

IP Access device

Now I have built it, how do I configure it?

By

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We will be talking about Pi-Star controlled IP Access devices.

DMR Masters/Servers (Networks)

Security (Hotspot passwords)

BrandMeister API Interface

DMR Gateway

DMR Masters/Servers (Networks)

Common Servers to use:

BrandMeister

BM_United_Kingdom_2341

BM_Netherlands_2042

DMR+ / Phoenix

DMR+_IPSC2-Scotland

DMR+_IPSC2-PhoenixF

Town:	Edinburgh
Country:	Scotland
URL:	https://www.qrz.com/db/mm0hjx <input type="radio"/> Auto <input checked="" type="radio"/> Manual
Radio/Modem Type:	DV-Mega Raspberry Pi Hat (GPIO) - Dual Band
Node Type:	<input type="radio"/> Private <input checked="" type="radio"/> Public
APRS Host:	london.aprs2.net
System Time Zone:	Europe/London
Dashboard Language:	english_uk

Apply Changes

Setting	Value
DMR Master:	BM_United_Kingdom_2341
Hotspot Security:	DMR+_IPSC2-Mexico
BrandMeister Network:	DMR+_IPSC2-Naples
DMR ESSID:	DMR+_IPSC2-NewYork
DMR Colour Code:	DMR+_IPSC2-NewZealan
DMR EmbeddedLOnly:	DMR+_IPSC2-OE-DMO
DMR DumpTADData:	DMR+_IPSC2-OE-DMO-HAMNET
	DMR+_IPSC2-OZARK
	DMR+_IPSC2-PL260-DMO
	DMR+_IPSC2-PL260-RPT
	DMR+_IPSC2-PhoenixF
	DMR+_IPSC2-Portugal
	DMR+_IPSC2-QUADNET
	DMR+_IPSC2-Romania
	DMR+_IPSC2-SWEDEN-
	DMR+_IPSC2-SWISS
	DMR+_IPSC2-SWISS-DMO
	DMR+_IPSC2-Scotland
	DMR+_IPSC2-TUSCANY
	DMR+_IPSC2-USA-MN2
	DMR+_IPSC2-VKHOTSPOT

Wireless Configuration

Device	Device	Device
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Security (Hotspot passwords)

Q. Do I need a password on my hotspot?

A. No, But a password on your hotspots protects your DMR-ID from being used by anyone else on a cloned hotspot. Note: BrandMeister Network only.

Security (Hotspot passwords) BrandMeister Selfcare

The screenshot shows the 'SelfCare Settings' page for user 2354425 (MM0HJX). The page is divided into several sections:

- Brand:** Motorola
- Language:** English
- APRS Interval:** 60 sec
- APRS Callsign:** MM0HJX-9
- APRS Icon:**
- In Call GPS:** Off
- APRS Text:** Rx DMR BM Ref:4405
- AirSecurity / TOTP:** Off
- Hotspot Security:** On
- Password:** Enter new Hotspot Password

A large orange arrow points to the 'Password' input field.

Turn "On" Hotspot Security, enter password and click "Save".

Security (Hotspot passwords) Pi-Star / DMR Configuration

DMR Configuration

Setting	Value
DMR Master:	DMRGateway ▾
BrandMeister Master:	BM_United_Kingdom_2341 ▾
BM Hotspot Security:	<input type="password"/>
BrandMeister Network ESSID:	2354209 None ▾
BrandMeister Network Enable:	<input checked="" type="checkbox"/>
BrandMeister Network:	Repeater Information Edit Repeater (BrandMeister Selfcare)
DMR+ Master:	DMR+_IPSC2-PhoenixF ▾
DMR+ Network:	Options=StartRef=4000;RelinkTime=60;UserLink=1;
DMR+ Network ESSID:	2354209 None ▾
DMR+ Network Enable:	<input checked="" type="checkbox"/>
XLX Master:	XLX_950 ▾
XLX Startup Module:	Default ▾
XLX Master Enable:	<input type="checkbox"/>
DMR Colour Code:	1 ▾
DMR EmbeddedLCOnly:	<input checked="" type="checkbox"/>
DMR DumpTADData:	<input checked="" type="checkbox"/>

Enter the password and click "Apply Changes".

BrandMeister API Interface

Q. What is an API Interface?

A. API (Application Programming Interface) allows settings in BrandMeister Selfcare to be controlled by Pi-Star.

Active BrandMeister Connections					
BrandMeister Master	Default Ref	Timeout(s)	Active Ref	Static TGs	Dynamic TGs
BM United Kingdom 2341	REF0	0(s)	REF4405	TG235444	None

