

DIFFERENTIAL GLOBAL NAVIGATION SATELLITE SYSTEM

DGNSS

HIGH ACCURACY **GNSS**
DIFFERENTIAL GEOLOCATION
SYSTEM FOR **CEIA DSMD**
METAL DETECTOR

NSN: 6665 150 195506



www.ceia.net

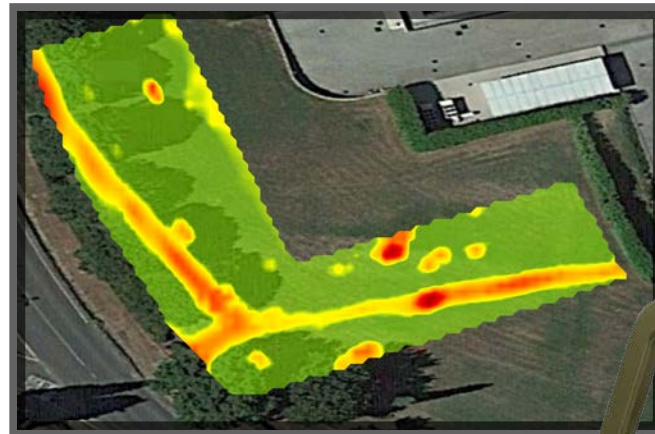
DGNSS

HIGH ACCURACY GNSS DIFFERENTIAL GEOLOCATION SYSTEM

- ✓ The **CEIA DGNSS** is a differential global satellite navigation system designed for use in combination with the **CEIA DSMD** metal detector
- ✓ The system consists of a fixed **DGNSS/BASE** unit and a mobile **DGNSS/ROVER1** unit for each metal detector
- ✓ At the end of the search operations the **DSMD** unit enables the recordings of the differential positioning data, with centimetre precision, and the alarm levels of the metal detector to be extracted on a USB stick or on a PC



**DISPLAY OF ORIGINAL
DSMD DATA**



**DISPLAY OF DATA PROCESSED
WITH POST-PROCESSING**



DGNSS/BASE

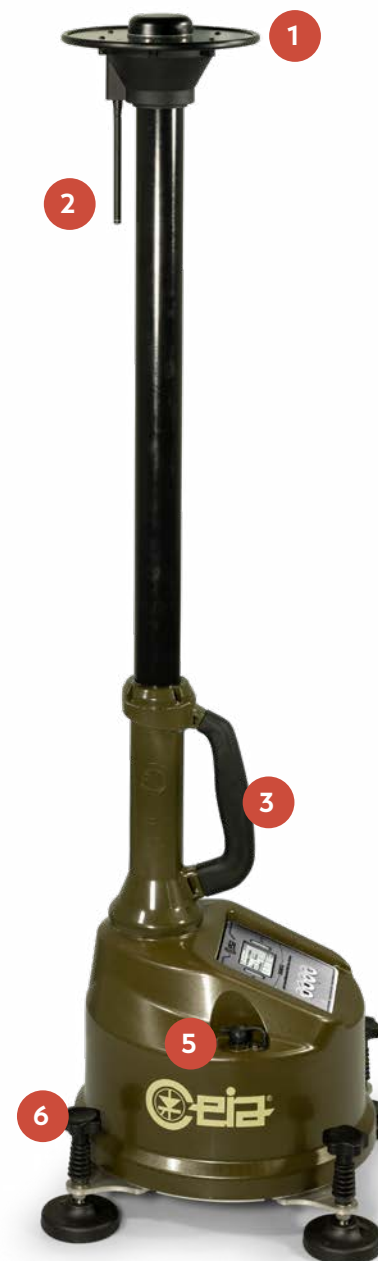
The *DGNSS/BASE*, installed in a fixed position in the same search area, receives the signals sent by the visible satellites, calculates the coordinates of the relative position and transmits them, by RF connection in broadcast mode, to the *DGNSS/ROVER1* unit

DGNSS - GENERAL FEATURES

GNSS Receiver	Receiver type	Multiband GPS, GLONASS, Galileo and BeiDou
	RTK format	Multiband RTK (RTCM 3.3)
	LBAND Receiver	SBAS (WAAS, EGNOS, MSAS and GAGAN)
	Accuracy	Single 1,5 m (5 ft)
		DGNSS 40 cm (15 3/4)
		RTK < 1 cm (< 3/8 in)
RF communications	Frequency	869.4 ÷ 869.65 MHz
	Channels	10 (from A to J)
	Channel spacing	50 kHz
	Modulation	4GFSK
	Range	Up to 4 km, line of sight (RF Power = 5)

DGNSS/BASE

Environmental characteristics	Weight	9,25 kg (20,4 lbs)
	Dimensions	360 x 360 x 1295 mm (14 1/16 x 14 1/16 x 51 in)
	Protection degree (IEC 60529)	IP65
	Temperature	Storage -45°C ÷ +85°C (-49°F ÷ 185°F)
		Operating -25°C to +65°C (-13°F to 149°F)
Battery Operation	Complies with the international standards on radio interference and human exposure to electromagnetic fields	
	Operating time	48 hours of continuous operation
	Charging time	4.5h



