3.5mm jack for composite video (CVBS) and stereo audio (L/R) output.
- **AV IN:** 3.5mm jack for composite video (CVBS) and stereo audio (L/R) input.

4. SETUP

4.1 Charging the Battery

Before first use, fully charge the internal Li-Ion battery. Connect the provided DC12V/1.5A power adapter to the DC IN port on the device and plug it into a power outlet. The 'Charge' indicator light will illuminate during charging. A full

charge typically takes several hours and provides approximately 3 hours of operation time.

4.2 Powering On/Off

Locate the power switch on the side of the device. Toggle the switch to the 'ON' position to power on the meter. The 'Power' indicator light will turn red. To power off, toggle the switch to the 'OFF' position.

4.3 Connecting to LNB

Connect the satellite cable from your LNB (Low Noise Block) to the F-Male connector on the top of the SP-2100. Ensure the connection is secure. The device will supply 13V or 18V to the LNB, indicated by the green '13V/18V' light.



Image 4.1: Connection diagram showing LNB, power, and AV/HDMI connections.

5. OPERATING INSTRUCTIONS

5.1 Menu Navigation

Use the **MENU** button to access the main menu. Navigate through options using the directional arrow buttons **Up**, **Down**, **Left**, **Right**). Press **OK** to confirm a selection or enter a submenu. Press **EXIT** to return to the previous screen or exit the menu.

5.2 Main Menu Functions

- **Installation:** This section is used for satellite dish alignment and signal acquisition.
 - Select a satellite from the predefined list or add a new one.
 - Configure LNB type, frequency, and DiSEqC settings (1.0 / 1.1 / 1.2 and 22 kHz Tone supported).
 - Perform signal measurement to view signal strength and quality. Adjust the dish until optimal signal levels are achieved. The 'Lock' indicator will illuminate when a signal is acquired.
 - Supports Auto, Manual, and NIT Scan modes for channel searching.
- **Channel Edit:** Manage TV and radio channels. You can move, delete, or lock channels.
- **System Setting:** Configure device settings such as OSD language, time, display brightness, and factory reset options.
- **Utility:** Access additional tools or features.
- **Media Center:** Play multimedia files (wma, mp3, mp4, avi, jpg, jpeg, bmp, img) from a USB storage device connected to the USB Type A port.
- **About:** Displays device information, including software version and hardware details.

5.3 Signal Measurement

In the 'Installation' menu, after selecting the satellite and transponder, the screen will display real-time signal strength and quality bars. Adjust your satellite dish azimuth and elevation slowly while observing these values. The goal is to maximize both strength and quality. The device will emit an audible tone and the 'Lock' LED will light up when a signal is successfully locked.

5.4 AV In/Out and HD-MI Output

- **AV IN:** Connect an external video source (e.g., CCTV camera) to the AV IN port to display its output on the SP-2100's screen.
- **AV OUT / HD-MI OUT:** Connect the SP-2100 to an external display (TV, monitor) using the AV OUT or HD-MI OUT ports to view the meter's screen on a larger display.

6. MAINTENANCE

6.1 Cleaning

Ensure the device is powered off and disconnected from all cables before cleaning. Use a soft, dry, lint-free cloth to wipe the screen and casing. Do not use abrasive cleaners, solvents, or spray directly onto the device.

6.2 Battery Care

To prolong battery life, avoid fully discharging the battery frequently. If storing the device for an extended period, charge the battery to approximately 50% and store it in a cool, dry place. Recharge every few months to prevent deep discharge.

6.3 Software Upgrade

Software upgrades can be performed via the USB Type A port. Download the latest firmware from the official Satlink website. Copy the firmware file to a USB flash drive, insert it into the SP-2100, and follow the on-screen instructions

in the 'System Setting' or 'Utility' menu to initiate the upgrade process. Do not power off the device during an upgrade.

7. TROUBLESHOOTING

- **No Power:**

- Check if the power switch is in the 'ON' position.
- Ensure the battery is charged. Connect the power adapter and check the 'Charge' indicator.
- Verify the power adapter is correctly connected and functioning.

- **No Signal / Low Signal Quality:**

- Ensure the LNB cable is securely connected to the F-connector.
- Check LNB settings (type, frequency) in the 'Installation' menu.
- Verify DiSEqC settings if using multiple LNBs or a DiSEqC switch.
- Adjust the satellite dish alignment (azimuth, elevation, LNB skew) slowly and observe signal readings.
- Check for any obstructions between the dish and the satellite.

- **No Picture/Sound on External Display:**

- Ensure the AV or HD-MI cable is correctly connected to both the SP-2100 and the external display.
- Select the correct input source on your external display (e.g., HDMI 1, AV).

- **USB Device Not Recognized:**

- Ensure the USB device is formatted to NTFS, FAT32, or FAT16.
- Try a different USB device.

8. SPECIFICATIONS

Feature	Specification
Transmission Standards	DVB-S/S2, MPEG-2, MPEG-4, H.264
Connector Type (Satellite Input)	F Male
Input Frequency	950 to 2150 MHz
Signal Input Level	-65 to -25 dBm
Band Switch Control	22KHz
LNB Supply	13V/18V, IMax 400mA
Demodulation Type	QPSK, 8PSK, 16APSK, 32APSK
Symbol Rate	2 Msps to 45 Msps
LCD Type	TFT Transmissive
Number of Dots	320 x 240 (RGB)
Active Area (WxH)	70.0 x 52.5 mm

Feature	Specification
AV Output Connector	3.5mm jack (CVBS Video, Stereo L/R Audio)
AV Input Connector	3.5mm jack (CVBS Video, Stereo L/R Audio)
HD-MI Output Format	HD-MI 1.3a
USB Interface	USB Type A (USB2.0)
File Management System	NTFS, FAT32, FAT16
Supported File Formats	wma, mp3, mp4, avi, jpg, jpeg, bmp, img
Li-Ion Battery	7.4V/2600mAh
Adapter Output	DC12V/1.5A
Adapter Input	100-240VAC, 50/60Hz
Power Consumption	Maximum 10W
Dimensions	86 x 150 x 40 mm
Net Weight	0.37 kg

9. PACKAGE CONTENTS

The SATLINK SP-2100 package includes the following items:

- 1x SP-2100 Digital Satellite Meter
- 1x AV Cable
- 1x Power Adapter (DC12V/1.5A)
- 1x Carry Bag
- 1x English User Manual (this document)

10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or contact your local dealer. Keep your purchase receipt as proof of purchase for warranty claims. Software updates and additional resources may be available on the official Satlink website.