

DMR REPEATER OPERATION

BASIC INFORMATION

The Johnson County Radio Amateurs Club maintains two VHF repeaters that are DMR capable, 145.290(-) and 145.210(-). They operate as “Mixed Mode” repeaters utilizing Motorola MotoTrbo (DMR) technology. That means the repeater will work in either the FM (analog) or DMR (digital) mode. The repeater can only do one mode at a time. One mode cannot interrupt the other. These repeaters are not linked to any other repeaters or talk groups.

DMR operates in what is known as TDMA. This is a two time slot multiple access system. This provides two simultaneous conversations on a single repeater frequency.

The repeaters have the standard 3-minute time-out timer and do not have a courtesy tone. For analog users it may be helpful to use CTCSS or Tone Squelch to eliminate the digital sound

when the repeater is operating in the digital mode.

When using Tone Squelch it is good practice to monitor the channel prior to transmitting to be sure there isn't a digital conversation already in progress.

PROGRAMMING

In order to effectively utilize the DMR mode there is some basic information that must be understood in order to program your radio.

DMR radios are programmed with a “code plug”. This is just a name for all the data you load into the radio. This data includes the following information: Channel name; Frequency; Talk group ID; Color code; and Time slot. This needs to be entered into the code plug of the radio you are using. DMR does not use PL (tone) codes.

The following table contains the information you must enter for each repeater.

FREQUENCY	CHANNEL NAME	GROUP ID	COLOR CODE	TIME SLOT
145.290/144.690	KC913	913	1	1
145.290/144.690	TAC 29	145290	1	2
145.210/144.610	KC913	913	1	1
145.210/144.610	TAC 21	145210	1	2

For more information go to the BYRG.net website. This site includes code plugs for various radios. The site also includes information about the linked BYRG system in the Kansas City area.