# Getting 'on air' in DMR-mode adioddity Radioddil with your Radio DMR Radio adioddity **Table of content** Intention of this document ..... 1. Make sourself familiar with DMR..... 2. .....2 3. 4. Install any USB-driver that might be required......6 5. 6. Install CPS according to your DMR-capable radio ......6 General process of creating a DMR code plug from scratch ......7 7. Sample codeplugs..... 8. Oddity ddity

# 1. Intention of this document

This document can in no way replace the existing documentation for the radio you bought at Radioddity, but it is intended to get you 'on air' via the fast lane. Therefore, this document only describes the mandatory steps to get you 'on air'. In order to do so, just get along the following steps:

- Apply for and receive your DMR ID
- Gather information about the DMR station(s) you want to operate ldity
- Install any USB-driver that might be required
- Install CPS according to your DMR-capable radio
- Create new codeplug from scratch
  - Enter your call-sign and your DMR-ID
  - Create your *Digital Contacts* / Talkgroups (TG)
  - Set up your Digital RX Group Lists
  - o Program your Channels, and attach a Digital Contact for TX and attach

<sup>od</sup>dity

- a Digital RX Group List for RX to each channel.
- Program your Zones by assigning Channels to each zone.
- Save your codeplug and transfer it to your radio
- Get 'on air' with your freshly created codeplug

# 2. Make sourself familiar with DMR

Before you start to prgramm your radio for use with DMR, make yourself familiar with DMR in general. There are lots of videos, tutorials and such things available within the internet. A good abstract on DMR in general is found at:

https://en.wikipedia.org/wiki/Digital mobile radio

Furthermore, the pages of the DMR association are also guite interesting. https://www.dmrassociation.org/.

DMR radios sold to amateur radio operators normally support Tier I and Tier II. For operating a DMR repeater the radio needs to be capable of DMR Tier II as it includes the TDMA time slot feature required for use with an amateur radio DMR repeater.

One important aspect you should keep in mind is the fact, that DMR had been initially designed for commercial products and not for ham usage. As a result of that, certain DMR parameters are often not setup in a way, a ham operator would expect them to be setup. "RX groups" probably the best example for such. But we will get to that later on within this document.

# 3. Apply for and receive your DMR ID

To work in a DMR network, you must register for a DMR ID number. For amateur radio this is: https://www.radioid.net/

You should have a copy of your license at hand before applying for a DMR ID. Normally, new DMR IDs will be issued within one business day. If you have more than one DMR radio, you may use the very same number on all your DMR-radios. You will only get one DMR ID per call sign. The DMR ID will be used to identify your radio within the dioddity DMR network you are using.

# 4. Gather information about a DMR station

As for an analog repeater you would normally just need the following details:

- TX-frequency
- RX-frequency
- any info on CTCSS or DCS-encoding (if required)
- info if a 1750HZ pilot tone is required

If you setup an analog radio for just the correct RX-frequency you would already be able to hear all traffic transmitted by your local analog repeater. Thus, analog is no big deal to get first positive results.

Unfortunately, DMR is different to the analog world and seems to be extremely complicated at first. But all of us went through that learning curve with lots of trial and error.

For operating a digital DMR-repeater that is close to your location you need at ddity least the following details for that DMR repeater:

- TX-frequency
- RX-frequency
- Color Code (CC, can be 0...15)
- Fixed Talk Groups (TG, some multi digit number) •
- Repeater Slot / Time Slot (TS) to be used for each specific TG (1 or 2)

Only if all those parameters plus a few additional settings ("RX group" being the most important one) are correct, you will be able to successfully hear or even operate the DMR-repeater. That makes up quite a huge number of possibilities (on what may go wrong and - according to Murphy's law - will go wrong, at least in first place). You will find out, that it is nearly impossible to get any info on which parameter is wrong if it is even just one of the parameters not being correct. Do not give up! All of us did go through this hard learning curve. And nearly, if not all of us, failed at the very beginning.

In order to get the details for those DMR-parameters required for your local repeater, there are different ways:

- Ask some other fellow ham operator (recommended)
- Visit local ham radio club meetings or events
- Search the internet
- Check <u>https://repeaterbook.com/</u>

2-1-

- Check your DMR-network. Brandmeister, which has become the most common DMR network, has all required information available on its webpages
- Check social media platforms (within those you often find working codeplugs for download)

Let's say you live in Germany at a location called "Gelsenkirchen". By scrolling through the repeaterbook (<u>https://repeaterbook.com/</u>) you found out that there is even a repeater with a callsign of DB0OHL close to your location and supporting DMR. Repeaterbook gave you even more details:

Frequency		Tone In / Out	Location	Call	Use	Modes	${}^{\scriptscriptstyle D}\!I^{\scriptscriptstyle J}$
438.2375	-7.6 MHz	CC1	Gelsenkirchen, Oberscholvener Halde	DB00HL	OPEN	DMR	0
			~ ( ) / ( ) / ( )		10	1	

OK, so you just got the first three of the required parameters:

•	TX	438.2375MHz
•	RX	430.6375MHz
•	Color Code (CC) required:	1 (CC1)

Next, we need to find out which DMR-network the repeater is associated with. Once more, repeaterbook will help on that one as well. Using <u>https://www.repeaterbook.com/repeaters/niche/index.php?mode=DMR</u> and then selecting the country (for the above example "Germany") and the Band (for the above example "70cm"). Next search for the call sign (for the above example "DB0OHL") and you end up with the information that your local repeater is connected to the Brandmeister network.

			A		0.2.1 Dim			•
438	.2375	-7.6 MHz CC1	Gelsenkirchen, Oberscholvener Halde	<b>DB0OHL</b>	OPEN DMR		Brandmeister	0
120	7375	7.6 MH+ CC1	VI Foldhora / Taunus		ODEN DMD	YON		^
Ne	ext,	you wou	uld navigate to <u>https:/</u>	/bran	dmeister.	<u>network/</u> , click or	ı "Repea	ater"

Next, you would navigate to <u>https://brandmeister.network/</u>, click on "Repeater" and then enter the repeaters call sign (for the above example "DB0OHL"). Be patient as it may take a couple of seconds for the search result to be displayed.

Getting 'on air' with your DMR radio



Now click on the callsign within the displayed entry. On the left of the next page, you will then see all the remaining details you need in order to communicate with this repeater.

	2771	
Repeater	Info	
Number	262448	
City	Gelsenkirchen	
Country	DE	
Website	Click here	dioddil
Sysops	DG2YHR DO25TH	q <sub>di</sub>
Hardware	MMDVM (Repeater)	
Firmware	20200615_Pi-Star_v4	
Power (EIR	P) 10 Watt	
Status	Slot 1 & 2 linked	
Master	BM2001	la la
		Qia
Frequen	cy Details	dioddit
тх	438.2375 MHz	-11
RX	430.6375 MHz	
Shift	-7.600 MHz	
cc	1	
Slot deta	ils 0	di
Timeslot 1	• 92           • 262           • 263           • 910           • 9101           • 9112             • 263112           • 263113           • 91           • 9101           • 9112	dioddil
Timeslot 2	<b>€ 2624 726242 ■ 8 -&gt; 26243</b>	

Let's summarize the details for that DMR repeater once more:

v1.0

Color Code (CC) required:

ТΧ

RX

438.2375MHz 430.6375MHz 1 (CC1) 92, 262, 263, 910, 920, 9101, 9112, 263112, 263113

Time slot 1 (TS1) during certain operating times also serving the following talk group Time slot 2 (TS2) serving the following talk groups

Time slot 1 (TS1) serving the following talk groups

2624 and cluster TG 8 being redirected to TG 26243

91

# 5. Install any USB-driver that might be required

Most of the analog radios are programmed via a computers serial port. That normally does require a USB2Serial-cable which often has a K1-type connector on one side and a USB-plug on the other side. Within those cables USB2Serial-converters are built in, such as Prolific, FTDI, CH340G or similar.

In order to program a DMR-radio you need a cable, although optically looking about the same as for the analog world, is different to the above as it normally does not include a USB2Serial converter. This results in all DMR-radios requiring their own USB-driver to be installed. To give you a few examples:

Brand and model	Driver
Radioddity GD-55	Prolific USB-to-Serial Comm Port
Radioddity GD-77*, GD77S*	HID USB Input Device / MCU Mouse Demo
Radioddity GD-73*	walkie-talkie-C7000
	(driver to be installed prior to first connection)
Radioddity x Baofeng RD-5R*	HID USB Input Device / MCU Mouse Demo
Baofeng DM-1701*	Digital Radio in USB mode - STM Device in DFU
SOX.	Mode
TYT MD-9600*	Digital Radio in USB mode - STM Device in DFU
Rain	Mode

\*) Radio has to be turned on in order for the device been recognized by your PC.

# 6. Install CPS according to your DMR-capable radio

The file created by the Computer Programming Software (CPS) contains the frequencies and other operating parameters and is referred to as a 'code plug'. Creating a code plug is a bottom-up process where you first have to create the lowest

common elements, and then combine those elements to form a code plug that will be transferred to the radio. With the CPS we supply for your specific radio, you can create the code plug yourself to suit your exact requirements, or you can use another person's code plug if you wish. Don't forget to save your code plug so you can easily make changes to your radio configuration at some time in the future.

There is a specific CPS-program for each DMR radio. Check our support pages (www.radioddity.com -> Support -> select brand -> select radio model) for the mostz up to date version required for your radio. Installation instructions are found within the dit archive downloaded from our support pages.

# 7. General process of creating a DMR code plug from scratch

Within the next paragraphs we just describe the general steps to create a DMR code plug without getting into more details than necessary on a particular DMR radio. After reading this paragraph, you may continue with the specifics on your DMR radio. The following screenshots refer to our GD-73 handheld radio but you will find out that the specific CPS for your radio will look very similar to the screenshots shown.

#### First of all: Save existing data

Read data from the radio to your PC to create a first CPS template, and at the same time save the factory data for future use.

