



SLM 1530

ATSC 3.0
Signal Level Meter

User Manual v1.0

SLM 1530

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Safety requirements

● Product inspection

- Inspect the equipment for shipping damage. Should any damage be discovered, contact Sencore for assistance.

● Read and Follow All Instructions

- All the safety and operating instructions should be read prior to and followed while operating this product.

● Do not obstruct the ventilation slots

● Cleaning

- Follow the cleaning instructions contained in the Maintenance section of this manual.

● Attachments

- Do not use attachments that are not approved by the product manufacturer.

● Water and Moisture

- This product is splash water resistant but is not submersible.
- Do not place objects filled with liquids on or near the meter, such as glasses.

● Power Sources

- This product should be operated only from the type of power source specified (12VDC - 2A).
- Ensure that the voltage applied to the power connector does not exceed 15V. Higher voltages could damage the equipment

● Grounding or Polarization

- Maximum consumed current: 2A
- Do not bypass or defeat electrical plug polarization or grounding. Doing so will violate the warranty and may pose a risk of fire or electrocution.

● Wire Protection

- Ensure all connected wiring is routed correctly to avoid damage including pinching, excessive bends, or compression.

● Electrical Supply, Grounding, and Surge Protection

- Ensure that all local or national electrical codes are followed.

● Power Lines

- Always use caution and avoid operating this or any connected equipment near uninsulated power lines or any other hazards.

● Servicing

- There are no user serviceable parts except the F-connector options. Do not attempt to service this product or remove covers. Refer all servicing to the Sencore service department.

● Heat

- The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products that produce heat.
- Do not place naked flame sources on the meter, such as lighted candles.

● Maximum current consumed by the meter: 2A

● Battery

- Battery must be replaced by qualified personnel, following the steps mentioned in the corresponding section.
- If the battery is replaced, the new one must have the same features, because there is risk of explosion. Furthermore, the new battery must be approved by the manufacturer. Otherwise, the company is not responsible for damages caused to the meter.
- Battery features:

Li-Ion
2600mAh 7.26V 19 Wh

Contact Information

For support, service and repair, contact Sencore ProCare at +1-605-978-4600 or email procare@sencore.com. RMA requests can be filled out on the Sencore website at www.sencore.com.

Symbols and safety labels



Recycle or dispose of used electronic devices properly.



Remove the battery from the equipment following the instructions given in this manual and dispose it properly



Replace the batteries only with the same type.

Overview

Introducing the SLM 1530

New from Sencore, a go-to meter designed with the needs of broadcast professionals in mind.

The **SLM 1530** is a light weight, rugged unit, packed with all the features needed to install and troubleshoot a television system using ATSC 1.0, ATSC 3.0 and QAM-B digital modulation as well as analog signals.

Available for the first time in such a portable and affordable package, its real time digital processing engine gives broadcast professionals the precision measurements needed in today's video distribution environment.



Key Features

- **User friendly**, handheld ATSC meter.
- Complete portfolio of Analog/Digital measurements with easy-to-read **pass/fail indicators**.
- **Quick and easy to use interface** with features such as Channel measurements, System Scans, Constellation Diagram, Spectrum Analyzer, Echoes, Datalogger, and more.
- Rugged, light weight, fully automatic, fast, and accurate.
- **Easy updates**.
- **1 GHz spectrum range** with selectable span.
- **PASS/FAIL Indicators**: Icons indicate if a measurement is good, bad, or in the warning zone for quick and easy status checks. Reduce installer entry errors and improve decision making.
- MPEG image visualization

General Specifications

Display	2.8" TFT 400 x 240 full color
Weight	510g (12.12lb)
Dimensions	175 x 100 x 52 mm / 6.9 x 3.9 x 2 in (H x W x D)
Power Source	Input: 100-240V~ 50-60Hz Output: 12VDC, 2A
Battery	Lilon smart battery (7.2VDC, 2600mAh)
Operating Time	Up to 5 hours
Operating Temperature	23°F to 104°F (-5°C to 45°C)
Storage Temperature	-4°F to 158°F (-20°C to 70°C)
Humidity	5% to 95% non-condensing
Ruggedness	Survives 1 m (3 ft) drop to concrete on all sides
Communication Interfaces	RJ45 10/100 Ethernet, Wi-Fi for remote control, webUI and measurements Bluetooth/USB 2.0 for Datalog download and software updates
Storage	400 MB (internal) for measurements
Power up time	< 10 seconds

