Application Note

AN #: 270F
DATE: 28-Dec-09

PYRAMID MODEL #: SVR-200 / SVR-250 / SVR-300 / SVR-350
RADIO MODEL: Motorola Astro Spectra High Power with Smart Cable
ENGINEER: C. Carbajal

APPROVAL INITIALS
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DEPT. HEAD

SVR Jumpers:	JP1	[-]	Remote Enable	**SVR Program:**	Mobile COR Polarity:	Low
	J1	[Out]	Tx audio level		Mobile Type:	Conv/Trunk
	J2	[Out]	Tx audio impedance		On-Air Polarity:	Low
	J4	[In]	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		Local Mic Repeat	Disabled
	J7	[Out]	Rx Sensitivity			
	J8	[+]	Pull up resistor			
	J9	[In]	MCOR Pull up resistor			

Smart Cable Part Numbers: Order 7505-10-1045 for the SVR-200
Order 7505-10-1245 for the SVR-250 & SVR-300

Additional Modifications (SVR-200): Adjust RV1 for 2.5 VDC
Change C21B to .1uf 0805 capacitor

Additional Modifications (SVR-250/300): Change C1 to .1uf 0805 capacitor. Set EMG jumper to NC. Ensure that R25 is a 100K ohm resistor.

Additional Modifications (Radio):

1. In the Astro Mobile CPS, program the **Radio Configuration / Display & Menu / Menu Items:**
   a. Program One of the Control Head Keys for **PWR**. The SVR will use the Low power menu setting for remote enable/disable.
2. In the Astro Mobile CPS, program the **Radio Wide / Transmit Power Levels:**
   a. Set Low and High power tx levels equal. This ensures that when enabling the SVR, the radio remains in High power mode.
3. On the radio Logic PCB (HLN5558), configure the following jumpers:
   a. Remove JU521 and Install JU513 to enable external Mic Hi.
   b. Remove JU518 and Install JU500 to enable exernal PTT.
   c. Remove JU519 and Install JU528 to enable Disc Audio Out.
   d. Ensure JU605 is installed adjacent to pin 1 of the DB25 connector (Mobile PTT input).

Note: Not all control head types will support enabling/disabling the SVR using the High/Low power button on the radio. Generally all Seires 05 control heads do support low/high power enable/disable. In cases where this setting does not work, use the blue wire provided on the smart cable to enable the repeater. This enable line is active low.