When reading or writing data to or from a radio the CPS often has several options, such as "Program -> Read Data". Jioddity

Program	Settings	View	Windov
Read	Data Ct	rl+R	2
Write	Data Ct	rl+W	
Deve	loper Mod	e	

#### Enter your DMR ID

Next enter your DMR ID. The field for that DMR ID is a general one. Thus check those more general configuration pages for a field that states DMR ID, DMRID or similar.

#### Note

Never operate the radio with an ID that has not been assigned to you. In amateur radio networks this can lead to the loss of your license.

### **Create Digital contacts**

Now you need to continue with the section for digital contacts. These digital contacts are used for storing talkgroups (TG with a Call Type of "Group Call") as well as individual stations DMR ID numbers (with a Call Type of "Private Call"). Your Digital contact list might look as follows:

No.	Call Name	Call Type	Call ID	<b>m</b>
1	ww	Group Call	1	111
2	DL262	Group Call	262	18.8
3	DL263	Group Call	263	
4	TG910-German	Group Call	910	111
5	DL-OE-HB9	Group Call	920	111
6	WW maritime	Group Call	9101	111
7	EmCom EU	Group Call	9112	110
8	TG91	Group Call	91	
9	NRW	Group Call	2624	
10	regional	Group Call	8	
11	parrot	Private Call	262997	

No	Entry in the list of digital contacts	
Call Name	Display name of the contact	
Call Type 🛛 💧	You can choose between the following call types:	
	Group Call (required for most talk groups, TG)	
	Private Call (required for direct call to other station)	
	All Call (normally not used)	
Call ID	DMR ID for an individual / private digital call or a talkgroup	
	(TG). This ID is for identification and communication with a	
	destination radio (DMR ID) or a group of radios (TG)	
depending on the call type.		

### Setup Digital RX Groups

For sure you had been waiting for that one to be explained as we mentioned it already a couple of times. This is the most common parameter that causes headaches on ham operators new to DMR. Its name may be "Digital RX Group", "Digital RX Group Call", "RX Group", "RX Group List", "TG List" and some more similar to the ones already listed.

Normally each digital channel can transmit on just one single talkgroup but can receive more than just one talkgroup. The actual talkgroups that are able to be heard are defined in a so called "Digital RX Group" (or one of the other names mentioned above). For each channel you should later on assign one Digital RX group. Creating a Digital RX group allows you to group your digital Talkgroups (TG) into logical groups so they can be targeted later on within the channel settings.

- Each group can contain as few or as many contacts as you like. •
- Groups should be named with something meaningful to the user •
- Only contacts that are stored as group calls can be added to a group.
- Each Digital (DMR) channel must have a Digital RX Group List, with at least • the transmit Talkgroup Digital contact for the channel being a member of the group you attach to the channel.
- If you do not attach a Digital RX Group List to a DMR channel, you won't • be able to hear or receive anything on that channel.

A typical Digital RX group may look like:

	List Name TS1
Available NRW regional	Members WW DL262 DL263 TG910-German
	Add DL-OE-HB9 WW maritime EmCom EU TG91
1 of 2	<<>> ->I Add Delete

To start with, it is a good idea to group all those digital contacts (TG) that are active on time slot 1 within the very same group and name it 'ts1'. For those that are active on time slot 2, name the corresponding group 'ts2'.

### Setup of channels

Name the channel in a way, that there is also some information about the talkgroup (TG) within its name. This will be very helpful in later operation. e.g. <trailing 3 digits of repeater>-<*talkgroup*> such as 'OHL-262'

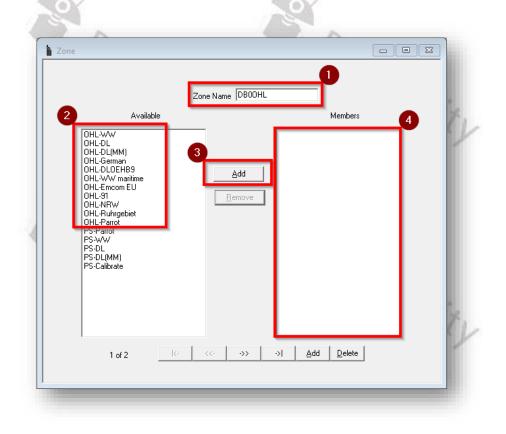
Here is a brief explanation of the different fields required for a DMR channel. Their naming might be slightly different, depending on the DMR radio used.

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Channel name	Name of the channel – this needs to be unique.
Receive Freq	The receive frequency in MHz
Transmit Freq.	The transmit frequency in MHz
TX Contact	The Talkgroup (TG) which is assigned to this channel
Slot	Selects which timeslot, 1 or 2, should be used. Often a particular Talkgroup is assigned to a particular timeslot.
Color Code	Select which colour code (CC) is associated with this channel.
RX Group List	This determines the Digital RX Group used for the channel
	ad: ad:

## Bundling of channels into zones

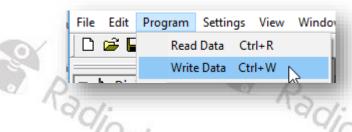
A zone is a collection or group of channels. They may be grouped any way you wish, for example a zone for each geographic area, or a zone with different talkgroups for one repeater, or any other way you find useful or convenient. Once you have defined your channels, you are ready to bundle them into zones for later use. The number of different channels and zones depends on your radio model.



- First give the zone a meaningful name (1), such as the identification of the repeater whose channels you want to store in the zone.
- Then select from the list of available radio channels (2) all those you want to bundle in that zone.
- Click the 'Add' button (3) to accept each channel.
- The added channels will then be listed as 'Members' of that zone (4).

# Transfer the codeplug to the radio

After completing all the above steps, it is adviseable to save the data locally to the PC first ('File'  $\rightarrow$  'save'/'save as') before you transfer the data from your PC to the GD-73. To do so, click on 'Program'  $\rightarrow$  'Write Data'



#### Summary

Let's list the main keypoints required for setting up a DMR code plug:

- A zone consists of various Channels
- A digital Channel is required for each DMR contact/talkgroup you want to address
- For each channel a digital talkgroup is required. As a minimum that digital talkgroup should contain at least the same talkgroup as the channel is defined for. However, one Digital RX group may contain several Talkgroups and may be used for several channels.
- Each talkgroup has been assigned by the repeater operator to a certain • time slot. That time slot (TS) is also part of the channel definition.
- Each Repeater has a common ColorCode. The ColorCode (CC) is also part of the channel definition.
- Each Talkgroup or station must be defined as a Digital contact A Digital Contact for a Talk Group (TG) should be of Call type "Group Call", whereas a station (and often parrot as well) requires a Call type of Radioddity "Private Call".

# Now you are prepared to get 'on air'.

# 8. Sample codeplugs

The following screenshots are all very similar to each other, as all of them are created for operating the very same DMR repeater (DB0OHL) using the talkgroups available on that repeater.

The following data is used for all of the following codeplugs:

TX-frequency of repeater (becomes RX-frequency of own radio)	438.2375 MHz
RX-frequency of repeater (becomes TRX-frequency of own radio)	430.6375 MHz
Color Code (CC) required	<b>1</b> (CC1)
Time slot 1 (TS1) for talk groups	91, 262
Time slot 2 (TS2) for talk groups	2624 and cluster TG 8 being redirected to TG 26243
Parrot on that DMR repeater available at	262997

Unless otherwise specified, these sample codeplugs are based on a blank new codeplug and its default settings.

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## Sample codeplug for Radioddity GD-73

The following screenshots have all been taken using GD-73 CPS V1.05.

### **General Settings**

g				
General Settings				
Basic		Password		
Radio Name	DMR Radio		Write Lock 🗔	
Radio ID	[104:10]		rite Password	
			Read Lock	
VOX Level	5	<b>_</b>	ad Password	
Squelch Level	5	•		
TX Time-out Time[s]	180	PwrOnDispla		
	Name		lect Default Image	
b ispidy	Trane	_	ext1	
	TxInterrup	t 🗖	ext2	
_				
Save	e 🔽	Microphone		
Save Start TimeOut[s]	10	Di Di	gital Mic Gain 2	
	1			
Lone Worker				
Lone Worker Response	10	And T	alog Mic Gain 1	
Timer[Min] Lone Worker Reminder Timer[s]	10	-		
	1			
	11.1.2.4		11.17	
	~qd		dit	
gital Contacts:	"dd	Th	SIL.	
Digital Contact				
			,	
No. Call Name		Call Type	Call ID	
1 WW		Group Call	91	
2 Germany		Group Call	262	
		-	8	
3 TG8 -> 26243		Group Call	0	
		Group Call Private Call	262997	
3 TG8 -> 26243				

# Digital RX Groups:

Digital RX Group List	
RX Group List Na	ame TS1
Available TG8 -> 26243	Members
	Germany
	Add
	<u>Remove</u>
1 of 2 🥢 💎	->> ->I Add Delete

Digital RX Gro	oup List			
	RX Grou	np List Name TS2		
	Available		Membe	ers
WW Germa	iny		TG8 -> 26243	
		Add		
		<u>R</u> emove	1	
	2 of 2 K-	<b>&lt;&lt;-</b>	->  <u>A</u> dd <u>D</u> elete	

