Coastal Nomad Drifter

Quick Start Guide

SouthTEK Sensing Technologies

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For more details, please refer to www.southteksl.com

Key features

- **Cost-effective drifter**
- **Coastal applications**
- **User friendly software**
- **Robust, precise and handy**
- **GPS, GLONASS and GALILEO tracking**
- **GSM coverage and communications**
- **Flexible deployment: from an infratable boat to an aircraft carrier**
- **Continuous working mode up to several months depending on user configured intervals for transmission and position sampling**

Everyday use of the Nomad drifter

Turning on the drifter

1 **2** **3** **4**

1. Unscrew cap from the floater.

2. Disconnect the dummy plug (this will automatically switch on the drifter) and set the rubber protection in place.

3. Screw cap firmly onto floater, hand tight, ensuring proper seating of the gasket around its entire circumference.

4. The buoy is now ready for deployment. Please confirm proper communications through the web application: http://ldmanager.southteksl.com

5. To switch off the drifter just connect the dummy plug.

5

Charging the internal battery

6

6. Plug the charger.

The status light on the charger indicates charging status (red charging, green charged).

Once the internal battery has finished charging, the NOMAD is ready for use.

The LiPo batteries are sent at 40% of capacity. Fully charge the batteries before deployment.

Caution!

Users of Lithium polymer (LiPo) batteries should take extreme care when handling such batteries. Legislation regarding disposal of LiPo batteries vary from country to country.

LD Manager Application

6 Logging in web application
http://ldmanager.southteksl.com

LD Manager app available on Play Store

Specifications

1. Cap
2. Floater
3. Drogue attachment eye
4. Gasket
5. Antenna GPS/Iridium
6. Charge connector
7. LED indicator
8. Electronic device
9. Battery
10. Ballast
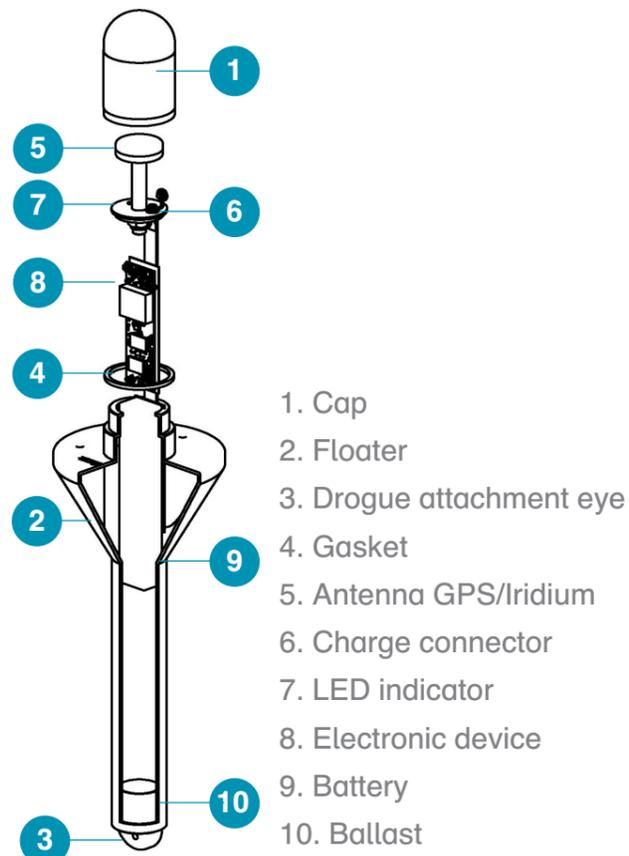
GSM	Quad-Band GSM 850/900/1800/1900 MHz
GPRS	Multi-slot class 12
GNSS	Receiver 32 channels
	GPS/GALILEO/SBAS: L1 1575.42 MHz
	GLONASS: L1 1597.5 MHz
Proccesor	ARM Core
Memory	5 MB (RAM) and 10 MB (Flash)
Battery	Lithium polymer (LiPo) Capacity standard 20400 mAh (Type M) Nominal = 3.7V
Antennas	Iridium: 2 dBi GNSS: 2.5 dBi
Charging conditions	DC 4.2V 2A max
Dimensions	72 cm x 22 cm x 22 cm
Weight	2895 gr

LED Indicators

- 🟢 Started (Running or idle mode).
- 🟡 Searching (GNSS and comm. signals).
- 🔴 Error (Device anormal functionality).

LED indicatos.

For a detailed description of led flashing pattern, please refer to Application Note #202 at

http://www.southteksl.com/index.php/downloads

Accesories

Charger (2A)   Pila (Drogue)   Satis (Drogue)   Firma (Drogue)

7 Main screeen of LD Manager — **LDManager v2.1.5**

Devices

	Model	Id	Status	Power	RC	EC	CED	ARC	AEC	ACRD	Actions
	Coastal NOMAD-B	LCA00018	●	30 %	2047	2	2016-03-31				
	Coastal NOMAD-D	LCA00019	●	34 %	2044	120	2016-03-31				
	Coastal NOMAD-M	LCA00020	●	37 %	2044	120	2016-03-31				

Toolbar icons (numbered): **6** Events & alarms, **4** Configure device, **5** Search mode, **7** Update software, **8** Data available, **9** Export data, Refresh, Switch off

Devices info ▲ — ① ② — Communications info ▲ — Actions ▲

Display # 20

User menu: Notifications, Reports

User info: User user@mail.com — User information

Location of last position acquired ↑

Click Notifications button: you can include your e-mail to receive the alarms generated by the device.

