



# Setting Up a DMR Hotspot (Zumspot)

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# The Zumspot

- DV Modem 10 mW RF
- Raspberry Pi Zero or RP3
- MMDVM firmware
- Support for
  - DMR
  - P-25
  - D-Star
  - System Fusion



# Set up WIFI

- On your computer select pi-star WIFI
- Put pi-star.local in browser

### WiFi Info

Network 0   
SSID : STSCSSS  
PSK : .....

Network 1   
SSID : Dan's Iphone  
PSK : .....

Network 2   
SSID : STSCSSS  
PSK : .....

### Networks found :

Connect	SSID	Channel	Signal	Security
<input type="button" value="Select"/>	STSCSSS	2.4GHz Ch1	-33 dBm	WPA/WPA2-PSK (AES) with WPS
<input type="button" value="Select"/>	Skynet69	2.4GHz Ch1	-35 dBm	WPA2-PSK (TKIP) with WPS
<input type="button" value="Select"/>	1yqP109Z	2.4GHz Ch1	-36 dBm	WPA2-PSK (TKIP) with WPS
<input type="button" value="Select"/>	STSCSSS	2.4GHz Ch6	-44 dBm	WPA2-PSK (TKIP) with WPS
<input type="button" value="Select"/>	DIRECT-45-HP DeskJet 3630 series	2.4GHz Ch1	-50 dBm	[WPA2-PSK-CCMP][WPS][ESS][P2P]
<input type="button" value="Select"/>	Firebird1	2.4GHz Ch11	-60 dBm	WPA2-PSK (TKIP) with WPS
<input type="button" value="Select"/>	home	2.4GHz Ch11	-64 dBm	WPA/WPA2-PSK (TKIP/AES) with WPS
<input type="button" value="Select"/>	ORBI30	2.4GHz Ch9	-70 dBm	WPA2-PSK (TKIP) with WPS

### Gateway Hardware Information

Hostname	Kernel	Platform	CPU Load	CPU Temp
pi-star	4.9.35+	Pi Zero W Rev 1.1	1.34 / 1.06 / 1.03	42.8°C / 109°F

### Controller Software

Setting	Value
Controller Software:	<input type="radio"/> DStarRepeater <input checked="" type="radio"/> MMDVMHost (DV-Mega Mini firmware 3.07 Required)
Controller Mode:	<input checked="" type="radio"/> Simplex Node <input type="radio"/> Duplex Repeater (or Half Duplex on Hotspots)

Apply Changes

### MMDVMHost Configuration

Setting	Value
DMR Mode:	<input checked="" type="checkbox"/> RF Hangtime: 5 Net Hangtime: 5
D-Star Mode:	<input type="checkbox"/> RF Hangtime: 20 Net Hangtime: 20
YSF Mode:	<input type="checkbox"/> RF Hangtime: 20 Net Hangtime: 20
P25 Mode:	<input type="checkbox"/> RF Hangtime: 20 Net Hangtime: 20
NXDN Mode:	<input type="checkbox"/> RF Hangtime: 20 Net Hangtime: 20
YSF2DMR:	<input type="checkbox"/>
YSF2NXDN:	<input type="checkbox"/>
YSF2P25:	<input type="checkbox"/>
POCSAG:	<input type="checkbox"/> POCSAG Timing Features
MMDVM Display Type:	None Port: /dev/ttyAMA0 Display Layout: G4KLX

Apply Changes

### General Configuration

Setting	Value
Hostname:	pi-star <input type="checkbox"/> Do not add suffixes such as .local
Node Callsign:	W9STS
CCS7/DMR ID:	3117915
Radio Frequency:	433.450.000 MHz
Latitude:	41.8049 degrees (positive value for North, negative for South)
Longitude:	-88.3048 degrees (positive value for East, negative for West)
Town:	North Aurora, EN51ut
Country:	USA
URL:	http://www.qrz.com/db/W9STS <input checked="" type="radio"/> Auto <input type="radio"/> Manual
Radio/Modem Type:	ZumSpot - Raspberry Pi Hat (GPIO)
Node Type:	<input type="radio"/> Private <input checked="" type="radio"/> Public
System Time Zone:	America/Chicago
Dashboard Language:	english_us