Technical Specifications

Frequency	
Range	5-1002 MHz (depending on the function)
Resolution	10 kHz
Tuning	Frequency or channel
Input	
Impedance	75Ω F-type connector
Spectrum Analyzer	
Freq. Range	5-1002 MHz
Span	5, 10, 20, 50, 100, 200, 500 and Full span
Scale	5 and 10 dB/div
Hold mode	✓
Auto and manual reference level	✓
Digital Measurements ATSC 3.0	
Freq. Range	42-1002MHz
MPEG image	✓
Modulation	OFDM
Power	-35 to +60 dBmV
MER	Up to 38dB
LDPCBER	1.0E-2 - 1.0E-6
BCHBER	1.0E-3 - 1.0E-8
C/N	Up to 40dB
Constellation	✓
Echoes	✓
Digital Measurements ATSC	
Freq. Range	42-1002MHz
MPEG image	✓
Modulation	8VSB
Power	-35 to +60 dBmV
MER	Up to 38dB
Pre-BER	9.9E-2 - 1.0E-6
Post-BER	1.0E-3 - 1.0E-8
C/N	Up to 40dB
Constellation	✓
Echoes	✓
Digital Measurements QAM	
Freq. Range	42-1002MHz
MPEG image	✓
Modulations	64QAM and 256QAM
Power	-35 to +60 dBmV
Pre-BER and Post-BER	1.0E-3 - 1.0E-8
MER	Up to 38dB

C/N	Up to 40dB
Constellation	✓
Constellation	✓
Analog Measurements	
Freq. Range	42-1002MHz
Level	-35 to +60 dBmV
V/A	✓
C/N	Up to 45dB
Features	
Terrestrial channel plans	CCIR, FCC STD, FCC
User channel plans	✓
Units	dBuV, dBmV, dBm
Preamp Power	13, 18, 24Vdc (max. current 475, 370, 140mA)
Wi-Fi Analyser	✓
IPTV Analyser	✓

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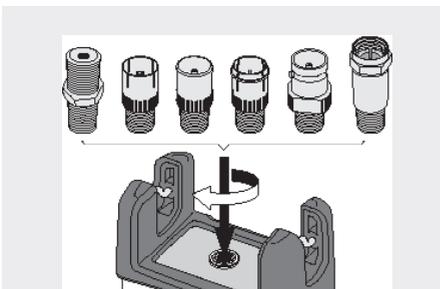
Description of equipment components

Connectors and controls

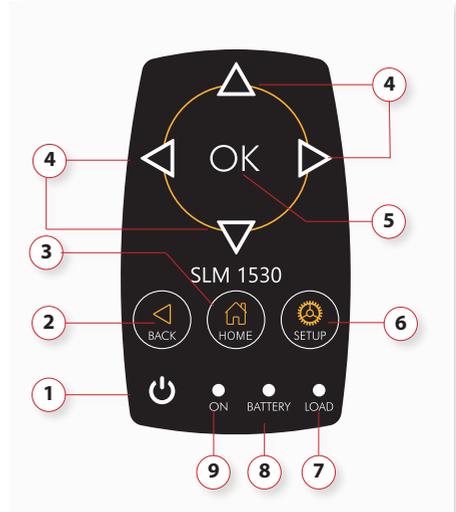


1. External power connector (12VDC).
2. LCD display.
3. Keyboard and LED indicators
4. Ethernet connector
5. RF F-connectors.

F-connectors options



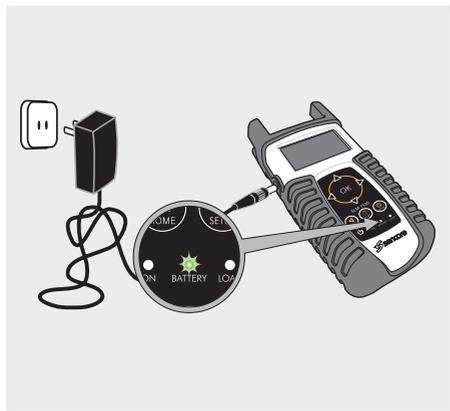
Keyboard



1.  **Device On/Off button:** To turn the equipment off, press and hold for approximately 3 seconds.
2.  **Back button:** Return to the previous menu or close a parameter entry window.
3.  **Home button:** Return to the main menu.
4. **Navigation buttons:** Used to scroll through options.
5.  **OK Button:** To confirm selection.
6.  **Setup button:** Parameter window for the current function.
7. **LED Powering:** Indicates if the equipment is powering an external load.
8. **LED Charging Battery:** LED flashes while the battery is charging.
9. **LED Power ON:** Illuminated when the equipment is on.