PARTS LIST

- 1 GPS ANTENNA
- 2 RF ANTENNA
- 3 HANDLE
- 4 CONTROL PANEL
- 5 BATTERY CHARGER CONNECTOR
- 6 ADJUSTMENT KNOBS

◀ **DGNSS/BASE**

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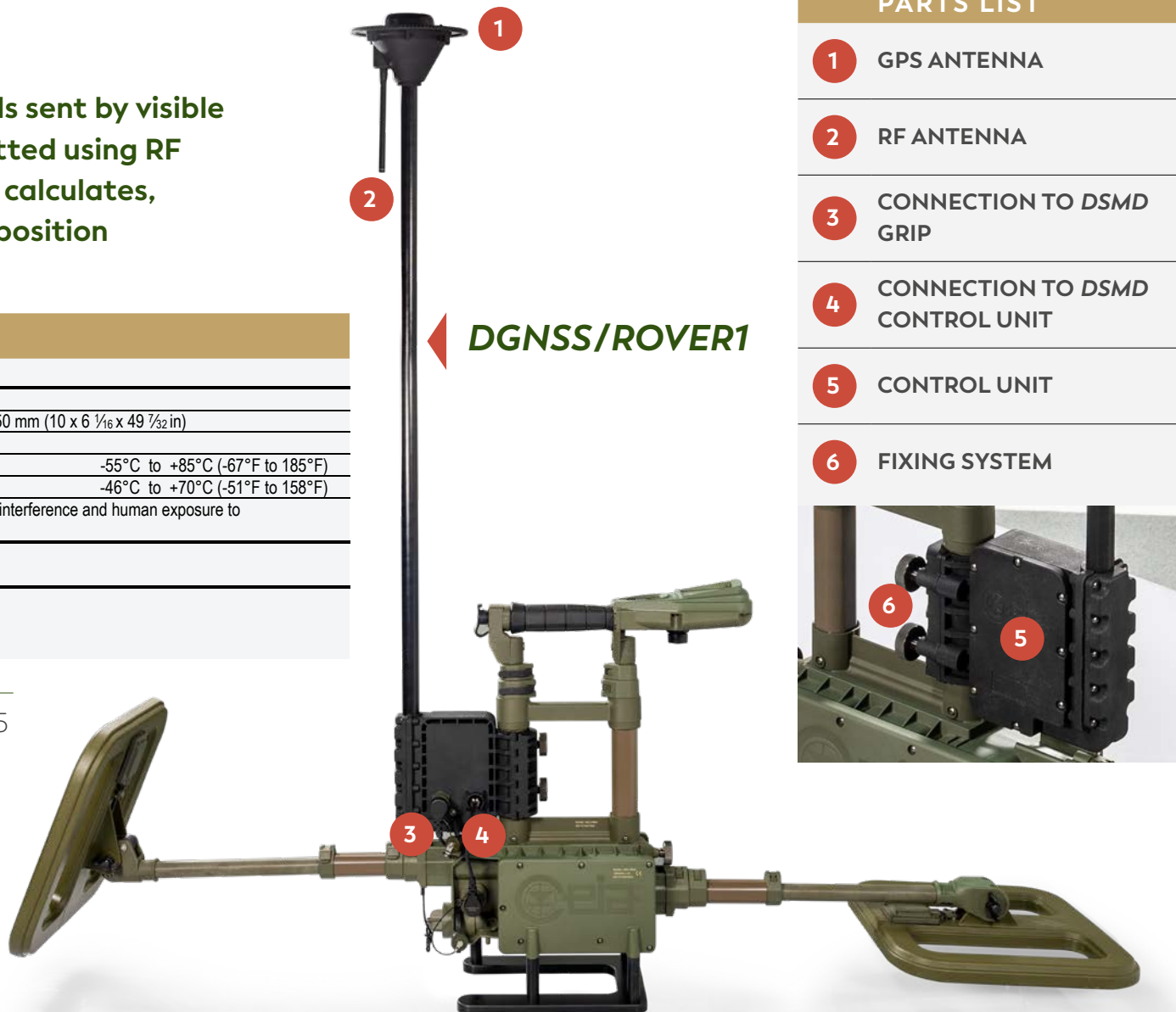
DGNSS/ROVER1

The **DGNSS/ROVER1** receives the signals sent by visible satellites and the coordinates transmitted using RF connection from the **DGNSS/BASE** and calculates, with respect to the latter, its relative position with centimetre accuracy

DGNSS/ROVER1

Environmental characteristics	Weight	1,4 kg (3 lbs)
	Dimensions	253 x 154 x 1250 mm (10 x 6 1/16 x 49 7/32 in)
	Protection degree (IEC 60529)	IP54
	Temperature	Storage -55°C to +85°C (-67°F to 185°F) Operating -46°C to +70°C (-51°F to 158°F)
	Complies with the international standards on radio interference and human exposure to electromagnetic fields	
Battery Operation	DSMD Operating time with ROVER1 installed	>10 hours

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PARTS LIST

- 1 GPS ANTENNA
- 2 RF ANTENNA
- 3 CONNECTION TO DSMD GRIP
- 4 CONNECTION TO DSMD CONTROL UNIT
- 5 CONTROL UNIT
- 6 FIXING SYSTEM



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