Apply Changes

Setting	Value
DMR Master:	DMRGateway
BrandMeister Master:	BM_United_States_3103
BrandMeister Network:	Repeater Information   Edit Repeater (BrandMeister Selfcare)
DMR+ Master:	DMR+_IPSC2-Illinois
DMR+ Network:	Options=
DMR+ Network Enable:	<input checked="" type="checkbox"/>
XLX Master:	XLX_950
XLX Startup Module:	Default
XLX Master Enable:	<input type="checkbox"/>
DMR Color Code:	1
DMR EmbeddedLOnly:	<input type="checkbox"/>
DMR DumpTADData:	<input checked="" type="checkbox"/>

Apply Changes

### Firewall Configuration

Setting	Value
Dashboard Access:	<input type="radio"/> Private <input checked="" type="radio"/> Public
ircDDBGateway Remote:	<input checked="" type="radio"/> Private <input type="radio"/> Public
SSH Access:	<input checked="" type="radio"/> Private <input type="radio"/> Public
Auto AP:	<input checked="" type="radio"/> On <input type="radio"/> Off
uPNP:	<input checked="" type="radio"/> On <input type="radio"/> Off

Apply Changes

# MD-380 Setup

**CPS MD\_380**

- Basic Information
- General Setting
- Menu Item
- Buttons Definitions
- Text Message
- Privacy Setting
- Digit Emergency System
- Digital Contacts
- Digital RX Group Lists
- Zone Information
- Scan List
- Channels Information
- DTMF Signaling

**General Setting**

Save

- Save Preamble
- Save Mode Receive

Alert Tone

- Disable All Tone
- CH Free Indication Tone
- Talk Permit Tone: None
- Call Alert Tone Duration[s]: Continue

Scan

- Scan Digital Hang Time[ms]: 1000
- Scan Analog Hang Time[ms]: 1000

Lone Worker

- Lone Worker Response Time[min]: 1
- Lone Worker Reminder Time[s]: 10

Power On Password

- Password and Lock Enable
- Power On Password: 00000000

Radio Name: W9STS

Radio ID: 3117915

Monitor Type: Open Squelch

VOX Sensitivity: 3

TX Preamble Duration[ms]: 300

RX Low Battery Interval[s]: 120

PC Programming Password:

Radio Program Password: 00000000

Back Light Time[s]: 5

Set Keypad Lock Time[s]: Manual

Disable All LEDs

Talkaround

- Group Call Hang Time[ms]: 3000
- Private Call Hang Time[ms]: 4000

Intro Screen

- Intro Screen: Char string
- Intro Screen Line 1: openSPOT
- Intro Screen Line 2: July 2017



**TTT Digital Contacts**



No.	Contact Name	Call Type	Call ID	Call Receive Tone
629	XRF813 A	Group Call	31281	No
630	YOTA	Group Call	918	No
631	YSF-BM2221	Group Call	2229193	No
632	YSF001	Group Call	50599	No
633	YSF001 wires-x	Group Call	5059	No
634	YSF444	Group Call	20494	No
635	Youth 1	Group Call	28091	No
636	Youth 2	Group Call	28092	No
637	Z?rich	Group Call	2288	No
638	Zakarpats`ka obl	Group Call	25507	No
639	Zaporiz`ka obl	Group Call	25508	No
640	Zednet	Group Call	31429	No
641	Zhytomyrs`ka obl	Group Call	25506	No
642	Zuid Nederland	Group Call	2043	No
643	wires-x fusion I	Group Call	7143	No
644	Baynet YG	Group Call	31075	No



# Channels Information

## Digital/Analog Data

Channel Mode

Channel Name

Band Width

RX Frequency(MHz)

Scan List

TX Frequency(MHz)

Squelch

Admit Criteria

RX Ref Frequency

Auto Scan

TX Ref Frequency

Rx Only

TOT[s]

VOX

TOT Rekey Delay[s]

Talkaround

Power

## Digital Data

Private Call Confirmed

Emergency Alarm Ack

Data Call Confirmed

Compressed UDP Data Header

Emergency System

Contact Name

Group List

Color Code

Repeater Slot

Privacy

Privacy No.

