

# C250 Mobile Multi-Switcher Interoperability Controller



The NCS-C250 Mobile Multi-Switcher is an interoperability solution suited for First Responders that utilize multiple radios such as police, fire and EMS personnel. However, many customers have purchased the unit for dispatch purposes. The unit connects four radios to one microphone and two speakers. Specific features such as crossband repeating of up to 4 radios (VOX operated), Select/Unselect audio control and muting, and PA output make the unit more than a "microphone switch".



The NCS-C250 can be configured in systems to provide for sharing of radios between multiple units thereby reducing the number of radios required, resulting in a reduction of overall system cost. Alternatively, the unit may be combined with an NCS-C251 Expansion Unit for control of up to eight radios.



[Complete C250 Data Sheet](#)  
[C250 Main Unit Instruction Manual](#)  
[C251 Expansion Unit Instruction Manual](#)

## Options

The NCS-C250 and NCS-C251 are available with several optional features to enhance their operation. All options are factory installed.

**COR:** Carrier detect circuit for crossbanding function. The option causes the RPT Function to be controlled by a digital busy signal from each radio. Highly recommended for significant improvement in quality of crossbanding. VOX detection comes standard.

**Hook Switch:** The option allows a hook switch or microphone hang up signal to be sent from the mic to all radios. The signal is passed to Selected radio(s) when the microphone is "Off-Hook". Worthwhile for set ups with radios programmed to scan or monitor when not in use.

**Multi-Cast (Simulcast):** Provides the ability to broadcast on multiple radios simultaneously. This feature may be enabled or disabled by the user.

**Sidetone:** Mixes the transmit (mic) audio at a suppressed level with the Selected radio's receive audio to provide aural feedback when using a headset. The Sidetone signal is also output to the selected speaker to allow remote monitoring or recording of both sides of the radio communications. This feature can be enabled or disabled by the operator.

## Accessories

### Headsets

NCS is proud to offer Heil Sound, Ltd. © headsets and accessories for use with our products. Heil Sound has supplied its products to the commercial industries for over 30 years and has a superb reputation for innovative and quality audio products.

**Pro-Set4.** The NCS-E304 and NCS-E305 (electret version) headsets have stereo speakers, perfect for monitoring Selected and Unselected audio. The set contains a speaker phase reversal switch to reduce fatigue and enhance intelligibility. The microphone element has an optimized frequency response for clear voice articulation even under noisy radio conditions. The flexible left ear microphone boom has a variety of positions.

**Pro-Set Plus!** The NCS-E345 and NCS-E346 (electret version) are more robust versions of the NCS-E304 and NCS-E305 headsets. The Pro-Set Plus! has dual microphone elements for full range and enhanced communications. A slide switch provides switching between elements. Additionally, the boom swings 180 degrees for left or right operation. The headset contains a self adjusting cushioned headband.

**Pro-Set Quiet Phone.** The NCS-E314 and NCS-E315 (electret version) include all the attributes of the Pro-Set 4 and adds active noise cancellation technology to reduce ambient room noise. The unit includes an integrated Push-To-Talk soft touch switch. The set is supplied with a leatherette carry bag.



**HS-2 "Magnum" PTT Hand-Switch** The NCS-F230 is used with the Pro-Set 4 or Pro-Set Plus and is ergonomically designed to comfortably fit the hand. The rugged switch has chrome spring strain relief on both ends of its cable.

**Microphones**

**Hand Microphone** The NCS-E216 is an omni-directional hand mic. It comes with a metal hangar and clip for Hook Switch operation. The coil cord is about 3 feet.

**DTMF Microphone** The NCS-E214 is a DTMF encoder microphone with an illuminated 12 key alphanumeric keypad. Features include an audible sidetone confirmation and automatic muting during tone transmission. The unit has a metal hanger and a removable 3 foot coil cord.



**Other Accessories**

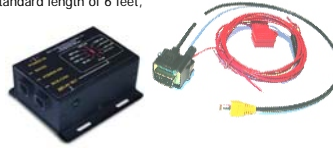
**Radio Cables.** NCS provides cabling to interface most commercial and amateur radios with the NCS-C250. Cables can be provided for mobile as well as portable radios. The cables come in a standard length of 6 feet, however custom lengths are available.

**Mono-Audio** All audio (Selected & Unselected) is routed to both speaker ports. Great for single speaker applications.

**Audio & PTT Delay Module** The C410 Delay Module provides a user selectable inherent delays seen in trunked systems between receipt of PTT and assignment of 200, 400, 800 & 1600 msec are selectable.

1516 is a desktop switching power supply protection. It's input is 120 VAC and its

3 Amps. comes with a 3 foot cord. Two speakers are available to connect two speakers to the



audio delay to accommodate channel. Delays of 0, 50, 100, **AC Power Supply** The NCS-1516 is a desktop switching power supply with overvoltage and current limit output is 12VDC at a maximum of



**Speakers** The NCS-7210 is an 8 Ohm, 3 Watt speaker for use with the C250. It is recommended for Selected and Unselected audio. An adapter (NCS-250-SPKR) is available for NCS-C250.

