DMR 을 처음 시작 하시는 회원분들께 도움이될가 해서 제가 사용하는 방식을 소개 하려 합니다. 이 문서는 참고 자료로 보시면 감사하겠습니다.

사용전 필요한 절차:

- DMR 에서 쓰는 용어 이해가 좀 필요합니다 (codeplug, talkgroup, Receive Group, Contact, Zone, and etc)
- HAM license 소지자 (등급 제한 없음)
- DMR ID 등록
  - o 여기로 클릭합니다: <u>https://radioid.net/cgi-bin/trbo-database/userreg.cgi</u>

Ladiol D.net	Home Database Register ID
Welcome to DMP User registrat	OMR USER Registration - Callsign Validation
If any of the data auto populated	on the next screen is incorrect, please change it and update QRZ.com as well.
Enter Callsign	본인콜사인입력하세요
	Validate

• 클릭 "Validate"

		ADD DMR USE	R	
Country	United States	)		
Callsign	КМ6АВС			
First Name	HONGIL			
Last Name	DONG			
City	Los Angeles			
State/Prov	(3100) California	•	🗸 I'm not a robot	
Radio Type	DMR 💌			reCAPTCHA Privacy - Terms
EMail Address	email 주소 입력			
Comment	Tell us something (Optional)	about yourself		
		Register		

- 클릭 "I'm not a robot" 여기서 교통사인, 다리, 버스, 상점 사인 같은 그림을 클릭하셔서 본인임을 확인 시켜 줍니다.
- 클릭 "Register" 으로 등록 신청합니다 (소요 시간 72 시간 이네)

사용된 제품:

- TYT MD390 without GPS
- SharkRF openspot
- 1. TYT MD390 Radio 프로그램 순서:
  - 1. 아래 링크를 방문하시고 그림의 보이는 링크를 클릭 하셔서 코드를 다운로드 합니다
  - 2. http://papasys.com/dmr/codeplugs/

## 📥 PAPA DMR Codeplugs

To apply for a radio ID, follow this link: https://register.ham-digital.org/

PAPA System codeplugs contain:

- PAPA System and a selection of Southern California DMR Repeaters
- PAPA System Analog Repeaters
- Analog and DMR Simplex Channels
  - Connect Systems

**Connect Systems Codeplugs** 

Hytera

Hytera Codeplugs

Motorola

TERA TR-7400

Motorola Codeplugs

DTYT MD-380/2017

Anytone D868

TERA TR-7400 Codeplug



3. 다운로드 folder 와 파일 장소를 기억합니다 (나중에 입력할때 필요함)

Downloads > zip_MD380-PAPA-2018-fe	:b-01 <mark>a</mark>			
iry 🔻 Share with 👻 Burn New	/ folder			
	Name	Date modified	Туре	Size
	MD380-PAPA-2018-feb-01a.rdt	1/31/2018 5:36 PM	RDT File	257 KB

2. TYT MD390 따라온 프로그램 케이블(USB) 과 무전기를 아래 사진처럼 컴푸터 에 연결 합니다



- 3. 무전기와 함께 따라온 CPS (computer program software) 을 깔아줍니다.
  - 1. 아래 사진은 WIN7 의 환경 모습입니다.



4. 위의 CPS 를 오픈합니다

5. 아래와같이 오픈된 창이 열립니다-여기서 "File"→"Open"→ 아래 그림 처럼 Papa system 에서 다운로드한 파일를 불러옵니다, 그리고 클릭 "open".

E CPS MD390	Basic Information
Basic Information	Frequency Range [400-480MHz]
🕼 Menu Item 🔵 Buttons Definitions	Last Programmed Date 2018-05-12 10:57:55
	Model Name MD390
Digit Emergency System     Digital Contacts	Serial Number
Topo Information	CPS Software Version V01.37
E Scan List	Hardware Version V01.00
	MCU Version S013.020
🔤 🖗 GPS System	Unique Device ID 113825Q0038660079697
	Dig Open
	Look in: 👔 zip_MD380-PAPA-2018feb-01a 💽 🔶 🖆 🖽 🕶
	Name Date modified T
	MID300-FAFA-2010-16D-013.101 1/31/2010 3:30 FWI F
	III
	File name: MD380-PAPA-2018-feb-01a Open

