

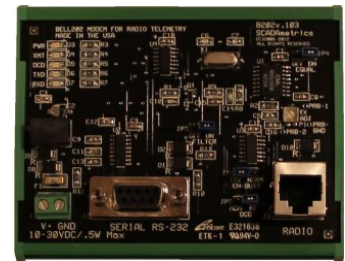
Application Note M003 – **DRAFT VERSION ONLY!**
 Version 001
 08 Dec 2016

Connecting the SCADAmetrics Bell 202 Modem To the Motorola CM200 Series Mobile Radio

This document describes the wiring procedures and settings required when connecting the B202 to the Motorola CM200 Mobile Radio.



Motorola CM200 Mobile Radio



SCADAmetrics B202 Modem

1. The CM200 Radio should be set for: **Mic Gain Fixed** (Not Adjustable); and **Squelch Type: CSQ**
2. When integrating the CM200 and the B202, the main step is to create the custom interface cable. This cable connects the HLN9242A Accessory Plug of the CM200 with the RJ45F interface port of the B202 modem.

Cable Construction Diagram

Motorola HLN9242A Accessory Plug

1 : (EXTERN SPEAKER 8 OHM-)
 2 : (EXTERN MIC AUDIO)*
 3 : DATA PTT -----
 4 : (PROG OUTPUT, CSQ DETECT) -----
 5 : TX AUDIO FLAT -----
 6 : (PROG INPUT)
 7 : GND -----
 8 : (PROG INPUT)
 9 : (PROG INPUT)
 10 : (IGNITION SENSE)
 11 : RX AUDIO FLAT -----
 12 : (PROG INPUT)
 13 : (SWITCHED B+ OUTPUT, MAX 0.5 A) -----
 14 : (PROG INPUT)
 15 : (INTERNAL SPEAKER)
 16 : (8 OHM SPEAKER +)

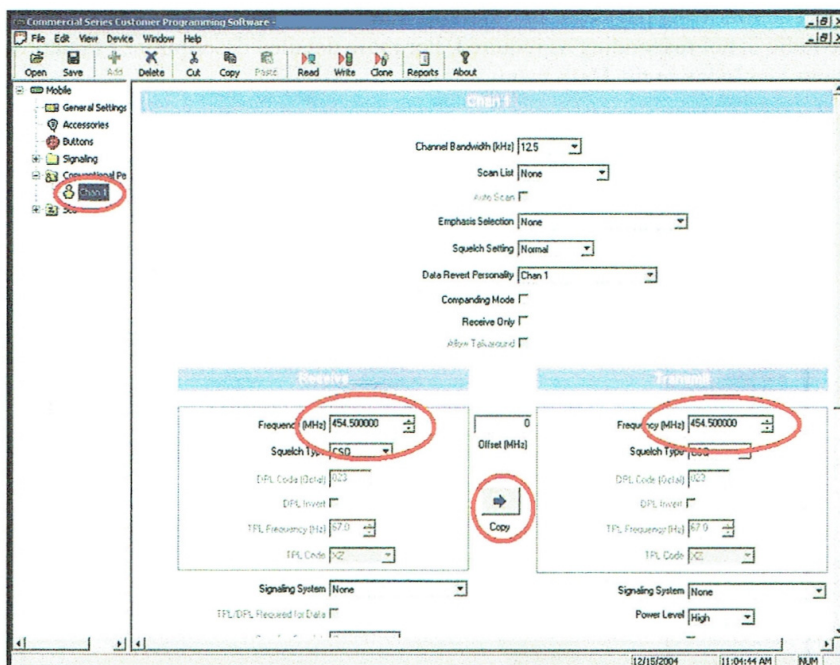
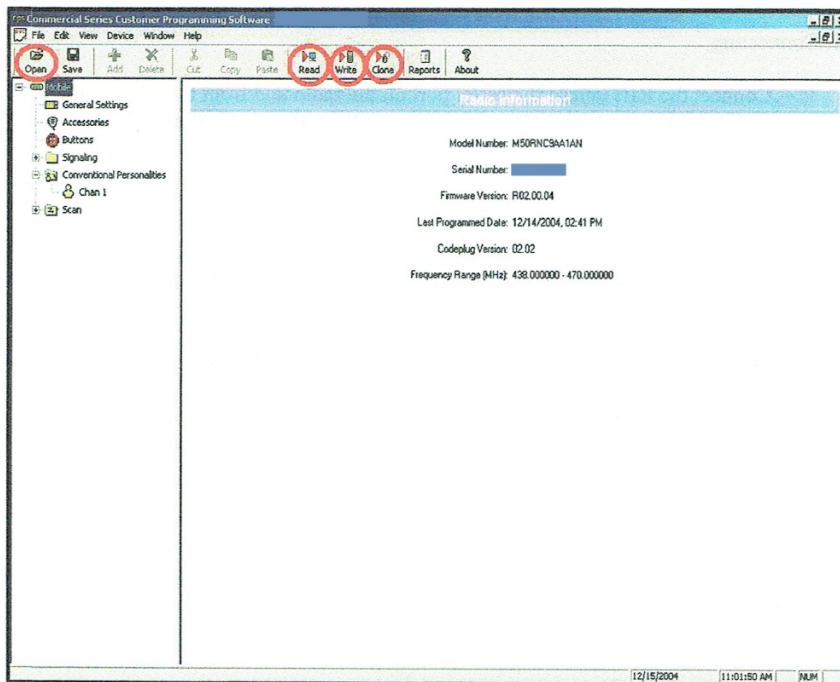
B202 Modem RJ45F Radio Interface Port

