

# Missouri Digital Group User Radio Programming Information

## Information on the Missouri Digital Group's D-STAR systems.....

Band	Type	Repeater Output	Repeater Input	Offset	Repeater Call Sign
23 cm	DD	1251.0000 MHz	1251.0000 MHz	0 MHz	KØMDG A
23 cm	DV	1285.0000 MHz	1273.0000 MHz	-12 MHz	KØMDG A
70 cm	DV	442.5750 MHz	447.5750 MHz	+5 MHz	KØMDG B
2 m	DV	147.0150 MHz	147.6375 MHz	+ 600 KHz	KØMDG C

## How to program the Digital Voice repeaters into your radio.....

In addition to frequency, you must program the repeater call into repeater call sign slot 1 of your radio for it to access the repeater. The call sign format is 8 characters with the first seven reserved for the call sign and the last is the repeater letter designation. To program the KØMDG 2M call sign into the repeater slot enter:

KØMDG--C where "--" is a blank space.

If you do not insert the blank spaces, the repeater cannot be accessed.

Repeater call sign slot 1 is the call sign of the repeater to which you are connecting. Repeater call sign slot 2 is the call sign of the repeater or gateway you wish to connect to once you have connected to repeater 1. For example, to go in on the 2 m DV repeater and out on the 23 cm DV repeater you would program your radio as follows:

Repeater 1	Repeater 2
KØMDG C	KØMDG A

Your radio is now programmed to talk with radios on the 23 cm DV repeater and on the 2 m DV repeater.

## Programming Memory Channels.....

In order to easily switch between single repeater and connecting via another repeater, the best solution is to preprogram memory channels with the various repeaters. It is recommended that you name the memory channels in order to easily switch operation among the repeaters. The following table can be used for programming dual band radios such as the ID-800 or IC-91AD or IC-2820.

Operating Band	Repeater 1	Repeater 2	Channel Name	Mode
2 m	KØMDG C		MDG C	2 m only
2 m	KØMDG C	KØMDG B	MDG CB	2 m to 70 cm
2 m	KØMDG C	KØMDG A	MDG CA	2 m to 23 cm
70 cm	KØMDG B		MDG B	70 cm only
70 cm	KØMDG B	KØMDG C	MDG BC	70 cm to 2m
70 cm	KØMDG B	KØMDG A	MDG BA	70 cm to 23 cm

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### Programming your radio to make Gateway calls.....

To properly set up your radio to talk through other D-Star systems via the internet, you will need to program up your radio differently than when making local calls. This requires properly programming UrCall, Rpt1 and Rpt 2 in your radio.

To access the gateway the Repeater 1 needs to be programmed with the repeater you are using and Repeater 2 needs to be programmed with the Gateway call sign. For example, if you are using the 2 m repeater and are making a call via the gateway you would program your radio as follows:

Repeater 1	Repeater 2
KØMDG C	KØMDG G

Note that the Gateway call sign is KØMDG--G, where "--" is a blank space.

To call another amateur on a different system, you would enter that amateur's call sign in the Ur Call slot in your radio. The Gateway will know where that person was last heard and route the call.

You can also make CQ calls on other systems. To do this, you must program the repeater call sign for the other system in the Ur Call slot. The call sign must be preceded by a slash "/" and the call sign adjusted for eight characters. For example, to make a call on the K5TIT 70 cm system in Dallas, you would program Ur Call as follows:

/K5TIT-B, where "--" is a blank space

If you don't put the "B" on the end of the call, it will default to the "A" repeater, if there are multiple repeaters on the system.

### Programming you radio to make "Decho" test calls.....

Decho is a function you can use to determine how well you are being received by the repeater system. It captures your voice and data information and replays it back to you after you release the PTT. To program your radio for "Decho", you start by programming Rpt1 and Rpt2 as if you were making a gateway call. Thus, Rpt1 is programmed with the repeater you are accessing and Rpt2 is programmed with the Gateway call sign. For example, if you are using the 2 m repeater and are making a call via the gateway you program you radio as follows:

Repeater 1	Repeater 2
KØMDG C	KØMDG G

Remember to put the two spaces between KØMDG and the letter "C" or "G".

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The next step is to program the “UrCall” for the “Decho” function. To do that you program in the following to UrCall:

UrCall = KØMDG--E

Where “-“ is a blank space. Your MyCall programming remains the same.

To operate, key the radio and talk. Upon releasing the PTT, the system will play back what you said and any data that you transmitted along with your voice. You will want to save this to a memory channel and give it a channel name similar to that recommended above. For example, for Decho on the 2m repeater, you would name it “MDG CE”.