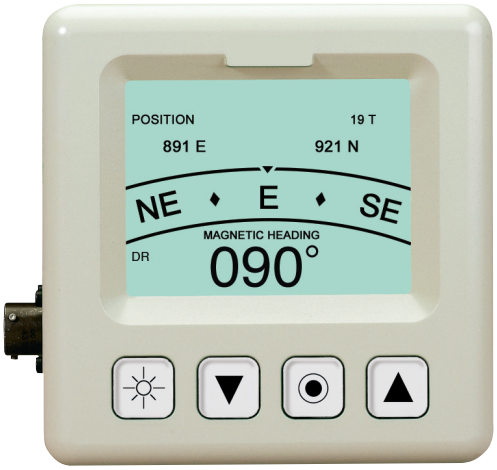
TACNAV Light

emcore®

Low-cost, Digital Compass-based Solution for Light Vehicle Navigation

TACNAV®



Equip your Entire Force with Precision Navigation Capabilities

On the battlefield, maintaining 100% situational awareness is vital to crews of all Army vehicles, not just heavy combat forces. Yet light vehicles don't need all of the extras that "big budget" navigation systems bring. The EMCORE TACNAV Light is the ideal solution for low-cost, precision navigation. Combat-proven, TACNAV Light has been type-classified and approved by U.S. SOCOM and is the choice of allied warfighters around the globe.

TACNAV Light offers a range of capabilities, including GPS backup and enhancement, vehicle azimuth, and steer-to/cross-track error displays.

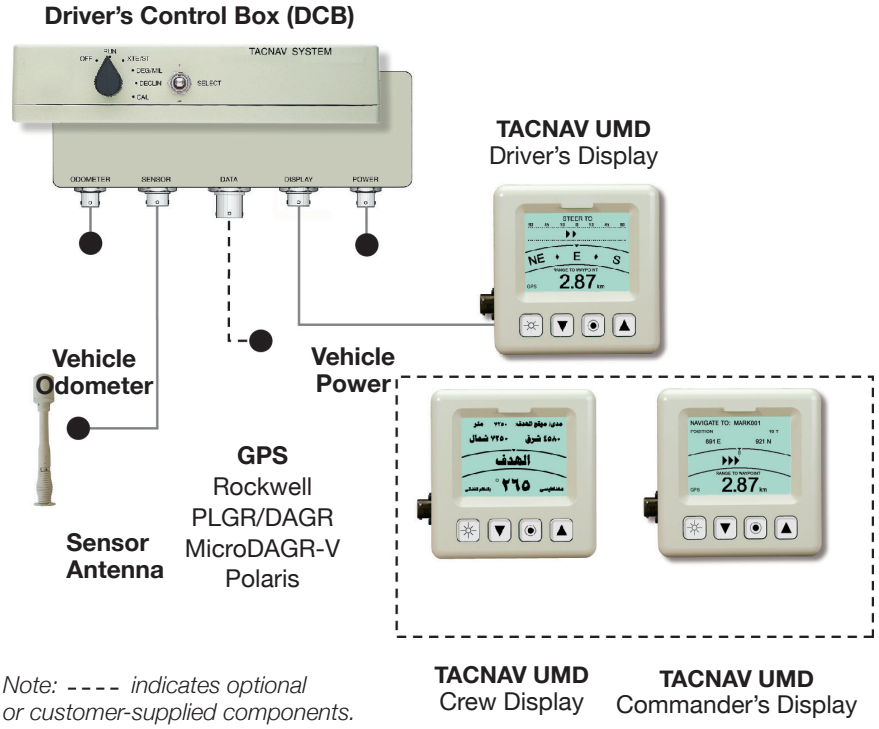
TACNAV Light is ideal for infantry carriers, convoy operations, and vehicles used for ambulance, military police, recovery and maintenance, scout and reconnaissance, engineer, smoke and special operations units. With its intuitive compass displays, steer-to navigation mode, and backup Dead Reckoning (DR) capability, TACNAV Light brings a new level of flexibility and performance to light vehicle navigation.

Key Features and Attributes

- 100% situational awareness with or without GPS availability
- Heading accuracy within 2-3°
- Integrated odometer/compass dead reckoning backup to GPS with an accuracy of 2-3% of distance travelled
- System ensures highest degree of accuracy and unjammable position and navigation information
- Ideal for all types of non-turreted vehicles: infantry carriers, command and control vehicles, scouts, HMMWVs and ambulance fleets
- Integrates with a variety of military GPS systems
- Universal Multilingual Display (UMD) capable of presenting data in multiple languages

Keep your light vehicles on track in the heat of combat with the rugged, reliable, and affordable EMCORE TACNAV Light.

System Diagram



Note: ---- indicates optional or customer-supplied components.

Technical Specifications

Operational

Heading Accuracy:	2.5° RMS
Repeatability:	±1.0°
Resolution:	Display: 1.0° or 1 mil, selectable
Digital Output:	0.1° or 1 mil, selectable
Dip Angle:	Operates to specified accuracy after on location auto-calibration up to 80° N/S magnetic latitude
Tilt Angle:	±3° RMS up to ±15° pitch and roll
Input Voltage:	+28 VDC, nominal (MIL-STD-1275A)
Power:	<12 watts
Input/Output:	EIA Standard RS-422, NMEA 0183
Message Rate:	Track: 5 Hz, Nav: 1 Hz
Dead Reckoning:	2-3% of distance travelled depending on terrain

Physical

Driver's Control Box	
Dimensions:	250 mm (w) x 52 mm (h) x 122.2 mm (d) (9.84" x 2.05" x 4.81")
Weight:	1.4 kg (3.1 lbs)
Sensor Antenna	
Dimensions:	434.7 mm (h) x 69.9 mm (d) (17.12" x 2.75")
Weight:	1.8 kg (4 lbs)

Physical *(continued)*

TACNAV UMD	
Dimensions:	124 mm (w) x 127 mm (h) x 44.5 mm (d) (4.9" x 5.0" x 1.8")
Weight:	1.1 kg (2.5 lbs)

Environmental

Altitude:	15,000 meters (50,000 feet)
Environment:	MIL-STD-810G: humidity, salt fog, sand, dust & fungus
Temperature:	MIL-STD-810G, Operating: -40°C to +65°C (-40°F to +149°F); 10 minutes display warm-up needed below -20°C (+4°F)
Shock:	MIL-STD-810G: 40g, half-sine wave form for 11 ms applied to 3 mutually orthogonal axes for 18 shock pulses
EMI/RFI:	MIL-STD-461F, Table 4-1, Class A3, Digital Equipment
Vibration:	MIL-STD-810G, Meth. 514 Category 8: 5-2000 Hz random
Service Life:	10 years
MTBF:	13,900 hours

For More Information

+1 866.234.4976 | emcore.com | navigation-sales@emcore.com

EMCORE Corporation
2015 Chestnut Street, Alhambra, CA U.S.A.
P +1 626.293.3700 F +1 626.293.3429

Made in the U.S.A.

ISO9001 CERTIFIED