

# 2110M MANPACK

# TRANSCEIVER



## KEY FEATURES

### True Manpack

- Lightweight, rugged and waterproof design for voice and data communications
- Operate for many days on a single battery charge

### Excellent Radio Performance and Features

- Fast rate Frequency Hopping
- User-friendly interface, large and clear operating display, and internal front panel speaker
- Easy one key access to primary or preconfigured functions
- Advanced calling facilities:
  - Selective call
  - Phone call
  - Message call
  - GPS Position calls
- Interoperable with both military and commercial grade radios
- FED-STD-1045 ALE option, plus Codan's advanced ALE (CALM)
- JITC certified MIL-STD-188-141B ALE option
- Integrated fast automatic antenna tuner
- DSP Noise Reduction—*Easitalk*®
- Integrated GPS Receiver
- High quality, integrated *Voice Encryptor* option for secure communications

### Low Cost of Ownership

- Up to 50 hours battery life, plus Intelligent Battery Management System for low operational costs
- Software update capability to protect your investment
- Easy to use, minimum training required

### No Risk!

- Codan's renowned reliability, worldwide support and three year warranty

## THE RIGHT SOLUTION FOR YOU.

Codan's 2110M Manpack Transceiver is an all purpose, fully self contained true manpack radio. It is designed to meet your long distance and remote communications needs while on the move, and can quickly be deployed. The 2110M features **Frequency Hopping** and voice encryption that assures your communications remain undetected and secure.

We've gone to great lengths to ensure our manpacks are extremely light, rugged, comfortable to carry, and packed with easy to use features. They are ideal for all types of terrain and weather conditions. With a range of antennas, backpacks and chargers, the 2110M can be configured to suit your mission.

## BUILT TO LAST.

Codan radios are famous for their ruggedness and reliability, and the 2110M is no exception. They are the most rugged radios we've ever built and comply with the toughest environmental standards including MIL-STD-810F. The radio and battery compartment are completely waterproofed and can be fully immersed.

## INTELLIGENT BATTERY MANAGEMENT SYSTEM.

A radio's battery management system and mission life lie at the heart of successful portable communications. That's why Codan's 2110M delivers the lowest current consumption available so you can operate continuously on a single battery charge for many days. Our Intelligent Battery Management System cleverly monitors and displays the battery capacity and condition, and also protects the battery by preventing it from being overcharged. Battery protection reduces your ongoing costs by extending battery life and can reduce the need to carry additional spare batteries.

## STANDARDS AND ADVANCED AUTOMATIC LINK ESTABLISHMENT (ALE).

The 2110M Transceiver fully complies with a number of international standards including CE, FCC, NTIA radio type approvals, MIL-STD-810F environmental standards, FED-STD-1045 ALE, and JITC certified MIL-STD-188-141B ALE. In addition, Codan's advanced ALE technology (CALM) outperforms conventional ALE systems with a faster scan rate and 24 hour based Link Quality Analysis, which automatically selects a suitable channel from the moment the radios are switched on and reduces sounding activity.

## SUPERIOR SUPPORT.

Codan's 2110M is backed by a renowned worldwide support network and a three year warranty.

**TOUGH.  
LIGHTWEIGHT.  
SECURE.**

**+ FREQUENCY HOPPING**



## COMMUNICATIONS MADE EASY.

The 2110M shares a common friendly user-interface with Codan's NGT series Transceivers, which minimises training time and expenses. They operate seamlessly with our NGT series, plus other commercial and military grade radios.

Our manpack radios also feature a fully integrated fast antenna tuner that automatically selects tuning modes, antenna types and initiates the tuning cycle. With Codan's large and clear operating display, self-test capabilities, and advanced calling facilities, the 2110M is easy to operate and maintain for any user.

## PROTECT YOUR INVESTMENT.

With Codan's internal proprietary voice encryptor and frequency hopping, the 2110M Transceiver ensures sensitive information is communicated in confidence. The 2110M can also accommodate new capabilities and support future upgrades, ensuring you'll always get the most from your investment.

