

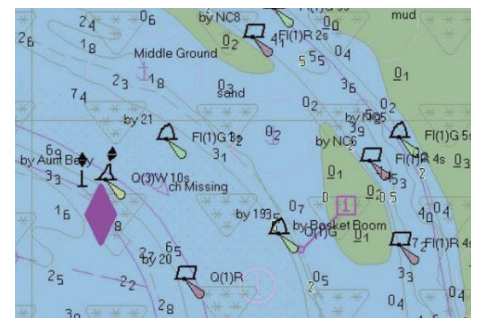
### DAS EXPRESS

Streamlined Deployment of AIS Aids to Navigation and Buoy Lantern Health Monitoring

**DAS Express offers an affordable and hassle-free solution for the deployment of AIS (Automatic Identification System) Aids to Navigation, specifically designed for the monitoring of commercial navigation buoys.**

Using certified AIS-AtoN transmissions, real-time Buoy position is continuously transmitted, enabling accurate tracking and alerts if off position. Install and connect our unique retrofit Lantern-Sensor and any lantern malfunction is immediately detected and alerted.

DAS EXPRESS is fully interoperable with all VTS systems and vessel navigation displays, and gives you complete surety and peace of mind that your buoys are on position and their lanterns working. Improves safety and helps avoid potential liabilities and costly physical inspections.



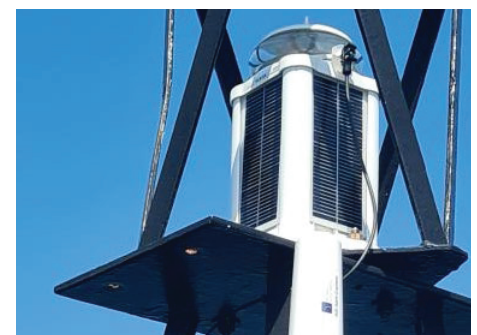
Live tracking of buoy position and automatic off position alert.

AtoN Dashboard

AtoN Status: ●

Icon	Name	Light Status	Position	Timestamp
	North Cardinal	Light - ON	On Position	11:21:26 13/11
	Thorn Knoll	Light - ON	On Position	11:27:13 13/11
	South Bramble	Light - OFF	On Position	11:27:56 13/11

Real-time monitoring of lantern status and alert if any malfunction.



The unique SRT Lantern sensor retrofits to any lantern in minutes, automatically learns, and continuously monitors the lantern's performance.

Reliable robust, IPx8 certified to withstand extreme temperatures, shock, vibration and harsh maritime conditions

Complete kit solutions that fit to any buoy providing real time monitoring of exact buoy location on any VTS system


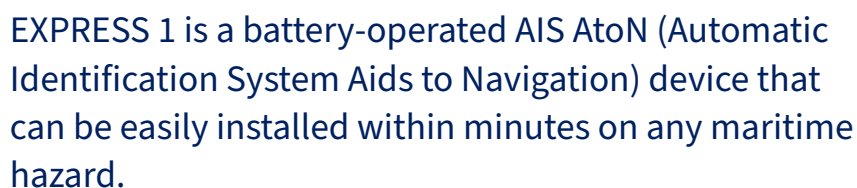
AIS equipped vessels can see real-time location of buoy on ECDIS and chartplotters, enhancing maritime safety.

Continuous monitoring of lantern status (on/off) regardless of make or model, ensuring compatibility with existing infrastructure, simplifying upgrades, and saving time and resource.

Continuous monitoring of lantern health (healthy / failed) regardless of manufacturer, assisting in the early detection of failures, reducing downtime and enhancing maritime safety.

