Fixed Pilot Unit

SAL SPU-100

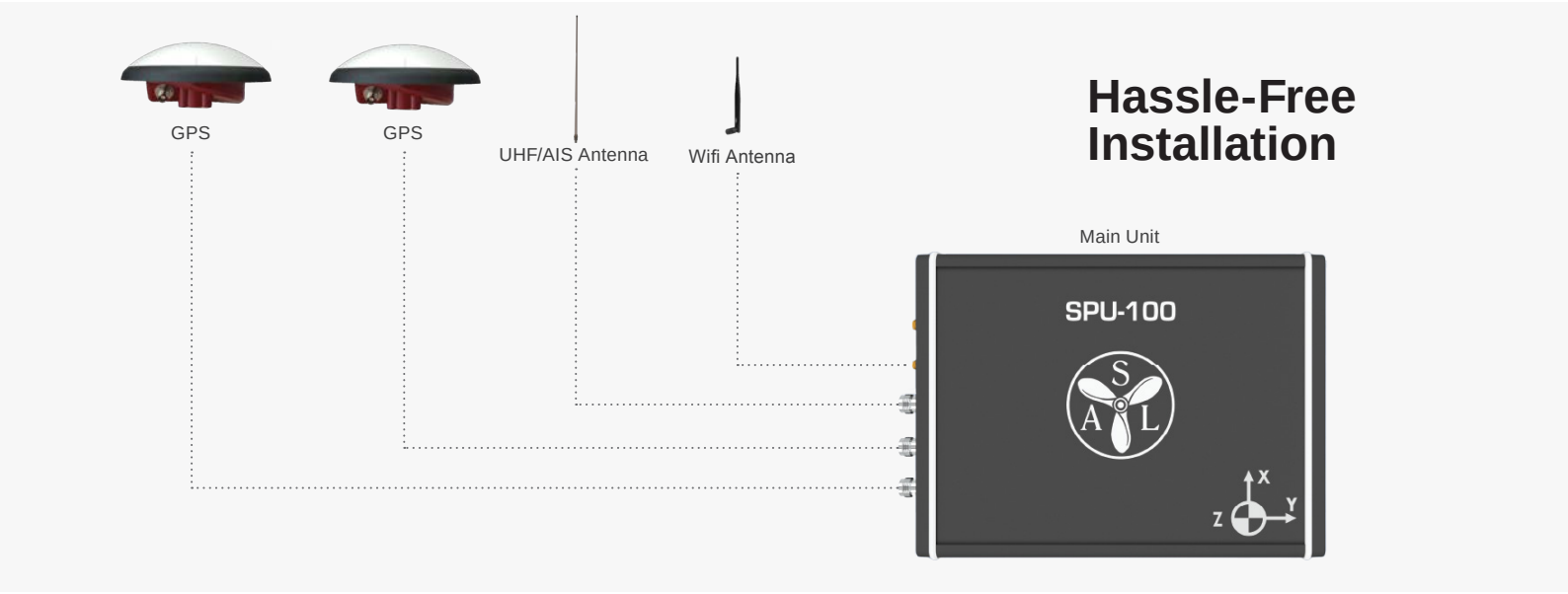
A Revolution in High Precision Navigation

SAL NAVIGATION

Compliance **with** Panama Canal's **New** Safety **Regulations**

The **SPU-100** not only meets these specifications but surpasses them, becoming an essential tool for advanced pilotage across a multitude of ports.

With the recent issuance of Advisory to Shipping No. A-32-2022, the ACP has specified a new positioning system requirement for Neopanamax vessels **starting from October 2023**.



Capabilities

The SPU-100 boasts state-of-the-art GNSS positioning and inertial components, robustly tested under real GNSS jamming and spoofing signal scenarios, ensuring dependable performance under challenging conditions.

Our system offers independent navigational data in terms of positioning, speeds, heading, and Rate of Turn. This data, derived with optimal accuracy and reliability, offers a quality level superior to standard bridge instrumentation.

Data dissemination happens via WLAN and can optionally be accessed through the ship's wired network. A backup battery ensures uninterrupted operation during power outages.

SPU-100 compatible with:

SafePilot
Qastor
OrcaX
SEAiq
PilotPro

Key Figures

GNSS	GPS, QZSS, Galileo, GLONASS, BeiDou
IMU	Ultra low noise gyro (0.08°/√hr)
UHF Radio	GMSK, Trimtalk 450S (configurable)
AIS Receiver	Dual frequency: 161.975 & 162.025 MHz
WIFI	IEEE 802.11 a/b/g/n
Battery Back-up	> 7.5 hours of operation
Data output	GGA, VTG, HDT, ROT, GSA, GSV, VDM
Operating Temperature	-20°C to +70°C

SAL SPU-100

A Revolution in High Precision Navigation

SAL Navigation proudly introduces the SPU-100, our latest innovation, built upon a solid foundation of proven high-precision navigation technology.

Designed in compliance with the stringent requirements laid out by the Panama Canal Authority (ACP), this new system guarantees safe and efficient transit through the canal. With the recent issuance of Advisory to Shipping No. A-32-2022, the ACP has specified a new positioning system requirement for Neopanamax vessels starting from October 2023. The SPU-100 not only meets these specifications but surpasses them, becoming an essential tool for advanced pilotage across a multitude of ports.

Our core technology, embedded within the SPU-100, is trusted and employed by pilot organizations globally as part of their PPU systems. Its primary function is to augment safety and efficiency during vessel navigation in confined waters and docking operations.

Our system offers independent navigational data in terms of positioning, speeds, heading, and Rate of Turn. This data, derived with optimal accuracy and reliability, offers a quality level superior to standard bridge instrumentation.

A backup battery ensures uninterrupted operation during power outages.

Key Advantages:

Augments **safety and efficiency**
during maneuvers in confined waters.

Offers pilots and ship crew
the most accurate navigational data.

Tested and certified for performance
under real signal jamming and **spoofing** conditions.

System Components

Standard

Height: 82 mm
Width: 143 mm
Depth: 200 mm
Weight: 2.5 kg

Main Unit
The SPU-100 boasts state-of-the-art GNSS positioning and inertial components, robustly tested under real GNSS jamming and spoofing signal scenarios, ensuring dependable performance under challenging conditions.

Height: 79 mm
Diameter: 170 mm
Weight: 0.5 kg

GNSS Antenna
Full GNSS Precision Antenna. GPS/QZSS-L1/L2/L5, QZSS-L6, GLONASS-G1/G2/G3, Galileo-E1/E5a/E5b/E6,BeiDou-B1/B2/B2a/B3, NavIC-L5.

Height: 1260 mm
Diameter: 50 mm
Weight: 0.7 kg

UHF / AIS Antenna
UHF/AIS Fibreglass Antenna

Height: 200 mm
Diameter: 15 mm
Weight: 0.03 kg

WIFI Antenna
High gain wifi antenna.

Lenght: 35 meter
Weight: 7.3 kg

Antenna Cable
35m High gain antenna RF cable both end pre-made antenna connectors

Optional

Height: 144 mm
Width: 48 mm
Depth: 29 mm
Weight: 0.2 kg

4G Antenna
Enables data transfer to shore.

Lenght: 45 meter
Weight: 9.8 kg

Antenna Cable
45m High gain antenna RF cable both end pre-made antenna connectors

Product images not to scale, please refer to actual measurements. For more technical details, please see separate datasheets.

Designed in compliance with the stringent requirements laid out by the Panama Canal Authority (ACP)**, this new system guarantees safe and efficient transit through the canal.**

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