6. CPS 가 papa codeplug 으로 update 했습니다. 여기서 클릭 "General Setting" 합니다

DL CPS MD390 - MD380-PAPA-2018-feb-0	1a.rdt
File Edit Program Setting View W	indow Help
<ul> <li>CPS MD390</li> <li>Basic Information</li> <li>General Setting</li> <li>Menu Item</li> <li>Buttons Definitions</li> <li>Text Message</li> <li>Privacy Setting</li> <li>Digit Emergency System</li> <li>Digital Contacts</li> <li>Digital RX Group Lists</li> <li>Zone Information</li> <li>Scan List</li> <li>Channels Information</li> <li>DTMF Signaling</li> <li>GPS System</li> </ul>	Image: Second

 General Setting 에서 오엠님의 콜사인과 DMR ID 를 입력합니다 (이제는 왜 DMR ID 등록이 먼저 필요한지 이해가 되리라 생각합니다). 참고로, 저장 버튼이 없습니다. 정보를 입력 하시고 다른 멘뉴로 가시면 됩니다.

Basic Information	
General Setting       Save         Image: Save Mode Receive Image: Save Mode Re	Radio Name       YourCall         Radio D       123456         Monitor Type       Open Squelch         VOX Sensitivity       6         TX Preamble Duration(ms)       960         RX Low Battery Interval(s)       120         PC Programming Password       99999999         Back Light Time(s)       ▼         Set Keypad Lock Time(s)       Manual         Diable All LEDS       Talkaround         Group Call Hang Time[ms]       5000         Private Call Hang Time[ms]       4000         Intro Screen       Intro Screen         Intro Screen       PAPA         Intro Screen       2

- 8. 이과정은 papa codeplug 위에 한국 DMR talkgroup contact 을 추가시키는 방법입니다
  - 1. 클릭 "Digital Contact"
  - 2. 클릭 "Add"
  - 3. 그림 순서 "3" 을 참고로 그림과 같이 반복하여 입력시켜줍니다.

CPS MD390	Digital	Contacts				×
📄 Basic Information	No.	Contact Name	Call Type	Call ID	Call Receive Tone	-
General Setting	898	KI6ZUM Jim	Private Call	3106892	No	1
💕 Menu Item	899	KE6NGC Mary	Private Call	3107539	No	
Buttons Definitions	900	Pi.SHUTDOWN	Private Call	9999996	No	
	901	Pi.REBOOT	Private Call	9999997	No	
	902	Pi.svcRestart	Private Call	9999998	No	
📲 Digit Emergency System	903	Pi.svcKill	Private Call	9999999	No	
A Digital Contacts	904	🚽 🏳 🔾 👌 Korean450	Group Call	450	No	
🖳 🔤 Digital RX Group Lists	905	Korean45004	Group Call	45004	No	
Zone Information	906	Korean45005	Group Call	45005	No	
I 🛄 Scan List	907	Korean45021	Group Call	45021	No	
Channels Information	908	Korean45022	Group Call	45022	No	
	909	Korean45023	Group Call	45023	No	
	910	Korean45024	Group Call	45024	No	
	911	Korean45025	Group Call	45025	No	
	912	Koreanecho450997	Group Call	450997	No	_
	913	Contact1	Group Call	4	No	
		Add	Delete Export	Import		

- 9. 이과정은 수신 (Digital RX Group/s)을 설정합니다.
  - 1. 클릭 "Digital RX Group List"
  - 2. 클릭 "Add"
  - 3. "Korean45004"
  - 4. Find "Korean45004" and "TG9.DV4"
  - 5. 클릭 "Add" button to move the selected contacts to the right window
  - 6. 반복하여 "Korean45025" 까지 입력합니다.

