# *Application Note*

***AN #: 285A***
DATE: 3-Mar-10


**PYRAMID MODEL #**: SVR-200 / SVR-250 / SVR-300 / SVR-350
**RADIO MODEL**: Vertex VX-7200
**ENGINEER**: C. Carbajal

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**Connections:**

| *SVR* | *Function* | *Compact DB-15 Ext. Accy.* | |
|---|---|---|---|
| Black/Shield | Ground | Acc Conn pin 15 | GND |
| White | Tx Audio Out | Acc Conn pin 1 | AF IN |
| Blue | Remote enable/disable | Acc Conn pin 11 | ACC3 |
| Green | PTT Out | Acc Conn pin 6 | EXT PTT |
| Red | Switched B+ | Acc Conn pin 4 | SB |
| Yellow | Rx Audio In | Acc Conn pin 2 | AF OUT |
| Violet | COR | Acc Conn pin 9 | ACC1 |
| Brown | Local Mic In | Acc Conn pin 14 | ** See Note 2* |
| Grey | On Air Detect | Acc Conn pin 7 | TRX |

**SVR Jumpers:**

| | | |
|---|---|---|
| JP1 | [-] | Remote Enable |
| J1 | [In] | Tx audio level |
| J2 | [In] | Tx audio impedance |
| J4 | [Out] | Local mic audio loop |
| J5 | [Out] | Local mic PTT loop |
| J6 | [In] | Local Mic Sensitivity |
| J7 | [In] | Rx Sensitivity |
| J8 | [+] | Pull up resistor |
| J9 | [In] | MCOR Pull up resistor |

**SVR Program:**

| | |
|---|---|
| Mobile COR Polarity: | Low |
| Mobile Type: | Conv / Trunk |
| On-Air Polarity: | Low |
| Tx Audio Response: | Flat |
| Rx Audio Response: | Flat |
| Local Mic Repeat | Yes |

**Additional Modifications (SVR-200 / SVR-250 / SVR-300):**
1. On newer SVR-200 and all SVR-250/300 series, remove J1, J2 and J11.
2. Install a 10K pull up resistor to 5VDC on Pin 9 of J1 (DSUB Radio Connector). This adds a pull up to On Air Detect.

**Additional Modifications (Radio):**
1. Replace F1001 with a 3 Amp 0603 pico fuse.

2. If local microphone repeat is enabled; Remove R1419 and run a jumper wire from TP1087 to TP1091. This bridges local microphone audio to Pin 14 of the DSUB-15.

In the radio programming software, set the following:
*Common / Key Function:*
3. Program the A Key for External ACC2

*Common / DSUB-15:*
4. Acc I/O Port 1 = Output = AF Mute
5. Acc I/O Port 3 = Output = ACC2

*Common / Miscellaneous:*
6. Enable External PTT