## Analog Data

CTCSS/DCS Dec

CTCSS/DCS Enc

QT Reverse

Tx Signaling System

Rx Signaling System

Reverse Burst/Turn-off Code

Display PTT ID

Decode 1

Decode 5

Decode 2

Decode 6

Decode 3

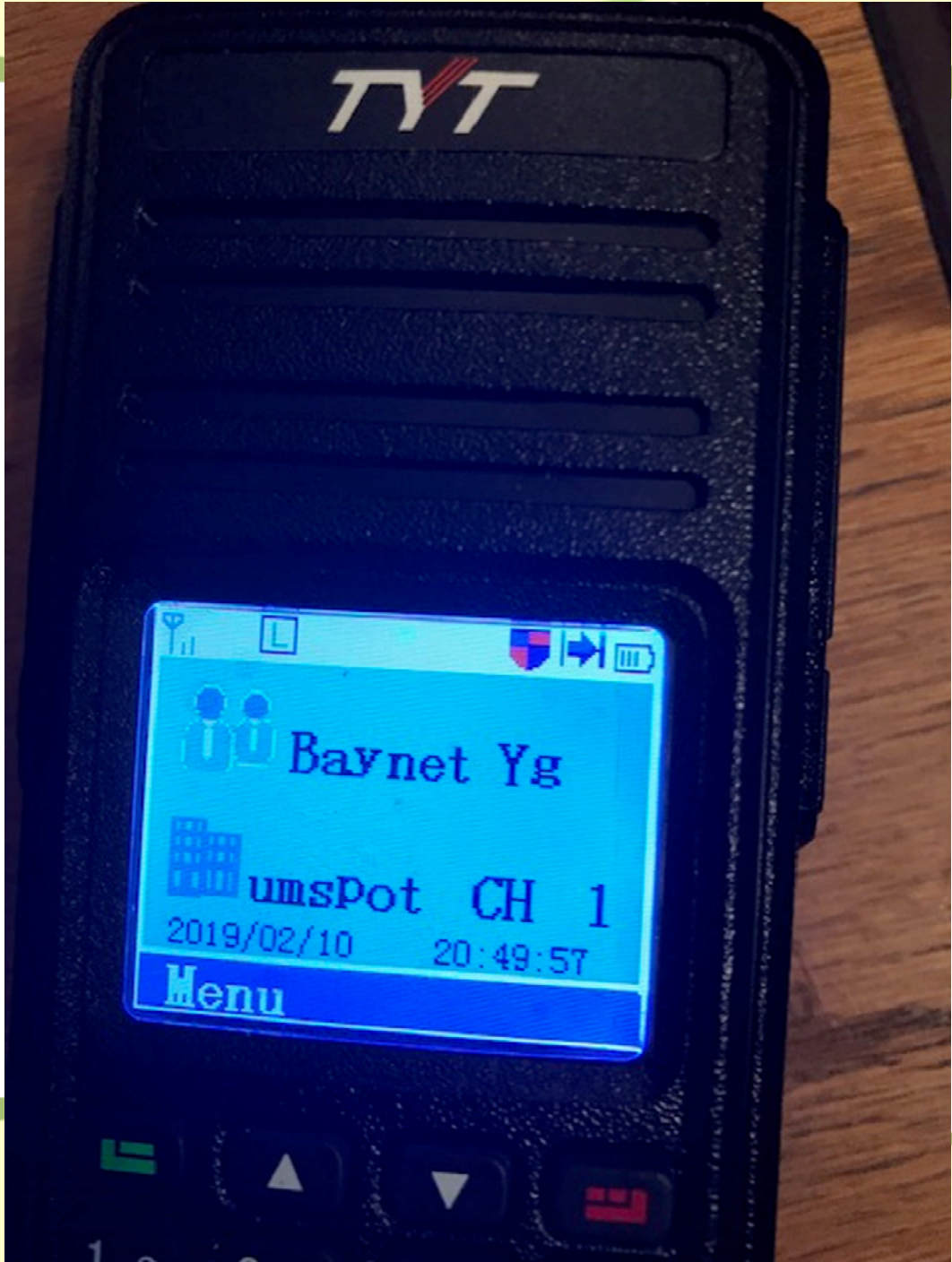
Decode 7

Decode 4

Decode 8

- Save your changes and upload to your radio
- Select the Zone
- Then select the channel





- Questions
- Demonstration
- You Tube is your friend lots of instructions if you have problems.