① Status

- ⟳ Started.
- ⟳ Started with warnings.
- ⟳ Startup error.
- ● Online (green)
- ● Offline (black)
- ● Lapsed (teal)
- ● Online with warning (yellow)

② Battery power

- Full battery
- Medium battery
- Low battery
- Very low battery

③
RC Remaining connections

EC Estimated consumption (conns/hour)

CED Credit expiration date

④ Configure device

- ⚙ Configure device
- ⚙ Config change in process (with motion)
- ⚙ Error changing config

Battery life will depend on GSM coverage and sampling/transfer interval.

Configure device (Save / Cancel)

Schedule: Sample interval: 5 minutes; Transfer interval: 10 minutes

Device info: Id: LCA00075; IMEI: 353430600301962; Model: Coastal NOMAD-B; Top-up date: 2015-04-01; Device status: Online

Current config: Sample interval: 5 minutes; Transfer interval: 10 minutes

Schedule tab panes: Choose the Sample interval and Transfer interval. Click on the SAVE buttom to save the configuration.

⑤ Search mode

SEARCH MODE can be activated or deactivated through LD Manager (below figure) or sent by e-mail (right figure). It becomes operational after the first connection with the drifter.

SEARCH MODE transfers the drifter position via email every five minutes (default) or other user-defined interval.

Search mode (Apply / Deny / Cancel)

Schedule: Id: LCA00018; Sample interval: 5 minutes; Recipient email:

Activation/deactivation SEARCH MODE through LDManager:

Activate SEARCH MODE to recover easily the drifter including the recipient email and click on Apply button.

Deactivate SEACH MODE clicking on Deny button.

Activation/deactivation SEARCH MODE from e-mail:

Send an e-mail to: config@ldmanager.southteksl.com

To activate -> Message:

search on, DRIFTER ID, PASSWORD, SAMPLE INTERVAL* (in sec)

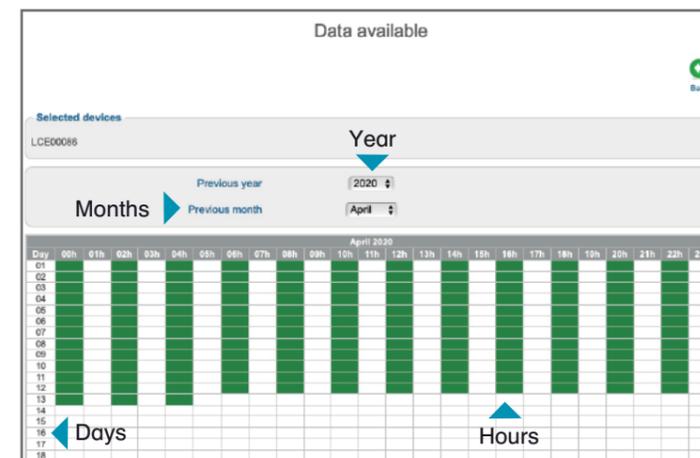To deactivate -> Message:

search off, DRIFTER ID, PASSWORD

Send an email

Email Address: search on, LCA00018, 1234, 300
Subject:
Message: config@ldmanager.southteksl.com

⑧ Data available

Green squares represent data availability. Year and month can be selected for each device.

Data available

Selected devices: LCE00086

Year: Previous year 2020; Previous month April

Months / Days / Hours — April 2020

⑥ Events & alarms

Alarms: Low Battery, Very Low Battery and Zone alarm.

- 🟩 Enabled
- ⬜ Disabled
- 🟧 Alarms notified

Zone alarm: Notifies exit or entry in the area chosen by the user. Insert coordinates or use the map tool chose the area of interest.

Events & alarms (Edit, Enable all, Disable all, Back)

Name	Low battery alarm	Very low battery alarm	Zone alarm	Position request response	(*) Low credit alarm	(*) Credit expiration alarm
LCA00020						
LCA00057						
LCA00063						
LCA00084						
LCA00156						

Selected devices: LCA00032

Configure — Coordinates:
North (±dd.ddddd): 43
West (±dd.ddddd): -47
East (±dd.ddddd): -22
South (±dd.ddddd): 28
○ Notify exit / ○ Notify entry

Map tool

⑦ Update software

- 🟩 Software version OK.
- 🟧 Software update request not allowed.
- 🟦 New software version available.
- 🟦 Soft. version update in progress (with motion).
- 🟥 Error updating software version.

⑨ Export data

Export data (Save / Back)

Details:
Report name:
Initial date & hour: — Clear
Final date & hour: — Clear
Devices: LCA00030, LCA00057, LCA00063, LCA00084
File format: Plain text (.txt), Spread sheet (.xls), 3D Position (.kmz), Matlab file (.mat), GPX file (.gpx)

a) Include the Report name.

b) Select the initial and final date for data export.

c) Choose the Devices for data export.

d) Choose file format for data export.