3 : PTT
 4 : Ch.Busy (?Check This?)
 1 : TxAudio
 5 : GND
 2 : RxAudio
 8 : 12VDC (?Optional Modem Power Source?)

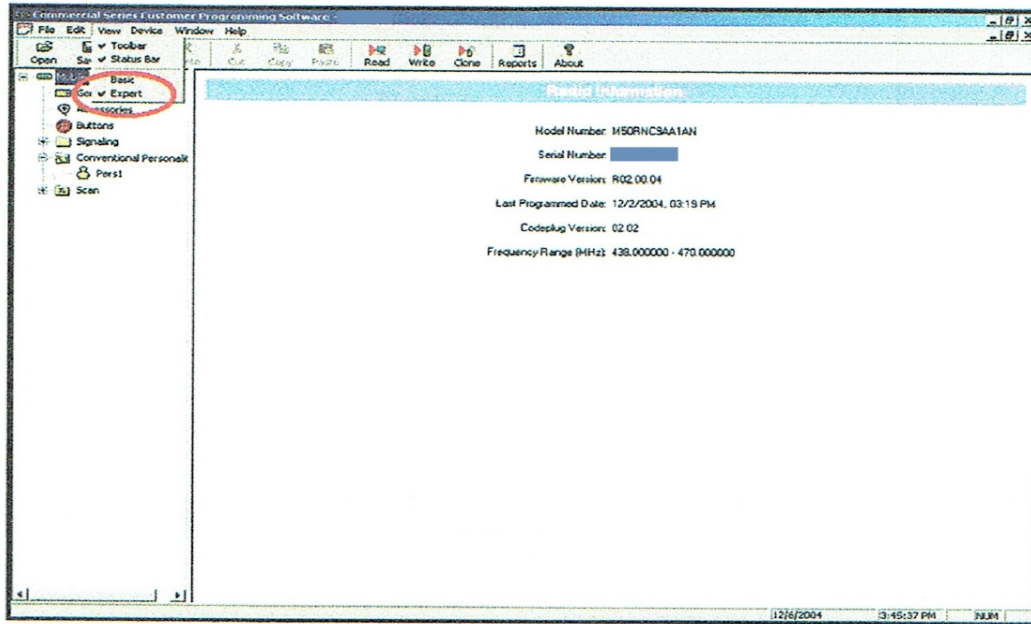
Programming

Programming of the CM200 will be with a Windows-based program called CPS: “Commercial Series Customer Programming Software”. The RIB unit will be used, with a Motorola Cable GTF374B between the RIB and the radio.