Power supply

A DC adapter is provided to power and charge the meter. Plug the adapter into a properly grounded electrical supply and the power connector on the side of the unit.



When external power is supplied, the battery management system automatically controls the charging process.

A battery icon indicates the charge status of the battery.

When the battery is fully charged, the battery icon is completely filled. As the battery discharges, the amount the icon is filled decreases in steps.

The icon shows 5 states representing the approximate battery charge:

-  - Battery charge less than 5%.
-  - Battery charge between 5% and 25%.
-  - Battery charge between 25% and 50%.
-  - Battery charge between 50% and 75%.
-  - Battery charge greater than 75%.

From a fully discharged state, a full charge takes approximately 8 hours and a 3 hour charge will provide approximately a 75% charge.

The charge management system will detect various conditions preventing charging, such as a battery that is over a safe temperature.

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About battery

Important:

If the meter detects a shortcircuit or over consumption, and it is not connected to the power supply, it automatically shuts down.

To turn it on again, it is necessary that it is connected to tyeh power supply.

To maximize battery life:

- ▶ Avoid fully discharging the battery.
- ▶ The battery should always be charged with the battery pack attached to the device and using the supplied DC adapter or applying a constant voltage within the specified range (12-15VDC).
- ▶ For long term storage, keep the unit at room temperature, or about 25° C. Start with a charged battery and re-charge the battery every 2 to 3 months.

Product operation



1. Channel Info

Analogue and digital channels are very different in terms of signal content and power distribution and thus require the advanced techniques provided in the **SLM 1530**.

1.1. Main window

Below is a capture of a Channel Info window with a brief explanation of its features.

The screenshot shows the Channel Info window for CH 80. Callouts include:

- Channel Change using:** Points to the 'FCC STD' and 'ATSC 3.0' indicators.
- Frequency:** Points to the '561.000 MHz' display.
- Channel plan:** Points to the 'ATSC 3.0' display.
- List of measurements with pass/fail indicators:** Points to the list of metrics: Power (95.6 dBμV), C/N (39.9 dB), MER (>38.0 dB), LDPCBER (>1.0E-2), and BCHBER (<1.0E-8).
- Bar graph of main measurement. Color according to checkmarks:** Points to the horizontal bar graph on the right.

1.2. Setup



Press **SETUP** to change the Channel Info options.

The screenshot shows the Channel Info - Setup window with the following options:

- Tuning:** Channel (dropdown)
- A/D:** Digital (dropdown)
- Parameters:** (dropdown)
- Save datalog:** SAVE (dropdown)

- **Ter.Plan:** Selects the channel plan
- **Powering:** Selects the preamplifier powering
- **Tuning:** Channel, Frequency
- **A/D:** Auto, Analog, Digital.
- **Save datalog:** Saves the current scan measurements. You can see the datalogs using the remote control application.



2. Spectrum

Real-time processing speeds ensure capture of any fast, intermittent plant impairments.

Due to the accuracy and level of detail provided by this spectrum analyzer, the **SLM 1530** is the ideal tool for identifying and locating noise, interference, ingress and other waveforms that may be affecting cable services quality.

2.1. Main window

Below is a capture of a Spectrum window with a brief explanation of its features:

The screenshot shows the Spectrum window for CH 60. Callouts include:

- Selected channel Change using:** Points to the left and right arrow buttons.
- Span User can change it using:** Points to the 'Span: 25MHz' display and the 'BACK (+) or OK (-)' buttons.
- List of measurements with pass/fail indicators:** Points to the list of metrics: Pwr (-1.7 dBmV) and C/N (38.9 dB).
- Reference level Change:** Points to the vertical scale on the right, showing levels at 0, -20, and -40.

2.2. Setup

Press  to change Spectrum options.



- **Ter.Plan:** Selects the channel plan
- **Powering:** Selects the preamplifier powering
- **Aim antenna:** Emits a modular audible signal with frequency directly proportional to signal level in the spectrum trace relative to reference level. It is recommended to set the reference level manually, as well as to select the span to include a frequency range wide enough.

The audible signal becomes continuous when the signal level is close to the reference level. Then it is necessary to increase the reference level to get a more accurate adjustment.

