

Programming a DMR Talk Group

Contact > Channel > Zone

What is a Brandmeister Talk Group?

Nearly everyone has had the experience of participating in a telephone conference call. A telephone conference call is 3 or more people connected to each other, at the same time. Each one having the ability to talk to and listen to all of the other callers.

When a telephone call is routed over the internet, it is a VOIP (Voice Over Internet Protocol) call. A Brandmeister Talk Group is analogous to a VOIP conference call. On the Brandmeister Network each conference call has a number. You can choose which conference call you join by programming the conference call number into your DMR radio. That conference call number is called a Talk Group number.

When you push the PTT on your DMR radio, the DMR repeater that receives your transmission sends your DMR ID, Talk Group number and your Digitized Audio over the internet, to the Brandmeister regional Master Server. The master Server routes your audio to all of the other repeaters that have also requested the same Talk Group that you called in on. And, remembers to route any other traffic on your Talk Group back to you.

Contact

A Contact is all of the information the Code Plug Software (CPS) for your radio needs to identify a Talk Group:

Name - You can assign the Contact any name that makes sense to you.

Group Call - A Group Call is a call to a Talk Group number, in which other stations configured to listen to this Talk Group will receive and broadcast this call. This should be your default choice.

Private Call - A Private Call is a call to a specific DMR ID. A point to point call that is not routed to a group.

Talk Group Number - The number of the Brandmeister Talk Group you want to participate in. The list of Talk Groups can be found here:
<https://brandmeister.network/?page=talkgroups>

Channel

A Channel is all of the information the Code Plug Software (CPS) for your radio needs, to assign a Contact to a specific Repeater.

Channel Name - You can assign the Channel any name that makes sense to you.

TX and RX Frequency - The frequency pair of the repeater you are assigning the Contact to.

Digital - A channel can be either Digital or Analog. DMR channels are always Digital.

Colorcode - Needs to be the the same Colorcode as the repeater you are assigning the Contact to. Colorcode on a DMR repeater is analogous to the PL on an analog repeater. It differentiates repeaters that are on the same frequency pair.

Time Slot

A DMR repeater uses Time Division Multiple Access (TDMA) technology to carry two independent conversations on the same repeater, at the same time, using 2 Time Slots. These Time Slots are labeled TS1 and TS2. You should check the Talk Group Matrix of the repeater you intend to use, to determine which Time Slot to assign your Channel to.

TS1 - Usually used for the more distant geographical areas.

TS2 - Usually used for the local geographical area

Receive Group

A Receive Group is is a list of Contacts that you want to simultaneously monitor, in addition to the TX Contact on the Channel. You can create a Receive Group List, give it a name and use it as one or more Channels on your radio. The normal selection for Receive Group is None. When None is selected you only hear the same Talk Group selected as your TX Contact.

Admit Criteria

The Admit Criteria determines under what conditions your DMR radio is allowed to transmit to the repeater.

Colorcode or Colorcode Free - Recommended as the default setting. In the DMR specification it is described as Polite to All.

Channel Free - In the DMR specification it is described as Polite to Own Colorcode.

Always - Only recommended for Simplex operation. In the DMR specification it is described as Impolite.

Power Level

Different radios have multiple selections in their CPS (Code Plug Software) for Transmit Power Level on the Channel. Some only have high and low. Others have as many as 4 choices. Pick the one that makes sense for your geography.

Zone

A Zone is a way of organizing a collection of Channels. Much like organizing files into folders on a PC. It is typical for DMR radios to have 16 or more Channels per Zone.

Some DMR users assign each Zone to a separate repeater. This makes switching repeaters easy when you are mobile or traveling.

Name - You can assign the Zone any name that makes sense to you.

Channels - Your CPS allows you to assign Channels to a specific Zone. You can also assign the same Channel to multiple Zones, if you wish.