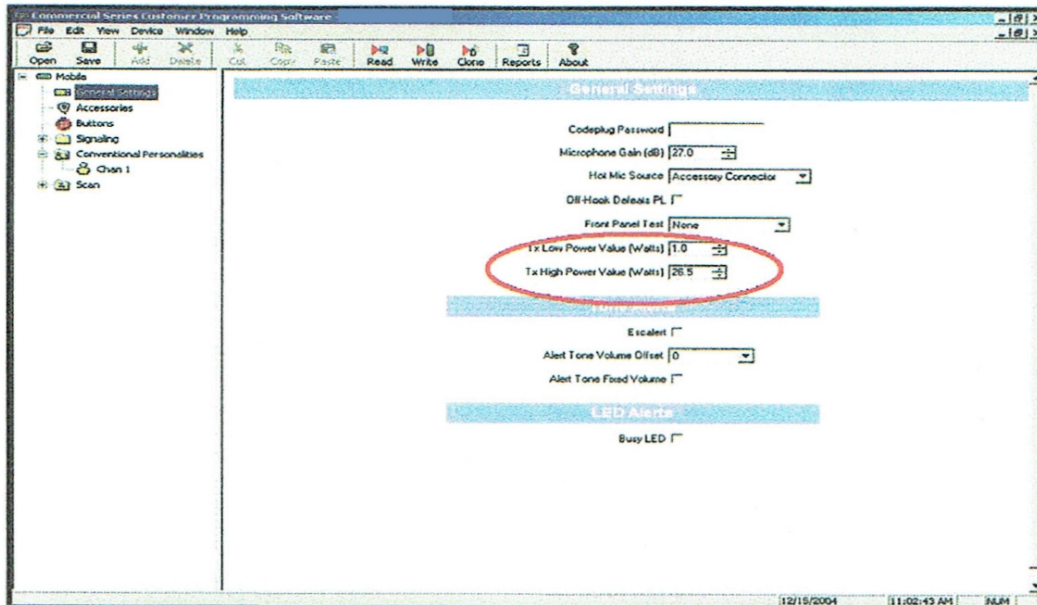
To assist with the initial setup of the radios, procedures will be developed to assist in programming the CM200 radios for use with the B202 modems. The procedures in this section, which consist of screenshots kindly provided by a SCADAmetrics customer, detail the configuration of the radios with all necessary parameters except the final operating frequency and power level.



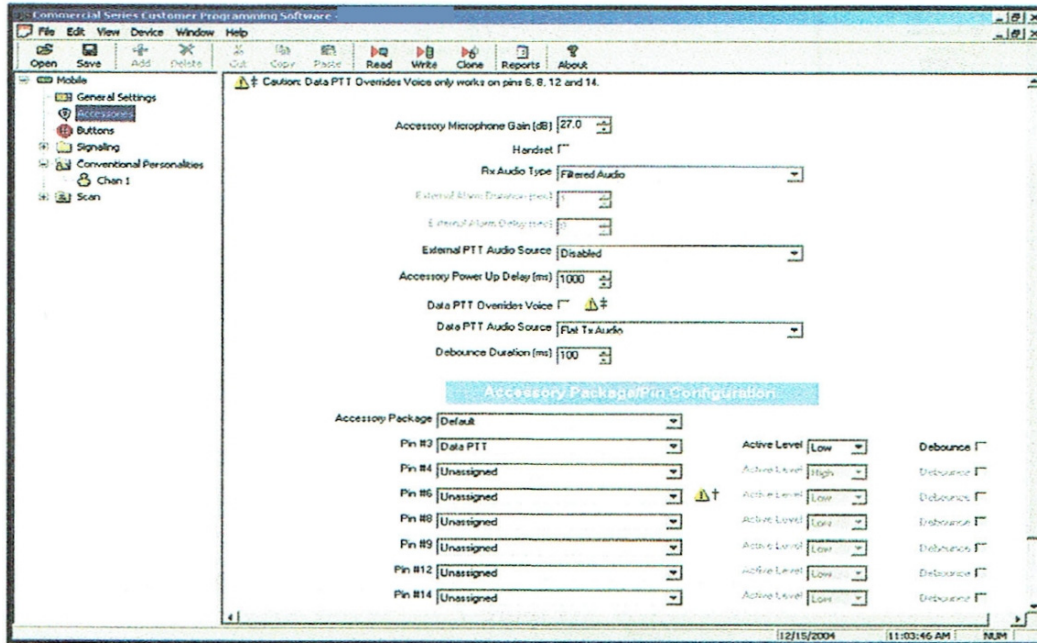
Expert Mode: Ensure that the radio is in “Expert Mode” so that all settings are made available for viewing and modification..