Ultra low power consumption, reducing operational costs

## Product code 418-0094



1 x AtoN Transponder

1 x Brackets and fixings

1 x Configuration and charging dock



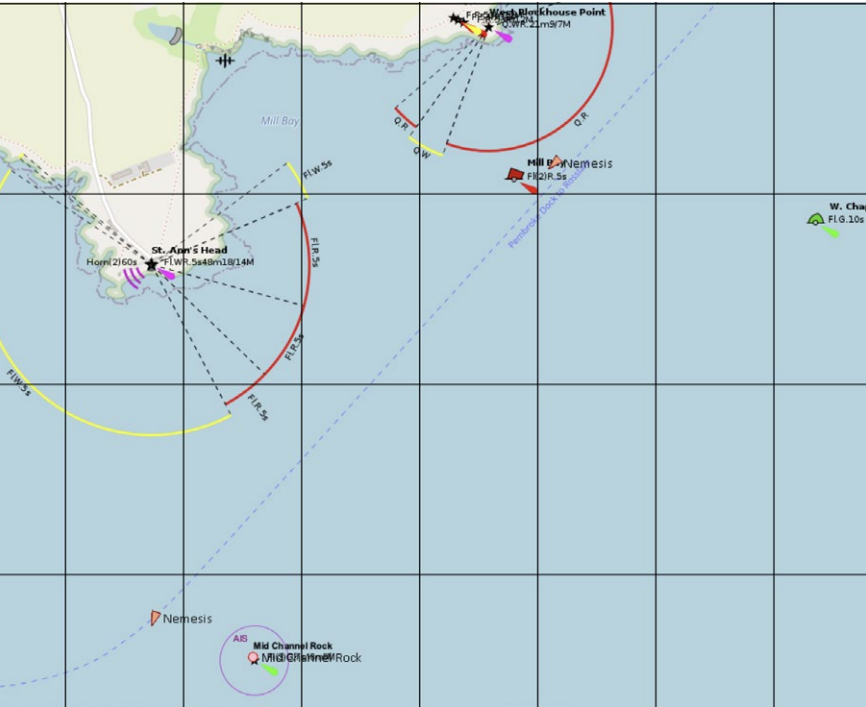
# EXPRESS 2 – buoy location status

Product code 418-0012




EXPRESS 2 is engineered for seamless, permanent installation on any buoy, regardless of its manufacturer or marine infrastructure.

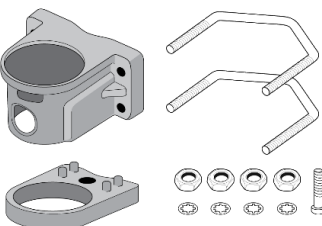
This cutting-edge technology offers real-time visualisation of buoy locations on ECDIS, chartplotter, or VTS systems, ensuring accurate and up-to-the-minute information. Our innovative kit facilitates quick and straightforward installation, enabling immediate access to live buoy position and empowering proactive responses by mariners and VTS centres to changing conditions. Notably, the unique EXPRESS Lantern Interface Module (LIM) efficiently manages power from the buoy or other DC sources, ensuring the EXPRESS 2's internal battery remains consistently charged. Moreover, all cables are encased in UV-stable material, ensuring long-term reliability even in exposed conditions.



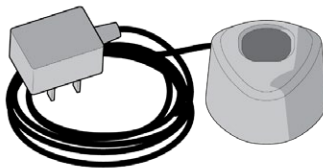
EXPRESS 2 comes as a complete packaged solution containing the following items.



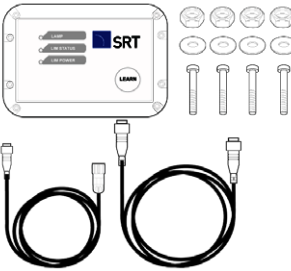
1 x AtoN Transponder



1 x Brackets and fixings



1 x Configuration and charging dock



1 x Lantern interface module and cables

# EXPRESS 3 – buoy lantern and location status

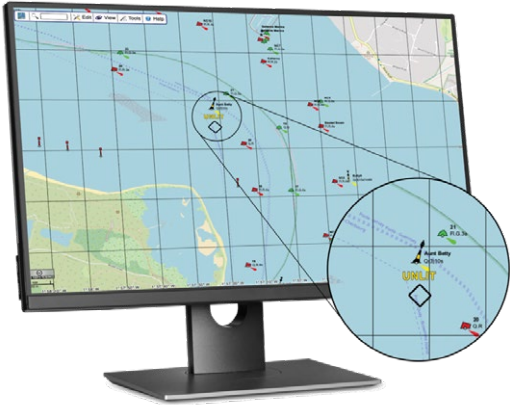
Product code 418-0095




EXPRESS 3 offers continuous, real-time monitoring of any buoy lantern, promptly detecting malfunctions or off-position buoys.