### Channels:

Channel Information						• 8
Digital/Analog				Digital		
Mode Digital	•	Channel Name		Tx Contact	ww 🔽	
Channel Space 12.5K	•	Rx Frequency[MHz]		Slot	Slot1	
Power Level High	-	T	Copy	Color Code	1	
Scan List None	•	Tx Frequency[MHz]		Rx Group List	TS1 💌	
		Talk Around Rx Only		Emergency	None	
Access Policy Always	•	Auto Start Scan		Encrypt	None	
PTT Template None	~				· _	
Analog						
Tx CTCSS/CDCSS None	-	Rx CTCSS/CDCSS	None			
CTCSS Enc 62.5		CTCSS Dec	·			
,	<u>_</u>					
CDCSS Enc 023	~	CDCSS Dec	023 🗾			
1 of 4	k-	<<· >>>	->I <u>A</u> dd <u>D</u> elete	Export Import		
					ST 1 Y	
Channel Information						• 8
Digital/Analog				Digital		
Digital/Analog Mode Digital	•	Channel Name	OHL-Germany		Germany	
Mode Digital				Tx Contact		
Mode Digital Channel Space 12.5K	•	Channel Name Rx Frequency[MH2]		Tx Contact Slot	Slot1	
Mode Digital			438.237500 Сору	Tx Contact Slot Color Code		
Mode Digital Channel Space 12.5K	•	Rx Frequency[MHz]	438.237500 Copy 430.637500	Tx Contact Slot Color Code Rx Group List	Slot1         •           1         •           TS1         •	
Mode Digital Channel Space 12.5K Power Level High	•	Rx Frequency[MHz] Tx Frequency[MHz]	438.237500 <u>Copy</u> 430.637500	Tx Contact Slot Color Code	Slot1         •           1         •           TS1         •	
Mode Digital Channel Space 12.5K Power Level High Scan List None Access Policy Always	•	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around	438.237500 Copy 430.637500	Tx Contact Slot Color Code Rx Group List	Slot1         •           1         •           TS1         •           None         •	
Mode Digital Channel Space 12.5K Power Level High Scan List None	•	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Rx Only	438.237500 Copy 430.637500	Tx Contact Slot Color Code Rx Group List Emergency	Slot1         •           1         •           TS1         •           None         •	
Mode Digital Channel Space 12.5K Power Level High Scan List None Access Policy Always	•	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Rx Only	438.237500 Copy 430.637500	Tx Contact Slot Color Code Rx Group List Emergency	Slot1         •           1         •           TS1         •           None         •	
Mode Digital Channel Space 12.5K Power Level High Scan List None Access Policy Always PTT Template None	•	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Rx Only	438.237500 Copy 430.637500	Tx Contact Slot Color Code Rx Group List Emergency	Slot1         •           1         •           TS1         •           None         •	
Mode Digital Channel Space 12.5K Power Level High Scan List None Access Policy Always	•	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Rx Only Auto Start Scan	438.237500 Copy 430.637500	Tx Contact Slot Color Code Rx Group List Emergency	Slot1         •           1         •           TS1         •           None         •	
Mode Digital Channel Space 12.5K Power Level High Scan List None Access Policy Always PTT Template None	•	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Rx Only	438.237500 Copy 430.637500	Tx Contact Slot Color Code Rx Group List Emergency	Slot1         •           1         •           TS1         •           None         •	
Mode Digital Channel Space 12.5K Power Level High Scan List None Access Policy Always PTT Template None	• • •	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Rx Only Auto Start Scan	438.237500 Copy 430.637500 Copy 430.637500 Copy 430.637500 Copy 430.637500 Copy 430.637500 Copy 430.637500 Copy 430.637500 Copy 430.637500 Copy 430.637500 Copy 430.637500 Copy 430.637500 Copy 430.637500 Copy 430.637500 Copy 430.637500 Copy 430.637500 Copy	Tx Contact Slot Color Code Rx Group List Emergency	Slot1         •           1         •           TS1         •           None         •	
Mode Digital Channel Space 12.5K Power Level High Scan List None Access Policy Always PTT Template None Analog Tx CTCSS/CDCSS None	• • • •	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Rx Only Auto Start Scan	438.237500         Copy         430.637500         □         □         □         □         None         ▼         62.5	Tx Contact Slot Color Code Rx Group List Emergency	Slot1         •           1         •           TS1         •           None         •	
Mode     Digital       Channel Space     12.5K       Power Level     High       Scan List     None       Access Policy     Always       PTT Template     None       Analog     Tx CTCSS/CDCSS       None     62.5	• • • •	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Rx Only Auto Start Scan Rx CTCSS/CDCSS CTCSS Dec	438.237500         Copy         430.637500         □         □         □         □         None         ▼         62.5	Tx Contact Slot Color Code Rx Group List Emergency	Slot1         •           1         •           TS1         •           None         •	
Mode     Digital       Channel Space     12.5K       Power Level     High       Scan List     None       Access Policy     Always       PTT Template     None       Analog     Tx CTCSS/CDCSS       None     62.5       CDCSS Enc     62.3	• • • • •	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Rx Only Auto Start Scan Rx CTCSS/CDCSS CTCSS Dec CDCSS Dec	438.237500         Copy         430.637500         □ </td <td>Tx Contact Slot Color Code Rx Group List Emergency Encrypt</td> <td>Slot1         •           1         •           TS1         •           None         •</td> <td></td>	Tx Contact Slot Color Code Rx Group List Emergency Encrypt	Slot1         •           1         •           TS1         •           None         •	
Mode     Digital       Channel Space     12.5K       Power Level     High       Scan List     None       Access Policy     Always       PTT Template     None       Analog     Tx CTCSS/CDCSS       None     62.5	• • • •	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Rx Only Auto Start Scan Rx CTCSS/CDCSS CTCSS Dec CDCSS Dec	438.237500         Copy         430.637500         □         □         □         □         None         ▼         62.5	Tx Contact Slot Color Code Rx Group List Emergency	Slot1         •           1         •           TS1         •           None         •	
Mode     Digital       Channel Space     12.5K       Power Level     High       Scan List     None       Access Policy     Always       PTT Template     None       Analog     Tx CTCSS/CDCSS       None     62.5       CDCSS Enc     62.3	• • • • •	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Rx Only Auto Start Scan Rx CTCSS/CDCSS CTCSS Dec CDCSS Dec << >>	438.237500         Copy         430.637500         430.637500         62.5         √         62.5         √         62.5         √         62.5         √         023         √         △dd         Delete	Tx Contact Slot Color Code Rx Group List Emergency Encrypt	Slot1  I I I I I I I I I I I I I I I I I I	
Mode     Digital       Channel Space     12.5K       Power Level     High       Scan List     None       Access Policy     Always       PTT Template     None       Analog     Tx CTCSS/CDCSS       None     62.5       CDCSS Enc     62.3	• • • • •	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Rx Only Auto Start Scan Rx CTCSS/CDCSS CTCSS Dec CDCSS Dec << >>	438.237500         Copy         430.637500         430.637500         62.5         √         62.5         √         62.5         √         62.5         √         023         √         △dd         Delete	Tx Contact Slot Color Code Rx Group List Emergency Encrypt	Slot1  I I I I I I I I I I I I I I I I I I	
Mode     Digital       Channel Space     12.5K       Power Level     High       Scan List     None       Access Policy     Always       PTT Template     None       Analog     Tx CTCSS/CDCSS       None     62.5       CDCSS Enc     62.3	• • • • •	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Rx Only Auto Start Scan Rx CTCSS/CDCSS CTCSS Dec CDCSS Dec	438.237500         Copy         430.637500         430.637500         62.5         √         62.5         √         62.5         √         62.5         √         023         √         △dd         Delete	Tx Contact Slot Color Code Rx Group List Emergency Encrypt	Slot1         •           1         •           TS1         •           None         •	