This is a useful feature to point antennas without having to look at the display

- **Span:** 5MHz, 10MHz, 20MHz, 50MHz, 100MHz, 200MHz, 500MHz, Full.

Set the span of the spectrum. To easily change the span, use the **OK** Button to decrease the span and the Back Button to increase the span.

- **Ref. Level:** Select the reference level of the spectrum graph
- **dB/div:** 5 dB/div, 10 dB/div
- **Tuning:** Channel, Frequency
- **A/D:** Auto, Analog, Digital.
- **C/N:** ON, OFF. Shows/Hides the C/N measure.
- **Hold:** ON/OFF. Shows/hides the maximum graph
- **Save datalog:** Saves the current scan measurements. You can see the datalogs using the remote control application.



3. MPEG

The **SLM 1530's** MPEG feature will show the image of the selected service.

3.1. Main window

Below is a capture of a MPEG Info window with a brief explanation of its features:

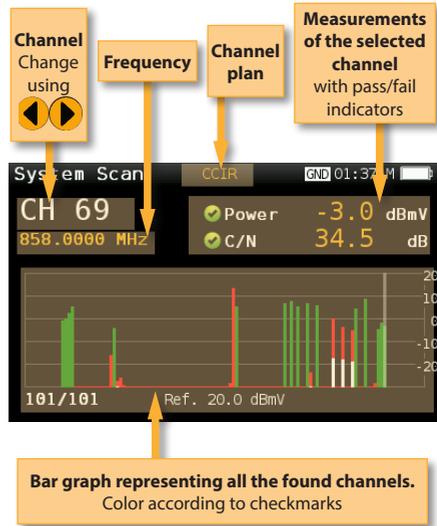


3.2. Setup

Press  to change the Channel Info options.



- **Ter.Plan:** Selects the channel plan
- **ALP Id:** Selects the ATSC Link Layer Id
- **Powering:** Selects the preamplifier powering
- **Volume:** Sets the speaker volume



Channel Change using

Frequency

Channel plan

Measurements of the selected channel with pass/fail indicators

System Scan - Setup

CH 69

858.0000 MHz

Power -3.0 dBmV

C/N 34.5 dB

101/101 Ref. 20.0 dBmV

Bar graph representing all the found channels. Color according to checkmarks

4. System Scan

This function scans the selected channel plan and detects every existing analog and digital channel in real time to determine the overall frequency response of the system.

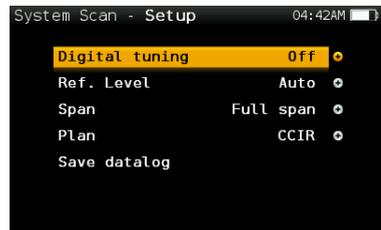
The scan measurement leverages the location based thresholds to clearly show whether or not signal levels comply with the cable system's specifications with their green, yellow and red bars. This gives an easy-to-understand real-time view of the system, including the BER and MER values of the selected channel.

4.1. Main window

The following is a capture of a System Scan window with a brief explanation of its features:

4.2. Setup

Press  to change the System Scan options.



- **Ter.Plan:** Selects the channel plan
- **Powering:** Selects the preamplifier powering
- **Digital tuning:** If it is ON, allows to see MER and CBER measurements when a digital channel is selected and the user presses Ok button.
- **Span:** Select the number of channels showed in the bar graph
- **Ref. Level:** Select the reference level of the bar graph

- **Save datalog:** Saves the current scan measurements. You can see the datalogs using the remote control application



5. Learning plan

Analyzes the input signal to the meter and automatically detects all channels.

This feature automatically identifies the channels as either analog or digital and performs measurements on each.

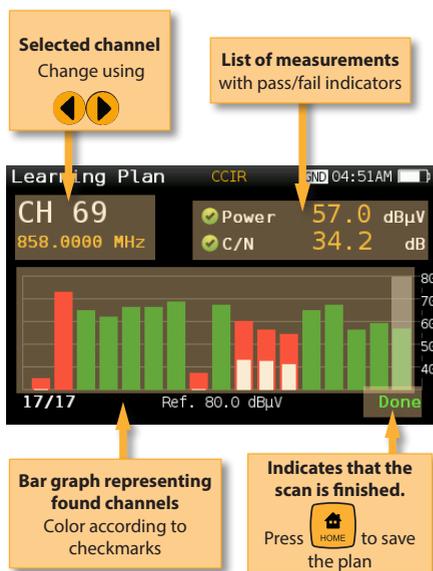
A bar graph is displayed with the height representing the power for digital channels and the level of the video carrier for the analog channels.