With the inclusion of the DAS light sensor, connected to the Lantern Interface Module, EXPRESS 3 reports live updates on the operational status of lanterns, regardless of their manufacturer or size (up to 300 mm in diameter).

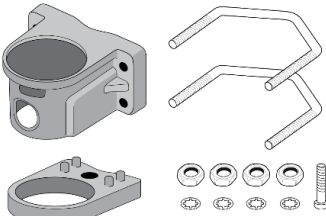
This system provides real-time information on lantern status, indicating whether they are in the ‘on’ or ‘off’ position, and assessing their overall health (healthy or failed). This crucial data is relayed to nearby VTS centres, enabling operators to identify issues at an early stage, minimise downtime, and elevate safety levels within maritime navigation.



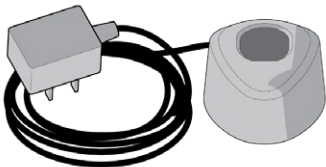
EXPRESS 3 comes as a complete packaged solution allowing for a straightforward deployment, minimising installation costs, and eliminating the need for specialist installers; it contains the following items.



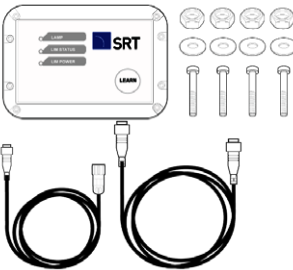
1 x AtoN Transponder



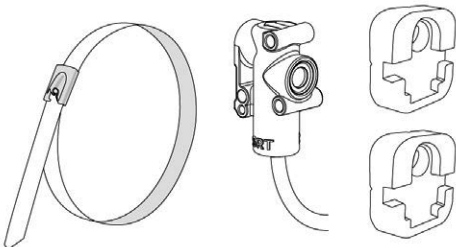
1 x Brackets and fixings



1 x Configuration and charging dock



1 x Lantern interface module and cables



Light sensor, fixings and silicone pads

## ACCESSORIES – DAS Lantern Interface Module (LIM)

Product code 418-0100

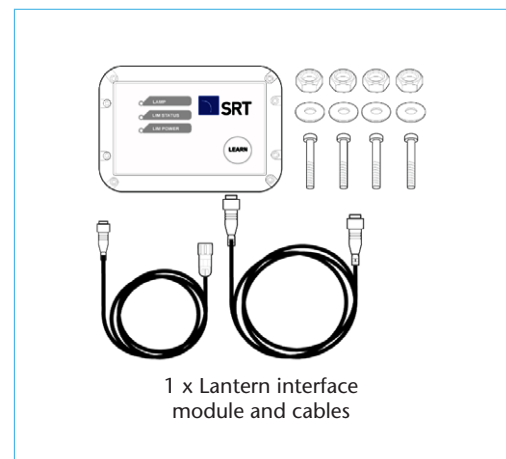


The LIM is available as an additional accessory, and it is designed for effortless retrofitting to any EXPRESS transceiver, enabling permanent installation.

The LIM's primary function is to ensure that the AtoN EXPRESS battery remains consistently charged. Additionally, the LIM allows for the real-time monitoring of lantern health, regardless of the lantern's manufacturer.

When the LIM is connected to the lantern or equipped with the DAS light sensor, it serves as an interface for monitoring lantern health just before each scheduled AIS AtoN message transmission. It also facilitates the reporting and display of health status on compatible ECDIS, VTS, and AIS vessel transceivers. This includes essential information such as whether the lantern is 'on' or 'off,' promptly indicating a failure when it should be 'on,' such as during night-time operations.

The DAS LIM package contains the following items.