CPS M030     CPS M030     CPS M030     Concert String     CPS M032     Concert String     Conce	File Edit Program Setting View Wi	ndow Help			
CPE M0330     General Stating     Monu Item     Available Contact     More Text Message     Or rock M	🗅 🗃 🖬 📲 📲				
CPS M0390         General Setting         General Setting         Menu Item         Bit Digit Endes Definitions         Available Contact         Digit Endes Definitions         Contact Member         None         Digit Endes Definitions         Contact Member         None         Digit Endes Definitions         Contact Member         None         Digit Endes Definitions         Contact Member         Digit Endes	×	D4 Digital BX Group Lists			
Baic Information       Group Lit Name       Context Member	🖃 🖕 CPS MD390				
General Setting       Group List Name       Conduct Name       Conduct Name       Conduct Name       Conduct Name       Mach       mach         © Digit Energency System       © Digit System       ©	📄 Basic Information				
<sup>milled</sup> <sup>mille</sup>	General Setting	Group List	t Name Korean45004		с. 1 —
	🔐 Menu Item				
✓ Tet Message       ✓ Tet Message         ✓ Privacy Setting       Local         Bit Digital Contacts       ✓ Tet Message         Ø Group D       ✓ Tet Message         Ø Group D       ✓ Tet Message         Ø Stot 1       Nore         Neveda 1       UK Addo         UK 1       UK Vide         UK 1       UK Vide         UK 2002       Ø of 15         Ø of 15       ✓ ✓ ✓ → Add         Ø of 15       ✓ ✓ → → Add         Ø of 165	Buttons Definitions	Available Contact	Cont	act Member	m Ack
Sprivacy Setting       Local       Image: Sprivacy Setting       Image: Spri		WORLD TG1	Korean45004		hfirmed I
Bigit Energency System       None         Bigital Contacts       WORLD SNLUSH         WORLD EUROPE       Korean45004         Bigital Contacts       Local         Bigital Contanets       Local		Local Noder TG3			Header 🔽
© Digital Contacts       WORLD ENGLISH         Digital X Group Lists       WORLD ENGLISH         CLOCal       WORLD ENGLISH         Contacts       WORLD ENGLISH         WORLD ENGLISH       Addos         Contacts       WORLD ENGLISH         WORLD ENGLISH       Addos         Contacts       WORLD ENGLISH         Contacts       WORLD ENGLISH         Contacts       Contacts         Contacts <td>Digit Emergency System</td> <td>FRENCH WORLD</td> <td></td> <td></td> <td>None 🔻</td>	Digit Emergency System	FRENCH WORLD			None 🔻
Polgital RX Group Lists       Function         Construction       Construction	🔏 Digital Contacts	WORLD ENGLISH	(5)		Kanaar 45004
Image: Cost of	👝 😑 Digital RX Group Lists	EUROPE	$\smile$		Kuleari43004
Image: Comp A       Image: Comp B         Image: Comp B       Image: Comp B         Image: Comp C       Image: Comp C         Image: Comp C	Local	NorthAmerica			Korean45004 💌
Broup B       ENGLISH 1         Group C       Composition         Group D       Group D         Group D       Group D <td>- Croup A</td> <td>DIRECT MODE</td> <td>Adds</td> <td></td> <td></td>	- Croup A	DIRECT MODE	Adds		
Construct	- 8 Group B	ENGLISH 1 ENGLISH 2	Add//		
Image: Start in the start	Group C	204 Nederland			1 🔹
Index 311   Index 312   Index 311   Index 311   Index 312   Index 311   Index 312	Group D	TAC 310	< <delete< td=""><td></td><td>News</td></delete<>		News
Image: Solution of the solution		TAC 312			INone
Slot 2 Slot 2 Korean45004 Korean45021 Korean45021 Korean45023 Korean45023 Korean45023 Korean45024 Korean45024 Korean45025 Conclutormation Channels Information GPS System Off I Reverse 180 I Reverse 180 I Reverse Burst/Turn-off Code Stat List Objective System Stat List Sof 967 K- (>> ->  Add Delete Stat List Stat List Sof 967 K- (>> ->  Add Delete Stat List Stat List Sof 967 K- (>> ->  Add Delete Stat List Stat List Stat List Sof 967 K- (>> ->  Add Delete	Slot 1	Tech411			1 👻
Korean45004       UK 1/de         Korean45004       UK V/de         Korean45003       Korean45021         Korean45021       Software         Korean45022       Software         Korean45023       Korean45024         Korean45024       Korean45025         Korean45025       Software         Channels Information       Tx Signaling System         Channels Information       Off Image Reverse Burst/Turn-off Code         DTMF Signaling       Off Image Reverse Burst/Turn-off Code         Otsplay PTT ID       Stan 4 dd         Stan 4 dd       Delete	Slot 2	UK 4400			
INCOME	Korean45004	UK 1 UK Mide			Follow Admit Criteri.
Korean45021         Korean45021         Korean45021         Korean45021         Korean45021         Korean45023         Korean45024         Korean45025         Cone Information         Channels Information         Channels Information         Channels Information         Channels Information         Channels Information         OTMF Signaling         GPS System         Off         Stag of 967         Korean45024         Korean45025         Construction         Son List         Display PTT ID         Stag of 967         Korean45024         Stag of 967         Korean45025         Korean45024         Stag of 967         Korean45025         Korean45025         Booth         Display PTT ID         Stag of 967         Korean45025	Korean45005	UK DV4talk	(2)		None 🔻
