

## Minimizing Interference with Wireless Medical Systems in Healthcare Environments

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### Description

As wireless systems in healthcare environments become more prevalent for patient monitoring and telemetry, SpectraLink has taken steps to minimize potential interference between other vendors' products and SpectraLink's Link Wireless Telephone System. This update describes a proactive approach that healthcare customers can take to minimize interference with wireless medical systems entering the market.

### Problem

Some of the wireless systems in use in healthcare environments utilize portions of the same 902-928 MHz bandwidth as the Link Wireless Telephone System. When the Link WTS and a wireless medical system are located in the same area, there is the possibility of interference between the two systems. SpectraLink has a tested solution that allows such systems to operate normally in the healthcare environment.

### Resolution

Link WTS units shipped from the factory are preset to operate on frequency range Sequence #1 which spans the entire spectrum from 902 MHz to 928 MHz. Testing has shown that selecting the SpectraLink system to operate on Frequency Hopping option **#3 (902-909 and 921-928)** will minimize the interference effects from the Link WTS base stations and handsets to other vendors' equipment configured to operate in the 910-920 MHz portion of the band. The table below lists the frequencies used by each sequence option for the Link WTS.

#### Sequence Frequencies Used by Link WTS (in MHz)

Sequence	Frequencies Utilized
1	902 - 928
2	902 - 915
3	902 - 909 & 921 - 928
4	914 - 928
5	902 - 904 & 909 - 921
6	904 - 910 & 920 - 928
7	908 - 922



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### Link 150 Model 3 System

For the Link 150 M3 system, the preferred method of selecting an alternate spread spectrum sequence is to dial into the internal modem of the first MCU. Contact SpectraLink to arrange for a technician to dial into the system and change the frequency. If modem access is unavailable, instructions on how to manually change the frequency range can be found in Section 11.1, "Select Alternate Spread Spectrum Sequence" of the *Installation and Operation Link WTS – Link 150 M3 MCU* manual, part number 72-0075-01, which can be found on <http://support.spectralink.com/products/900-mhz/spectralink-6100-series-mcu>.

### Link 3000 System

For the Link 3000 MCU system, the spread spectrum sequence is changed through a direct connection to the system or by dialing into the system through an external modem. This can be done by the administrator of the system or remotely by a SpectraLink technical support engineer. Instructions on how to change the frequency range can be found in Section 3.2, "Configure MCU (F8-Configuration Display and Administration)" of the *Operator's Console Link WTS – Link 3000 MCU* manual, part number 72-0059-02, which can be found on <http://support.spectralink.com/products/900-mhz/spectralink-6300-series-mcu>.

Additional instructions on how to configure systems with more than 25 or 50 base stations when the spectrum is half-hopping can be found in Section 3.1 under "Configure Base Stations (RCUs)."

**NOTE:** If the Link WTS system is currently set to a sequence other than Sequence #1, evaluation is recommended before any changes to the sequence are made. The reason for using that specific sequence must be determined since the current setting may be an indication that interference was experienced in the facility during initial installation.

### **Additional Information**

Selecting a new spread spectrum sequence is a short, straightforward procedure that can be done from the operator console or through remote login and does not require any change to the handsets. Contact your SpectraLink representative for more details.

