MarinePak7

Quick Start Guide

GM-14915166   1   October 2020

Introduction

This guide provides the basic information needed to set up and use a NovAtel MarinePak7. The MarinePak7 is a rugged enclosure that delivers a scalable high precision position, velocity and time (PVT) solution. It also provides internal data storage and enhanced connectivity.

User Documentation

For detailed information on the installation and use of the MarinePak7, refer to the *MarinePak7 User Manual* (novatel.com/support/support-materials/manual).

System Components

The MarinePak7 system includes the following components:

- MarinePak7 enclosure
- 1 – Power Supply Unit (PSU) (p/n 40023144)
- 3 – RS-232 Data cables (p/n 60723208)
- 1 – Ethernet cable (p/n 60723207)
- Power Supply cables (US p/n 60723210) (UK p/n 60723209) (EU p/n 60723211)

Optional Accessories

The following items are available to buy separately from NovAtel:

- Li-ion Battery (p/n 40123423)
- External DC Power cable (p/n 60754003)
- High density Expansion Port Data cable (p/n 60323153)
- PPS cable (SMA to BNC) (p/n 60423065)

Additional Equipment Required

For the receiver to perform optimally, the following user-supplied additional equipment is required:

- At least one quality, dual-frequency GNSS antenna.
  A second GNSS antenna is required to use the MarinePak7 ALIGN heading functionality.

  See the NovAtel website (novatel.com/products/antennas) for information on a variety of quality antennas available to meet your form factor and performance needs.

- A quality coaxial cable with a TNC male connector on the receiver end for each GNSS antenna.
  Interconnect adapter cables may be required depending on site installation.

- In order to access the Web UI, a computer/tablet/smartphone with Wi-Fi and a web browser or a computer with an Ethernet, RS-232 DB-9 or RS422 DB-9 port.

- A UHF antenna (UHF models only)

- A cellular antenna

MarinePak7 Connectors

The MarinePak7 connectors are used to connect other components in the GNSS system to the GNSS receiver.

Figure 1: MarinePak7 Connectors

Table 1: MarinePak7 Connectors

Label	Connector Type	Description
GNSS1	TNC	Primary GNSS antenna
GNSS2	TNC	Secondary GNSS antenna
GSM	SMA	GSM (cellular modem) antenna
UHF	TNC	UHF radio antenna
DC	4-pin LEMO	Receiver power supply
(Ethernet icon)	RJ-45	Ethernet network
COM 1	DB9 Male	RS-232/RS-422 serial port

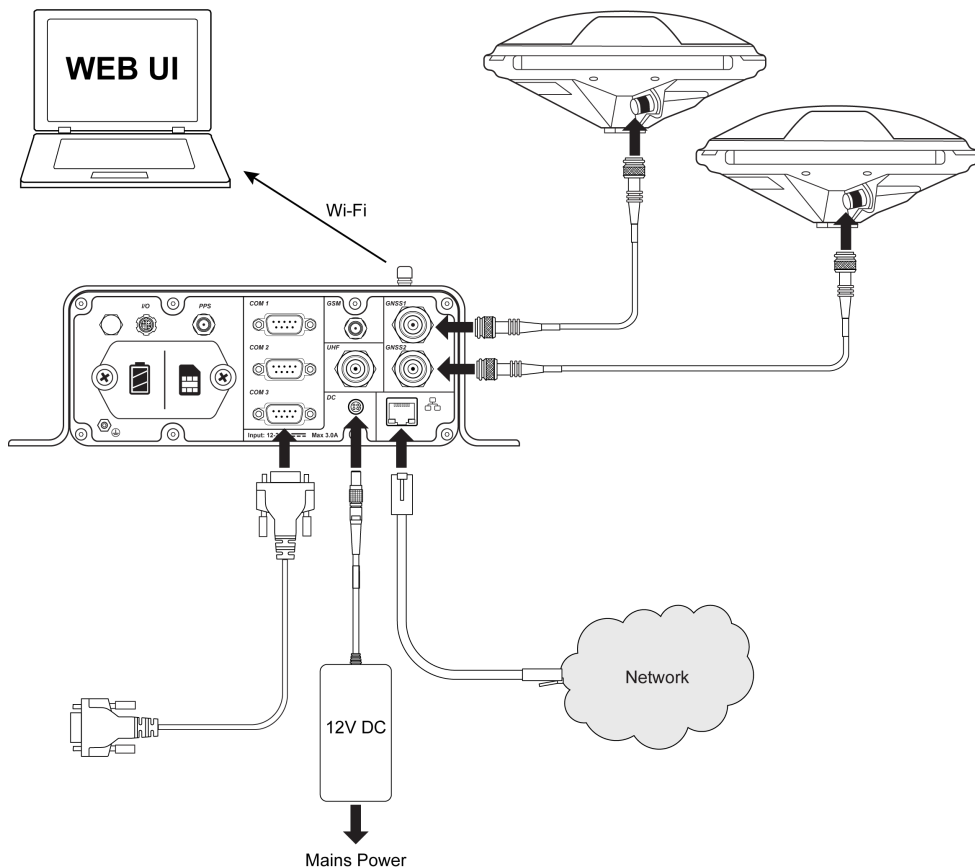| Label	Connector Type	Description
COM 2	DB9 Male	RS-232/RS-422 serial port
COM 3	DB9 Male	RS-232/RS-422 serial port
PPS	SMA	Pulse Per Second (PPS) output
I/O	12-pin LEMO	Input and output signals: • PPS (Pulse Per Second) output • EVENT Input • EVENT Output
⏚	Screw Terminal	Receiver grounding point
⇷	USB Type A	USB Host connector*
📶	SMA	Wi-Fi antenna*