Image: Solution S	Korean45021	Ireland	- 7		
Sof 15       K-       K-       N       Add       Delete         Sof 15       K-       K-       N       N       Add       Delete         B       Cone Information       Tx Signaling System       Diff       P       Decode 3       Decode 7       Decode 8         DTMF Signaling       System       Diff       P       Reverse Burst/Turn-off Code       Decode 8       Decode 8       Decode 8       Decode 8       Decode 8       Decode 8       Decode 9       System	Korean45022			1	
Korean45024       Decode 5         Korean45025       Decode 6         Zone Information       Decode 1         Channels Information       Decode 3         Channels Information       Provide 10         The verse 180       Provide 10         DTMF Signaling       Decode 4         Display PTT ID       Decode 3         959 of 967       K         K       Stan 4dd         Decode 3       Decode 6         Decode 4       Decode 7         Decode 8       Decode 8	Korean45023	9 of 15 <u>K- &lt;&lt;-</u>	->> ->I Add Delete		
Korear49025         Concellation         Scan List         Channels Information         DTMF Signaling         Off         Off         Poisplay PTT ID	Korean45025				Decode 5
Q TREVERSE       Q T Reverse       180 ▼ Tx Signaling System       Diff       Decode 5 □         Channels Information       P Channels Information       P Reverse Burst/Turn-off Code       Decode 3 □       Decode 3 □         DTMF Signaling       P Reverse Burst/Turn-off Code       Decode 4 □       Decode 3 □       Decode 3 □         Off       ▼       Reverse Burst/Turn-off Code       Decode 4 □       Decode 3 □         Standard       P Reverse Burst/Turn-off Code       Decode 4 □       Decode 3 □         Standard       P Reverse Burst/Turn-off Code       Decode 4 □       Decode 3 □         Standard       P Reverse Burst/Turn-off Code       Decode 4 □       Decode 3 □         Standard       P Reverse Burst/Turn-off Code       Decode 4 □       Decode 3 □         Standard       P Reverse Burst/Turn-off Code       Decode 4 □       Decode 4 □         Standard       P Reverse Burst/Turn-off Code       P Reverse Burst/Turn-off Code       P Reverse Burst/Turn-off Code         Standard       P Reverse Burst/Turn-off Code       P Reverse Burst/Turn-off Code       P Reverse Burst/Turn-off Code         Standard       P Reverse Burst/Turn-off Code       P Reverse Burst/Turn-off Code       P Reverse Burst/Turn-off Code         Standard       P Reverse Burst/Turn-off Code       P Reverse Burst/Turn-off Code	Korean(5025			Davida 2	Decode 3
Grammation       Decode 3 □       Decode 7 □         Channels Information       Image: Channels Information       Image: Channels Information       Image: Channels Information         Image: Channels Information       Image: Channels Information       Image: Channels Information       Image: Channels Information         Image: Channels Information       Image: Channels Information       Image: Channels Information       Image: Channels Information         Image: Channels Information       Image: Channels Information       Image: Channels Information       Image: Channels Information         Image: Channels Information       Image: Channels Information       Image: Channels Information       Image: Channels Information         Image: Channels Information       Image: Channels Information       Image: Channels Information       Image: Channels Information         Image: Channels Information       Image: Channels Information       Image: Channels Information       Image: Channels Information         Image: Channels Information       Image: Channels Information       Image: Channels Information       Image: Channels Information         Image: Channels Information       Image: Channels Information       Image: Channels Information       Image: Channels Information         Image: Channels Information       Image: Channels Information       Image: Channels Information       Image: Channels Information         Image: Channel		QT Reverse 180 💌	Tx Signaling System Off 📃	Decode 2	Decode 6
B Channels Information         W DTMF Signaling         Image: GPS System         Off         Image: State of the st	E Scan List			Decode 3 🗖	Decode 7 🗖
Image: Constraint of the second se	Channels Information	Rx Signaling System 🛛 🗹 💌 🗹	Reverse Burst/Turn-off Code	Decode 4	Decode 8 🗖
GPS System 959 of 967 K- <<- →> →I Add Delete	DTME Signaling				
959 of 967 K· <<· →> →I Add Delete	GPS System	L Display PTTTD			
	¥ 0.009 km	959 of 967	k- <<- >> >	Add Delete	