# Getting 'on air' with your DMR radio

Channel Information				
– Digital/Analog			r Digital	
Mode Digital	<ul> <li>Channel Name</li> </ul>	OHL-TG8	Tx Contact TG8 -> 26243	
Channel Space 12.5K	Rx Frequency[MHz]		Slot Slot2	- -
		Сору	Color Code 1	
Power Level High	Tx Frequency[MHz]	430.637500	Rx Group List TS2	- -
Scan List None	▼ Talk Around		Emergency None	•
Access Policy Always	Rx Only		Encrypt None	
PTT Template None	Auto Start Scan		Energy Mone	
Analog				
Tx CTCSS/CDCSS None	Rx CTCSS/CDCSS	None		
CTCSS Enc 62.5	CTCSS Dec	62.5		
CDCSS Enc 023	CDCSS Dec	023 💌		
3 of 4	k• <<• ->>	->I <u>A</u> dd <u>D</u> elete E	Export Import	
5014	· · · · · · · · · · · · · · · · · · ·			
	111 2 2		77.1 4	
Channel Information				
Digital/Analog			Digital	
Digital/Analog Mode Digital	Channel Name	0HL-Parrot	Digital Tx Contact Parrot	•
	Channel Name     Rx Frequency[MHz]			•
Mode Digital	Rx Frequency[MHz]	438.237500 Copy	Tx Contact Parrot	
Mode Digital Channel Space 12.5K Power Level High	Rx Frequency[MHz]     Tx Frequency[MHz]	438.237500 Copy 430.637500	Tx Contact Parrot Slot Slot1	-
Mode Digital Channel Space 12.5K Power Level High Scan List None	Rx Frequency[MHz]     Tx Frequency[MHz]     Talk Around     Talk Around	438.237500 <u>Copy</u> 430.637500	Tx Contact Parrot Slot Slot1 Color Code 1	•
Mode Digital Channel Space 12.5K Power Level High	Rx Frequency[MHz]     Tx Frequency[MHz]	438.237500 <u>Copy</u> 430.637500	Tx Contact Parrot Slot Slot1 Color Code 1 Rx Group List TS2	• •
Mode Digital Channel Space 12.5K Power Level High Scan List None	Rx Frequency[MHz]     Tx Frequency[MHz]     Talk Around     Rx Only	438.237500 <u>Copy</u> 430.637500	Tx Contact Parrot Slot Slot1 Color Code 1 Rx Group List TS2 Emergency None	• • •
Mode Digital Channel Space 12.5K Power Level High Scan List None Access Policy Always	Rx Frequency[MHz]     Tx Frequency[MHz]     Talk Around     Rx Only	438.237500 <u>Copy</u> 430.637500	Tx Contact Parrot Slot Slot1 Color Code 1 Rx Group List TS2 Emergency None	• • •
Mode     Digital       Channel Space     12.5K       Power Level     High       Scan List     None       Access Policy     Always       PTT Template     None	Rx Frequency[MHz]     Tx Frequency[MHz]     Talk Around     Rx Only	438.237500 <u>Copy</u> 430.637500	Tx Contact Parrot Slot Slot1 Color Code 1 Rx Group List TS2 Emergency None	• • •
Mode     Digital       Channel Space     12.5K       Power Level     High       Scan List     None       Access Policy     Always       PTT Template     None	Rx Frequency[MHz]     Tx Frequency[MHz]     Tx Frequency[MHz]     Talk Around     Auto Start Scan	438.237500 Copy 430.637500	Tx Contact Parrot Slot Slot1 Color Code 1 Rx Group List TS2 Emergency None	• • •
Mode     Digital       Channel Space     12.5K       Power Level     High       Scan List     None       Access Policy     Always       PTT Template     None	Rx Frequency[MHz]     Tx Frequency[MHz]     Talk Around     Rx Only	438.237500 Copy 430.637500	Tx Contact Parrot Slot Slot1 Color Code 1 Rx Group List TS2 Emergency None	• • •
Mode     Digital       Channel Space     12.5K       Power Level     High       Scan List     None       Access Policy     Always       PTT Template     None	Rx Frequency[MHz]     Tx Frequency[MHz]     Tx Frequency[MHz]     Talk Around     Auto Start Scan	438.237500 Copy 430.637500	Tx Contact Parrot Slot Slot1 Color Code 1 Rx Group List TS2 Emergency None	• • •
Mode     Digital       Channel Space     12.5K       Power Level     High       Scan List     None       Access Policy     Always       PTT Template     None	Rx Frequency[MHz]  Tx Frequency[MHz]  Talk Around  Rx Only Auto Start Scan  Rx CTCSS/CDCSS	438.237500	Tx Contact Parrot Slot Slot1 Color Code 1 Rx Group List TS2 Emergency None	• • •
Mode     Digital       Channel Space     12.5K       Power Level     High       Scan List     None       Access Policy     Always       PTT Template     None       Analog     Tx CTCSS/CDCSS       None     62.5	Rx Frequency[MHz]  Tx Frequency[MHz]  Talk Around  Rx Only  Auto Start Scan  Rx CTCSS/CDCSS  CTCSS Dec	438.237500	Tx Contact Parrot Slot Slot1 Color Code 1 Rx Group List TS2 Emergency None	• • •
Mode     Digital       Channel Space     12.5K       Power Level     High       Scan List     None       Access Policy     Always       PTT Template     None       Analog     Tx CTCSS/CDCSS       None     62.5       CDCSS Enc     023	Rx Frequency[MHz]  Tx Frequency[MHz]  Talk Around  Rx Only  Auto Start Scan  Rx CTCSS/CDCSS  CTCSS Dec	438.237500       Copy       430.637500       I <t< td=""><td>Tx Contact Parrot Slot Slot1 Color Code 1 Rx Group List TS2 Emergency None</td><td>• • •</td></t<>	Tx Contact Parrot Slot Slot1 Color Code 1 Rx Group List TS2 Emergency None	• • •
Mode       Digital         Channel Space       12.5K         Power Level       High         Scan List       None         Access Policy       Always         PTT Template       None         Analog       Tx CTCSS/CDCSS         CTCSS Enc       62.5         CDCSS Enc       023         4 of 4	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Talk Around Auto Start Scan Rx CTCSS/CDCSS CTCSS Dec CCCSS Dec K- <<- >>	438.237500       Copy       430.637500       I       Add       Delete       E	Tx Contact     Parrot       Slot     Slot1       Color Code     1       Rx Group List     TS2       Emergency     None       Encrypt     None	v v v v
Mode       Digital         Channel Space       12.5K         Power Level       High         Scan List       None         Access Policy       Always         PTT Template       None         Analog       Tx CTCSS/CDCSS         CTCSS Enc       62.5         CDCSS Enc       023         4 of 4	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Talk Around Auto Start Scan Rx CTCSS/CDCSS CTCSS Dec CCCSS Dec K- <<- >>	438.237500       Copy       430.637500       I       Add       Delete       E	Tx Contact     Parrot       Slot     Slot1       Color Code     1       Rx Group List     TS2       Emergency     None       Encrypt     None	v v v v
Mode       Digital         Channel Space       12.5K         Power Level       High         Scan List       None         Access Policy       Always         PTT Template       None         Analog       Tx CTCSS/CDCSS         CTCSS Enc       62.5         CDCSS Enc       023         4 of 4	Rx Frequency[MHz] Tx Frequency[MHz] Talk Around Talk Around Auto Start Scan Rx CTCSS/CDCSS CTCSS Dec CCCSS Dec K- <<- >>	438.237500       Copy       430.637500       I       Add       Delete       E	Tx Contact     Parrot       Slot     Slot1       Color Code     1       Rx Group List     TS2       Emergency     None       Encrypt     None	v v v v
Mode       Digital         Channel Space       12.5K         Power Level       High         Scan List       None         Access Policy       Always         PTT Template       None         Analog       Tx CTCSS/CDCSS         CTCSS Enc       62.5         CDCSS Enc       023         4 of 4	Rx Frequency[MHz]  Tx Frequency[MHz]  Talk Around  Auto Start Scan  Rx CTCSS/CDCSS  Rx CTCSS / CDCSS  CTCSS Dec  CDCSS Dec	438.237500       Copy       430.637500       I       Add       Delete       E	Tx Contact Parrot Slot Slot1 Color Code 1 Rx Group List TS2 Emergency None Encrypt None	v v v v

### Zone:

Zone			
	ne Name DBOOHL Add <u>R</u> emove	Members OHL-WW OHL-Germany OHL-TG8 OHL-Parrot	
1 of 1 K-	(· ->>	->  <u>A</u> dd <u>D</u> elete	
Radiodo		Radiod	
Radiodo	lity	Radiod	dity

## Sample codeplug for Radioddity GD-77

The following screenshots have all been taken using GD-77 CPS v3.1.9.

#### **General Settings**

🖳 General Setting			
		Alert Tone	
Radio Name	GD-77		Disable All Tone
Radio ID	604 APR		Channel Freq Indication Tone
Tx Preamble Duration [ms]	360		Self Test Pass Tone
Rx Low Battery Interval [s]	40	Talk Permit Tone	None ~
Monitor Type	Open Squelch v	Call Alert Tone Duration [s]	120
Monitor Type	Private Call	ARTS Tone	Once ~
	Tx Inhibit Quick Key Override		Unifamiliar Number Tone
	Disable All LED		Reset Tone
Program Password			Tx Exit Tone
Vox Sensitivity	3 ~	Battery Saver	
	-	,	Preamble
			☑ Receive
		Lone Worker	
		Response Timer [min]	1
		Reminder Timer [s]	10
Up Channel Mode	Channel ~	Talkaround	
op channel mode	Channel V	Group Call Hang Time [ms]	3000
Down Channel Mode	Channel ~	Private Call Hang Time [ms]	3000
		Frivate Call Hang Time [his]	
		Scan	
		Scan Mode	Time ~
		Court mode	

#### **Digital Contacts:**

	Number	Name	Call ID	Туре	Ring Style	Call Receive Tone	
▶1	1	WW	00000091	Group Call	None	On	
2	2	Germany	00000262	Group Call	None	On	
3	3	TG8 -> 26243	0000008	Group Call	None	On	
4	4	Parrot	00262997	Private Call	None	On	

Radioddity Radioddity

# Digital RX Groups:

🖳 Rx Group List			
Available	Name	TS1 Member 001:VVV 002:Germany Delete	Up
Available	Name	TS2     Add     Delete	Up Down

#### Channels:

Analo	og -	~ Add			Clear			Export	Import			
	Number	Name	Rx Freq	Tx Freq	Ch Mode	Power	Rx Tone	Tx Tone	Color	Rx Group List	Contact	Repeate
▶1	1	OHL-WW	438.23750	430.63750	Digital	High	None	None	Code 1	TS1	ww	Slot 1
2	2	OHL-Germany	438,23750	430,63750	Digital	High	None	None	1	TS1	Germany	1
3	3	OHL-TG8	438.23750	430.63750	Digital	High	None	None	1	TS2	TG8 -> 26243	2
4	17	OHL-Parrot	438,23750	430,63750	Digital	High	None	None	1	TS2	Parrot	2

	Nad:	odali.	Nadio C	
Zone:	-10	Oda.	4100	1_1.
🔛 Zone				
1/1		<		
		Name DB0OHL		
	Available		Member	
		Add Delete	001:OHL-WW 002:OHL-Germany 003:OHL-TG8 004:OHL-Parrot	Up Down
		. YItz		YIL



### Sample codeplug for Radioddity x Baofeng RD-5R

The following screenshots have all been taken using RD-5R CPS v1.0.0.4.

#### **General Settings**

🖶 General Setting			_ 0
		Alert Tone	
Radio Name	RD-5R		Disable All Tone
Radio ID	Service Pro-		Channel Freq Indication Tone
Tx Preamble Duration [ms]	360 🗢		Self Test Pass Tone
Rx Low Battery Interval [s]	30 🗘	Talk Permit Tone	None V
Monitor Type	Open Squelch $\checkmark$	Call Alert Tone Duration [s	120
	Private Call	ARTS Tone	Once  V Unifamiliar Number Tone
	Tx Inhibit Quick Key Override		Reset Tone
	Disable All LED		Tx Exit Tone
Program Password Vox Sensitivity	3 ~	Battery Saver	
Vox Sensitivity Scan Mode	Time V		Preamble     Receive
Up Channel Mode	Channel ~	Lone Worker	
Down Channel Mode	Channel V	Response Timer [min]	1
Ani	Off ~	Reminder Timer [s]	10
Double Wait Tx Select	Main ~	Talkaround	
Repeater Ste	Off ~	Group Call Hang Time [ms]	3000 🜩
Repeater End Delay	Off $\checkmark$	Private Call Hang Time [ms]	3000
	/		

#### Menu:

Basic	Basic	
Menu Hang Time [s] 10 V Information Scan Scan Edit List	Talkaround Tones/Alerts Key Tone Power Backlight Backlight Screen Keypad Lock Keypad Lock LcD Indicator	
Contact  Call Alert  Call Alert  Edit  Manual Dial  Radio Check  Remote Monitor	<ul> <li>CED Indicator</li> <li>Squelch</li> <li>Privacy</li> <li>Vox</li> <li>Password And Lock</li> <li>Channel Display</li> <li>Channel Display</li> <li>Double Standby</li> <li>Double Standby</li> </ul>	ANI Menu DTMF SideTone Scan Resume Mode PTTID Tx End Delay
☑ Radio Enable ☑ Radio Disable ☑ One Key Dial	Call Log Missed Answered Outgoing Radio	Double Wait Tx Select

