



Voice communication in remote areas

Voice communication in remote areas can be achieved using Codan’s High Frequency, Single Sideband (HF SSB) transceivers. These can be in a network of fixed, mobile (vehicle) and portable stations.

Codan is one of the world’s largest producers HF SSB equipment, with over 40 years’ experience in the design, service and support of HF products and systems. Our products are used in over 150 countries, by organisations as diverse as aid agencies to police forces and fishing fleets.

For voice applications, Codan transceivers incorporate a wide range of choices for the user.

FEATURES

Codan’s HF voice networks provide a range of features:

- **Easitalk:** Codan offers an innovative function using Digital Signal Processing techniques. These processes modify received audio signals to minimise the effect of interference and reduce noise.
 - **Innovative interface:** The NGT handset provides all programming and procedures in a convenient and consistent manner. It has a familiar style of user interface for casual HF users, more efficient operation and easier network management. The NGT puts the control in the hands of the user.
 - **Voice mute:** This facility mutes the radio until it hears speech on any of the channels that are being scanned.
 - **Selective calling:** A selcall number is like a phone number. This means that rather than disrupting all users, you can selcall a specific station. When a call is received on a channel that is being scanned, the radio rings like a telephone. This removes the need for an operator to continuously monitor each channel. The radio can be programmed to scan several channels at any one time.
 - **Selcall mute:** This keeps the radio muted until a selcall is received on one of the scanned channels. This means that the mute will only open if the radio receives a selcall.
 - **Talk power:** The talk power capability of Codan transceivers enables them to deliver an exceptionally high quality of voice communications.
 - **Beacon call:** Using a beacon call before sending a selcall establishes whether or not the chosen channel is going to give you good communications. The beacon call you send instructs the called station to transmit four beeps. The quality of the received beeps indicates the quality of the selected channel.
 - **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.
 - **Self-Managing Network (equipment fitted with ALE):** Automatically exchanges critical information about themselves to allow each station to optimise the channel selection. A new station can be added to a network without requiring the attention of a network manager.



FEATURES

- **Emergency selcall:** 24 hour safety monitoring is a fact of life for many organisations operating in remote or hostile environments. When activated, the radio can automatically send a distress signal. All receiving stations are capable of decoding incoming emergency calls. If a GPS receiver is used in conjunction with a mobile transceiver, the position information is also transmitted with the emergency call signal. This facility can be linked to an external alarm for out of hours operation.

FEATURES OF MOBILE AND FIXED TRANSCEIVERS

- Codan mobile transceivers have the following range of features:
- **Made tough:** All Codan transceivers are designed to operate and survive in the harshest environments. Our mobile transceivers are rugged and reliable.
 - **Easy to install:** Codan transceivers are the smallest and easiest to install. Mobile transceivers feature a small control head/handset for simple installation, depending on the model.
 - **Auto tuning:** Codan has designed an automatic tuning whip antenna to work with the full range of mobile transceivers. The mobile antenna is designed to withstand severe environmental conditions and vibration. It will tune all frequencies within seconds.
- Codan fixed transceivers have the following range of features:
- **Remote control capability:** Transceivers can be integrated with a remote control system. This allows the transceiver to be located at a remote site and controlled locally from a desktop console.
 - **System flexibility:** Systems can be designed to meet your specific needs, from a simple two transceiver network up to a network that spans your entire area of operation.
 - **High power:** Systems are available up to 1 kW and can be integrated with fax and data transmission.

EXTENDING VOICE RADIO

- With voice radio you can:
- interface to the telephone network
 - interface to the VHF or UHF network
 - send pager messages
 - integrate vehicle tracking and fleet management using a global positioning tracking system
 - include voice encryption for total privacy
 - upgrade to fax, data and email transmissions using Codan modems
 - remote control capability

BENEFITS

- Codan's voice networks provide the following benefits:
- **Cost-effective:** As HF transmissions are free to air, HF voice networks are extremely cost-effective when compared with satellite systems, which incur expensive call charges.
 - **Broadcast and group calls:** With HF it is possible to talk to an unlimited number of people at once—unlike satellite systems, on which you can speak to only one person at a time.

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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