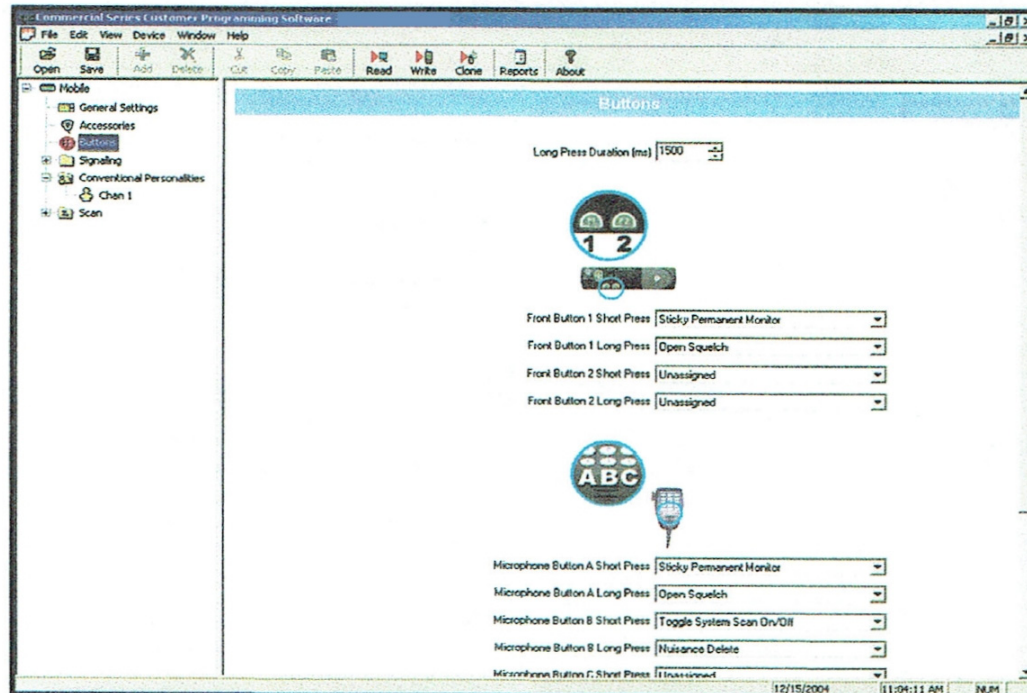
General Settings (Transmit Power): The “General Settings” page covers only one basic feature that may need to be changed. Tx High Power Value (Watts) can be changed, if necessary.



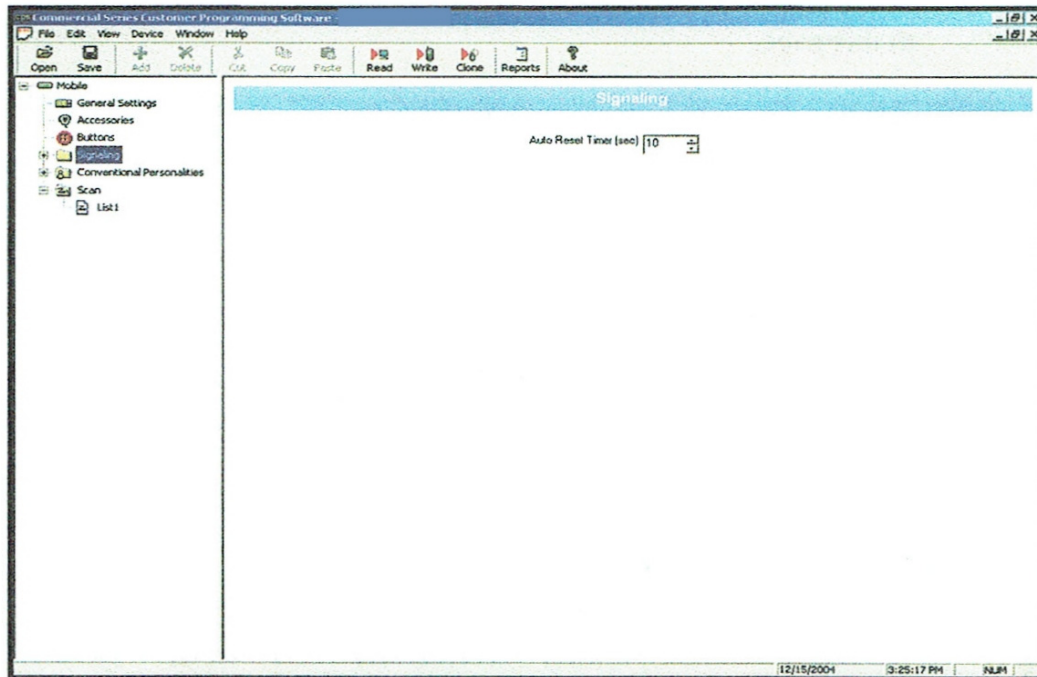
Accessories: In the “Accessories” page, no modifications should be made to this page, unless it is decided to program Pin 4 to be a Carrier Detect output signal to the Modem.



