Application Note

AN #: 246C
DATE: 1-Mar-18

PYRAMID MODEL #: SVR-200 / SVR-250 / SVR-300 / SVR-350
RADIO MODEL: Kenwood TK-7180 / 8180
ENGINEER: C. Carbajal

APPROVAL INITIALS
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Order the Pyramid TK-x180/5x10/5x20/NX Series interface cable Part # 7502-10-1045 for the SVR-200
Order the Pyramid TK-x180/5x10/5x20/NX Series interface cable Part # 7512-10-1245 for the SVR-250/300/350

Connections:	***SVR***	***Function***	***Radio***	**DB25 Connector**
	Black/Shield	Ground	Pin 7	Ground
	White	Tx Audio Out	Pin 6	MI2
	Blue	Remote enable/disable	Pin 21	Aux I/O 4
	Green	PTT Out	Pin 4	Aux I/O 9
	Red	Switched B+	Pin 14	SB
	Yellow	Rx Audio In	Pin 17	AFO
	Violet	COR	Pin 22	Aux I/O 3
	Brown	Local Mic In	N/C	
	Grey	On Air Detect	Pin 8	Aux I/O 8

SVR Jumpers:			**SVR Program:**		
JP1	[-]	Remote Enable	Mobile COR Polarity:	High
J1	[Out]	Tx audio level	Mobile Type:	Conv/Trunk
J2	[Out]	Tx audio impedance	On-Air Polarity:	High
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	Local Mic Repeat	(See additional mods below)
J7	[Out]	Rx Sensitivity		
J8	[+]	Pull up resistor		
J9	[Out]	MCOR Pull up resistor		

Additional Modifications (SVR-200): Adjust RV1 for 2.5VDC.
* *Note,* If local mic repeat is enabled, replace R72 in SVR-200 to a 1K Ohm 0805 Resistor.

Additional Modifications (SVR-250/300): Connect Red/Black wires from factory cable to 12VDC.
* *Note,* If local mic repeat is enabled, replace R43 in SVR-250 to a 1K Ohm 0603 Resistor.
* KLF-2 or similar DC line filter is recommended on any installation to ensure clean power to mobile and SVR.

Additional Modifications (Radio):

1. On factory cables, Rev A - Replace F401 with a 3A Fuse. Rev B cables require NO fuse change.

2. In the ***Key Assignment*** menu set one of the soft keys for **AUX A** to enable the repeater.

3. In the ***Extended Function/AUX Tab*** set the following:
   a. DB-25 4 Pin = Input, Ext PTT (Voice)
   b. DB-25 8 Pin = Output, TXS, High
   c. DB-25 21 Pin = Output, AUX A, Low
   d. DB-25 22 Pin = Output, TOR, High

4. In the ***Extended Function/Modulation Line Tab*** set the following:
   a. MIC PTT: Mic Line = Connect, MI2 line = Connect, DI Line = Disconnect, QT = Yes, STE = Yes
   b. External PTT (Voice): Mic Line = Disconnect, MI2 line = Connect, DI Line = Disconnect, QT = Yes, STE = Yes