🖳 Contact							- • ×
Private (	Call 🗸	Add Delete	Clear	Exp	ort	ort	
	Number	Name	Call ID	Туре	Ring Style	Call Receive	
▶1	1	WW	00000091	Group Call	None	Off	
2	2	Germany	00000262	Group Call	None	Off	
3	3	TG8 -> 26243 Parrot	00000008	Group Call Private Call	None	Off	
		T GHOL	00202007		Tion o	0.1	
I							
	RX Gro	oups:		R	) )		ř
🖳 Rx Gro	oup List						
		Name	TS1				
				Member			
	Available	, TG8 -> 26243	Add Delete	001:WW 002:Gen	nany		Up Down
🖳 Rx Gro	oup List						
	Available	Name WW Germany	TS2	Member	8-> 26243		
			Add Delete				Up Down

#### Channels:

Anal	og ∨	Add	Delete	Clear		[	Export	Import					
	Number	Name	Rx Freq	Tx Freq	Ch Mode	Power	Rx Tone	Tx Tone	Color Code	Rx Group List	Contact	Repeater Slot	
▶1	1	OHL-WW	438,23750	430,63750	Digital	High	None	None		TS1	ww		
2	2	OHL-Germany	438,23750	430,63750	Digital	High	None	None	1	TS1	Germany	1	
3	3	OHL-TG8	438,23750	430,63750	Digital	High	None	None	1	TS2	TG8 -> 26243	2	
4	4	OHL-Parrot	438,23750	430,63750	Digital	High	None	None	1	TS2	Parrot	2	
ne			Ra	V:					Pa,	1:			

#### Zone:

		10.		~//	0.	
🖳 Zone						- • ×
1/1		Ρ×				
		Name DB00	DHL			
	Available		Mem	ber	2	
				001:OHL-WW 002:OHL-Germany 003:OHL-TG8		
				003:OHL-TG8 004:OHL-Parrot		
				004.0HL-Parrol		
			Add			Up
						_
			Delete			Down
			1			· V



## Sample codeplug for Baofeng DM-1701

The following screenshots have all been taken using DM-1701 CPS V1.05.

#### **General Settings**

🔒 General Setting			
Save	Radio Name		
Save Preamble 🔽	Radio ID	200.00	
Save Mode Receive 🔽	Monitor Type	Open Squelch 💌	
Alert Tone	VDX Sensitivity	3 🔹	
Disable All Tone 🗖	TX Preamble Duration[ms]	600 *	
CH Free Indication Tone 🗖	RX Low Battery Interval[s]	120	
Talk Permit Tone None 💌	Channels Hang Time[ms]	3000	
Call Alert Tone Duration[s] Continue	PC Programming Password		
,	Radio Program Password		
Scan	Back Light Time[s]	Always 💌	
Scan Digital Hang Time[ms] 1000	Set Keypad Lock Time[s]	Manual 💌	
Scan Analog Hang Time[ms]	Freq/Channel Mode	Channel 💌	
	Model Select A	MR	
	Model Select B	MB	
Lone Worker	Time Zone	UTC +8:00 💌	
Lone Worker Response Time[min]	Diable All LEDS		
Lone Worker Reminder Time[s]	Group Call Match		
	Private Call Match		
Power On Password	Talkaround		
Password and Lock Enable	Group Call Hang Time[ms]	3000	
	Private Call Hang Time[ms]	4000	
Power On Password 0000000	Intro Screen		
- Voice Announcement	Intro Screen	Picture 💌	
CH Voice Announcement 🔽	Intro Screen Line 1		
Voice Announcement English	Intro Screen Line 2		



# **Digital Contacts:**

🔒 Digital Cont	act				8
No.	Contact Name	Call Type	Call ID	Call Receive Tone	
1	WW	Group Call	92	No	
2	Germany	Group Call	262	No	
3	TG8 -> 26243	Group Call	8	No	
4	Parrot	Private Call	262997	No	

# Digital RX Groups:

4	Parrot	Private Call	262997	No
igital RX G	roups:	V.	Nad/	
🛄 Digital RX	Group Call			
	Group List	Name TS1		
	Available Contact		Cont	act Member
TG8	-> 26243	Add>> < <delete< th=""><th>WW Germany</th><th></th></delete<>	WW Germany	
	1 of 2 🤄	>> >	Add Delete	]
r		· · ·		
🛄 Digital RX	Group Call			
WW Gem		_	TG8 -> 26243	act Member
	- ~q <sub>Q</sub>	lity		<sup>a</sup> dity

### Channels:

annel Information						
Digital/Analog Data				Digital Data	c	
Channel Mode Digital	•	Channel Name OHL-WW		Private Call Cor Emergency Alar		
Band Width 12.5kHz	2 🔻	RX Frequency(MHz) 438.23750		Data Call Cor		
,					terrupt 🗔	
Scan List None	•	TX Frequency(MHz) 430.63750		DCDM	Gwitch 🗖	
Squelch Normal	•	Admit Criteria Always	•	Leader/MS	MS	Ŧ
RX Ref Frequency Low	-	Auto Scan 🗖		Emergency System	None	•
RX Ref Frequency 1200		Rx Only 🗖		Contact Name	WW	•
TX Ref Frequency	•	Lone Worker 🗖		Group List	TS1	•
TOT[s] 60	•	VOX 🗖		Color Code	1	•
TOT Rekey Delay[s]	•	Allow Talkaround 🗌		Repeater Slot	1	•
				In Call Criteria	Always	-
Power High	<b>_</b>				None	
				Privacy		<b>_</b>
				Privacy No.	1	<b>T</b>
Analog Data						
CTCSS/DCS Dec None	Ψ.	CTCSS/DCS Enc None	Ţ	Decode 1 🗖	Decode 5 🗖 Decode 6 🗖	
Rx Signaling System Off	Ŧ	Tix Signaling System Off	~	Decode 2 🗖 Decode 3 🗖	Decode 6 📘	
QT Reverse 180	Ŧ	Non-QT/DQT Turn-off Freq None	Ţ	Decode 4	Decode 8 🗖	
🗖 Display PTT ID		Reverse Burst/Turn-off Code				
	1 of 4	k. ((; <b>))</b>	->	Add Delete Export	Import	
	1 of 4	k (* <b>*</b>	<u></u>		Import	
Digital/Analog Data				Digital Data		
	1 of 4	K· ↔ →> Channel Name OHL-German			- i	
Digital/Analog Data	•			Digital Data Private Call Cor Emergency Alar Data Call Cor	firmed T	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz	<b>v</b> 2 <b>v</b>	Channel Name OHL-German RX Frequency(MHz) 438.23750		Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In	firmed T m Ack T	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None		Channel Name OHL-German RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750	ny	Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM :	firmed [] m Ack [] firmed [] terrupt [] Switch []	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz	<b>v</b> 2 <b>v</b>	Channel Name OHL-German RX Frequency(MHz) 438.23750		Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In	firmed [] m Ack [] firmed [] terrupt [] Switch []	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None		Channel Name OHL-German RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan	ny	Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM :	firmed [] m Ack [] firmed [] terrupt [] Switch [] MS	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low		Channel Name OHL-German RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C Rx Only C	ny	Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM : Leader/MS Emergency System Contact Name	firmed  firmed	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low		Channel Name OHL-German RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C Rx Only C Lone Worker C	ny	Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM Leader/MS Emergency System	firmed  firmed	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX: Ref Frequency Low TX: Ref Frequency Low TOT(s) 60		Channel Name OHL-German RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C Rx Only C Lone Worker C VOX C	ny	Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM : Leader/MS Emergency System Contact Name	firmed  firmed	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low		Channel Name OHL-German RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C Rx Only C Lone Worker C	ny	Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM Leader/MS Emergency System Contact Name Group List	firmed m Ack firmed terrupt writch MS None Germany TS1	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX: Ref Frequency Low TX: Ref Frequency Low TOT(s) 60		Channel Name OHL-German RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C Rx Only C Lone Worker C VOX C	ny	Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM Leader/MS Emergency System Contact Name Group List Color Code	firmed [ m Ack [ firmed [ terrupt [ MS None [Germany TS1 ]	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low TOT [s] 60		Channel Name OHL-German RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C Rx Only C Lone Worker C VOX C	ny	Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM : Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot	firmed [ m Ack [ firmed [ terrupt [ Switch [ MS None [Germany TS1 1 1	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low TOT [s] 60		Channel Name OHL-German RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C Rx Only C Lone Worker C VOX C	ny	Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria	firmed m Ack firmed firmed writch MS None Germany TS1 1 1 1	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low TOT [s] 60		Channel Name OHL-German RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C Rx Only C Lone Worker C VOX C	ny	Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM : Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy	firmed [ m Ack [ firmed [ terrupt ] Switch [ Switch ] MS [Germany TS1 1 1 1 1 1 1 1 None	· · · · · · · · · · · · · · · · · · ·
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low TOT[s] 60 TOT Rekey Delay[s] 0 Power High		Channel Name OHL-German RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C Rx Only C Lone Worker C VOX C	ny	Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM : Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy	firmed [ m Ack [ firmed [ terrupt ] Switch [ Switch ] MS [Germany TS1 1 1 1 1 1 1 1 None	· · · · · · · · · · · · · · · · · · ·
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low TOT[s] 60 TOT Rekey Delay[s] 0 Power High		Channel Name OHL-German RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C Rx Only C Lone Worker C VOX C	ny	Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM : Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy	firmed [ m Ack [ firmed [ terrupt ] Switch [ Switch ] MS [Germany TS1 1 1 1 1 1 1 1 None	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low TOT[s] 60 TOT Rekey Delay[s] 0 Power High Analog Data CTCSS/DCS Dec None		Channel Name DHL-German RX Frequency(MHz) 438.23750 TX Frequency(MHz) 438.23750 Admit Criteria Always Auto Scan Rx Only Lone Worker VOX Allow Talkaround	19 •	Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM : Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy No.	firmed m Ack firmed firmed switch MS None Germany TS1 1 1 1 1 Always 1 1 2 Decode 5 Decode 5	
Channel Mode     Digital       Band Width     12.5kHz       Scan List     None       Squelch     Normal       RX Ref Frequency     Low       TX Ref Frequency     Low       TOT [s]     60       TOT Rekey Delay(s)     0       Power     High       Analog Data     CTCSS/DCS Dec       Rx Signaling System     Off		Channel Name OHL-German RX Frequency(MHz) 438.23750 TX Frequency(MHz) 438.23750 Admit Criteria Always Auto Scan Rx Only Lone Worker VDX Allow Talkaround CTCSS/DCS Enc None Tx Signaling System Off		Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM 1 Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy No.	firmed m Ack firmed firmed switch MS None Germany TS1 1 1 Aways None 1 1 Decode 5 Decode 5 Decode 7	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low TOT [s] 60 TOT Rekey Delay[s] 0 Power High Analog Data		Channel Name OHL-German RX Frequency(MH2) 438.23750 TX Frequency(MH2) 430.63750 Admit Criteria Always Auto Scan C Rx Dnly C Lone Worker C VOX C Allow Talkaround C		Digital Data Private Call Cor Emergency Alar Data Call Cor Allow In DCDM : Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy No.	firmed m Ack firmed firmed switch MS None Germany TS1 1 1 1 1 Always 1 1 2 Decode 5 Decode 5	