10. 이과정은 위의 talkgroup 를 어떻게 radio 주파수를 사용하는지 입력합니다.

- 1. 클릭 "Channels Information"
- 2. 클릭 "PAPA 1", 이클릭은 챈넬 입력 창을 오픈 하기위해서 입니다
- 3. 클릭 "Add"
- 입력 챈넬 네임" Korean45004" (참고 Korean45004 이름은 talkgroup, Digital RX Group, 그리고 Channels 과 동일 합니다. 하지만 서로 주어진 임무는 다른점을 이해 하면 좋겠습니다)
- 5. 446.000000 주파수는 openspot repeater simplex 주파수 입니다.
- 6. 여기의 "Korean45004" 는 송신 talkgroup 입니다
- 7. 여기의 "Korean45004" 는 수신 멤버십 입니다
- 8. 위의 방법 3-7 을 반복하여 "Korean45025" 까지 입력합니다.

CPS MD390	Channels Information	
Basic Information	Digital/Analog Data Digital Data	
O General Setting	Channel Mode Analog Channel Name PAPA 1 Private Call Confirm	med 🗖
	Band Width 25kHz RX Frequency(MHz) 446.58000 Data Call Confir	Ack
Privacy Setting     Digit Emergency System	Scan List None TX Frequency(MHz) 441.58000 Emergency System	None
Digital Contacts     Digital RX Group Lists	Squelch Normal  Admit Criteria Always Contact Name	None
⊕ — Zone Information ⊕ — Scan List	BX Ref Frequency Medium  Auto Scan Color Code Color Code	0 -
Channels Information	TX Ref Frequency         Medium         Repeater Slot	1 🔽
PAPA 3		None 👻
	TOT Rekey Delay(s) 0	Always -
	Power High  Receive GPS Info  GPS System GPS System	None
	C Analog Data	
PAPA 18	CTCSS/DCS Dec 127.3  CTCSS/DCS Enc 127.3  Decode 1	Decode 5 🗖
TOR Analog	QT Reverse 120 Tx Signaling System Off Decode 2 Decode 2	Decode 7
Analog Rpt 12	Rx Signaling System Off  Reverse Burst/Turn-off Cade Decode 4	Decode 8 🗖
Analog Rpt 14		
- Analog Rpt 10 - Analog Rpt 17 - Analog Rpt 18	1 of 967 K- K- →> →I Add Delete	

	🖳 Channels Information		
S ZS World	Diaital Analag Data	(I)	Disital Data
3 ZS NorCal	Digital/Analog Data		Digital Data
ZS SBARC	Channel Mode Digital 👻	Channel Name Korean45004	Private Call Confirmed
ZS EMCOM		1	Emergency Alarm Ack 🗔
ZS SNARS	Band Width 12.5kHz 💌	RX Frequency(MHz) 446.00000	Data Call Confirmed
3 ZS VCDRC		GR.	Compressed UDP Data Header
3 ZS TX3148	Scan List None 💌	TX Flequency(MHz) 446.00000	Emergency System None 💌
🛛 ZS open1			
🛛 ZS UsrProg	Squelch Normal 💌	Admit Criteria Color Code 🔍 💌	
ZS SHUTDOWN		Auto Saan 🗔	Group List Korean45004
ZS REBOOT	RX Ref Frequency Low	Auto Scan (	
ZS SvcRestart		Rx Only 🗔	
🛯 ZS SvcKill	TX Ref Frequency Low	Lone Worker	Repeater Slot 1
PPR Local			Privacy None 💌
🛛 PPR PAPA		VUX	
PPR SoCal	TOT Bekey Delayfel	Allow Talkaround 🗔	Privacy No. 1
PPR SoCal1		Send GPS Info	In Call Criteria Follow Admit Criteri
M PPR CA3106	Rouser 10M	Beceive GPS Info	
PPR CAL 1			GPS System None
PPR Zone6			
M PPR NA	Analog Data		
PPR World			
PPR USA3100	CTCSS/DCS Dec None 💌	CTCSS/DCS Enc None 💌	Decode 1 Decode 5
DDD TV2149	OT Reverse 180 -	Tx Signaling System Off	Decode 2 Decode 6
DDD U-D			Decode 3 🗖 🛛 Decode 7 🗖
	Rx Signaling System Off 🗾	Reverse Burst/Turn-off Code	Decode 4 🗖 Decode 8 🗖
	Display PTT ID		
DDR TG0			
PPR Audio	959 of 967		d Delete
PPR Parrot			
Korean450	·		
Korean45004			
Korean45005			
Korean45021			
Korean45022			
🛛 Korean45024			
🛯 Korean45023			
⊠ Korean45025 🔍			
🛯 Kara			
KoreanEcho450997			

