

# Digital Voice Repeaters

The CSFMG is cooperating with various other parties to provide DV facilities on D-Star, Fusion and DMR.

## D-Star

The D-Star repeater GB7DA C is located near Airdrie and operates on 145.775MHz O/P with the usual -0.6MHz shift. It has a gateway connection by default to the “Scottish” reflector” XRF600A. This means that any transmissions made on the input frequency will be transmitted on every system connected to XRF600A.

### Radio Configurations

#### Older Icom kit such as IC2820 and ID92

Frequency 145.775 Duplex -0.600 shift

MYCall – your personal callsign

URCall CQCQCQ

RPT1 – GB7DA C (the C should be in position 8)

RPT2 – GB7DA G (again the G should be in position 8)

This simple configuration will enable your signals to be transmitter locally from GB7DA and on any reflector to which the repeater is connected.

### Changing Reflectors

There are a tremendous number of reflectors available to which GB7DA can be connected. For example, you may wish to have a long discussion about a subject but do not want to disrupt normal use. Both parties could for example connect to XRF600B. If you want to talk to amateurs in other parts of the world you could connect to reflector REF001C.

To connect to another reflector is easy and is achieved as follows (using REF001C as an example):

Change URCall to REF001CL and press your PTT button

GB7DA will return an audio message “Linked to REF001C”

Change URCall back to CQCQCQ and transmit and you will be heard on all repeaters connected to REF001C

Once you have finished using the reflector of your choice it would be courteous to reconnect to the XRF6000A reflector but the system does it automatically after a period of inactivity.

### **Newer Icom radios such as ID5100 or ID51P**

These radios can be configured in a similar fashion to that described above but they also have a DR mode to enable the user to pick the local repeater from a list or by using GPS to show the nearest repeater or hotspot

To use the DR function press DR and on the touch screen press FROM. This will enable you to choose the repeater or hotspot to use. Pressing the TO button on the touch screen then offers you a choice depending on what you want to do.

Local CQ will allow transmission only on GB7DA C

Reflector and Use Reflector will allow transmission on the reflector to which GB7DA C is connected.

As usual if in doubt read the handbook.

### **Other Features on GB7DA**

By changing the URCall field other functions can be utilised:

I – Gives gateway status such as “linked to XRF600A”

U – Unlinks the gateway from the current reflector

E - Performs an echo test by retransmitting anything you say while holding the PTT

Person to person connections can be made in 2 ways

1. By putting the other persons callsign in the URCall field. (e.g. GM4AUP)

2. By sending their ID by DTMF (e.g. 2354049)

The network knows where the other party was last heard and routes the call accordingly. Be aware that these calls may be person to person but they are not private and can be heard by anyone listening to the local end repeaters.

The Dashboard for GB7DA is available here: [www.gb7da.co.uk](http://www.gb7da.co.uk)

## Other Scottish D-Star Repeaters and Hotspots

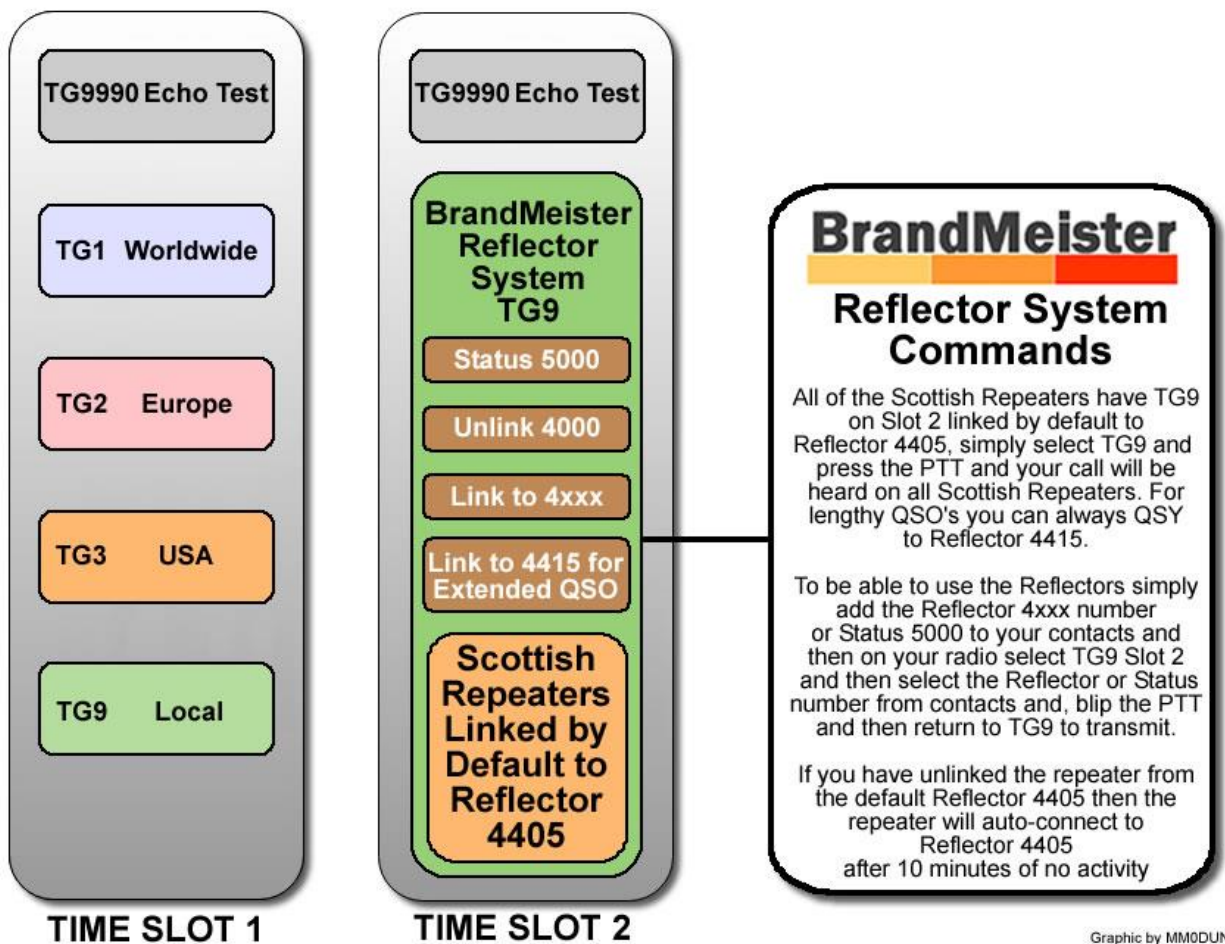
Callsign	Location	Gateway Status	TX	RX
GB7DE C	Upper Largo	defaults to XRF600A	145.6375	145.0375
GB7DE B	Upper Largo	Not linked by default	439.6000	430.6000
GB7DP B	Dundee	defaults to XRF600A	439.5000	430.5000
GB7DK B	Stranraer	no gateway connection	439.6500	430.6500
GB7DK C	Stranraer	no gateway connection	145.6875	145.0875
GB7GD C	Aberdeen	defaults to XRF600A	145.6875	145.0875
MB6AF	Banchory		144.8250	Simplex
MB6GL	Galashiels		144.8125	Simplex
MB6ICS	Stirling		144.8375	Simplex
MB6IDD	Dundee		431.0875	Simplex
MB6IDF	Dunfermline		431.0750	Simplex
MB6IKN	Livingston		431.1000	Simplex
MB6ISM	St Monans		431.1500	Simplex
MB6JD	Jedburgh		144.8250	Simplex
MB6OR	Kirkwall		144.8125	Simplex
MB6SM	St Monans		144.9125	Simplex
MB6ST	Aberdeen		144.8375	Simplex
MB6TU	Nairn		144.8125	Simplex

