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D-STAR Linking Tips

Charlotte Digital Radio Group Digital Voice Communications
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Our Charlotte area D-STAR repeaters and how you should program them into your radio's **UR**, **RPT1** and **RPT2**:

	Charlotte <u>2m VHF DV</u>	Charlotte <u>70cm UHF DV</u>	Spencer Mt. <u>70cm UHF DV</u>	Crowder's Mt. <u>23cm UHF DV</u>	Wingate <u>70cm UHF DV</u>
Frequency:	145.140 -0.6	443.8625 +5	443.9875 +5	1292.000 -20	444.8625 +5
UR:	CQCQCQ	CQCQCQ	CQCQCQ	CQCQCQ	CQCQCQ
RPT1:	KI4WXS•C	KI4WXS•B	KA4YMZ•B	KK4JDH•A	W4FAN••B
RPT2:	KI4WXS•G	KI4WXS•G	KA4YMZ•G	KK4JDH•G	W4FAN••G

(CQCQCQ in UR is the setting for normal repeater use. The repeater call sign and module letter goes in RPT1. The module letter must be in the 8th position. For a call sign less than 7 characters, add spaces to ensure the module letter is in the 8th position. The repeater call sign with a G in the 8th position is used in RPT2 so that linked repeaters and DV Dongles can hear you. The symbol • above represents a space.)

Link a repeater module to another repeater

Example: To link to KA4YMZ B to W4DOC C, set your radio's **UR** as follows and key up for one second:

Frequency: 443.9875 **UR:** W4DOC•CL **RPT1:** KA4YMZ•B **RPT2:** KA4YMZ•G

(Note additional spaces for call signs shorter than 7 characters. Exception: when appending L [for link] in UR the L goes in the 8th position and the module letter moves to the 7th position.)

After the repeater announces that it is linked, reset **UR** for normal operation:

Frequency: 443.9875 **UR:** CQCQCQ **RPT1:** KA4YMZ•B **RPT2:** KA4YMZ•G

Link a repeater module to a reflector

Reflectors connect multiple repeaters together (like a conference bridge) and are designated as REF001 or REF004. Reflectors have channels designated A, B or C. For example, you can connect to REF001A, REF001B or REF001C. Think of each channel as a separate conference bridge. There are two additional channels: D for data testing such as D-Rats and E for echo testing. You should not normally link to D or E for a voice QSO, but you can link to them for their intended purpose. Also there are X-reflectors designated as XRF038A and DCS reflectors designated as DCS001B. To link place the reflector designation in the **UR** with an L in the eighth position.

For example to link KA4YMZ B to REF001C, program your radio as follows and key up for one second:

Frequency: 443.9875 **UR:** REF001CL **RPT1:** KA4YMZ•B **RPT2:** KA4YMZ•G

Checking repeater link info

To see if a repeater is linked, program your radio with I (for info) in the eighth position of **UR**:

Frequency: 145.140 **UR:** ••••••I **RPT1:** KI4WXS•C **RPT2:** KI4WXS•G

If the repeater is not linked, it will announce its ID. If it is linked, it will announce "Repeater already linked". The linking status will also be shown in the radio's data line display. Be sure to reset **UR** to CQCQCQ for normal operation.

Un-linking

To unlink a repeater or reflector, program your radio with U (for unlink) in the eighth position of **UR**:

Frequency: 145.140 **UR:** ••••••U **RPT1:** KI4WXS•C **RPT2:** KI4WXS•G

(Note • in UR is a space; the I or the U is in the 8th position. Spaces precede it.)

The repeater will announce "Remote system unlinked." Note: to unlink from an X-reflector use X instead of U.

A note about D-STAR Courtesy

Beyond the normal repeater courtesies of listening before transmit, and pausing between transmissions, remember that you are using all the repeaters linked to a reflector when you are transmitting on a linked repeater. Limit the time you tie up a linked system so others may have an opportunity to use it. If you wish to use the repeater for a longer period or locally, unlink it, but remember to re-link it when you are done. If you link a repeater to a reflector that it is not normally linked to, please unlink when you are done rather than leaving it linked. Another linking courtesy is to announce your intention to link or unlink. That way others monitoring will know what you are doing.

D-STAR Web Resources

Help and other resource links

To see who's on Charlotte area local repeaters, view the D-STAR Dashboard for each repeater:

<https://ki4wxs.metro-uhf.org/status.html>

<https://ka4ymz.metro-uhf.org/status.html>

<https://kk4jdh.metro-uhf.org/status.html>

<https://w4fan.metro-uhf.org/status.html>

<https://w4nyr.metro-uhf.org/status.html>

Note: These are secure encoded addresses (https) and you must click through the warnings to access the page.

For help programming your D-STAR radio, use the D-STAR Calculator at:

<http://www.dstarinfo.com/dstar-web-calculator.aspx>

To see who has recently been on D-STAR worldwide: <http://www.dstarusers.org>

For a listing of D-STAR repeaters:

<http://www.dstarinfo.com/standard-repeater-list.aspx> or <http://www.dstarusers.org/repeaters.php>

For general D-STAR information: <http://www.dstarinfo.com/> or <http://www.dstarusers.org>

For info on the DV Dongle: <http://www.dvdongle.com>

For info on the DV Access Point Dongle (DVAP): <http://dvapdongle.com/>

For access to Charlotte related D-STAR information go to our web page at: <http://www.charlottedstar.org>

You should register your call sign at a D-STAR gateway near your home QTH, although you can register anywhere. You need to register only once. You should not register more than once, as that creates errors. The link for registering in the Charlotte area is <http://www.charlottedstar.org/registration.htm>.

To check your registration, enter your call sign at this site: <https://wb1gof.dstargateway.org/cgi-bin/dstar-regcheck>

Reflectors

To see a list of D-Plus reflectors and their descriptions: <http://www.dstarinfo.com/reflectors.aspx> Note, REF054C is devoted to the Carolinas. We want to encourage its use as a gathering spot for hams in the Carolinas. Feel free to connect to REF054C and participate.

X-reflectors do not have a central listing. Some are listed at: <http://www.va3uv.com/>. Others can be found by searching the internet.

D-STAR Forums and Groups

There are numerous D-STAR related yahoo groups that will permit you to follow the latest info about various aspects of D-STAR. Go to: <http://groups.yahoo.com/> and search for "dstar". Peruse the groups and join any in which you are interested. Groups for regions, radios, repeaters, nets, software, etc. are available.

Our group is **Charlotte Digital Radio Yahoo Group**: <http://groups.yahoo.com/group/clt-dstar/>.

We post general interest topics, news on what's happening with the D-STAR repeaters in Charlotte, our DSL fund status, and notices of our monthly dinner meetings on the third Thursday of the month. We welcome all hams to join us.