

## CHIRP - Bug # 6969

<b>Status:</b>	Closed	<b>Priority:</b>	Normal
<b>Author:</b>	Tony Fuller	<b>Category:</b>	
<b>Created:</b>	08/09/2019	<b>Assignee:</b>	
<b>Updated:</b>	04/18/2020	<b>Due date:</b>	
<b>Chirp Version:</b>	daily		
<b>Model affected:</b>	GA-2S		
<b>Platform:</b>	All		
<b>Subject:</b>	GA-2S Partially Broken		
<b>Description</b>			
<p>The Radioddity GA-2S is mostly compatible as a Baofeng 777/888 target. Some features are broken such as:</p> <ul style="list-style-type: none"><li>- Enable/Disable Voice</li><li>- Enable/Disable Channel Scan</li><li>- Enable/Disable VOX</li></ul> <p>Other features may be broken, but I have not yet noticed.</p> <p>I'd like to help the developers by providing a number of CHIRP downloads from a Radioddity GA-2S radio. I programmed the device using the manufacturer software, then read the memory using CHIRP. Also you'll find a screen shot of the manufacturer software default settings.</p> <p>Diffing should be a breeze.</p> <p>There is also a missing feature for Busy Channel Lockout which can be implemented using the files I have attached.</p> <p>Let me know if I can do additional debugging or image files. Thanks</p>			
<b>Related issues:</b>			
related to Bug # 7067: Baofeng 888s - Read, cannot write channels on Windows 10		<b>Feedback</b>	<b>09/13/2019</b>

### Associated revisions

**Revision 3249:f2f71d0cd6a9 - 08/20/2019 12:58 am - Tony Fuller**

[h777] Fix some settings not taking effect on Baofeng 888 and variants

Fix #6969 <https://chirp.danplanet.com/issues/6969>

Changes based on serial output of latest "V12" programming software

List of settings that were affected:

- Scan On/Off
- Voice Prompt On/Off
- Language English/Chinese
- Vox On/Off
- Vox Level
- Vox Inhibit on Rx (Untested)
- Alarm On/Off
- Radio On/Off (Untested)
- Low Voltage Inhibit (Untested)
- High Voltage Inhibit (Untested)

To the best of my knowledge, also

Fixes #5027  
Fixes #5985  
Fixes #6283  
Fixes #4959  
Fixes #5153  
Fixes #5343  
Fixes #5797  
Fixes #5833  
Fixes #5831  
Fixes #5857  
Fixes #6997

## History

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### #1 - 08/09/2019 03:45 pm - Tony Fuller

I also have Baofeng "777S" units that I can test changes/patches on for specific regressions.

### #2 - 08/10/2019 07:19 am - Tony Fuller

- File GA-2S\_serial\_sniff.zip added

I used socat to create a fake serial port for Virtualbox to use for the purpose of sniffing the upload and download stream. I read somewhere (maybe an 888 issue) that maybe the "memory was wrapping around" and hopefully these traces can help in that regard.

### #3 - 08/10/2019 08:39 am - Tony Fuller

I think I found the issue in h777.py driver.

In MEM\_FORMAT, we can see

```
#seekto 0x03C0;
struct {
    u8 unused:6,
        battery saver:1,
        beep:1;
    u8 squelchlevel;
    u8 sidekeyfunction;
    u8 timeouttimer;
    u8 unused2[3];
    u8 unused3:7,
        scanmode:1;
} settings2;
```

Now the #seekto position is suspicious to me, because in the serial sniff log I see a break at 0x0380

```
02 50 52 4F 47 52 41 4D 02 06 57 00 00 08 FF FF FF FF FF FF FF FF
57 00 08 08 FF FF FF FF FF FF FF FF
```

57 00 10 08 00 25 42 45 00 25 42 45  
57 00 18 08 93 06 93 06 1B FF FF FF  
57 00 20 08 00 25 43 45 00 25 43 45  
57 00 28 08 00 10 00 10 1B FF FF FF  
57 00 30 08 00 25 44 45 00 25 44 45  
57 00 38 08 14 15 14 15 1B FF FF FF  
57 00 40 08 00 25 45 45 00 25 45 45  
57 00 48 08 35 20 35 20 1B FF FF FF  
57 00 50 08 00 25 46 45 00 25 46 45  
57 00 58 08 18 24 18 24 1B FF FF FF  
57 00 60 08 00 25 47 45 00 25 47 45  
57 00 68 08 23 80 23 80 1B FF FF FF  
57 00 70 08 00 25 48 45 00 25 48 45  
57 00 78 08 14 81 14 81 1B FF FF FF  
57 00 80 08 00 25 49 45 00 25 49 45  
57 00 88 08 05 82 05 82 1B FF FF FF  
57 00 90 08 00 25 51 45 00 25 51 45  
57 00 98 08 06 83 06 83 1B FF FF FF  
57 00 A0 08 00 25 52 45 00 25 52 45  
57 00 A8 08 11 84 11 84 1B FF FF FF  
57 00 B0 08 00 25 53 45 00 25 53 45  
57 00 B8 08 03 85 03 85 1B FF FF FF  
57 00 C0 08 00 25 54 45 00 25 54 45  
57 00 C8 08 06 86 06 86 1B FF FF FF  
57 00 D0 08 00 25 55 45 00 25 55 45  
57 00 D8 08 54 87 54 87 1B FF FF FF  
57 00 E0 08 00 25 21 40 00 25 21 40  
57 00 E8 08 FF FF FF FF 1B FF FF FF  
57 00 F0 08 00 50 55 43 00 50 55 43  
57 00 F8 08 FF FF FF FF 1B FF FF FF  
57 01 00 08 00 50 89 46 00 50 89 46  
57 01 08 08 FF FF FF FF 1B FF FF FF