Edit Program Setting View W	indow Help	
i 🖙 🖬 📲 📲 🨵		
	DL Channels Information	
	Digital/Analog Data	- Digital Data
	Channel Mode Analog 🗾 Channel Name	KARA Private Call Confirmed
		Emergency Alarm Ack
	Band Width Z5kHz RX Frequency(MHz	Data Call Confirmed
		Compressed UDP Data Header
	Scan List None TX Frequency(MHz	Emergency System None
		Cantast Mana
	Squelch Normal 💌 Admit Criteria	a Always
		Group List None
	RX Ref Frequency Low _ Auto Sca	
	Rx On	
	TX Ref Frequency Low	Repeater Slot 1
		Privacu None
	TOT[s] 60 🔽 VO:	
	Allow Talkaroup	Privacy No. 1
PPR SoCal1	TOT Rekey Delay[s] 0	
	Send GPS Int	a 🗌 In Call Criteria 🛛 Always 🔄
PPR CAL 1	Power High 💌 Receive GPS Inf	GPS System None 📼
PPR Zone6		
	- Analog Data	
	Analog Data	
PPR USA3100	CTCSS/DCS Dec 118.8  CTCSS/DCS Enc	118.8   Decode 1  Decode 5
PPR SNARS		Decode 2 Decode 6 D
	QT Reverse 180 💌 Tx Signaling System	
PPR UsrProg		Decode 3 Decode 7
	Rx Signaling System   Uff 🔄 🗹 Reverse Burst/Turn	off Code Decode 4 Decode 8
PPR XLX013	Display PTT ID	
PPR TAC310	, on proping if it is the second seco	
PPR TG9		
PPR Audio	966 of 967 K- <<-	->> ->  Add Delete
PPR Parrot		
Korean450		
Korean45004		
Korean45021		
Korean45022		
Korean45024		
Korean45023		
Korean45025		

11. KARA 440 repeater Analog setup 과정입니다

12. 이과정은 위의 모든 셋업을 "KoreanDMR" Zone 으로 설정합니다.

- 1. 그림 번호를 참조 하셔서 "KoreanDMR" Zone 구성합니다
- 2. 지금까지 구성한 KARA 와 Korean450/450XX 챈넬을 "KoreanDMR" ZONE 안에 몰아 줍니다.
- 3. 번호 "5" 는 지금 까지 업데이트 한것을 무전기로 옮기는 역활를 합니다.



## 13. 이과정은 openspot (개인 중계소) 설정과정 입니다.

- 1. USB 케이블은 전원제공만 사용합니다
- 2. Ethernet Cable- 유선 인터넷접속 (홈 라우터 에 연결)



14. 브라우저 창을 오픈 합니다

- 1. Type <u>http://openspot/</u>
- 2. Enter password as "openspot"
- 3. 순서대로 입력하면 됩니다. 여기서 콜사인과 DMR ID 를 바꾸어 주시면 됩니다
- 4. 5-6 정보는 오엠님의 콜사인 DMR ID 을 입력합니다. Al6FF/1107457 은 견본입니다
- 5. 여기 "7" 번에 해당되는 talkgroup 은 그리 중요하지 않습니다

Connectors DMR SMS Moder	m Settings Logout
	Connectors
	Active connector: Edit connector:
	Quick call Private call 4000 Group call 4000 Call 4000 (Disconnect)
	Destination ID: 4000 🗟
	DMR/Homebrew/MMDVM     Save       Modem receive frequency (MHz):     #46.000000       Modem transmit frequency (MHz):     #46.000000
	Protocol:        • Homebrew © MMDVM        Server:        • South Korea/4501 (bm.dv.or.kr)        Callsign:        • Al6FF
New openSPOT firmware is available. Click here to open the download page!	DMR ID:     1107457.     H       Server password:     passw0rd       Auto connect to ID (0 to disable):     45005