> ⓘ The USB and Wi-Fi antenna connectors are on the front of the MarinePak7.

Installation Overview

Complete the steps below to connect and power a MarinePak7.

Figure 2: MarinePak7 Configuration Example

1. Mount the GNSS antennas (user supplied) on a secure, stable structure with an unobstructed view of the sky from horizon to horizon.

2. Mount MarinePak7 in the desired location.

3. Use a coaxial cable to connect a GNSS antenna to the **GNSS1** TNC connector on the MarinePak7.

4. If using two GNSS antennas with the MarinePak7, use a second coaxial cable to connect the secondary GNSS antenna to the **GNSS2** TNC connector.

5. Connect the Wi-Fi antenna to the Wi-Fi port on the front of the MarinePak7.

6. Connect the 12V DC power supply to the 4 pin **DC** connector on the back of the MarinePak7 and then connect the power supply to the mains outlet.

   Once power is detected the MarinePak7 will automatically detect the charge state of the internal lithium battery and begin recharging.

7. Briefly press the ⏻ button on the front of the MarinePak7 to power up the receiver.

   When the receiver is ready for normal operation the UI screen displays the Position Status (Home) screen.

For more information about MarinePak7 installation and configuration, refer to the *MarinePak7 User Manual* (novatel.com/support/support-materials/manual).

Configure and Monitor the MarinePak7

The MarinePak7 can monitored and configured using the MarinePak7 LCD User Interface (LCD UI) or the Web User Interface (Web UI).

To use the LCD UI, press the keypad buttons on the front of the MarinePak7 to navigate the LCD UI screens. The LCD UI screens are used to view the receiver status and configure receiver settings. For information about the using the LCD UI, refer to the *MarinePak7 User Manual* (novatel.com/support/support-materials/manual).

To use the Web UI, connect a Wi-Fi capable computer, tablet or smartphone to the MarinePak7 Wi-Fi network and use a web browser to access the Web UI. For more information about using the Web UI, refer to the *MarinePak7 User Manual* (novatel.com/support/support-materials/manual).

Questions or Comments

If you have any questions or comments regarding your MarinePak7, contact NovAtel Customer Service using one of these methods:

Log a Case and Search Knowledge

Website: novatel.com/support/

Log a Case, Search Knowledge and View your Case History: (log in required):

Web Portal: https://novatelsupport.force.com/community/Nov_Login

Email:

support.novatel@hexagon.com

Telephone:

U.S. and Canada: 1-800-NOVATEL (1-800-668-2835)

International: +1-403-295-4900

> ⓘ Telephone support is available from 8 am to 5 pm Mountain Standard Time (MST).