# Getting 'on air' with your DMR radio

Digital/Analog Data				🗆 Digital Data		
				Private Call Con	firmed 🗖	
Channel Mode Digital	-	Channel Name OHL-TG8		Emergency Alarr		
Band Width 12.5kHz	z 🔻	RX Frequency(MHz) 438.23750		Data Call Con Allow Int		
Scan List None	•	TX Frequency(MHz) 430.63750			iwitch 🗖	
Squelch Normal	•	Admit Criteria Always	•		LUC .	
. ,		,		Leader/MS		*
RX Ref Frequency Low	•	Auto Scan 🥅 Rx Only 🗔		Emergency System	None TG8 -> 26243	•
TX Ref Frequency Low	•	Lone Worker		Group List		•
TOT[s] 60	-	VOX 🗆		Color Code	1	•
TOT Rekey Delay[s]	-	Allow Talkaround 🗌		Repeater Slot	·	-
				In Call Criteria		•
Power High	•					
				Privacy		-
				Privacy No.	]	Ŧ
Analog Data						
CTCSS/DCS Dec None	Ŧ	CTCSS/DCS Enc None	Ŧ	Decode 1 🗖 Decode 2 🗖	Decode 5 🗖 Decode 6 🗖	
Rx Signaling System Off	Ψ.	Tx Signaling System Off	Y	Decode 3	Decode 8	
QT Reverse 180	~	Non-QT/DQT Turn-off Freq None	Y	Decode 4 🗖	Decode 8 🗖	
🔲 Display PTT ID		🖉 Reverse Burst/Turn-off Code				
and Information	3 of 4	<u>k</u> ((, ))	->	Add Delete Export	Import	
annel Information	3 of 4	<u>k</u> «· »»	->)		Import	- 0
Digital/Analog Data			>>  	Add Delete Export		
	3 of 4	K  K  Channel Name DHL-Parrot	·)	Digital Data Private Call Con Emergency Alarr	firmed T m Ack	
Digital/Analog Data				Digital Data Private Call Con Emergency Alarr Data Call Con	firmed T n Ack T firmed T	
Digital/Analog Data Channel Mode Digital		Channel Name OHL-Parrot		Digital Data Private Call Con Emergency Alar Data Call Con Allow Int	firmed T m Ack	
Digital/Analog Data Channel Mode Digital Band Width 12.5kH: Scan List None	2 <b>v</b>	Channel Name OHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750	>)	Digital Data Private Call Con Emergency Alar Data Call Con Allow Int DCDM S	firmed   m Ack   firmed   errupt   iwitch	
Digital/Analog Data Channel Mode Digital Band Width 12.5kH Scan List None Squelch Normal	2 •	Channel Name OHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always		Digital Data Private Call Con Emergency Alarr Data Call Con Allow Int DCDM S Leader/MS	firmed   n Ack   firmed   errupt   iwitch	
Digital/Analog Data Channel Mode Digital Band Width 12.5kH: Scan List None	2 <b>v</b>	Channel Name OHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan		Digital Data Private Call Con Emergency Alar Data Call Con Allow Int DCDM S Leader/MS Emergency System	firmed   m Ack   firmed   errupt   iwitch	
Digital/Analog Data Channel Mode Digital Band Width 12.5kH Scan List None Squelch Normal	2 •	Channel Name OHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always		Digital Data Private Call Con Emergency Alarr Data Call Con Allow Int DCDM S Leader/MS	firmed   m Ack   firmed   errupt   MS None Parrot	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low	2 V V V	Channel Name OHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C Rx Only C		Digital Data Private Call Con Emergency Alar Data Call Con Allow Int DCDM S Leader/MS Emergency System Contact Name Group List	firmed    m Ack    firmed    erupt    witch    MS  None  Parrot   TS2	· · · · · · · · · · · · · · · · · · ·
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low	2 •	Channel Name OHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C Rx Dnly C Lone Worker C		Digital Data Private Call Con Emergency Alarr Data Call Con Allow Int DCDM S Leader/MS Emergency System Contact Name Group List Color Code	firmed in nAck in firmed in the firmed in th	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List Nome Squelch Normal RX Ref Frequency Low TX Ref Frequency Low T0T(s) 60	2 ¥ 2 ¥ 7	Channel Name OHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C RX Only C Lone Worker C VOX C		Digital Data Private Call Con Emergency Alar Data Call Con Allow Int DCDM S Leader/MS Emergency System Contact Name Group List	firmed [ m Ack [ firmed [ erupt ] witch [ Parrot TS2 1 2	· · · · · · · · · · · · · · · · · · ·
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal FX: Ref Frequency Low TX: Ref Frequency Low TOT(s) 60	2 V 2 V V V	Channel Name OHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C RX Only C Lone Worker C VOX C		Digital Data Private Call Con Emergency Alar Data Call Con Allow Int DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria	firmed   m Ack   firmed   errupt   witch   MS   None   Parot   TS2   1   2   Always	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List Nome Squelch Normal RX Ref Frequency Low TX Ref Frequency Low T0T(s) 60	2 ¥ 2 ¥ 7	Channel Name OHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C RX Only C Lone Worker C VOX C		Digital Data Private Call Con Emergency Alar Data Call Con Allow Int DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy	firmed   m Ack   firmed   errupt   iwitch   Parrot  TS2   2  Always  None	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List Nome Squelch Normal RX Ref Frequency Low TX Ref Frequency Low T0T(s) 60	2 ¥ 2 ¥ 7	Channel Name OHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C RX Only C Lone Worker C VOX C		Digital Data Private Call Con Emergency Alar Data Call Con Allow Int DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria	firmed   m Ack   firmed   errupt   iwitch   Parrot  TS2   2  Always  None	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low TOT[s] 60 TOT Rekey Delay[s] 0 Power High	2 ¥ 2 ¥ 7	Channel Name OHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C RX Only C Lone Worker C VOX C		Digital Data Private Call Con Emergency Alar Data Call Con Allow Int DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy	firmed   m Ack   firmed   errupt   iwitch   Parrot  TS2   2  Always  None	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low TOT [s] 60 TOT Rekey Delay(s) 0 Power High		Channel Name DHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 438.63750 Admit Criteria Always Auto Scan I Rx Only I Lone Worker I VOX I Allow Talkaround I		Digital Data Private Call Con Emergency Alar Data Call Con Allow Int DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy No.	firmed   m Ack   firmed   m Ack   firmed   errupt   witch	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low TOT(s) 60 TOT Rekey Delay(s) 0 Power High Analog Data CTCSS/DCS Dec None	2 ¥ 2 ¥ 7	Channel Name OHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C Rx Only C Lone Worker C VOX C Allow Talkaround C		Digital Data Private Call Con Emergency Alar Data Call Con Allow Int DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy	firmed   m Ack   firmed   errupt   iwitch   Parrot  TS2   2  Always  None	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low TX Ref Frequency Low TOT[s] 60 TOT Rekey Delay[s] 0 Power High Analog Data CTCSS/DCS Dec None Rx Signaling System Dff		Channel Name DHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 438.33750 Admit Criteria Always Auto Scan RX Only Lone Worker V0X Allow Talkaround CTCSS/DCS Enc None Tx Signaling System Off		Digital Data Private Call Con Emergency Alar Data Call Con Allow Int DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy No.	firmed   m Ack   firmed   erupt   witch   MS None  Parrot   1 2 Always   1 2 2 Always   1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
Digital/Analog Data Channel Mode Digital Band Width 12.5kHz Scan List None Squelch Normal RX Ref Frequency Low TX Ref Frequency Low TOT(s) 60 TOT Rekey Delay(s) 0 Power High Analog Data CTCSS/DCS Dec None		Channel Name OHL-Parrot RX Frequency(MHz) 438.23750 TX Frequency(MHz) 430.63750 Admit Criteria Always Auto Scan C Rx Only C Lone Worker C VOX C Allow Talkaround C		Digital Data Private Call Con Emergency Alar Data Call Con Allow Int DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy Privacy No.	firmed   m Ack   firmed   erupt   witch   MS   None   Parot   TS2   1   2   Always   1   1   Decode 5   Decode 6	

# Zone:

La Zone Information			
	Zone Name DB00HL		
Available Channel	Channel Member A OHL-WW OHL-Germany	Available Channel OHL-WW OHL-Germany	Channel Member B
	OHL-TG8 OHL-Parrot	OHL-TG8 OHL-Parrot	
Add>>			Add>>
< <delet< td=""><td>e</td><td></td><td>&lt;<delete< td=""></delete<></td></delet<>	e		< <delete< td=""></delete<>
1	1 of 1 <<- >>	->I Add Delete	
1	dity		gity
	Y		Y
Ra	dioddity	Ra	dioddity
	dioddity		dioddity

### Sample codeplug for TYT MD-9600

The following screenshots have all been taken using MD-9600 CPS V.27.