The measurements made for analog channels are video carrier level and V/A. For digital channels the measurements are power and C/N.

The analog channels will have an extra, smaller white bar indicating the level of the audio carrier.

5.1. Main window

Below is a capture of a Learning Plan window with a brief explanation of its features:



6. Constellation

Digital video often does not show signal impairment until it is too late due to the small margin between acceptable quality and failure.

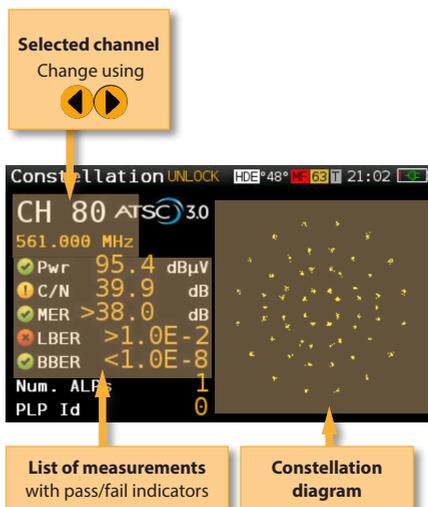
Constellation diagrams are an indispensable tool to help detect the presence of noise, phase jitter, interference, and gain compression, all of which impact overall signal quality and thus reduce Modulation Error Ratio (MER).

Ideally, each of the symbols in a constellation diagram should display a clean dot indicating a perfect signal.

The **SLM 1530's** real time constellation, allows the installer to assess the size and shape of the build up of dots indicative of problems which contribute to bit errors leading to service disruption

6.1. Main window

Below is a capture of a Constellation window with a brief explanation of its features:



6.2. Setup

Press  to change Constellation options.



- **Ter.Plan:** Selects the channel plan
- **Powering:** Off, 13V, 18V, 24V.
- **Zoom:** OFF, 1st, 2nd, 3rd, 4th.
Select a quadrant of the constellation to be represented for more detailed view. Select Zoom OFF for the full constellation.
- **Tuning:** Channel, Frequency
- **Save datalog:** Saves the current scan measurements. You can see the datalogs using the remote control application.



7. Echoes (ATSC 3.0)

It is important to check that no echoes can cause problems in the reception of ATSC3.0 signals.

This feature you allows to visualize the echoes of the received signal, helping the installer to minimize them as much as possible for optimal signal reception.

In addition to the echoes graph, this function shows the channel power and MER measurements, as well as the FFT mode, the guard interval, and the Cell ID.

7.1. Main window

The following is a capture of a Echoes window with a brief explanation of its features:

Selected channel
Change using

◀ ▶

List of measurements with pass/fail indicators and number of echoes

Echoes graph

7.2. Setup

Press  to change Echoes options.



- **Powering:** Off, 13V, 18V, 24V.
- **Tuning:** Channel, Frequency
- **Units:** us, Km

Save Datalog: Saves the current IPTV measurements. You can see the datalogs using the remote control application.



8. Setup

Change main configuration settings:



- **Ter. Network:** Aerial, Cable
- **Terr Plan:** FCC STD, FCC RETURN, FCC IRC, FCC HRC, FCC OFFAIR, CCIR, and customers plans
- **Restore Powering:** On/Off
- **Language:** English, Español.
- **Units:** dBμV, dBmV, dBm
- **Quality profiles:** Trunk, Tap, End Line, Ground.
Different thresholds are available for different testing locations.
- **Analog Standard:** Selects the standard for the analog channels and changes automatically the audio carrier to a value according to the selected standard.
- **Audio Carrier:** 4.5 MHz, 5.5 MHz, 6.0 MHz, 6.5 MHz.

- Volume

- Network:

Setup: Manual, Auto

When Setup Manual is selected, the user must set the gateway.

IP.

When Setup Manual is selected, the user must set the IP.

DNS.

When Setup Manual is selected, the user must set the DNS.

Gateway.

- **Wi-Fi:** Allows to connect the SLM 1530 to a

Wi-Fi network.

Wi-Fi: On, Off

Mode: AP (Access Point), Client

Scan: When Wi-Fi is turned on and the selected mode is Client, it shows a list of all the found Wi-Fi networks.



