

### LT-3100 SW v1.09 Release Notes

Product Name: LT-3100 Satellite Communications System

Unit and Part Numbers: LT-3110 Control Unit P/N: 51-100987  
LT-3120 Handset P/N: 51-100988  
LT-3121 Cradle P/N: 51-101181  
LT-3130 Antenna Unit P/N: 51-100989

SW Part Number: 71-101301

SW Version: 1.09R Build Number: 0018

Release Date: 29. May 2019

SW Update:  Optional  Recommended  Mandatory

File Name: LT-3100-v1.09R-0018.lti File size: 28.5 MB

Checksum (MD5): 30d44b0199d4ce758ee999470a00faa2

Downloads: <https://www.thrane.eu/lt-3100-iridium/>

Contact: [support@thrane.eu](mailto:support@thrane.eu)

#### New Features

- Bluetooth

Support for Personal Area Network (PAN) Bluetooth profile has been added. The PAN profile enables IP networking over Bluetooth with up to two simultaneous clients (smartphone, PC, or MAC) and the LT-3100 system, once Bluetooth pairing has been completed.

All IP services available on the Ethernet LAN interface is also available over Bluetooth PAN, including:

- SIP Voice and SIP Messaging
- Serial Data (e.g. for Windows Dial-up Networking)
- Built-in web server for software update, configuration, and maintenance

Bluetooth is default enabled and need not be configured from the built-in web server before use.

For security reasons, even with Bluetooth enabled, the LT-3100 is default not visible (discoverable) and cannot be paired to another device, except when the user has navigated to the Bluetooth menu. To pair a new device with the LT-3100 follow this procedure:

- Enter the Bluetooth menu of the LT-3100 (MENU -> System -> Bluetooth)
- Enable Bluetooth if disabled
- Using your Bluetooth device, scan/search for the LT-3100 (the default name "LT-3100" can be changed from the built-in web server)
- Initiate pairing from your Bluetooth device
- Verify the pairing code shown on both devices matches each other
- Accept pairing on both devices

**Note:** *Bluetooth Headset (audio) profile is not supported in this release.*

- SIP Messaging

Using a SIP Messaging client, it is now possible to send and receive SMS and e-mail directly from your smartphone or PC for easy texting.

We recommend using the Zoiper Lite VoIP Soft Phone, which is available for both iOS and Android. Lite and Premium versions available. It supports both voice, SMS and e-mail.

Set up a SIP User on the built-in web server under Configuration -> SIP and make sure to tick the 'MSG' option to allow SIP Messaging for that SIP User.

Once the 'MSG' option is enabled for a given SIP User, all future SMSs and e-mails sent to and from the LT-3100 system will be synchronized to the SIP Messaging client using that SIP User.

It is possible to send a receive SIP messages locally between two SIP Users (e.g. from 1000 to 1101).

**Note:** *when received SMSs or e-mails have been successfully delivered to the SIP Messaging client(s), it will no longer show up as unread in the display of the Control Unit.*

- E-mail support

It is now possible to send and receive e-mails directly from the user interface of the Control Unit (MENU -> Messages). When creating a new message (MENU -> Messages -> New) use the '#' key to toggle between SMS and e-mail when focus is in the To field.

E-mails are sent to and from a special Iridium e-mail address that is made from your phone number:  
[88xxxxxxxxx@msg.iridium.com](mailto:88xxxxxxxxx@msg.iridium.com)

E-mails are delivered using the Iridium SMS service and are billed as such. It is without cost to receive e-mails (as with SMS).

**Note:** *When sending e-mails to the terminal, Iridium will discard any e-mail content that will not fit into one SMS (159 characters minus the length of the originating e-mail address). This limitation does not apply when sending e-mails from the terminal.*

**Note:** Iridium does not support specifying an e-mail subject in either direction.

- Configuration of GNSS/GPS receiver

The LT-3100 System has a high-precision 72 channel GNSS receiver with SBAS satellite correction. The GNSS receiver can be configured in the web server, under Configuration - GNSS module:

- The default configuration is: GPS, GLONASS, and SBAS

The GNSS receiver status can be readout from the display (MENU -> System -> GNSS Status), where the following parameters are available: Fix Type, Latitude, Longitude, COG, SOG, Satellites In Use, Horizontal Accuracy

- GNSS/GPS NMEA 0183 Output via RS-422

The LT-3100 system is now supporting transmission of GNSS/GPS NMEA 0183 data via the RS-422 interface, which is available in the 10-pin Aux connector on the back side of the LT-3110 Control Unit

