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OPENGD77

Rich Clemens – KB8AOB
ARRL WV State Convention
August 22, 2020

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A PROJECT BY ROGER CLARK & OTHERS

Roger is an experienced software developer and consultant. He has a strong programming background in C, C++ and can develop in PHP, Java, SQL (queries), HTML /CSS, XML and Flash/ActionScript. In addition to his software development skills, he is also skilled in electronics and micro-controller design.



Melbourne Australia

VK3KYY

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THE RADIO

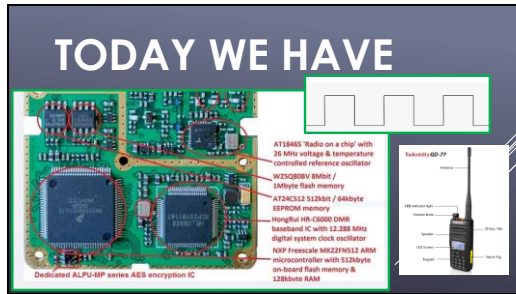
- Introduced in 2017 – \$100 +-
- Dual Band & Dual Time Slot – 5 Watts
- Tier I and II DMR radio
- 20+ key Keypad & small LED screen
 - (\$ version no screen, keypad)
- 2200 mAh Battery
- Kenwood Style Speaker Key/Mic Port



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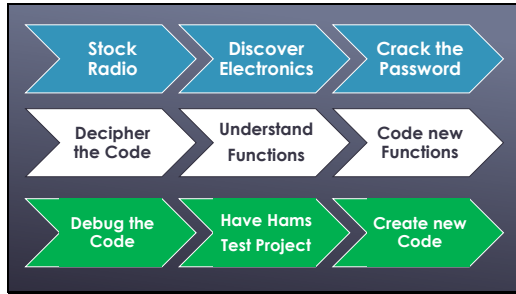
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"One of the problems Roger is dealing with is reverse engineering the Chinese Digital Signal Processing chip being used to process DMR AMBE and digital audio within the GD-77 handheld radio. The chip, designated HR-C6000 by the developer, looks like a firmware personality burned on a standard TI DSP chip. Documentation is next to impossible to find, so the work has been trial and error."

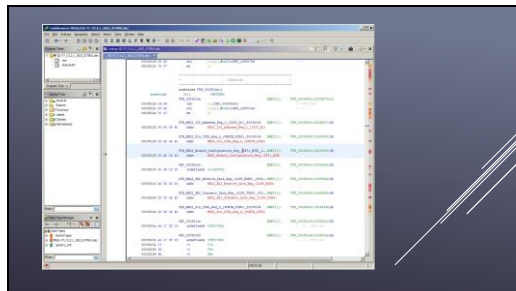
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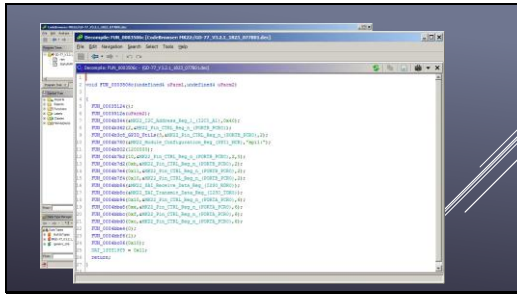
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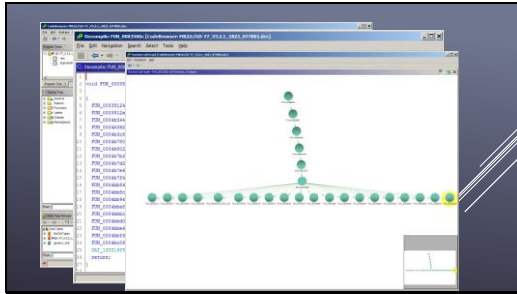
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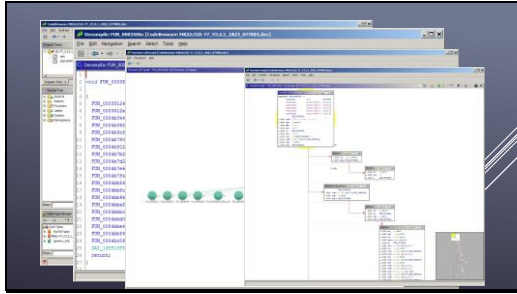
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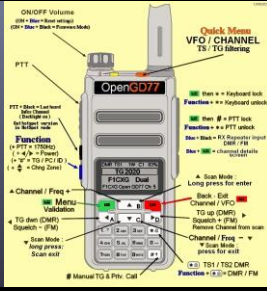


