PYRAMID MODEL #: 2012 / 3012 / 2017 Merlin / 2016
RADIO MODEL: Kenwood TK-x90 Series mobile
ENGINEER: C.Carbajal

APPROVAL INITIALS
ENGINEER
DEPT. HEAD

Connections:	*Pyramid*	*Function*	*Radio* {DB 25 Accessory Connector}	
	Black/Shield	Ground	Pin 7	Ground
	White	Tx Audio Out	Pin 13	MI/DI In
	Blue	On-Air Detect	Pin 11	Tx Sense
	Green	PTT Out	Pin 4	PF3 In
	Red	Switched B+	Pin 14	SW B+
	Yellow	Rx Audio In	Pin 19	Det out
	Violet	COR	Pin 22	PF4 Out
(Optional)	Brown	Audio Mute Out	Pin 24	Spkr Mute
(Optional)	Grey	Mic Mute/Chan Chng	Pin 2 * (See Step 5)	PF1 Input

2012/Merlin Jumpers:	J1	[Out]	TX audio level	**Pyramid Program:**	Mobile COR Polarity:	High
	J2	[Out]	PTT loop back		Mobile Type:	Conv.
2016 Jumpers:	J1	[Out]	PTT loop back		On-Air Polarity:	High
	J2	[Out]	TX audio level		I/O Pin 9 {Optional}	Chan Chg Continuous

Additional Modifications (2012/2016/Merlin): Add a 10K pull up resistor to the COR line as follows:

2012   From R41 (side closest to µP U8) to R30 (side not connected to U1).
2016   From C28 (+ side) to R35 (side *not* connected to U4)
2017   From C28 (+ side) to R35 (side *not* connected to U4)

Additional Modifications (Radio): Reference the main logic PCB:

1.   Ensure Zero Ohm resistor is installed at R641 (default) instead of R640.

2.   Install SWB+ jumper (SB) just to the left of F501

3.   Under **Function Port**, program *PF3 input* as **Ext PTT**. Program *PF4 output* as **TOR** (Tone Operated Relay).

4.   Under **Optional Features**, program "**Ext PTT w/MIC Mute**" as "**Yes''**

5.   If you are using Data Channel Change, preform the following programming:
a) Under **Function Port**, program PF1 for **CH Select A**
b) From the main screen, Highlight the channel you would like to use for data and hit **F10**. Program **Remote Channel** to "1".