Application Note

AN #: 311
DATE:17-Mar-2017

PYRAMID MODEL #: SVR-200 / SVR-250 / SVR-300 / SVR-350
RADIO MODEL: Kenwood TK-D740 & TK-D840 DMR
ENGINEER: C. Carbajal

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Connections:	***SVR***	***Function***	***Radio***	***DB-15HD Connector***
	Black/Shield	Ground	Pin 15	Ground
	White	Tx Audio Out	Pin 5	MI2
	Blue	Remote enable/disable	Pin 10	Port 5
	Green	PTT Out	Pin 9	Port 4
	Red	Switched B+	Pin 1	SB+
	Yellow	Rx Audio In	Pin 6	DETO/AFO*
	Violet	COR	Pin 8	Port 3
	Brown	Local Mic Audio	N/C	
	Grey	On Air Detect	Pin 11	Port 6

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	[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	No
	J7	[In]	Rx Sensitivity			
	J8	[-]	Pull up resistor			
	J9	[Out]	MCOR pull up resistor			

Additional Modifications (SVR-200 / SVR-250 / SVR-300): None

Additional Modifications (Radio):

1. Remove R761, located near DB-15 on main PCB. This frees up Pin 6 so we can use this pin for AFO, in step 2.

2. Run a jumper wire from Pad AFO to FNC1 (CN713) solder pad, located near DB-15 on main PCB.

3. In the ***Edit/Optional Features 1*** menu, set the Minimum Volume Type = Lowest Limit, Minimum Volume = 20. Because the radio's audio output is variable, this ensures the user will not turn the volume all the way down, prevent the SVR from repeating in Base to Portable direction.

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

4. In the ***Extended Function/AUX Tab*** set the following:
   a. Port 3 / DB-15HD 8 Pin = Output, TOR
   b. Port 4 / DB-15HD 9 Pin = Input, Ext PTT (Voice)
   c. Port 5 / DB-15HD 10 Pin = Output, AUX
   d. Port 6 / DB-15HD 11 Pin = Output, TXS