### **General Settings**

Lu General Setting				
Lig General Setting         Alet Tone         Disable All Tone         CH Free Indication Tone         Talk Permit Tone         None         Call Alet Tone Duration(s)         Scan         Scan Digital Hang Time(ms)         Scan Analog Hang Time(ms)         Coole Worker         Lone Worker Response Time[min]         Lone Worker Reminder Time(s)         Power On Password         Power On Password         Power On Password	VOX Sensitivity TX Preamble Duration(ms) RX Low Battery Interval[s] Channels Hang Time[ms] PC Programming Password Radio Program Back Light Time[s] Set Keypad Lock Time[s] Freq/Channel Mode Select A Model Select A Model Select B Time Zone Group Call Match Private Call Match Private Call Match Private Call Hang Time[ms]	Open Squelch       4       300       60       25500       7       25500       80       90000000       Always       Manual       Channel       MR       UTC +8:00       Solo	Radio ID 1 Radio ID 2 Radio ID 3 MIC Level Tx Mode Auto Shutdown Time(min) Backlight Level Edit Radio ID Public Zone	1           1           1           Designed CH + HandCH           0ff           4
	Intro Screen Intro Screen Line 1 Intro Screen Line 2			
Digital Contacts:		Х <sub>р</sub>		

### Digital Contacts:

No.	Contact Name	Call Type	Call ID	Call Receive Tone
1	WW	Group Call	91	No
2	Germany	Group Call	262	No
3	TG8 -> 26243	Group Call	8	No
4	Parrot	Private Call	262997	No

# Digital RX Groups:

Lu Digital RX Group Call	
Group List Na	me TS1
Available Contact	Contact Member
TG8 -> 26243	WW
	Germany Add>> < <delete< th=""></delete<>
1 of 2 <u>k- </u>	->> ->  Add Delete
山 Digital RX Group Call	
Group List Na	me TS2
Available Contact	Contact Member
WW Germany	Add>> < <delete< th=""></delete<>

### Channels:

– Digital/Analog Data – –					Digital Data		
Channel Mode	Digital	•	Channel Name	OHL-WW	Private Call Con	firmed 🗔	
				,	Emergency Alar	n Ack 🗖	
Band Width	12.5kHz	•	RX Frequency(MHz)	438.23750	Data Call Con		
Scan List	None	•	TX Frequency(MHz)	430.63750		errupt 🗌	
						iwitch 🗖	
Squelch		•	Admit Criteria	Always 💌	Leader/MS	MS	<u>_</u>
RX Ref Frequency	Low	•	Auto Scan		Emergency System	None	•
		•	Rx Only		Contact Name	WW	•
TX Ref Frequency	1000		Lone Worker		Group List	TS1	•
TOT[s]	555	-	VOX		Color Code	1	•
TOT Rekey Delay[s]	0	-	Allow Talkaround		Repeater Slot	1	•
			Send GPS Info		In Call Criteria	Alwans	•
Power	High	-	Receive GPS Info				
					Privacy	None	-
					Privacy No.	1	~
					GPS System	None	•
Analog Data							
CTCSS/DCS Dec	None 👻	CTCS	SS/DCS Enc None	- Decod	le 1 🗖 🔹 Decode 5 🗖		
	~	Tu Cian	aling System Off	Decod	le 2 🗖 🔹 Decode 6 🗖		
Rx Signaling System		i x əign		Decod			
QT Reverse	Silent 💌	Non-QT/DQT	Turn-off Freq None	Decod	le 4 🗖 🔹 Decode 8 🗖		
🔲 Display PTT ID		🔽 Reverse Bi	urst/Turn-off Code				
- Digital/Analog Data					Digital Data		
	Digital	<b>_</b>	Channel Name	OHL-Germany	Private Call Con		
– Digital/Analog Data – – – – – – – – – – – – – – – – – –					Private Call Con Emergency Alar	n Ack 🗖	
Digital/Analog Data Channel Mode Band Width	12.5kHz	•	RX Frequency(MHz)	438.23750	Private Call Con Emergency Alar Data Call Con	n Ack 🗖 firmed 🗖	
– Digital/Analog Data – – – – – – – – – – – – – – – – – –	12.5kHz			438.23750	Private Call Con Emergency Alar Data Call Con Allow In	n Ack 🗖	
Digital/Analog Data Channel Mode Band Width	12.5kHz None	•	RX Frequency(MHz)	438.23750 430.63750	Private Call Con Emergency Alar Data Call Con Allow In DCDM S	n Ack 🗖 firmed 🗖 errupt 🗖 iwitch 🗖	
– Digital/Analog Data Channel Mode Band Width Scan List Squelch	12.5kHz	• •	RX Frequency(MHz) TX Frequency(MHz) Admit Criteria	438.23750 430.63750 Always	Private Call Con Emergency Alar Data Call Con Allow In DCDM S Leader/MS	n Ack	Y
Digital/Analog Data Channel Mode Band Width Scan List	12.5kHz	•	RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan	438.23750 430.63750 Always	Private Call Con Emergency Alar Data Call Con Allow In DCDM S Leader/MS Emergency System	n Ack	•
– Digital/Analog Data Channel Mode Band Width Scan List Squelch	12.5kHz None	• •	RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only	438.23750 430.63750 Always	Private Call Con Emergency Alar Data Call Con Allow In DCDM 9 Leader/MS Emergency System Contact Name	n Ack   http://witch.com/ http	¥ ¥
Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency	12.5kHz None	• • •	RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan	438.23750 430.63750 Always	Private Call Con Emergency Alar Data Call Con Allow In DCDM S Leader/MS Emergency System Contact Name Group List	m Ack    firmed    errupt    MS None Germany TS1	× • •
Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT[s]	12.5kHz None Low 555	• • •	RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX	438.23750 430.63750 Always ▼ □	Private Call Cor Emergency Alar Data Call Cor Allow In DCDM S Leader/MS Emergency System Contact Name Group List Color Code	n Ack  if irmed  if irmed  if irmed  if irmed  if irmed  if if irmed  if i	
Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency	12.5kHz None Low 555	• • •	RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker V0X Allow Talkaround	438.23750 430.63750 Always ▼ □ □ □	Private Call Con Emergency Alar Data Call Con Allow In DCDM S Leader/MS Emergency System Contact Name Group List	m Ack    firmed    errupt    MS None Germany TS1	× • •
Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT[s]	12.5kHz None Low Low 555 0	• • •	RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX	438.23750 430.63750 Always	Private Call Cor Emergency Alar Data Call Cor Allow In DCDM S Leader/MS Emergency System Contact Name Group List Color Code	n Ack  if irmed  if irmed  if irmed  if irmed  if irmed  if if irmed  if i	× • •
Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT [s] TOT Rekey Delay[s]	12.5kHz None Low Low 555 0	× • •	RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX Allow Talkaround Send GPS Info	438.23750 430.63750 Always	Private Call Con Emergency Alar Data Call Con Allow In DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot	n Ack  international internati	• • • •
Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT [s] TOT Rekey Delay[s]	12.5kHz None Low Low 555 0	× • •	RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX Allow Talkaround Send GPS Info	438.23750 430.63750 Always	Private Call Cor Emergency Alar Data Call Cor Allow In DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria	n Ack	× × × ×
Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT [s] TOT Rekey Delay[s]	12.5kHz None Low Low 555 0	× • •	RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX Allow Talkaround Send GPS Info	438.23750 430.63750 Always	Private Call Con Emergency Alar Data Call Con Allow In DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy No.	n Ack	> > > > > > > > > > > > > >
Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT Rekey Delay[s] TOT Rekey Delay[s] Power	12.5kHz None Low Low 555 0	× • •	RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX Allow Talkaround Send GPS Info	438.23750 430.63750 Always	Private Call Con Emergency Alar Data Call Con Allow In DCDM 9 Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy	n Ack	>           >           >           >           >           >           >           >           >           >           >
Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT Rekey Delay[s] TOT Rekey Delay[s] Power	12.5kHz None Low 555 0 High		RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker V0X Allow Talkaround Send GPS Info Receive GPS Info	438.23750 430.63750 Always ▼ □ □ □ □ □ □	Private Call Cor Emergency Alar Data Call Cor Allow In DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy No. GPS System	n Ack	× × × × ×
Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT Rekey Delay[s] TOT Rekey Delay[s] Power	12.5kHz None Low 555 0 High		RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX Allow Talkaround Send GPS Info	438.23750       430.63750       Always       □       <	Private Call Cor Emergency Alar Data Call Cor Allow In DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy No. GPS System	n Ack	> > > > > > > > > > > > > > > > > > >
Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT Rekey Delay[s] TOT Rekey Delay[s] Power	12.5kHz None Low Low 555 0 High		RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker V0X Allow Talkaround Send GPS Info Receive GPS Info	438.23750       430.63750       Always       ▼       Decod       ▼	Private Call Cor Emergency Alar Data Call Cor Allow In DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy No. GPS System	n Ack	>           >           >           >           >           >           >           >           >           >           >
- Digital/Analog Data Channel Mode Band Width Scan List Squelch RX: Ref Frequency TX: Ref Frequency TOT [s] TOT Rekey Delay[s] Power - Analog Data CTCSS/DCS Dec Rx: Signaling System	12.5kHz       None       Low       555       0       High	v v v v v v crcs Tx Sign	RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker V0X Allow Talkaround Send GPS Info Receive GPS Info SS/DCS Enc None aling System Dff	438.23750         430.63750         Always         ▼         Decod         ▼         Decod         ▼         Decod	Private Call Cor Emergency Alar Data Call Cor Allow In DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy No. GPS System	n Ack	>           >           >           >           >           >           >           >           >           >           >
Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT [s] TOT Rekey Delay[s] Power Analog Data CTCSS/DCS Dec RX Signaling System	12.5kHz       None       Low       Low       555       0       High       None       Vone       Silent		RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX Allow Talkaround Send GPS Info Receive GPS Info Receive GPS Info	438.23750         430.63750         Always         □ </td <td>Private Call Cor Emergency Alar Data Call Cor Allow In DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy No. GPS System</td> <td>n Ack                                      </td> <td>&gt;           &gt;           &gt;           &gt;           &gt;           &gt;           &gt;           &gt;           &gt;           &gt;           &gt;</td>	Private Call Cor Emergency Alar Data Call Cor Allow In DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy No. GPS System	n Ack	>           >           >           >           >           >           >           >           >           >           >
- Digital/Analog Data Channel Mode Band Width Scan List Squelch RX: Ref Frequency TX: Ref Frequency TOT [s] TOT Rekey Delay[s] Power - Analog Data CTCSS/DCS Dec Rx: Signaling System	12.5kHz       None       Low       Low       555       0       High       None       Vone       Silent		RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker V0X Allow Talkaround Send GPS Info Receive GPS Info SS/DCS Enc None aling System Dff	438.23750         430.63750         Always         ▼         Decod         ▼         Decod         ▼         Decod	Private Call Cor Emergency Alar Data Call Cor Allow In DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy No. GPS System	n Ack	> > > > > > > > > > > > > > > > > > >