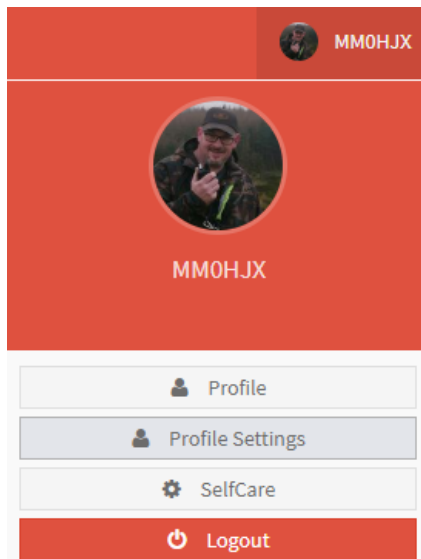
BrandMeister Manager			
Tools	Active Ref	Link / Unlink	Action
<input type="button" value="Drop QSO"/> <input type="button" value="Drop All Dynamic"/>	REF4405 ▾	<input type="radio"/> Link <input checked="" type="radio"/> UnLink	<input type="button" value="Modify Reflector"/>
Static Talkgroup	Slot	Add / Remove	Action
<input type="text"/>	<input type="radio"/> TS1 <input checked="" type="radio"/> TS2	<input checked="" type="radio"/> Add <input type="radio"/> Delete	<input type="button" value="Modify Static"/>

Features such as:

Add/Remove Static Talkgroups, Drop QSO, Drop Dynamic Talkgroups
& Link or Unlink Reflectors.

BrandMeister API Interface

BrandMeister Selfcare



In your BrandMeister account, click on your “Callsign” and then on “Profile Settings”.

A screenshot of the Security Settings form. The form is titled 'Security Settings' and has a blue button labeled 'API Keys' in the top right corner. The form contains two input fields: 'Password' and 'Confirm Password'. Below the input fields is a blue button labeled 'Update Password'.

Create API Key by clicking API Key button and follow the on screen instructions.

Copy and Paste into Pi-Star.

BrandMeister API Interface

Pi-Star

Click on "Configuration", then "Expert" followed by "BM API"

Pi-Star: 4.0.0-RC2 / Dashboard: 20190628

Pi-Star Digital Voice - Expert Editors

[Dashboard](#) | [Admin](#) | [Update](#) | [Upgrade](#) | [Backup/Restore](#) | [Configuration](#)

Quick Edit: [DStarRepeater](#) | [ircDDBGateway](#) | [TimeServer](#) | [MMDVMHost](#) | [DMR GW](#) | [YSF GW](#) | [P25 GW](#) | [NXDN GW](#) | [DAPNET GW](#)
Full Edit: [DMR GW](#) | [PiStar-Remote](#) | [WiFi](#) | [BM API](#) | [DAPNET API](#) | [System Cron](#) | [RSSI Dat](#) **Tools:** [CSS Tool](#) | [SSH Access](#)

key	
apikey	<input type="text"/>

Pi-Star / Pi-Star Dashboard, © Andy Taylor (MW0MWZ) 2014-2019.
ircDDBGateway Dashboard by Hans-J. Barthen (DL5DI),
MMDVMDash developed by Kim Huebel (DG9VH),
Need help? [Click here for the Support Group](#)
[Get your copy of Pi-Star from here.](#)

Paste the API Key and Apply Changes.

DMR Gateway

DMR Gateway allows for multiple DMR Networks to run side by side on the same hotspot.

DMR Gateway

Basic DMR Gateway Configuration

DMR Configuration

Setting	Value
DMR Master:	DMRGateway ▼
BrandMeister Master:	BM_United_Kingdom_2341 ▼
BM Hotspot Security:	<div style="background-color: #f4a460; width: 100px; height: 15px;"></div>
BrandMeister Network ESSID:	2354209 None ▼
BrandMeister Network Enable:	<input checked="" type="checkbox"/>
BrandMeister Network:	Repeater Information Edit Repeater (BrandMeister Selfcare)
DMR+ Master:	DMR+_IPSC2-PhoenixF ▼
DMR+ Network:	Options=StartRef=4000;RelinkTime=60;UserLink=1;
DMR+ Network ESSID:	2354209 None ▼
DMR+ Network Enable:	<input checked="" type="checkbox"/>
XLX Master:	XLX_950 ▼
XLX Startup Module:	Default ▼
XLX Master Enable:	<input type="checkbox"/>
DMR Colour Code:	1 ▼
DMR EmbeddedLCOonly:	<input checked="" type="checkbox"/>
DMR DumpTADData:	<input checked="" type="checkbox"/>

DMR Gateway

BrandMeister and DMR+ Masters can be different from this example.

Startup Reflector for DMR+ can be 4450 (Scotland).

DMR+ Master:	DMR+_IPSCZ-PHOENIX
DMR+ Network:	Options=StartRef=4000;RelinkTime=60;UserLink=1;

Just change StartRef=4000 to StartRef=4450 or which reflector you choose.

RelinkTime=60 (mins) before defaulting to StartRef after no activity (RF input).

DMR Gateway

The radio will need a slight change to the codeplug.

Add TG8 (Group call) to your contacts in the radio codeplug.

Add a new hotspot channel "TG8 DMR+"

DMR Gateway Operation

BrandMeister will work as normal, TG9 for the BM Reflectors.

DMR+ will use TG8 for the DMR+ Reflectors on the hotspot.

DMR+ Reflectors can be changed as normal but you have to prefix the commands with the number "8".

Private Dial:

85000 = Status

84000 = Unlink

84450 = Scotland

84400 = UK Wide

Final thoughts

Experimenting and getting hands on with your hotspot is a valuable learning tool and can be very rewarding when things work or learning from mistakes when made.

Share your thoughts and ask questions. Get people involved and talking...