Quick Installation Guide

LT-300 Global Navigation Satellite System Receiver

Congratulations on your purchase of the LT-300 Global Navigation Satellite System (GNSS) Receiver!

The LT-300 GNSS Receiver is capable of providing accurate positions better than 2 meters in 95 % of the time. The LT-300 GNSS Receiver outputs navigation data (up to 10 Hz): UTC time and date, position (latitude and longitude), course over ground, speed over ground, GNSS satellite information, and magnetic variation.

NOTE: Refer to the 95-100229 LT-300 User & Installation Manual for detailed information on installation requirements and guidance.

Unpacking

Unpack the LT-300 GNSS Receiver and check that the following items are present:

- LT-300 GNSS Receiver
- LT-300 GNSS Pole and Roof Mount (incl. screws for installation)
- 10m Cable Multi 8-pin Simple-Cut (M)
- Screw-in Conn. NMEA 2000 Micro-C (M)
- Quick Installation Guide (*this document*)
- Safety Instructions Sheet
- Unit Test Sheet

WARNING

Refer to the 95-100229 LT-300 User & Installation Manual for Safety Instructions.

Installation

Mounting

Mounting considerations:

- Mount the unit horizontally
- Mount the unit with free line of sight to GNSS satellites. If the Roof Mount is used for below deck installation, make sure that the unit is capable of receiving signals from the GNSS satellites
- Mount the unit on a rigid structure with a minimum of exposure to vibration and shock
- Mount the unit in an area with an ambient temperature between -40°C and +55°C (-40°F and +131°F)
- The minimum compass safe distance is 0.3 m. (1 ft.)

IMPORTANT: The pinot screw used for fastening the pole mount shall not exceed 0.8 NM (0.6 lbs/ft).

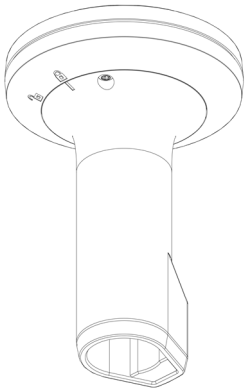

FIGURE 1: LT-300 GNSS RECEIVER WITH POLE MOUNT INSTALLATION

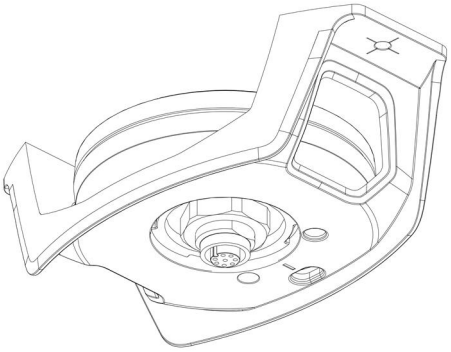

FIGURE 2: LT-300 GNSS RECEIVER WITH ROOF MOUNT INSTALLATION

Connecting

The LT-300 GNSS Receiver connector and cable interconnect details are listed in Table 1 and Figure 3.

LT-300 GNSS Interconnect Details		
Pin No.	**Wire Color**	**Wire Designation**
1	Brown	TxD-
2	Yellow	TxD+
3	Black	GND
4	White	CAN_H
5	Blue	CAN_L
6	Orange	RxD+
7	Green	RxD-
8	Red	Vsupply

TABLE 1: LT-300 GNSS RECEIVER MULTI CABLE WIRE COLOR AND DESIGNATION.

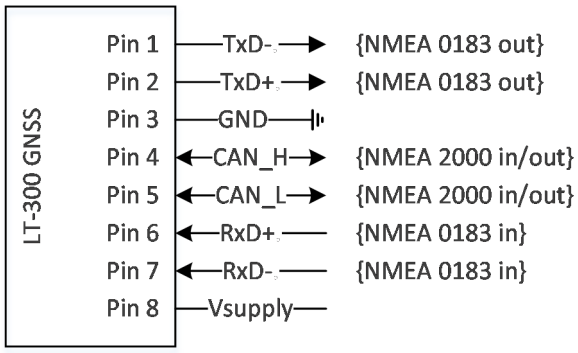

FIGURE 3: TRANSMIT AND RECEIVE DIRECTIONS FOR THE LT-300 GNSS RECEIVER.

NMEA 0183 Baud Rate

The NMEA 0183 baud rate is configured by selecting the input level of the NMEA 0183 Rx signals (RxD+/RxD-), see Table 2.

LT-300 GNSS Baud Rate Configuration		
Mode	**RxD+/RxD-**	**Baud Rate**
Option 1 (default)	Floating (not connected)	4.800
Option 2	Grounded (connected to GND)	38.400

TABLE 2: CONFIGURATION OF LT-300 GNSS RECEIVER NMEA 0183 BAUD RATE.

NMEA 2000 'Open' or 'Terminated'

The LT-300 GNSS Receiver is configured to 'Open' (NMEA 2000) from the factory. The LT-Service Tool can be used for configuration of NMEA 2000 'Terminated'.

Configuration

Use the LT-Service Tool for optional configuration of the LT-300 GNSS Receiver. The LT-Service Tool is a PC program which may run on any Windows PC. The LT-Service Tool is connected to the LT-300 GNSS Receiver via the NMEA 0183 interface, see Figure 4.

LT-Service Tool Key Features:

- Configuration of GNSS receiver (GPS, SBAS, GLONASS and BeiDou)
- Configuration of NMEA 0183 sentences
- Configuration of NMEA 2000 'Open' or 'Terminated'
- Status of unit (POST, CM, general status)
- Monitoring of NMEA 0183 sentences
- Live Navigation data
- Generation of a Diagnostic Report
- Upload of new Application Software

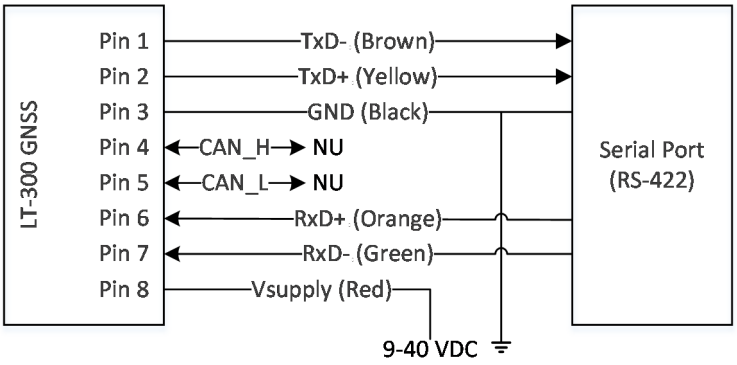

FIGURE 4: WIRING OF THE LT-300 GNSS RECEIVER TO A SERIAL PORT (RS-422).