

NGT AR transceiver

The NGT AR 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 (where permitted), GPS, fax, data and email transmission are optional.

KEY FEATURES

Innovative handset

The handset can access all programming 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. 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.

RFDS emergency tone call

The NGT AR has an emergency calling facility. A distress signal can be sent automatically to selected stations.

Emergency selcall

(Optional) The NGT AR has a unique emergency calling facility. A distress signal can be sent automatically to selected stations.

Multiple channels

The NGT AR has a capacity for 400 channels.

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

RF gain

Selectable RF gain control provides better reception in difficult conditions.

Computer control

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

Fax, data, email and internet

Facsimile and other data transmissions can be sent by connecting a 9001 HF Fax and Data Interface to your transceiver. Data-only transmissions are possible using a 3012 HF Data Modem. To use email and

internet facilities, a user must have access to a properly equipped internet/email server.

Remote diagnostics

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.

Your radio will automatically transmit its performance parameters to a technician who can determine whether servicing or support is needed.



NGT AR in fixed station

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 AR 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 AR 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 — no more listening to noise while waiting for a call. The called transceiver will also signal that the message has been received.

Message call: With Message call you can send or receive text messages of up to 64 characters; an external computer is not required. Messages can be encrypted and successful transmissions will be confirmed.

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

GPS

An optional GPS satellite receiver can be connected to the transceiver to enable the following functions:

- a live display of your current GPS position by latitude and longitude
 - transmission of your position to another unit
 - the 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	Transmit: 1.6–30 MHz Receive: 250 kHz – 30 MHz
Channel capacity	400 channels
Operating mode	Single sideband (J3E, USB)
Transmitting power output	100 watts PEP
Primary voltage	12 V DC nominal, negative earth
Primary power	Receive (no signal): 1 A Transmit: J3E voice: 9 A J3E two-tone: 10–14 A
Temperature	–30°C 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
Computer interface	RS232, 300–19200 baud
GPS interface	NMEA-0183 (4800 baud, RS232)
Shock and vibration	Meets or exceeds MIL-STD-810E

OPTIONS / ACCESSORIES

Option	Purpose
AM	H3E AM transmission
CALM	FED-STD-1045 ALE/CALM
E	Emergency call
F	Fan for continuous data transmission
GPS	GPS interface



NGT AR in mobile station

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