## SPECIFICATIONS

### General

Frequency Range	1.6 to 30 MHz Tx, 250 kHz to 30 MHz Rx
Channel Capacity	With MIL-STD-188-141B ALE option: 600 channels, 20 networks Without MIL-STD-188-141B ALE option: 400 channels, 10 networks
Scanning	Configurable up to 8 channels per second
Operating Temperature Range	-30 to +60°C
Frequency Stability	±0.5 ppm
Power Source	12 V DC (10.8-15 V operational)
Modes	USB/LSB (J3E), AM (H3E), AFSK (J2A), CW (J1A)
Size	Transceiver 245 mm x 250 mm x 92 mm, with battery 245 mm x 350 mm x 92 mm
Weight	Transceiver 2.6 kg (5.3 kg with 13 Ah NiMH battery)
Environmental	Per MIL-STD-810F including shock, vibration, humidity, immersion (1 hr at 1 m), altitude, fungus, salt fog, sand and dust, blowing dust, and rough handling
Cooling	Convection from case
Transceiver Conformance	Exceeds or meets requirements of AS/NZS 4770:2003, CE, NTIA and FCC Per MIL-STD-188-141B (required for ALE)
Interfaces	Serial RS232
RF Input/Output Impedance	Whip/long wire antenna via internal Automatic Antenna Tuner, or 50 Ω nominal
A/F Power and A/F Distortion	Waterproof internal speaker; 0.5 W into 8 Ω, 10% THD External speaker on GPIO connector; 1 W into 4 Ω, 10% THD
Approximate Battery Life	Approx. 50 hr (13 Ah NiMH), voice 10% duty cycle
Transmitter	
Power Output	25 W PEP (High)/5 W PEP (Low) selectable
Duty Cycle	50% with over temperature protection
Audio Bandwidth	300 – 2700 Hz (standard filter) 300 – 3000 Hz (optional filter) 300 – 3300 Hz (optional filter)
Receiver	
Operating Current	120 mA typical (speaker muted)
Sensitivity	0.14 μV for 10 dB SINAD
Mute	Syllabic Voice Detect
Audio Output	Handset: via 6-way connector Internal Speaker: selectable on or off External Speaker: via 19-way connector
Frequency Hopping	
Hop Rate	6/12/25 hops per second (user programmable)
Hopping Plans	31 user selectable
Hopping Keys	128-bit user programmable
Synchronisation	Internal Encryption Synchronisation Unit (ESU)
Antenna Tuner	
Tuning	2.5 s typical first tune (fully automatic), 50 ms for memory recall Last tune stored for 100 frequencies

### OPTIONS

- Frequency Hopping
- FED-STD-1045 ALE (CALM)
- MIL-STD-188-141B ALE (JITC Certified)
- Voice Encryption
- Morse Key
- 2700 Hz Bandwidth Filter
- 3000 Hz Bandwidth Filter

### ANTENNAS

- Tape Whip, 1.5 m
- Knock Over Whip, 1.5 m
- Collapsible Whip, 3 m
- Long Wire and Adaptor
- End-fed Broadband
- Broadband Dipole
- Wire Dipole
- Dipole and Broadband kit

### BATTERIES AND CHARGERS

- 13 Ah NiMH Battery
- AC and DC Battery Chargers
- Solar Panels
- Handcrank Generators

**PLUS VARIOUS BACKPACKS,  
MODEMS, DATA TERMINALS &  
VEHICLE INSTALL KITS.**



### Your Distributor/Dealer:



**Communication Specialists Ltd. Unit 20, Murrell Green Business Park,  
London Road, Hook, Hampshire. RG27 9GR United Kingdom**  
Tel. +44(0)1256766600 Fax. +44(0)1256766500  
www.comm-spec.com info@comm-spec.co.uk



TRANSCEIVER

2110M  
MANPACK