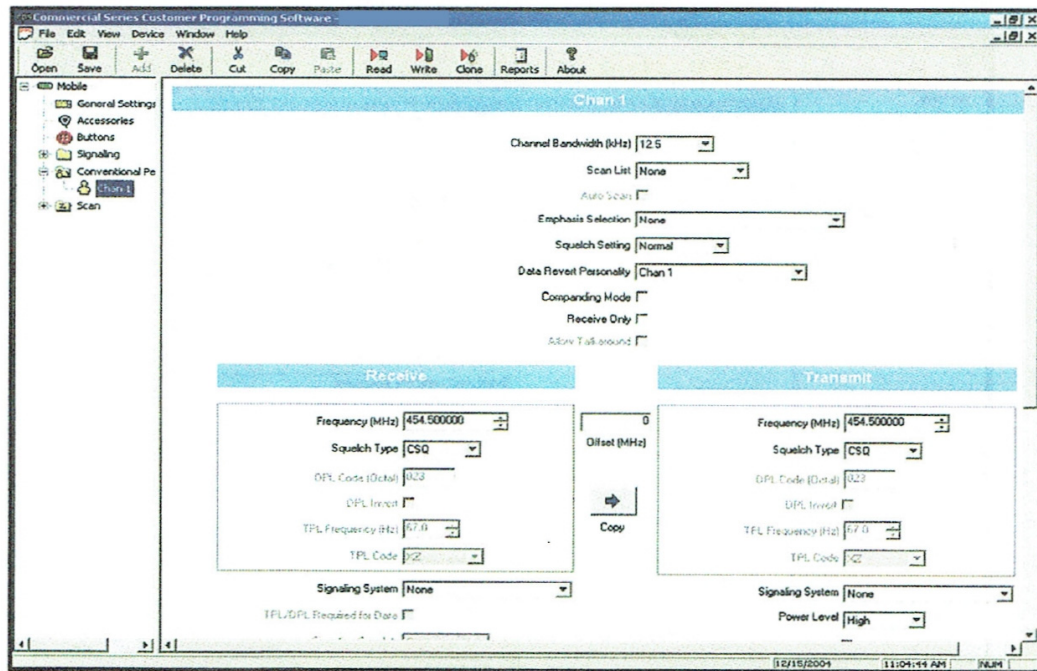
Buttons: In the “Buttons” page, no modifications should be made to this page.

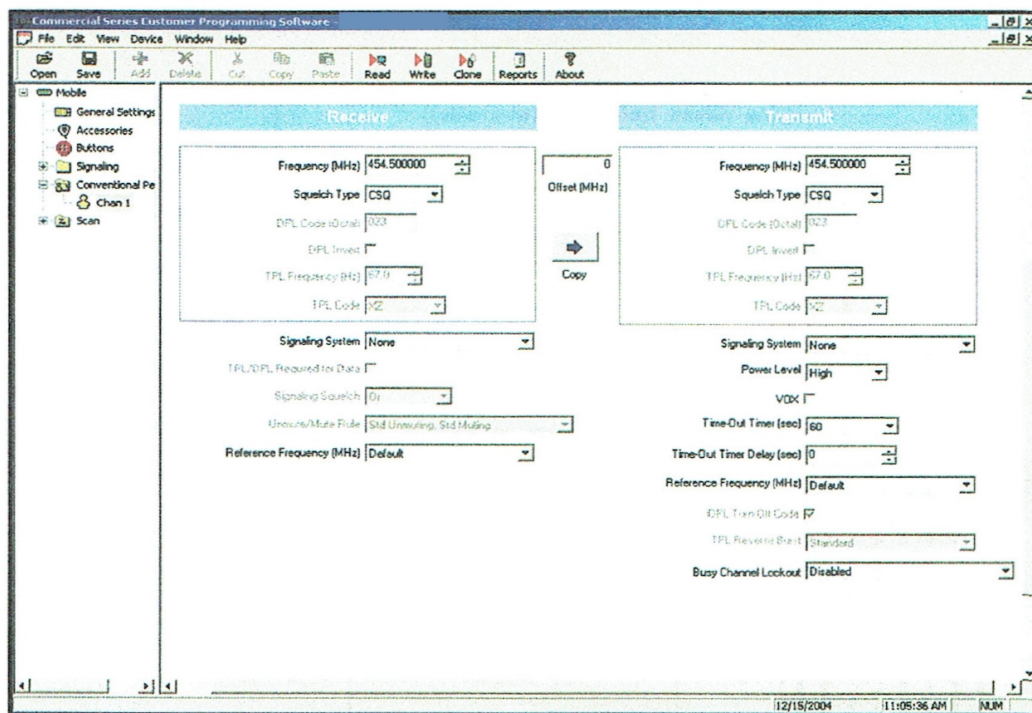


Signaling: In the “Signaling” page, no modifications should be made to this page. All squelch signaling is to be disabled in the Channel 1 Menu.



Conventional Personalities – Chan 1: On the Chan 1 page, the frequency for the Receive and Transmit are the only fields that should be changed. Only ONE Channel needs to be programmed.





Scan: On the “Scan” page, NO Channels are to be listed. The Scan feature is disabled at the Scan List option on the Chan 1 page.