As you can see in the image above, the list shows the name of the Wi-Fi networks and indicates if the network is open or restricted, as well as the protection access type.

To access to a restricted network, you must

enter the password using and

To verify the password, find a red square behind the last character of the password

and press



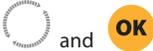
If you connect a mobile device (such as a mobile phone, tablet, etc.) and your SLM 1530 to the same Wi-Fi network, you can use your mobile device to control your **SLM 1530**. You just have to open a web browser

in your mobile device and select the Screen Mirroring function (see section 4 - *Screen Mirroring in the Web Application menu*)

MAC: The MAC can be set automatically or user-selected

Setup: Auto, Manual

MAC: When Setup Manual is selected, the user must enter the MAC using



SSID: Shows the SSID of the **SLM 1530**

BSSID: Shows the SSID of the **SLM 1530**

IP: Shows the SSID of the **SLM 1530**

- **Bluetooth:** Allows to turn ON/OFF the bluetooth connection.

If ON is selected, a new line will appear showing the MAC of the **SLM 1530** Bluetooth interface, and a bluetooth icon will be shown in the top right part of the screen.

When the equipment connects via bluetooth with another device, it will appear another line showing the MAC of the other device

- **Time and Date:**

Set current time (hour and minutes) and date (day of the month, month and year).

- **Energy:**

Auto suspension

Auto shutdown

- **Update firmware:** See section *Firmware update*

- **Reset configuration:** Resets the **SLM 1530** to factory settings

- **Licenses:** Shows a list with all the licenses included in your SLM 1530

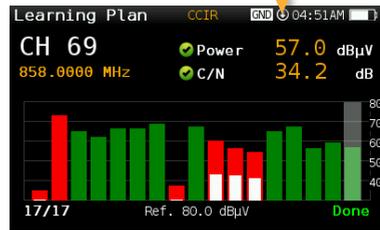
- **About SW**

- **About HW**

Firmware Update

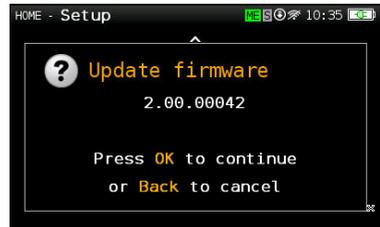
Whenever the SLM 1530 is connected to the internet, it will automatically check if there is a newer firmware version. If there is one available, an arrow icon will appear at the top of the screen:

The icon with the arrows indicates that there is a new firmware version



If the user wants to update the firmware, please select function *Update firmware* in the *Setup* menu

If there is a new firmware version, a message will be displayed when the user selects this function:



Press OK button to automatically download and install the new firmware version.

Web Application

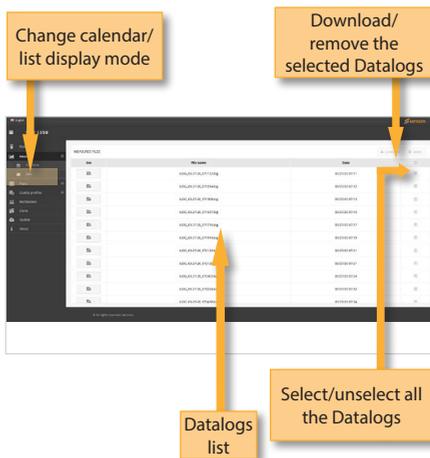
First of all, connect the SLM 1530 to the network using the Ethernet connector or the Wi-Fi interface. Then find the IP of the SLM 1530 (see section 8 - Setup - Network/Wi-Fi).

Then, type the SLM 1530 IP in the address bar of a web browser and press Enter.

Then you can see the home window of the **SLM 1530** web application:



To change the display mode from calendar mode to list mode, just click on the corresponding button placed at the menu bar:

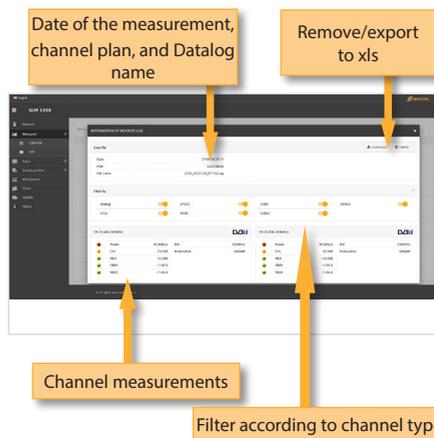
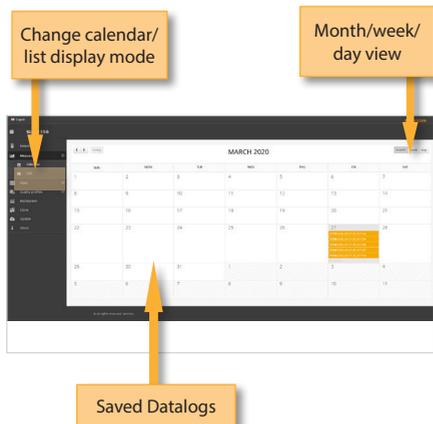