**ACCESSORIES – DAS solar pack**  
Product code 418-0099



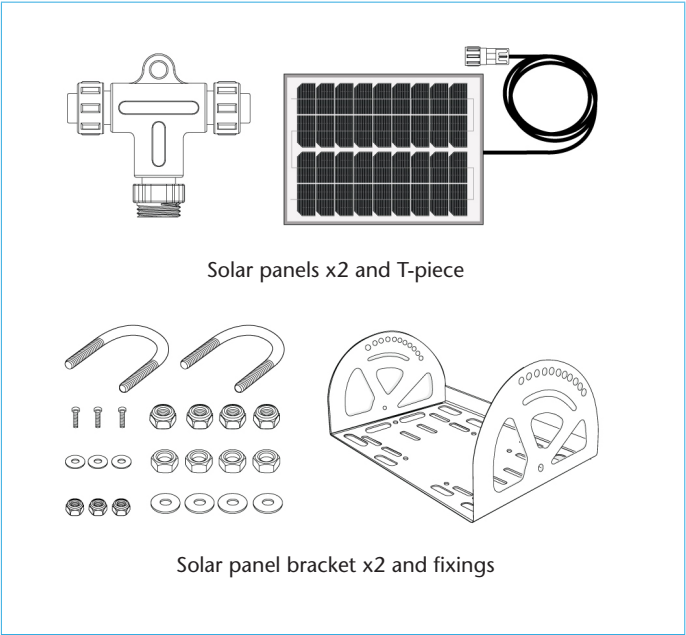
The DAS solar pack comprises two 10W solar panels equipped with xM of cable and a connector for the Express unit.

This robust solar solution offers consistent power generation to sustain the AIS AtoN battery under all weather conditions, spanning from the Equator to the Arctic and Antarctic circles.

This versatile solar kit can be easily integrated into any buoy system, thanks to its user-friendly design. It features fully marinised adjustable stainless steel brackets, ensuring hassle-free retrofitting and minimal maintenance.

NOTE: It is highly recommended that all permanent installations are sold with an SRT solar pack unless reliable external power is available to the AtoN Transceiver.

The DAS Solar Pack contains the following items.





EXPRESS 1		EXPRESS 2		EXPRESS 3	
Physical Specification					
Dimensions	375mm x 67mm max. (H x D)				
Weight	350g (AtoN Express unit only)				
Mounting bracket	Supports 25mm to 55mm poles (D)				
VHF Transceiver					
Transmitter	x1				
Frequency	156.025 to 162.025MHz in 25kHz steps				
Radiated Power (EIRP)	1W				
Environmental					
Waterproof	To IP67				
Operating temperature	-15°C to +55°C				
AtoN Express Functions					
Type 1 FATDMA operation	Yes				
Message #21 transmission	Yes				
Standards Compliance					
AIS standards	IEC62320-2 Edition 1 2008-03; IEC standard, AIS AtoN Stations; ITU-R M.1371-5; Universal AIS Technical Characteristics				
Environmental standard	IEC60945:2002-08				
Product Safety	EN60950-1:2006; +A11:2009; +A1:2010; +A12:2011				
GPS performance standard	IEC61108-1:2003-07				
Electrical Specification					
Power supply	2100mAh Lithium-Ion battery pack				
Operating time	Up to 5 days operation at 5 minute reporting interval				
Optional	External power supply (12 to 24VDC)				
Power consumption	External supply <0.5Ah / day with 5 minute position reporting interval	/			

## EXPRESS 2 Lantern Interface Module

<b>Physical Specification</b>	
Dimensions	140mm x 100mm x 45mm (L x W x H)
Weight	0.5kg (including supplied cable)
<b>Electrical Specification</b>	
Input voltage range	12V to 24VDC (9.6V to 32V maximum range)
Av. power consumption	<2w (when connected to an AtoN, reporting position every five minutes)

## EXPRESS 3 Solar Panel

<b>Physical Specification</b>	
Dimensions	355mm x 252mm x 25mm
Weight	1.3kg
<b>Electrical Specification</b>	
Open Circuit Voltage	21.6V
Max Power Voltage	16.96V
<b>Installation</b>	
Cable length	2m

SRT enhances maritime domain awareness by developing and manufacturing tracking technology and system solutions for individual vessel owners, port authorities, maritime infrastructure owners, coast guards and national security agencies around the globe. Applications include the tracking of commercial and leisure vessels; sustainable fishery; anti-collision; search and rescue; waterway management, port and coast security; pollution management and environmental management.

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