

VenMX 2-way Radio Induction and Procedures

The key thing to remember about radio procedure is that *radios operate very differently to a telephone.*

<u>Difference</u>	<u>Implication</u>
You don't need to push a button to talk on a telephone, you do on a radio	<p>You must remember to press the PTT (push to talk) button on the radio to talk and then <i>release the button to listen!</i></p> <p>You must ensure the button is <i>fully pushed in before starting to talk</i> (otherwise the first syllable or two of your transmission can be cut off).</p> <p>Assuming you are called Fred and you want to call Bert, you should start a radio transmission with "Bert, Bert, Bert this is Fred over". The reason for saying "Bert" three times is that Bert could be away from his radio, or talking in a group, or have his radio turned down, or be day dreaming at the time and if you only say "Bert" once, may not be sure who called him. With multiple radios in use, everyone then "comes back" at you wanting to know who you wanted to talk to.</p> <p>When you sign off, state "Bert, this is Fred out". This tells not only Bert, but also anyone else on the air that you (Fred) are finished talking to Bert.</p> <p>This all becomes very important when you have a number of radios in use. Otherwise confusion and frustration, and potentially heartache, can result. A typical example could be where someone believes an instruction is being given to them (e.g. to stop at a certain place) but in fact it was meant for someone else. See also the points below on starting and ending a conversation.</p>
You can talk and listen at the same time on a telephone, you can only either talk or listen on a radio at any one time	You must wait until the other person finishes talking (they should say "over") before you start talking and you should say "over" when you are finished talking.
You can tell when a phone conversation is over as the line goes dead and a tone starts	On a radio, you can't tell if the other person has "hung up" or not. Therefore the protocol is that <i>the person who initiated the radio conversation should say "Out" at the end</i> , which signals that no further communication is required.
You can "dial up" a person on a telephone because everyone has a unique phone number. With radios, there are no "phone numbers" [but expensive radios do have a similar feature]	On a radio, both you and the person you are calling needs a "call sign". For CB use, use your name or location, e.g. "CP2, CP2, CP2, this is CP1 over..."
You can say anything you like on the telephone and know that it is private to you and the other person, on a radio, the whole world could be listening in	You should remember that private, personal or confidential information should not be put "over the air"
Outdoor environments and microphones	Hold the radio (or mike) near your mouth and speak sideways across the microphone. Do not speak directly into the mike.
Telephones are physically connected with copper wires, which means the quality of the link is very good and the link itself is very reliable. This also means that if you can hear the other person, then they can also hear you. Radios are only connected by	<p>Do not rely on radios. Always factor in to your communications equation that the radios may not be able to communicate. In such an event, what will you do? <u><i>Have a fall-back position.</i></u></p> <p>Remember that higher elevations will usually improve communication, so if you are having trouble, move the radio to the top of a hill. The difference can be very significant as you</p>

<p>radiation which travels through the air and gets weaker as it travels, therefore radio communication is much less reliable and often poorer in quality. Moreover, radios pick up “stray electric currents”, which are known as “noise” or “RF interference”. Also, the “vagaries” of radio wave propagation mean that sometimes you can hear the other person, but they can’t hear you.</p>	<p>are relying on a <i>ground wave</i> to make contact.</p> <p>Also remember that communication will be much more difficult when you are in thick forest or when you are near power wires. Move to clear country to away from power wires if you are having problems. Remember also that your whip aerial, if mounted on a bullbar, will propagate much better in “reverse” direction. You may need to turn the vehicle around for best transmission.</p> <p>If you are having trouble with radio “noise”, try turning your squelch up. However, this may also cut out the signal you want to listen to. <i>Therefore, the first thing you should do if you lose radio contact is to turn your squelch right down.</i> Learn to live with the constant hiss and turn the volume down so it doesn’t drive you mad.</p> <p>If you try to call someone on the radio, and get no reply, try twice more, and then sign-off saying “No transmission, Out”. This tells the other person, if they can hear you, that you will not be attempting any further radio contact at the time.</p> <p>You must learn to speak more slowly, more clearly and to spell numbers and other critical items when radio communications are becoming difficult. For example, if you want to tell someone it is 700 metres to the road, say “it is seven hundred, seven-o-o, metres to the road”. If signal is weak or unclear, spell out proper names (e.g. names of persons). You don’t need to do this when communication is clear and loud, but as the signal becomes weaker, you will need to keep this in mind.</p>
<p>Telephones do not have a set of frequencies over which they communicate. You either have the connection or you don’t; radios usually can operate on many frequencies and therefore some choices are available</p>	<p>On VenMX it is unlikely we will change channels due to the potential confusion that will result.</p>
<p>Only two persons are usually involved in a telephone conversation; therefore you only have to concern yourself with what you want to say and what the other person wants to say. With radios, often many people are listening in, and ultimately, want to also speak.</p>	<p>Do not hog the airwaves. Provide breaks from time to time so that others can come on and use the channel.</p> <p>During an emergency, keep radio traffic to an absolute minimum.</p> <p>If you need to make an urgent radio transmission, interrupt the radio transmissions with “Breaker, breaker”. If you hear this, STOP TALKING IMMEDIATELY. However, remember that if someone is already talking, and you say “Breaker, breaker” they will not hear you, so wait until you hear them release their PTT button or say “over” and then “break in”.</p>
<p>Radios do break down</p>	<p>For a handheld radio, always carry spare batteries and keep out of the rain and do not allow it to drop or hit objects by swinging free (trees, rocks). If in a 4WD, carry spare fuses and a spare aerial as a minimum and always mount your aerial on a spring base. If you are having problems, check the “earth” on both the set and the aerial as this is often the chief culprit.</p>