Using the buttons placed at the top right of the screen, you can remove the selected Datalogs or download them to your computer in .xls format (it will be generated a .xls file for each Datalog and they all will be downloaded together in a .zip file)

Clicking on a Datalog of the list, the measurements of that Datalog will be displayed:

1. Measurements

In this window, you can see all the datalogs saved in the SLM 1530. They are grouped by date in a calendar:



2. Plans

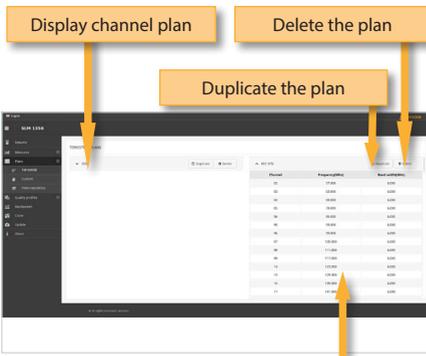
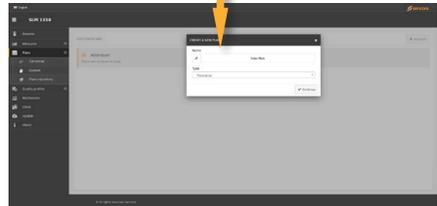
In this window, you can see all the channel plans of the SLM 1530.

The channel plan are the standard channel plans of the corresponding band. These plans can be removed from the meter, but they cannot be edited. However, you can make a copy of one of them to build a new customer channel plan from it.

The duplicated plans will appear in the Custom list automatically.

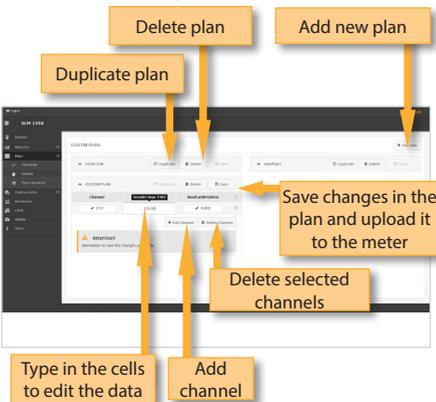
You can create a new channel plan from an existing one by clicking on the corresponding button. Or you can start from scratch, by clicking on the "New custom plan" button:

Plan name

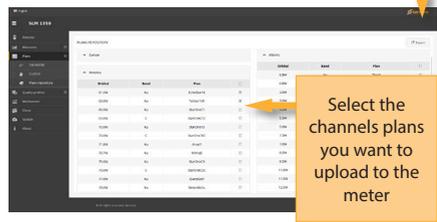


The application also allows to configure the channel plans according to the geographic area you will use the meter. When you turn the meter on for the first time, you must select the language and then you must select the geographic area. So, the channel plans corresponding to that area will be available in the SLM 1530. But the user may add other standard channel plans corresponding to other geographic areas (this is specially helpful for those places located near the frontier between two areas). To do that, click on the "Channel plan repository" button :

The custom channel plans can be edited:



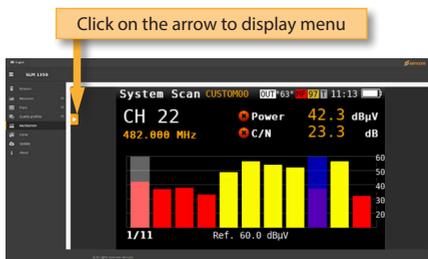
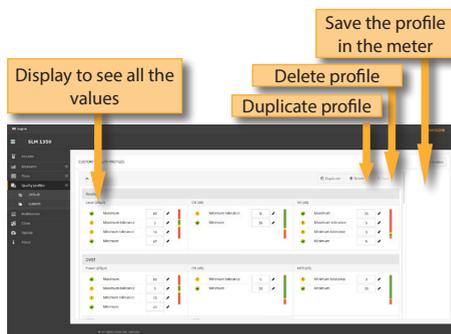
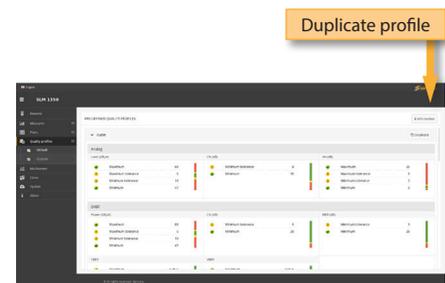
Export selected plans to the meter