# Getting 'on air' with your DMR radio

Channel Information								
_ Digital/Analog Data					Digita	al Data		
Channel Mode	Digital	-	Channel Name	OHL-TG8	-	Private Call Conf	firmed 🗔	
Band Width		•	RX Frequency(MHz)		_	Emergency Alarn		
Band Width	12.0KH2			-		Data Call Conf Allow Int		
Scan List	None	<u> </u>	TX Frequency(MHz)	430.63750		DCDM S		
Squelch		•	Admit Criteria	Always	-	Leader/MS	MS	-
RX Ref Frequency	Low	•	Auto Scan				None	•
			Rx Only	Γ		Contact Name	TG8 -> 26243	-
TX Ref Frequency	Low	<b>_</b>	Lone Worker	Γ		Group List	TS2	•
TOT[s]	555	•	VOX			Color Code	1	-
TOT Rekey Delay[s]	0	•	Allow Talkaround			Repeater Slot	2	-
Power	Hiah	•	Send GPS Info Receive GPS Info			In Call Criteria	Always	-
1 00001	1		neceive ars mo			Privacy	None	•
						Privacy No.	1	-
						GPS System	None	-
						410 0 9000	,	
Analog Data	hlaun							
CTCSS/DCS Dec	None	CTO	CSS/DCS Enc None	_	code 1 🗖 code 2 🗖	Decode 5 🗖 Decode 6 🗖		
Rx Signaling System	Off 💌	Tx Sig	gnaling System Off	-	code 3 🗖	Decode 7 🗖		
QT Reverse	Silent 💌	Non-QT/DQT	Turn-off Freq None	T Dec	code 4 🗖	Decode 8 🗖		
🗖 Display PTT ID		🔽 Reverse I	Burst/Turn-off Code					
	3 of 4	k۰	(· >>)	->I Add I	Delete Ex	port Import		
Channel Information	3 of 4	k	(· >>)	→I Ådd I			[	
Channel Information						al Data	(	
Channel Information		<u>k</u>	Channel Name					
Channel Information	Digital			DHL-Parrot		al Data Private Call Conf	n Ack 🗔	
Channel Information	Digital		Channel Name	0HL-Parrot [438.23750		al Data Private Call Conl Emergency Alarr Data Call Conl Allow Int	n Ack 🗖 firmed 🗖 errupt 🗖	
Channel Information	Digital 12.5kHz None	• •	Channel Name RX Frequency(MHz) TX Frequency(MHz)	0HL-Parrot 438.23750 430.63750	Digita	al Data Private Call Conl Emergency Alarr Data Call Conl Allow Int DCDM S	n Ack	
Channel Information	Digital 12.5kHz None	<b>.</b>	Channel Name RX Frequency(MHz) TX Frequency(MHz) Admit Criteria	OHL-Parrot 438.23750 430.63750 Always		al Data Private Call Conf Emergency Alarr Data Call Conf Allow Int DCDM S Leader/MS	n Ack	×
Channel Information	Digital 12.5kHz None	• •	Channel Name RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan	OHL-Parrot           438.23750           430.63750           Always	Digita	al Data Private Call Conl Emergency Alarr Data Call Conl Allow Into DCDM S Leader/MS Emergency System	n Ack	
Channel Information Digital/Analog Data Channel Mode Band Width Scan List Squelch	Digital 12.5kHz None	• •	Channel Name RX Frequency(MHz) TX Frequency(MHz) Admit Criteria	OHL-Parrot           438.23750           430.63750           Always	Digita	al Data Private Call Conl Emergency Alam Data Call Conl Allow Int DCDM S Leader/MS Emergency System Contact Name	n Ack   firmed  firmed  witch  MS  None  Parrot	¥ ¥
Channel Information Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency	Digital 12.5kHz None Low	• •	Channel Name RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only	OHL-Parrot           438.23750           430.63750           Always	Digita	al Data Private Call Conf Emergency Alarn Data Call Conf Allow Int DCDM S Leader/MS Emergency System Contact Name Group List	n Ack	× •
Channel Information Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT[s]	Digital 12.5kHz None Low Low 555	• • • •	Channel Name RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker	OHL-Parrot 438.23750 430.63750 Always	Digita	al Data Private Call Conf Emergency Alarn Data Call Conf Allow Into DCDM S Leader/MS Emergency System Contact Name Group List Color Code	n Ack   firmed  firmed f	• • •
Channel Information Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT [s] TOT Rekey Delay[s]	Digital 12.5kHz None Low 555 0		Channel Name RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX	OHL-Parrot           438.23750           430.63750           Always	Digita	al Data Private Call Conl Emergency Alam Data Call Conl Allow Int DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot	n Ack   h Ack   h med	> > > > >
Channel Information Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT[s]	Digital 12.5kHz None Low 555 0	• • • •	Channel Name RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX Allow Talkaround	OHL-Parrot           438.23750           430.63750           Always           I           I           I           I	Digita	al Data Private Call Conl Emergency Alam Data Call Conl Allow Int DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria	n Ack irimed irim	
Channel Information Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT [s] TOT Rekey Delay[s]	Digital 12.5kHz None Low 555 0		Channel Name RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX Allow Talkaround Send GPS Info	OHL-Parrot           438.23750           430.63750           Always           I           I           I           I	Digita	al Data Private Call Conl Emergency Alam Data Call Conl Allow Int DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy	n Ack   n Ack   firmed   firmed   firmed   MS  None  Parrot  TS2  1  2  Always  None	y y y y y y
Channel Information Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT [s] TOT Rekey Delay[s]	Digital 12.5kHz None Low 555 0		Channel Name RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX Allow Talkaround Send GPS Info	OHL-Parrot           438.23750           430.63750           Always           I           I           I           I	Digita	al Data Private Call Conf Emergency Alam Data Call Conf Allow Int DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy Privacy No.	n Ack   h Ack   h med	> > > > > > > > > > > > > >
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Channel Information Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT [s] TOT Rekey Delay[s]	Digital 12.5kHz None Low 555 0		Channel Name RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX Allow Talkaround Send GPS Info	OHL-Parrot           438.23750           430.63750           Always           I           I           I           I	Digita	al Data Private Call Conf Emergency Alam Data Call Conf Allow Int DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy Privacy No.	n Ack   h Ack   h med	> > > > > > > > > > > > > >
Channel Information Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TOT[s] TOT Rekey Delay[s] Power	Digital 12.5kHz None Low 555 0 High		Channel Name RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX Allow Talkaround Send GPS Info	OHL-Parrot       438.23750       430.63750       Always       Image: Constraint of the second	Code 1	al Data Private Call Conl Emergency Alarn Data Call Conl Allow Into DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy Privacy No. GPS System Decode 5	n Ack   h Ack   h med	> > > > > > > > > > > > > >
Channel Information Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TX Ref Frequency TOT[s] TOT Rekey Delay[s] Power Analog Data	Digital 12.5kHz None Low 555 0 High		Channel Name RX Frequency(MH2) TX Frequency(MH2) Admit Criteria Auto Scan Rx Only Lone Worker VOX Allow Talkaround Send GPS Info Receive GPS Info	OHL-Parrot           438.23750           430.63750           Always           Image: Constraint of the second sec	Code 1 Code 2	al Data Private Call Conl Emergency Alarn Data Call Conl Allow Into DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy Privacy No. GPS System Decode 5	n Ack   h Ack   h med	> > > > > > > > > > > > > >
Channel Information Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TX Ref Frequency TOT Rekey Delay(s) Fower Analog Data CTCSS/DCS Dec Rx Signaling System	Digital 12.5kHz None Low Low 555 0 High None	· · · · · · · · · · · · · · · · · · ·	Channel Name RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX Allow Talkaround Send GPS Info Receive GPS Info Receive GPS Info	OHL-Parrot         438.23750         430.63750         Always         Image: Constraint of the second sec	Code 1	al Data Private Call Conl Emergency Alarn Data Call Conl Allow Into DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy Privacy No. GPS System Decode 5	n Ack   h Ack   h med	> > > > > > > > > > > > > >
Channel Information Digital/Analog Data Channel Mode Band Width Scan List Squelch RX Ref Frequency TX Ref Frequency TVT Ref Frequency TOT[s] TOT Rekey Delay[s] Power Analog Data CTCSS/DCS Dec	Digital 12.5kHz None Low 555 0 High None Vone		Channel Name RX Frequency(MHz) TX Frequency(MHz) Admit Criteria Auto Scan Rx Only Lone Worker VOX Allow Talkaround Send GPS Info Receive GPS Info	OHL-Parrot       438.23750       430.63750       Always       Image: Constraint of the second	Code 1 Code 2 Code 3	al Data Private Call Conl Emergency Alarn Data Call Conl Allow Into DCDM S Leader/MS Emergency System Contact Name Group List Color Code Repeater Slot In Call Criteria Privacy Privacy No. GPS System Decode 5 Decode 5	n Ack   h Ack   h med	> > > > > > > > > > > > > >

# v1.0

### Zone:

La Zone Information							
	Zone Name DB00HL						
Available Channel	, Channel Member A	Available Channel	Channel Member B				
	OHL-WW	OHL-WW					
	OHL-Germany OHL-TG8 OHL-Parrot	OHL-Germany OHL-TG8 OHL-Parrot					
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