NORAXON®
EMG & Sensor Systems

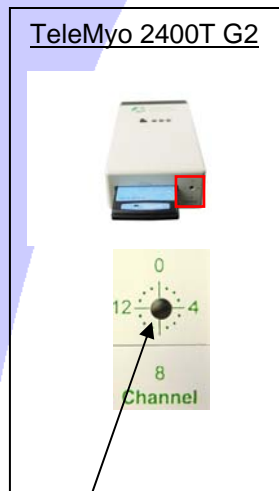## How to (and why) change the RF Channel on the TeleMyo 2400 G2 System

Sometimes there is a lot of WiFi traffic on the RF channel being used by the TeleMyo 2400 G2 System. The most common symptom is an uneven flow in the data while recording a measurement. The data will appear to stop in MyoResearch XP even though you are still recording data. Then suddenly, data will appear in one burst on the screen. After that, the data will correlate with the muscle movement until another delay occurs. What is happening is that the transmitter is unable to transfer the data to the PC because of interference, due to too much traffic on the RF channel you have selected. You do not lose any data, unless MyoResearch XP displays an error message.

Solution: The signal delay is easily solved by changing the RF channel on the transmitter and receiver. Please follow the instructions below. WiFi systems can operate on 11 different channels with channels 1, 6 and 11 commonly used.

Instructions to change the RF channel:

1) <u>Use a network sniffer program</u> to determine which WiFi RF channels are being used in your area. <u>Then select any WiFi channel with little or no traffic for the TM2400 system</u>.

   ▪ "InSSIDer" is a network sniffer with a graphical display that is available as a free download from the internet. http://www.metageek.net/products/inssider/download. This network sniffer works with both Windows XP and Vista. You can use most 802.11 a/b/g wireless adapters, e.g. PC internal WiFi, PCMCIA card Wireless network adapter and USB Wireless network adapter.

   ▪ "NetStumbler" is another network sniffer that is available as a free download from the internet.   http://www.netstumbler.com/downloads

2) <u>Turn off the transmitter and receiver</u>.
   a. <u>TeleMyo 2400R G2</u>: use the power switch on the unit to turn it off
   b. <u>Mini-Receiver and PC Interface Receiver</u>: unplug the USB cable from either the receiver or the PC.
   c. <u>PCMCIA card</u>: Turn off the transmitter and wait for the PCMCIA card to stop communicating with the transmitter. Then use the Aironet Client Utility to change the RF channel on the PCMCIA card.

3) <u>Use a small flat-head screwdriver to change the RF channel on both the transmitter and receiver</u>. The photos below show the location of the RF channel selector on your unit. Please refer to the appropriate hardware manual for detailed instructions.

   <u>NOTE</u>: You must change the RF channel on both the transmitter and receiver. (For the TeleMyo 2400T G1, the RF channel setting inside MRXP Hardware Setup must also be changed to match the new RF channel.) Otherwise, the transmitter and receiver will not be able to communicate with each other.

TeleMyo 2400T G2	PC Interface Receiver	Mini Receiver	TeleMyo 2400R G2
	Set to channel 5	Set to channel 6	Set to channel 6

If you look closely inside this hole, you will see a slot with an arrow at one end. The arrow points to the selected RF channel, which in this case is channel 11.

NOTE: Only use channel settings 0 through 11 (or B). Settings 12-15 (C-F) should not be used.

4) Turn on the transmitter and receiver, then start MyoResearch XP. Check the following options.
   a. The recording looks good
      ▪ Continue collecting data
   b. Signal Delay or Data loss
      ▪ Try another RF Channel
   c. Error stating that not all devices have joined the network.
      ▪ Verify that both the transmitter and receiver are on the same RF channel.
      ▪ Turn both units off, then back on. (Sometimes this step is either missed or done before the RF channel change is completed.)

Waiting For Transmit...
Asking transmitters to join network

Transmitter	Status/Battery
1	Configuring
2	Waiting
3	Waiting
4	Waiting

Cancel

Noraxon Wireless G2
⚠ No response from transmitters; not all devices has joined network.
OK