## **VEHICULAR ANTENNA** 9320 AUTOMATIC TUNING WHIP COMMUNICATIONS





Codan's 9320 Automatic Tuning Marine Whip Antenna is designed for maximum performance in marine conditions. The 9320 is intended for installation on all types of small ships and boats with limited space, where large HF antennas are difficult to install and consistent communication is required.

#### **RUGGED DESIGN**

The 9320 antenna is a marine version of 9300 automatic tuning antenna system acclaimed for its outstanding performance and reliability. Designed for harsh marine environments, the 9320 antenna comprises a premium stainless steel base, an epoxy coated fiberglass reinforced nylon enclosure and other marine grade parts and materials. Rugged and waterproof construction is capable of withstanding extreme wind loads and ship vibrations.

#### CONTINUOUS 1.6-30 MHZ COVERAGE

The 9320 antenna features continuous frequency coverage over entire 1.6-30 MHz HF frequency band permitting maximum utilisation of Codan HF transceiver spectrum capability. Excellent radiation performance and fast tuning of the 9320 antenna provides outstanding communication range and quality.

#### **FAST TUNING**

The 9320 marine antenna incorporates microprocessor controlled stepper inductor which tunes the antenna to any frequency stored in the memory bank of up to 200 channels in less than half a second. Intelligent adaptive matching algorithm continuously monitors any VSWR variations caused by flexing of other collocated V/UHF antennas and vessel structures in rough weather. The 9320 antenna automatically re-adjusts matching circuit to VSWR 1.6:1 or less at every new tune ensuring the HF transceiver operates at full RF power.

#### HIGH RADIATION EFFICIENCY

A built-in wideband receiver amplifier makes the 9320 marine antenna sensitive to even weakest signals over entire frequency range ensuring crystal clear reception and faster connection in 2G and 3G ALE modes. With a low insertion loss RF circuit, the 9320 antenna is capable of RF power duty cycles, required for extended analogue/digital voice and data transmission.

#### **EASE OF INSTALLATION**

The 9320 marine antenna is implemented in compact self-contained form factor optimized for easy and frequent re-installations using simple cabling system and mounting brackets. It can be installed on metal hulled vessels as well as most small yachts and cabinless workboats made of fiberglass or inflatable rubber.

### **KEY FEATURES**

- Continuous 1.6 to 30 MHz coverage
- 150W RF power rating
- · Excellent radiation efficiency
- · Fast memory tuning
- Integral broadband receiver amplifier
- · 2G and 3G ALE and Frequency **Hopping Compliant**
- Rugged MIL-STD 810G certified design
- Up to 200 memory channels
- Easy to install on small yachts and workboats
- Designed to withstand harsh marine environment

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| SPECIFICATIONS              |  |
|-----------------------------|--|
| Transmit frequency range    | 1.6MHz to 30MHz  |
| Receive frequency range     | 250KHz to 30MHz  |
| RF power rating             | 150W PEP voice and data  |
| MAX VSWR                    | 1.6:1  |
| Input impedance             | $50\Omega$   |
| Tuning speed specifications | 725 ms average for new frequency<br>350 ms average for memory tune |
| Memory channels             | 200  |
| DC operating range          | 10-30V DC  |
| Current draw - tuning       | 3.2A   |
| Current draw - static       | 60-110mA   |
| Operating temperature       | -40°C to +70°C   |
| Protection                  | Reverse Polarity, Short Circuit, Over Voltage                      |
| RF connector style          | RG58 UHF   |
| Control connector style     | 8-Pin  |
| MIL-STD-810                 | MIL-STD-810G Salt Fog, Immersion, Sand, Dust, Shock, Vibration     |
| Ingress protection          | IP67   |
| Weight                      | 5.4 kg   |
| Dimensions                  | 100 x 100 x 2490 mm  |
| Mounting method             | Single stud M16  |
| Vehicle mount footprint     | 100 x 100 mm   |
| Colour                      | White  |
| Compliance                  | MIL-STD-461, IEC/EN 61000  |
|                             |  |

Values noted are typical. Equipment descriptions and specifications subject to change without notice or obligation.

Continuous transmission for periods of greater than 10 minutes using digital modes may result in reduced radiation efficiency.

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