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TOTALLY DIFFERENT RADIO & CONTROLS

Now a HAM friendly radio

- Better designed screens – with options
- Hotspot mode built-in (1 or 2 watt limit)
- More Features in Operation & CodePlug
 - Keyboard entry TOS, PICS & ID
- Power saving tools – screen controls
- Output from 50mW to 5W+
- Voice prompts (3 levels of detail)
- Multi languages (display too)
- Logical Code-Plug Construction
- Easier and More Scanning Controls
- Still advancing firmware (& features)
- User feedback & wants plus “forks”
- Open software – Got the time & skills?
- Online updated manual – excellent!



ON/OFF Volume
On: Back + Hold (PTT) / Off: Back + Power/Menu

PTT
PTT (Back + Channel) / PTT (Back + PTT)

Function
PTT + Hold (PTT) / PTT + PTT (PTT) / PTT + PTT (PTT)

Channel / Freq
Channel / Freq

Menu / Validation
Menu / Validation

To down (DMF)
Down (DMF)

To up (DMF)
Up (DMF)

Back Mode
Long press: Scan exit

Quick Menu
VFO / CHANNEL / TS / TG listening

Function
Back = Keyboard lock / Back = PTT lock / Back = PTT unlock / Back = PTT input DMF PTT / Back = channel details screen

A Scan Mode
Long press for enter

Back Exit
Channel / VFO

To up (DMF)
Down (DMF)

Back Channel / Freq
Channel / Freq

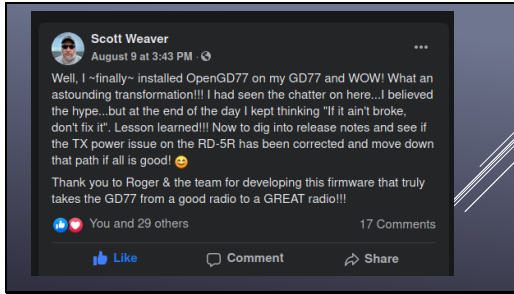
Channel / Freq
v

Back Mode
press for exit

C) TS / TS2 DMF
Function + TS = DMF / FM

Manual TG & Priv. Call

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Scott Weaver
August 9 at 3:43 PM

Well, I –finally– installed OpenGD77 on my GD77 and WOW! What an astounding transformation!!! I had seen the chatter on here...I believed the hype...but at the end of the day I kept thinking “If it ain’t broke, don’t fix it”. Lesson learned!!! Now to dig into release notes and see if the TX power issue on the RD-5R has been corrected and move down that path if all is good! 🙌

Thank you to Roger & the team for developing this firmware that truly takes the GD77 from a good radio to a GREAT radio!!!