57 03 80 08 1B 01 03 1B 01 03 1B 01  
57 03 88 08 03 1B 01 03 FF FF FF FF  
57 03 90 08 FF FF FF FF FF FF FF FF  
57 03 98 08 FF FF FF FF FF FF FF FF  
57 03 A0 08 1B 01 03 1B 01 03 01 00  
57 03 A8 08 01 00 04 00 01 01 00 01  
57 03 B0 08 01 01 FF FF FF FF FF FF  
57 03 B8 08 FF FF FF FF FF FF FF FF  
57 03 C0 08 03 03 01 06 FF FF FF FF  
57 03 C8 08 FF FF FF FF FF FF FF FF  
57 03 D0 08 00 00 F4 37 30 31 33 50  
57 03 D8 08 FF FF FF FF FF FF FF FF

59 02 B0 08 01 00 01 00 04 00 01 01  
59 02 B8 08 00 01 FF FF FF FF FF FF  
45

#seekto is not the problem. As I got more familiar with the code I realized that the read position is different than the write position.

I think the actual problem is just not writing the values in the correct spot.

Here's what CHIRP writes for the settings block:

```
57 03 80 08 FF FF FF FF FF FF FF FF
57 03 88 08 FF FF FF FF FF FF FF FF
57 03 90 08 FF FF FF FF FF FF FF FF
57 03 98 08 FF FF FF FF FF FF FF FF
57 03 A0 08 FF FF FF FF FF FF FF FF
57 03 A8 08 FF FF FF FF FF FF FF FF
57 03 B0 08 00 00 00 00 04 00 01 01
57 03 B8 08 00 01 FF FF FF FF FF FF
57 03 C0 08 03 01 01 01 FF FF FF FF
57 03 C8 08 03 01 01 01 FF FF FF FF
57 03 D0 08 00 00 F4 37 30 31 33 50
57 03 D8 08 00 00 F4 37 30 31 33 50
```

Here's what the mfg programming software (V12) writes:

```
57 03 80 08 1B 01 03 1B 01 03 1B 01
57 03 88 08 03 1B 01 03 FF FF FF FF
57 03 90 08 FF FF FF FF FF FF FF FF
57 03 98 08 FF FF FF FF FF FF FF FF
57 03 A0 08 1B 01 03 1B 01 03 01 00
57 03 A8 08 01 00 04 00 01 01 00 01
57 03 B0 08 01 01 FF FF FF FF FF FF
57 03 B8 08 FF FF FF FF FF FF FF FF
57 03 C0 08 03 03 01 06 FF FF FF FF
57 03 C8 08 FF FF FF FF FF FF FF FF
57 03 D0 08 00 00 F4 37 30 31 33 50
57 03 D8 08 FF FF FF FF FF FF FF FF
```

**#5 - 08/11/2019 09:43 am - Tony Fuller**

- File GA-2S\_settings.patch added

Patch is attached.

I got side tracked by looking at the mass difference between blocks 0x0380-0x03E0 that I didn't even realize that the manufacturer software uses a different "command" to program range 0x02B0 - 0x02C0

Here's what CHIRP writes over the serial port

```
57 02 B0 08 00 01 00 00 04 00 01 01 00 00 00 00
57 02 B8 08 00 01 FF FF FF FF FF FF 00 00 00 00
```

Here's what the MFG software writes over the serial port

```
59 02 B0 08 00 01 00 00 04 00 01 01 00 00 00 00  
59 02 B8 08 00 01 FF FF FF FF FF FF 00 00 00 00
```

The difference is sending a W vs a Y.

**#6 - 08/20/2019 07:06 pm - Tony Fuller**

- *File old\_baofeng\_888.jpg added*

Just a note that the

Baofeng BF-888S ver 1.05 software from Miklor (<http://www.miklor.com/BF888/888-SW-BF888S.php>) does not change the settings correctly.

BUT

Baofeng ZT-V68 v07.01 software from Miklor (<http://www.miklor.com/BF888/888-SW-ZTV68.php>) works great.

Also I have not seen any side affects on my old Baofeng 777S radio (see attached picture)

**#7 - 04/18/2020 11:44 pm - Bernhard Hailer**

- *Status changed from New to Closed*

Appears to be complete.

**Files**

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GA-2S_chrip_debug.zip	111.1 kB	08/09/2019	Tony Fuller
GA-2S_serial_sniff.zip	2.2 kB	08/10/2019	Tony Fuller
GA-2S_settings.patch	909 Bytes	08/11/2019	Tony Fuller
old_baofeng_888.jpg	171.2 kB	08/20/2019	Tony Fuller