

# ***Using the VK-DMR network***

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You can watch the network in action at: <http://rpt.vkdmr.com>

## **RADIO ID**

Each radio used on the DMR network is programmed with a unique user ID number. You **MUST** register your radio for it to work correctly. ID numbers are managed centrally, and may be obtained [here](#). The user ID database may also be found at the same link.

## **TRANSMIT AUDIO LEVELS**

**Some equipment tends to have over driven audio on tx, and some have low modulation – P L E A S E check your transmitted audio for the correct level.**

Ask for a radio check, or use the Parrot to check your audio level – see overleaf.

Motorola equipment with the latest firmware can be run with audio AGC on.

## **GPS POSITION**

DMR equipment is often fitted with an inbuilt GPS receiver, with the facility to transmit GPS position over the network.

**This function is not supported by the DMR network, and must be OFF.**

## **LEAVE A BREAK**

The VKDMR network has many repeaters and links. Please leave a break of at least 3 seconds between overs, no matter which talk group you are on and whether on a repeater or hotspot. This will allow other users enough time to disconnect from the talk group or break in to your QSO.

## **COLOUR CODES, SLOTS AND TALK GROUPS**

The DMR system uses 15 “colour codes” which function in a very similar fashion to CTCSS tones on analogue repeaters. A radio programmed with one colour code will not be able to transmit on a repeater programmed with another.

All VK-DMR amateur repeaters use colour code 1.

As discussed previously, each DMR repeater has two slots, and each slot has a number of talk groups.

Australian DMR repeaters use the slots and talk groups detailed in the table overleaf – these need to be programmed into your radio.

TGs in **black** are **static** – always on. **TGs in blue** are user activated (you need to “kerchunk” them). User activated TGs are activated by pressing your PTT for about 2 seconds with the TG selected. Only repeaters used in the QSO are connected.

## VKDMR NETWORK TALK GROUPS

<i>Time slot 1</i>	<i>Time slot 2</i>
TG 1 WW	<b>TG 505</b>
TG 3 USA	TG 3800/ TG 4800
<b>TG 5 VK Nets</b>	<b>TG 3801 ACT</b>
<b>TG 8 Regional/State connections</b>	<b>TG 3802 NSW</b>
<b>TG 9 Local</b>	<b>TG 3803 VIC</b>
TG 13 WWE (World Wide English)	<b>TG 3804 QLD</b>
TG 30 JOTA (Scouts)	<b>TG 3805 SA</b>
TG 53	<b>TG 3806 WA</b>
TG 80 UK Chat	<b>TG 3807 TAS</b>
TG 113	<b>TG 3808 NT</b>
TG 123 User Activated	TG 50589 VK-DMR to VK-Fusion (repeaters only)
TG 133 USA	TG9990 Parrott (set as private call)
TG 143 TAC English	
TG 153 TAC English	
TG 310 USA TAC	
TG320 and 321 XLX quadnet 1 and 2	
TG 530 ZL	
TG870 Wales	
TG 880 Northern Ireland	
TG 1910 ARNSW Linked Repeaters	
TG 1911 FNQ Linked Repeaters	
TG 1921 Scouts Victoria	
TG 1922 Scouts Victoria	
TG 1923 Scouts Victoria	
TG 1924 Scouts Victoria	
TG 2351 UK Calling	
TG 3167 USA DMR AllStar	
TG 3191 Digital Radio	
TG 3199 Skywarn & WX	
TG 3809 chat	
TG 3810 WICEN	
TG 8406 DMR MARC Net	
TG 8409 UK (UK TG 4409)	
TG 8509 VK/ZL Sport	
TG 8540 XLX 313A Constellation	
TG 8555 South Pacific	
TG8454 XLX600E – peanut	

Note that some repeaters have UA groups set as static.

The TGs are explained in detail overleaf.

## TIME SLOT 1

Time Slot 1 – TG1 = world wide calling – keys EVERY DMR repeater on the worldwide MARC/DMR+ network

Time slot 1 – TG3 = US wide

Time slot 1 – TG5 = VK wide – keys all repeaters – used for nets and broadcasts only. Permanently enabled.

Time Slot 1 – TG9 = Keys your local repeater only

Time Slot 1 – TG13 = worldwide English calling channel. Keys every repeater on the United Kingdom Phoenix DMR network, and most of our repeaters.

Time Slot 1 – TG30 = Used for JOTA. May be used for general comms at other times.

Time Slot 1 – TG113/123/143/153 = international user activated chat channels. Normally used after a call on TG1 or 13. Be aware that these channels are used internationally.

Time Slot 1 – TG53, TG3809 and TG3810 = user activated chat channels for VK repeaters. 3810 is intended for WICEN, but may be used for normal ops when WICEN is not using it.

Time slot 1 – TG80 is used as a chat channel on the UK Phoenix DMR network. It is quite active, and worth a listen.

Time slot 1 – TG530 = Connects to Slot 2 on the ZL network – most repeaters keyed.

Time slot 1 – TG8409 = UK wires X cross mode group

Time slot 1 – TG8540 = connect to XLX 313A constellation

Time slot 1 – TG1910 = links repeaters supplied by AR NSW. 1910 was the year AR NSW (known as the WIA then) was formed. \*1910 is static (always on) on AR NSW repeaters.

Time slot 1 – TG1911 = links FNQ repeaters only – replaces TG8 for those repeaters.

Time slot 1 – TG1921/22/23/24 = Scout Victoria supplied repeaters. Static on some repeaters.

Time slot 1 – TG8 = keys repeaters in defined groups. This TG is programmed for each repeater and can not be changed by users.

The TG8 groups are as follows:

<b><i>TG8 group</i></b>	<b><i>Repeaters linked</i></b>
1 – VK7	Launceston, Hobart
2 – Sydney, W and N NSW	All Sydney, nth NSW, Orange and Grafton
3 – Southern VK2 and VK1	HighRange, Goulburn, Yass, Bombala and Canberra
4 – N VK3	Bendigo, Shepparton, Mt. Wombat, Rennies Hill
5 – S VK3	Melbourne and southern VK3
6 – VK4	Qld
8 – Central Coast and Hunter valley NSW	VK2RAG, VK2RHX, VK2RUM and VK2ROJ

## **TIME SLOT 2**

**Time Slot 2 – TG505 = All VK repeaters.**

505 keys every VK repeater and connected hotspot.

505 is fine for short QSOs. As per normal repeater practice, please leave a break between overs for other stations.

If you want to have a longer QSO, please QSY off 505 to leave the channel free for others.

Please QSY to a slot 1 TG, as this leaves slot 2 free for other stations to call on 505

If 505 is busy:

- TG9 on slot 1 can be used to work another station on your local repeater only.
- TG8 on slot 1 is available for repeaters in a group.
- TG3809/3810 or 53 on slot 1 or TG3800 on slot 2 can be used to connect individual repeaters together.

Time Slot 2 – TG3801-8 = State/Territory based TG, where the trailing digit is the VK call area – keys all repeaters in that State/Territory only. Can also be used from another state – use the TG for the state you wish to connect to – i.e. 3802 for VK2, etc. However, 380x does hold up slot 2 for ALL repeaters in a state – this prevents other stations in your state from calling on 505. The inter-state link disconnects automatically if there is no activity for 15 seconds.

Time slot 2 – TG3800 = chat channel

Time slot 2 – TG9990 = Parrot – repeats your signal back to you – used to check your audio. See <https://vkdmr.com/parrots/>