

NGT VR

transceivers

Codan's NGT VR series provides comprehensive solutions to suit your communication needs. The series consists of an NGT VR transceiver with desktop console for base station applications, and an NGT VR *Mobile* transceiver for mobile vehicle applications. Both transceivers incorporate all the usual features of Codan's leading-edge High Frequency (HF) radio technology, and also feature an innovative handset and *Easitalk* as standard. Codan Automated Link Establishment (ALE) capabilities, voice encryption, phone calling features, and remote diagnostics/configuration are optional.

KEY FEATURES

Innovative handset

The handset can access all programming and procedures in a convenient and consistent manner. It provides an advanced interface, more efficient operation and easier network management.

Users can program channels, functions and addresses into the handset to meet their own requirements. These functions can then be accessed via a series of hot keys. A built-in address book can store up to 100 addresses that can be easily retrieved via the menu.

The handset may be mounted in any position that makes viewing easier. The handset provides a

comprehensive display of information.

Emergency selcall

As Codan transceivers are often used in places where safety of life is at risk, the NGT VR series has a unique emergency calling facility. A distress signal can be sent automatically to selected stations.

Multiple channels

The NGT VR series has a capacity for 20 channels.

Easy installation

Every aspect of the NGT VR series has been designed for easy installation in fixed and mobile environments. The unit is small and convenient to mount.

Smart monitoring

A variety of channels can be monitored while the radio is muted, and calls can be received on any of the channels being scanned.

Free tune receiver

Free tune receiver mode enables you to tune into any frequency and store it as a channel with your own label. Also, users can listen to AM stations, short-wave broadcasts and more.

Testing and protection

All Codan transceivers are fully protected from faults such as antenna damage, overvoltage and reverse polarity, which can destroy other transceivers. A three year warranty is available to every registered user.

OTHER FEATURES

High dynamic range Rx

The high dynamic range of the NGT receiver provides better reception in difficult conditions.

Voice Encryption

The optional *Voice Encryptor* provides communication security (COMSEC) and enables users to communicate sensitive information in confidence, without complicated setup procedures. It also provides visual confirmation that the conversation is secure.

Remote diagnostics/configuration

With Remote Diagnostics your radio installation can be tested

remotely by another station to measure parameters such as signal strength, battery voltage levels and power.

It is also possible to remotely reconfigure most transceiver parameters including a facility to disable the transceiver.

Service and support

All Codan customers are supported with our worldwide network of Accredited Service Centres. Regular auditing and training by Codan technical staff ensure the best after sales service.



NGT VR with desktop console in fixed station

ADVANCED FEATURES

ALE

ALE optimises system performance by removing the need for the operator to select the most suitable channel. Codan's optional ALE system is fully interoperable with equipment compliant with FED-STD-1045 ALE.

The Codan ALE system is far more advanced than conventional ALE systems. New stations are recognised automatically by the automated network management.

A profile of channel characteristics is developed over time using a 24 hour based Link Quality Analysis (LQA) database, which has over 7 times more storage capacity and 60% higher data resolution than conventional ALE systems. This significantly reduces sounding activities and enables the transceiver to select a suitable channel at any time of the day,

from the moment it is switched on.

With an ability to scan multiple networks simultaneously at a rate of 8 channels per second, Codan's ALE system can scan 60% to 300% more channels at a given time than other standard ALE systems.

The Listen-Before-Transmit capability detects voice and data traffic on the channel before initiating ALE. This prevents interfering on channels that are engaged.

Easitalk

The NGT VR uses Digital Signal Processing techniques to process received audio signals to minimise the effect of interference and reduce noise. *Easitalk* is simple to operate and extensive testing has shown that its performance is not affected by the language of the user.

BITE

Built-In Test Equipment (BITE) is a process that can be initiated by the user to test and report on certain aspects of the system's performance.

Calling facilities

The NGT VR series comes standard with selective calling and optionally supports phone calling, and remote diagnostics and configuration. All incoming calls are time-stamped to identify precisely when each call arrived.

Selcall: Selcall gives users more flexibility. An operator can call a single transceiver and only that unit will respond—no more listening to noise while waiting for a call. The called transceiver will also signal that the message has been received.

Phone call: (Optional) This function enables the transceiver to make telephone calls via suitable bases equipped with a telephone interconnect.

SPECIFICATIONS

Frequency range	1.6–30 MHz Tx, 250 kHz – 30 MHz Rx
Channel capacity	20 channels
Operating mode	Single sideband (J3E, USB, LSB, AM)
Frequency stability	±0.5 ppm (–30 to +60°C)
Primary voltage	12 V DC nominal, negative earth
Primary power	2010 Receive (no signal): 1.0 A 2011 Receive (no signal): 0.7 A Transmit: J3E voice: 6 A J3E two-tone: 10–14 A
Receiver sensitivity	–125 dBm (10 dB SINAD)
Transmitting power	125 watts PEP
Spurious and harmonic emissions	Better than 65 dB below PEP
Temperature	–30 to +60°C
Size and weight (fixed station)	2010 RF Unit: 210 mm W x 270 mm D x 65 mm H; 3.3 kg 2020 Handset: 65 mm W x 35 mm D x 130 mm H; 0.3 kg Console: 185 mm W x 235 mm D x 80 mm H; 1.2 kg
Size and weight (mobile station)	2011 RF Unit: 210 mm W x 270 mm D x 65 mm H; 3.3 kg 2020 Handset: 65 mm W x 35 mm D x 130 mm H; 0.3 kg
ALE link quality data	24 hours of up to 100 stations and 100 channels using a total of 72675 discrete sets of LQA data
ALE link quality data resolution	Local: 8 bits SINAD, 8 bits BER Remote: 5 bits SINAD, 5 bits BER
Dust	MIL-STD-810F method 510.4
Vibration	MIL-STD-810F method 514.5
Shock	MIL-STD-810F method 516.5

OPTIONS/ACCESSORIES

Option	Purpose
ALE	FED-STD-1045 Codan Automated Link Management (CALM)
D	Remote Diagnostics
P	Phone call
COMSEC	Voice Encryptor

Values noted are typical. Equipment descriptions and specifications are subject to change without notice or obligation. NGT® and CALM® are registered trademarks of Codan Limited.



NGT VR Mobile station

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