Logout

## Status Connectors DMR SMS Modem Settings

446.000000 Homebrew   MMDVM South Korea/4501 (bm.dv.or.kr	) •				
Homebrew MMDVM South Korea/4501 (bm.dv.or.kr	) 🔻				
South Korea/4501 (bm.dv.or.kr	) –				
AIGEE					
AIOFF	AI6FF				
1107457	÷				
passwOrd					
<mark>ب 45005 ر</mark>	* *				
<ul> <li>● Group call ○ Private call</li> <li>□ Disconnect TG/ref. on auto content</li> </ul>	onnect				
45024					
Group call      Private call					
45005	×				
Group call      Private call					
	1107457 passw0rd 45005 © Group call © Private call © Disconnect TG/ref. on auto co 45024 © Group call © Private call 45005 © Group call © Private call				



New openSPOT firmware is available. Click here to open the download page

openSP0T•	Status	Connectors	DMR SMS	Moden	n Settings Logout			
					Voice announcements			Save
					Server:		☑ Enabled spk.sharkrf.com ╺	
					Location settings		check your QTH	Save
					QTH locator:	3	DM03XU	
					Latitude:		+033.8542	
					Longitude:		-0118.0417	
					Height (AGL, meters):	$\frown$	0	×
					Description (city, country):	3)	Cypress,California	
						$\sim$	your city	
					DMR settings		Update DMR ID database	Save
							🗆 Auto update DMR ID data	abase
					Color code:		1	×.
					Default DMR ID for C4FM calls:		9998	a) W
							Allow only DMR IDs as C4	FM callsigns
					Fassa talkas alias ta DMD aatwask		Send no in-band data to	network
					Force talker allas to DMR network:		Send no in-band data to	modem
New openSPOT firmware	is available.	Click here to <u>oper</u>	n the download	page!				

- 15. Openspot (개인중계소) Connection to Brandmeister registration
  - 1. 여기 링크로 가셔서 등록 합니다: https://brandmeister.network/?page=login

← → ♂ ŵ	🛈 🚔 https://brandmeister.network/?page=login	🛡 🏠 🔍 Search	
BrandMeister			Register Login <b>HE</b> EN <b>Q</b> Settings
🍰 User Dashboard	Login		~
💄 Last Heard		Login with your SelfCare account	
E Repeaters 2053		Callsign	
📾 Hotspots 🚺 🖬		Callsign	
🗮 Masters 🛛 🛃		Password	
		Password	
Lal Data Visualisation <		Login Forgot your password?	
Information     <		Not a member? Register!	
🖌 Services 🗸			

## 16. 등록이된 후 login 하면서 개인 중계소를 설정합니다

(i) A https://brandmeister.network/	?page=hotspot-edit&id=1107457		··· 🛡 🏠 🤇	२ Search		lii\ I		»≡
Sysops						+ Add as	sysyop to Al6	iff
Callsign	Read Settings	Write Settings	Manage Sysops	Manage Sysops				
AI6FF	*	×	*					
Actions								-
Get IP address Drop call Drop	dynamic groups Reset connection							
								_
Reflector Settings	$\bigcirc$					_		
Active reflector	<b>9</b> 4510						Set	
Default reflector	0	R	eflector timeout (sec)	0			Set	
Static Talkgroups								
	(5) South Korea (450)	<u>^</u>						
\$ 45025	(45004) (45005) (45005)							
		•						
Scheduled static		+ Add Scheduled Static						
Active Timed Statics:		A						
	Remove	<b>v</b>						
	- Kenore							
nsure you get the best experience on	n our website						iot it!	

- 17. TYT 무전기 전원을 작동시키고 초록색 "Menu" 버튼을 누룹니다
  - 1. 상-하 화살표시로 대로 "ZONE"→"confirm"→ "KoreanDMR"→"confirm"
  - 2. 중간 스위치를 돌려서 원하는 챈넬을 선택 하면 됩니다.
    - i. Ch1-KARA
    - ii. Ch2-Korean450
    - iii. Ch3-Korean45004
    - iv. Ch4-Korean45005
    - v. So on
  - 3. PTT 누르고 신호를 내면 됩니다.

18. DMR 개국을 축하 합니다..