The channel plans added from the repository will be uploaded to the SLM 1530, but none of the channel plans in your meter will be removed.

3. Quality Profiles

Using the web application you can add new quality profiles. The SLM 1530 has two pre-defined quality profiles (head-end and outlet) that can not be edited, but they can be duplicated. The duplicated quality profiles are saved in the custom quality profiles, and the custom quality profiles can be edited.



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5. Clone

Using this feature, it is very easy to have the same configuration in all your SLM 1530 meters. You only have to export the configuration of the SLM 1530 that you want to copy, using the Export feature. The configuration will be saved in a file on your computer. Then, connect other SLM 1530 that you want to copy the configuration to and select the Import feature.



4. Screen Mirroring

Using this feature you can control the SLM 1530 remotely. For this to work, it is necessary that the SLM 1530 and the computer are connected to the same LAN.

To access to this feature you may be required to enter the password "admin" in the right top part of the window. Then you will see the screen of the SLM 1530 in your computer:

6. Update

In this section you can update the firmware of your SLM 1530, as well as install new licenses in your meter.

If the SLM 1530 is connected to the internet, the system will detect automatically if your meter is already updated by clicking on "Last firmware version". If it is not, then you can download the new version and install it automatically from this menu. If you get the update file from your distributor, you can install it in your SLM 1530 by clicking on "Manually updating firmware".

Same with licenses: if your SLM 1530 is connected to the internet, it will detect new purchased licenses automatically when you turn it on, and will install them automatically. But if you get the licenses from your distributor, you can install them in your device by clicking on "Add license".



Error Messages

LOW BATTERY

Indicates that the battery is about to finish. The battery icon is red now. It is recommended to connect the meter to the external power source.

LOW BATTERY Shutting down

Some time after the LOW BATTERY message appears (time varies depending on the functions used), it will appear this message. If the meter is not connected to the external power source, it will switch off.

BAD POWER

Unplug power source

This message appears when the meter is connected to an external power source that does not supply it the right power. Please, use only the power source provided with the **SLM 1530**.

SHORT-CIRCUIT

Check installation

This message appears when the meter detects a short-circuit at the RF input. It is recommended to check the installation to find out why the short-circuit is produced.

DC OUTPUT LIMIT EXCEED

Switch DC OUTPUT off

This message appears when the meter detects an excessive consumption from the device that is being powered. It is recommended to turn off the powering feature of the **SLM 1530**.

DC AT RF INPUT

Check installation

This message appears when the meter detects DC at the RF input that is not generated by the **SLM 1530**. It is recommended to check the installation.

Maintenance

Always disconnect the unit before cleaning. Use only a mild solution of detergent and water applied with a soft damp cloth. Dry thoroughly before use.

Do not use aromatic hydrocarbons or chlorinated solvents. These products may damage the unit.

Do not use alcohol or alcohol based products on the front panel, especially the display. These products may damage the unit.

check the installation to find out why the short-circuit is produced.

Supplier's Declaration of Conformity. Compliance with standards

Responsible Party - U.S. Contact Information:
+1-605-978-4600, procare@sencore.com or
www.sencore.com

FCC Compliance Statement

Contains FCC ID:Z64-WL18DBMOD

This device has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

ISED Requirements

Contains ISED ID: 4511-WL18DBMOD

This Class A digital apparatus complies with Canadian CAN ICES-003(A) /NMB-003(A).

This device complies with Industry Canada license-exempt RSS standard(s).

Operation is subject

to the following two conditions:

- (1) This device may not cause interference, and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil numérique de la classe A est conforme à la norme CAN ICES-003(A)/NMB-003(A) du Canada.

Le présent appareil est conforme aux CNR d'ISDE applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) L'appareil ne doit pas produire de brouillage, et
- (2) L'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

