CODAN

NGT *SR*
transceiver

The NGT *SR* is a comprehensive solution to your communication needs. While incorporating all the usual features of Codan's leading-edge High Frequency (HF) radio technology, this transceiver also features a user-friendly handset, advanced calling features and *Easitalk* as standard. Extensive Automated Link Establishment (ALE) capabilities, voice encryption, GPS, fax, data and email transmission 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.

The handset supports varied requirements ranging from traditional manual voice operation, to sophisticated ALE-reliant calling procedures.

Users can program channels, functions and addresses into the handset to meet their own requirements. An address book with up to 100 addresses can be easily retrieved via the menu.

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

Emergency selcall

The NGT *SR* has a unique emergency calling facility. A distress signal can be sent automatically to selected stations.

Easy installation

Every aspect of the NGT *SR* has been designed for easy installation in fixed and mobile environments.

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.

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

NGT SR in fixed station

High dynamic range Rx

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

Computer control

The NGT *SR* can be controlled by a computer through an RS232 port. This assists with paging, GPS tracking and logging, and other automated applications.

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.

Fax, data, email and internet

The NGT *SR* is designed for both voice and data applications. With Codan's optional UUPlus® email software, a highly efficient email network can be set up using either the 3012 (data) or 9001 (fax and data) modems.

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.

ADVANCED FEATURES

Automatic Link Establishment (ALE)
To automatically select the most suitable channel, ALE is available as an option. Codan ALE provides full interoperability with other equipment compliant with FED-STD-1045 ALE.

In addition, Codan transceivers outperform many conventional ALE systems through the use of Codan Automated Link Management (CALM).

CALM provides the following additional capabilities and features:

➢ Multiple networks can be scanned simultaneously at a scan rate of 8 channels per second. This enables up to 3 times more channels to be scanned in the same time as other ALE systems.

➢ 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 uses a 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.

➢ The Listen-Before-Transmit capability detects both voice and ALE activities on the channel before initiating ALE. This avoids interfering on channels that are engaged.

Easitalk
The NGT *SR* uses Digital Signal Processing techniques to process received audio signals to minimise interference and effectively reduce noise.

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 *SR* has selective calling (selcall), telephone calling (Phone call) and message paging (Message call). 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. The called transceiver will also signal that the message has been received.

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

Message call: With Message call you can send or receive text messages of up to 64 characters; an external computer is not required.

GPS
An optional GPS satellite receiver can be connected to the transceiver to enable a live display of your current GPS position by latitude and longitude. It also provides transmission of your position to another unit, and an ability to request the position of another unit.

When used with tracking software, the GPS option provides a complete tracking system to enhance safety. In addition, a security PIN can be used to scramble GPS data so that positions are available only to authorised users.

SPECIFICATIONS

Frequency range	1.6–30 MHz Tx, 250 kHz – 30 MHz Rx
Channel capacity	400 channels
Operating mode	Single sideband (J3E, USB, LSB, AM)
Frequency stability	±0.3 ppm (−30 to +60°C)
Primary voltage	12 V DC nominal, negative earth
Primary power	Receive (no signal): 1 A Transmit: J3E voice: 8 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	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 2030 Junction Box: 135 mm W x 117 mm D x 38 mm H; 0.4 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
Computer interface	RS232, 300–19200 baud
GPS interface	NMEA-0183 (4800 baud, RS232)

OPTIONS/ACCESSORIES

Option	Purpose
CALM	FED-STD-1045 ALE/CALM
F	Fan for continuous data transmission
GPS	GPS interface
NBF	Narrow Band Filter (500 Hz)
WBF	Wide Band Filter (2700 Hz)
COMSEC	*Voice Encryptor*

NGT SR in mobile station

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

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