### OPTOELECTRONICS, INC

# CD200 Frequency Counter / Decoder User Guide

BATTERY/POWER The CD200 is equipped with a built in 3.7V Li-lon Battery. The CD200 may require charging before use. The included power supply with cable charges the battery connecting at the port on the top of the unit. (NOTE: The CD200 does NOT have function to connect to a PC and this port is ONLY for charging the battery/powering the unit). When power adaptor is connected the red LED will light to indicate battery charging and when charging complete, green LED will light to indicate charging complete. CD200 can be used while connected to power adaptor and charging. The battery level indicator at top left of LCD display will indicate remaining battery level while in use. The CD200 has an auto power off function that will allow power off in a selectable time range.

BUTTONS CD200 has 4 Function Buttons below LCD display to operate unit

BLACK - F1 WHITE LEFT - F2 WHITE CENTER - F3 WHITE RIGHT - F4

POWER ON/OFF Press F1 for 2 seconds to power on/Press F1 for 4 seconds to power off

QUICK START/BEGIN OPERATION 4 Main Screen Function Options MENU/START/ANALOG-DIGITAL/CLR/ATTENUATION

MENU/F1 Press to access Set Up Menu

START/F2 Press to Start Frequency/Code detection

ANALOG-DIGITAL Press F3 to toggle select between Analog/Digital (DMR Radio only) Frequency detection

CLR Press F4 to clear Frequency/Codes from display

ATTENUATION SWITCH Top of Unit - Select either Odb or 10db Signal Attenuation

MENU - Basic Menu Options

Press F1 to enter MENU Options FREQ METER/SYSTEM/POWER OFF/ABOUT/ANALOG-DIGITAL

In Basic Menu Use F3 to scroll down / F4 to scroll up / F2 to make selection / F1 Powers Off

FREQ METER Press F2 returns to home screen Counter/Decoder mode

SYSTEM Press F2 enters unit SET UP mode screen

POWER OFF Press F2 for instant Power Off

ABOUT Press F2 for information on Unit

ANALOG-DIGITAL Press F2 to select either Analog or Digital (DMR Radio only) Frequency detection

SYSTEM SET UP

From Main Screen press F1 to enter MENU, scroll using F3 or F4 to SYSTEM and use F2 to select

Using F3/F4 to scroll Options down/up, press F2 to Edit and F1 to Exit back to Basic Menu using F4 to save any changes and from Basic Menu scroll to select FREQ METER to return to Main Screen

LCD DIM Press F2 to Edit the time from 0-9.9 minutes for LCD Display to dim to save battery power using F3/F4 for -/+, press F2 for selection confirmation when completed

**AUTO POWER OFF** Press F2 to Edit the time from 0-30 minutes for auto power off to turn unit off using F3/F4 for -/+, press F2 for selection confirmation when completed

**DIMMER LEVEL** Press F2 to Edit the brightness level of LCD Display from 20-99% using F3/F4 for -/+, press F2 for selection confirmation when completed

**DISPLAY 3 OR 4 DECIMAL** Press F2 to Edit the resolution of the Frequency detected after the decimal to 3/4 digits using F3 for 3 digits/F4 for 4 digits press F2 for selection confirmation when completed

**FREQUENCY OFFSET** Press F2 to Edit the Frequency Offset from 0-99 using F3/F4 for -/+, press F2 for selection confirmation when completed

CTCS/DCS OFFSET Press F2 to Edit the CTCSS/DCS Offset from 0-99 using F3/F4 for -/+, press F2 for selection confirmation when completed

CTS DIVIDE BASE Press F2 to Edit using F3/F4 for -/+ for divide base from 2300-2800, press F2 for selection confirmation when completed

**RF DETECT LEVEL** Press F2 to Edit the RF Signal Level for Frequency detection from 2-50 using F3/F4 for -/+, press F2 for selection confirmation when completed

1=ENGLISH/2=SIMPLIFIED Unit default on ENGLISH/2=SIMPLIFIED not active/used in this rev

**DMR FREQUENCY OFFSET** Press F2 to Edit the DMR Radio Frequency Offset from -99 to 99 using F3/F4 for -/+, press F2 for selection confirmation when completed

#### SYSTEM SET UP RESET

Press Power F1 and hold until RESTORE DEFAULT appears onscreen

#### SPECIFICATIONS:

Frequency Range

27MHz-3GHz

Decoding

Analog CTCSS/DCS 132-173 MHz/200-260 MHz/400-519 MHz

Input Impedance

50 Ohm

Resolution

3/4 digits after decimal

Frequency Response Time

0.2 - 0.5s

CTCSS/DCS Response Time

0.5-1s

Max Input

+20dBm

Frequency Time Base

TCXO +/- 2.5ppm initial accuracy

Display

TFT LCD Color

**Power Requirements** 

5VDC/ 1A/Mini USB

Battery

Internal rechargeable 3.7V Li-Ion 600 mah

#### **PACKAGE CONTENTS**

CD200 Frequency Counter/Decoder with built in Li-Ion Battery

Mini USB Power Adaptor

#### **PRODUCT WARRANTY**

Optoelectronics, Inc. warrants all products and accessories for 90 Days against defects in materials and workmanship to the original purchaser. Products returned for warranty service will be repaired /replaced at Optoelectronics' option. Specifically excluded are any products returned under this warranty that upon examination, have been modified, had unauthorized repairs attempted, have suffered damage to the input circuitry from the application of an excessive input signal, have suffered damage to the charging circuitry or internal batteries from the application of excessive voltage, or show other evidence of misuse or abuse. Optoelectronics reserves sole right to make this determination. No other warranties are expressed or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. Optoelectronics, Inc. is not liable for consequential damages. Products under warranty must be returned, transportation prepaid, to Optoelectronics' service center with an RMA Authorization. Request RMA at sales@optoelectronics.com.

## OPTOELECTRONICS, INC www.optoelectronics.com

885 Woodstock Rd. Ste 430-521, Roswell. GA 30075 / sales@optoelectronics.com