

# Application Note

AN #: 229

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**PYRAMID MODEL #:** SVR-200 / SVR-250

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

**ENGINEER:** C. Carbajal

**APPROVAL INITIALS**

ENGINEER \_\_\_\_\_

DEPT. HEAD \_\_\_\_\_

Connections:	SVR	Function	Radio	DB25 Connector
	Black/Shield	Ground	Pin 7	
	White	Tx Audio Out	Pin 13	
	Blue	Remote enable/disable	External Switch to Ground	
	Green	PTT Out	Pin 11	
	Red	Switched B+	Pin 14	
	Yellow	Rx Audio In	Pin 17	
	Violet	COR	Pin 20	
	Brown	Local Mic In	Pin 21	
	Grey	On Air Detect	Pin 12	

<b>SVR</b>	JP1	[-]	Remote Enable	<b>SVR</b>	Mobile COR Polarity:	Low
<b>Jumpers:</b>	J1	[Out]	Tx audio level	<b>Program:</b>	Mobile Type:	Conv
	J2	[Out]	Tx audio impedance		On-Air Polarity:	Low
	J4	[Out]	Local mic audio loop		Tx Audio Response:	De-emp
	J5	[Out]	Local mic PTT loop		Rx Audio Response:	Pre-emp
	J6	[Out]	Local Mic Sensitivity			
	J7	[Out]	Rx Sensitivity			
	J8	[+]	Pull up resistor			
	J9	[Out]	MCOR Pull up resistor			

**Additional Modifications (SVR-200 / SVR-250):** None.

## Additional Modifications (Radio):

1. Ensure the VX4000 has firmware v1 16 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 = Open	JP7 = Closed
JP5 = Closed	JP8 = Open
JP6 = Open	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. Add a jumper from the pin 10 of Q2007 to J2001 (DB-25) pin 21. Brings local mic audio to DB-25.
7. 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.