

3042 HF ANTENNA TUNER

FEATURES AT A GLANCE



- Fast tuning
- High efficiency
- Waterproof
- MIL-STD-810G Environmentals
- 2 to 30 MHz
- 125 W RF power handling
- Vertical and NVIS Whip Antennas
- Flexible mounting
- ALE compatible
- Internal receive mode amplifier

The 3042 is a low profile, 125 W HF antenna tuning unit designed to deliver high performance and reliability in the world's harshest environments. It provides high speed and efficient tuning of short whip antennas across the full operational HF band.

HIGH PERFORMANCE

With a 125 W RF power handling capability, the 3042 can be used for voice and data operation over the full 2 to 30 MHz frequency band. The tuner has an unlimited tune from memory capacity, and using a state-of-the-art tuning algorithm, new frequencies are tuned in typically less than one second.

The 3042's innovative circuit design ensures power delivery to the antenna is maximised, and receive mode performance is optimised by the internal receive mode amplifier. These features combine to provide an easy-to-use, trouble-free, high performance mobile antenna solution.

RUGGED DESIGN

The high strength and lightweight alloy housing of the 3042 ensures that it is capable of withstanding the severe environmental conditions encountered in mobile environments. The unit is designed to meet MIL-STD-810G for Dust and Vibration and is waterproof to 1 m as per IP68 Standard.

TRANSCEIVER INTEGRATION

The control interface of the 3042 is fully integrated with Codan's HF transceivers so that tuning is transparent to the operator. If tuning does fail, the transceiver issues an audible and visual warning, however an override capability exists for emergency situations. The 3042 is designed for full compatibility with all modes of operation, including receiver scanning and ALE (Automatic Link Establishment).



VARIETY OF ANTENNAS & MOUNTING OPTIONS

The 3042 is offered with a variety of antenna and antenna mounting solutions to suit requirements. Codan offers a choice of fibreglass, flexible stainless steel, or NVIS whip antennas, all of which can be used with the single hole mount or flange mount bases.

The single hole mount base provides a simple and lightweight option for mounting the antenna. A flange mount base is available for installations requiring the high voltage antenna feed line to pass through the vehicle body. For side mounting of the flange base, a specially designed metal angle bracket is also available.

SPECIFICATIONS

GENERAL

Frequency range	3 to 30 MHz (1.6 m lightweight whip) 2 to 30 MHz (2.4 m whip) 2 to 15 MHz (4 m NVIS)
Power rating	125 W PEP
Power consumption	Typically 400 mA, less than 0.8 A maximum
Input impedance	50 Ω
VSWR	Typical $\leq 1.5:1$
Tuning speed	New frequency <1 second average, memory tune <150 ms
Memory channels	Unlimited (unique non-linear memory allocation)
DC operating range	CODAN™ Transceiver (12 V nominal)

MECHANICAL

Temperature	-30 to +60°C (-22 to +140°F), 95% humidity
Protection	Open Circuit, Short Circuit, Over Voltage, Over Temperature, Voltage Transients, High VSWR
Environmental	MIL-STD-810G (Dust, Vibration) Immersion to IP68
EMC	Designed to MIL-STD-461
Dimensions	300 mm L x 250 mm W x 95 mm H (11.8 in L x 9.8 in W x 3.7 in H)
Weight	2.4 kg (5.3 lbs)
Colour	White or olive drab green

INTERFACE

RF connector	N-type socket
Control	6 pin bayonet (MIL spec)

ACCESSORIES

Antennas	1.6 m (5.3 ft) Stainless Steel with 0.8 m (2.6 ft) Riser 1.6 m (5.3 ft) Fibreglass with 0.8 m (2.6 ft) Riser 3.6 m (11.8 ft) NVIS whip
Antenna bases	Flange mount Flange mount bracket Single hole mount Spring
Mounting hardware	Vehicle shock mount Installation kit
Cables	2, 6 10 and 20 m (6.6, 19.7, 32.8 and 65.6 ft) RF coaxial cables 2, 6 10 and 20 m (6.6, 19.7, 32.8 and 65.6 ft) control cables

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