Icom radios do not make use of the RPT1 and RPT2 field unless they are in duplex mode. In order to use a simplex hotspot they must be set to duplex mode with a zero offset.

The GB7DA repeater is considered part of the Scottish network and it's configuration is in line with most other Scottish repeaters and is managed by MM0DXE.

## DMR

The CSFMG has worked in conjunction with MM0DUN and GM7RYR to install the DMR Repeater GB7GG near Airdrie. The frequency is 439.6250MHz with a shift of -9.0MHz. The system colour code is 1 and operates on the BrandMeister network carrying the same talk groups as other Scottish DMR systems.



Graphic by MM0DUN  
www.gb7dd.co.uk

To link and unlink the reflector, program the radio with the reflector number as a group call on timeslot 2. To link to a reflector, select the reflector number from the contacts list and transmit for about 1 second. The repeater should respond with a voice announcement, "Linked to xxxx". Then go back to Talkgroup 9 to make a QSO. To unlink select 4000 from the contacts list, transmit for about 1 second, and you should hear a voice announcement "Not Linked".

To enquire about the reflector link status call 5000, and the repeater will respond with the currently linked reflector.

Current UK reflectors of interest:

- 4400 - UK national reflector.
- 4401 - UK Chat
- 4402 - UK Chat
- 4403 - UK Chat
- 4404 - Ireland
- 4405 - Scotland
- 4407 - Wales
- 4410 - South West
- 4411 - South East
- 4412 - North West
- 4414 - Ireland Chat
- 4415 - Scotland Chat
- 4416 - North East and WiresX Room 27408
- 4417 - Wales Chat
- 4418 - West Midlands
- 4419 - East Midlands and WiresX Room 27753 link

As a courtesy to other users if you are in contact with another user of the same repeater both parties should move to TS1 TG9 to allow users in other parts of the country to use the reflector.

The GB7GG dashboard can be found here: <http://www.bm-dmr.uk/dashboard/index.php?page=lh&country=null&repeater=235401&unique=1>

#### Other Scottish DMR Repeaters

Callsign	Location	Gateway Status	TX	RX
GB7DD	Dundee	Defaults to 4405	439.6125	430.6125
GB7EE	Edinburgh	Defaults to 4405	439.7125	430.7125
GB7JD	Jedburgh	Defaults to 4405	439.4125	430.4125

# Yaesu Fusion

GB7CS - DVU62 - 439.7750/430.7750 (-9MHz DV)

Yaesu DR-1X repeater C4FM Digital Only

This repeater is connected to Yaesu's Wires-X

This repeater is Digital only and will not accept any FM. It has been licensed in the 9MHz split on 70cms used for Digital only repeaters. If you access this repeater it will come back and identify itself on your radio's display with its call-sign.

The repeater will default to the "UK-NET-HUB" wires room – 27721 when not being used.

Currently the way to change rooms is using DTMF tones, normal wires operations is using the Wires "X" button and onscreen options.

Sending Star \* or #5555 will disconnect from the current room then to connect to a new room for example GB7CS own room then #27110

For a Quick demo have a look at

<https://www.youtube.com/watch?v=qf69arllCYY>

Room's and Node ID's can be found on the Yaesu's wires page

[https://www.yaesu.com/jp/en/wires-x/id/id\\_eu.php](https://www.yaesu.com/jp/en/wires-x/id/id_eu.php)

For further info please contact Andrew, GM7GDE, Repeater Keeper QTHR