

Application Note

AN #: 537

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PYRAMID MODEL #: 2012 / 2016 / Merlin

RADIO MODEL: Vertex VX-4000 Single Band / Single Head

ENGINEER: C. Carbajal

APPROVAL INITIALS

ENGINEER

DEPT. HEAD

Connections:	Pyramid	Function	Radio {DB-25 Connector}
	Black/Shield	Ground	Pin 7
	White	Tx Audio Out	Pin 13
	Blue	On Air Detect	Pin 12
	Green	PTT Out	Pin 11
	Red	Switched B+	Pin 14
	Yellow	Rx Audio In	Pin 17
	Violet	COR	Pin 20
	Brown	RX Audio Mute	N/C
	Grey	Mic Mute / Ch. Chng.	N/C

Merlin	J1	[Out]	Tx audio level	Pyramid	Mobile COR Polarity:	Low
Jumpers:	J2	[Out]	Local PTT Loop	Program:	Mobile Type:	Conv.
	J4	[Out]	COR Pull Up		On-Air Polarity:	Low
					I/O Pin 9	Mute
2012	J1	[Out]	Tx audio level			
Jumpers:	J2	[Out]	Local PTT Loop			
	J3	[Out]	COR Pull Up			
2016	J1	[Out]	Local PTT Loop			
Jumpers:	J2	[Out]	TX audio level			

Additional Modifications (2012 / 2016 / Merlin): None

Additional Modifications (Radio):

1. Ensure the VX4000 has firmware v116 or later.
2. Ensure that DSUB 20 & 21 are programmed for "None" in VX-4000.
3. Ensure that VX-4000 jumpers are set as follows:

JP4 = Closed	JP7 = Open
JP5 = Open	JP8 = Open
JP6 = Closed	JP9 = Open
4. In the VX-4000 Remove F2001.
5. Add a jumper from the base of Q2012 to J2001 (DB-25) pin 20. Brings COR out to DB-25.
6. Install a 2 amp fuse between J2001 (DB-25) pin 14 and the positive side of C2208.
Brings Switched 12 Volts out to DB-25.