An Aux cable, 3m. can be ordered from Lars Thrane. The Aux cable (NMEA 0183) wire designation and color: TxD+ (orange), TxD- (red), RxD+ (yellow), RxD- (green), RS-422 GND (white)

GNSS NMEA 0183 output configuration in the web server:

- Port configuration: Enable/disable (default disabled)
- Baud rate: 4800, 9600, and 38400 baud
- Sentences: DTM, GGA, GLL, GSA, GSV, RMC, VTG, and ZDA
- Talker ID will change, depending on how the GNSS receiver is configured (GN, GP, GL, and GB)

- Tracking and Remote Management

It is now possible to configure the tracking function from remote (remote management) by sending the tracking configuration to the terminal using SMS or e-mail (e.g. from a smartphone or PC on land).

Remote management is default disabled and must be enabled through the built-in web server (Configuration -> Tracking). A remote management password must be supplied in addition to ticking the Enable box. It is not possible to enable remote management or change the password from remote.

Remote management offers the following tracking procedures:

- Configuration of the tracking function
- Requesting a Position Report (specifying where to send it)
- Trigger sending of a Position Report (according to existing configuration)

The details of the tracking and remote management protocol can be made available upon request.

- Readout of VDC input

The LT-3100 system now supports readout of VDC input to the LT-3110 Control Unit (CU Input Power) and readout of VDC input to the LT-3130 Antenna Unit (AU Input Power) from the display (MENU -> System -> Power Supply).

- Support for RED BOX

The LT-3100 system now supports RED BOX from mailasail ([website](#)). The LT-3100 system and RED BOX is connected via Ethernet. The RED BOX will automatically identify the LT-3100 system. The RED BOX provides a unified onboard communications platform featuring least cost routing, wireless NMEA instrument data, firewall, enhanced GPS tracking and crew email & web optimization.

**Note:** Enable network DHCP server mode before connecting the RED BOX to the LT-3100 system.

## Changes

- NA

## Fixes

- Enhanced modem data congestion control (ICS-732)

Using windows dial-up networking, especially without the use of network filtering, the transmission rate could be relatively low and blocked for shorter periods. This issue was introduced in v1.06 and fixed by v1.09.

- SMS Service Center number (ICS-771)

Some Iridium SIM Cards does not include the SMS Service Center phone number per default. If that was the case, the user would have to manually add it in order to send SMS. This has been fixed by using the default SMS Service Center phone number when absent in the SIM Card. This issue was introduced in v1.08 and fixed by v1.09.

- SBD causes failure to register on the network (ICS-796)

When Tracking was configured to use SBD and the option "Send report on power-on" was enabled, the early sending of SBD could cause failure to register onto the Iridium network until next power cycle. This issue was introduced in v1.08 and fixed by v1.09.

## SW Update Procedure

Follow this procedure to upload new software to the LT-3100 System:

- 1) Connect the LT-3110 Control Unit directly to a PC using an Ethernet cable, or connect the LT-3110 Control Unit to a Local Area Network (LAN), where a PC is connected.
- 2) Identify the IP address that is assigned to the LT-3110 Control Unit. The IP address can be read out from the UI Display interface (Menu -> System -> Network: IP Address). The IP address is valid if the 'Link Status' is showing 'Up'. The IP address is assigned dynamically by a DHCP server (default).
- 3) From the PC, start a browser (e.g. Microsoft Edge, Explorer, or Chrome) and type in the IP address, which was identified in the LT-3110 Control Unit (e.g. 169.254.1.1).
- 4) The browser might show you a warning about an invalid web server certificate. Make sure, that you have typed in the correct IP address.
- 5) Press 'Details' and you will be presented for an extended page view (including a link), which will direct you to the LT-3100 System dashboard 'Go on to the webpage (Not recommended)'. You will now see the LT-3100 system dashboard (default login username: admin / password: admin).
- 6) Select the 'Software update' webpage and click the 'Browse...' button to select the LT-3100 system file, which must be uploaded to the system. The LT-3100 software image has the following filename (example): LT-3100-v1.09R-0018.Iti
- 7) Finally click the 'Upload' button to start the upload of the new software image. The upload and installation of the software image will take a few minutes. Progress bars can be monitored on the software update web page, while the software update is on-going.
- 8) The LT-3100 system will reboot, once the software image is installed in both the control unit and antenna unit.