You and 29 others
17 Comments

Like Comment Share

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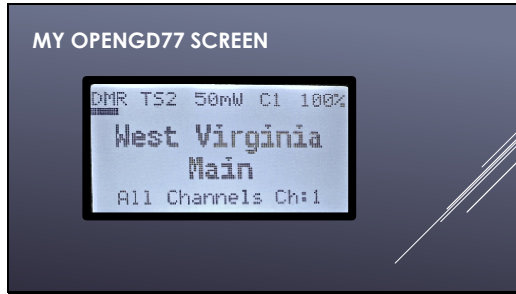
OPENGD77 FIRMWARE INSTALLATION

The firmware can be installed onto the following radios

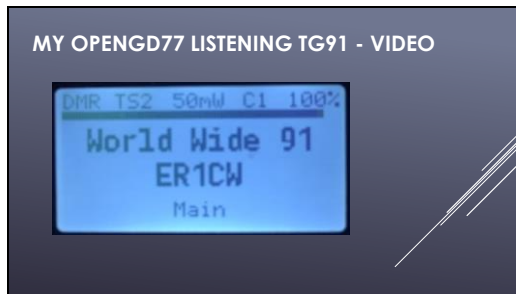
- Radioddity GD-77 (also known as TYT MD-760)
- Radioddity GD-77S
- Baofeng DM-1801 (also know as Baofeng DM-860)
- Baofeng RD-5R (also know as Baofeng DM-5R Tier 2) – in process

“Installation of the firmware is undertaken at the owners own risk, but the official firmware can usually be reloaded onto the radio if the user has problems with the firmware, as long as the operator takes a full backup of their radio using the OpenGD77 CFS immediately after the firmware has been installed – aka read the installation instructions!

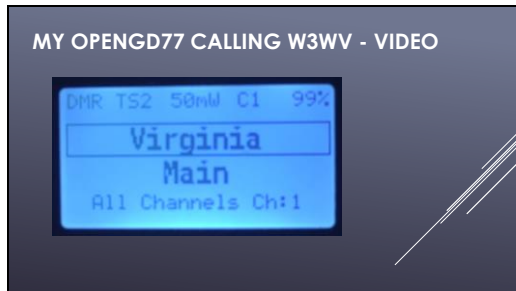
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OpenGD77 Download links and other resources

Firmware/Forum:
Latest version: <https://github.com/rogerclarkmelbourne/OpenGD77/releases>
OpenGD77 CPS: <https://github.com/rogerclarkmelbourne/OpenGD77CPS/releases>
OpenGD77Forum: <https://www.opengd77.com/> ★

Manual: https://github.com/rogerclarkmelbourne/OpenGD77/blob/master/docs/OpenGD77_User_Guide.md

Facebook: <https://www.facebook.com/groups/OpenGD77/>

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OpenGD77/S / OpenDM1801 / OpenRD5R – User Guide ★

- o Introduction
- o Installation
- o Codeplug compatibility
- o Variations between different supported radios
- o Main screens (VFO and Channel screens)
- o Transmitting
- o Scanning ★
- o Other screens
- o The control keys and buttons
- o The Menu System
- o Main Menu
- o Making and receiving DMR Private Calls
- o Hotspot mode
- o Resetting the Settings
- o GD-77S operation
- o CPS software ★

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OpenGD77 Forum: ★

<https://www.opengd77.com/>



Information

Discussion

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OpenGD77 Forum:

Category	Topics	Replies	Latest
Announcements	4	5	I still need to update the fir... By: K8AQB Sat Jun 15, 2020 11:14 am
Feature requests	1885	1583	Requesting... By: K8AQB Mon Aug 17, 2020 8:13 pm
FAQ	2	2	Radio-Only Access By: K8AQB Sat Jun 13, 2020 11:30 pm
Development updates	55	2383	Re: New ongoing "Development"... By: K8AQB Sat Aug 15, 2020 11:28 pm
Bug reports	155	1786	Re: Bug report: no net... By: K8AQB Mon Aug 10, 2020 8:13 pm



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OpenGD77 Forum:

DISCUSSIONS

- New members post here first
New users please post here first and let us know a little bit about yourself!
- General discussions
- Hotspot mode
- CPS
- Calllogs
Post your OpenGD77 calllogs here
- Custom Firmware versions
- Developer discussions
Discussions related to the firmware code development
- Off topic
- Barfang Dm-1001 specific
Anything specifically related to the DM-1001 version of the firmware

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QUESTIONS

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