

# Application Note

**AN #: 505E**

DATE: 21-Jun-06

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**PYRAMID MODEL #:** 2012 / 3012 / 2017 Merlin / 2016

**RADIO MODEL:** Kenwood TK-x30 HG Series

**ENGINEER:** W. Carlin

**APPROVAL INITIALS**

ENGINEER \_\_\_\_\_

DEPT. HEAD \_\_\_\_\_

**Order the Pyramid 2012 TK-x30 interface cable Part # 7510-10-1044**

**Order the Pyramid 2017/3012 TK-x30 interface cable Part # 7520-10-1044**

**Order the Pyramid 2016 TK-x30 interface cable Part # 7530-10-1044**

<b>Connections:</b>	<b>Pyramid</b>	<b>Function</b>	<b>Radio</b>
	Black/Shield	Ground	J4 Pin 15
	White	Tx Audio Out	J4 Pin 5
	Blue	On-Air Detect	N/C
	Green	PTT Out	J4 Pin 8
	Red	Switched B+	J4 Pin 7
	Yellow	Rx Audio In	J4 Pin 4
	Violet	COR	J4 Pin 11
(Optional)	Brown	Audio Mute Out	J4 Pin 1
(Optional)	Grey	Mic Mute	J4 Pin 2

**2012/Merlin Jumpers:** J1 [Out] TX audio level  
J2 [In] PTT loop back

**Pyramid Program:** Mobile COR Polarity: High  
Mobile Type: Conv.  
On-Air Polarity: Low  
I/O Pin 9 Mute

**2016 Jumpers:** J1 [In] PTT loop back  
J2 [Out] TX audio level

**Additional Modifications (2012/2016/Merlin):** None

## **Additional Modifications (Radio):**

1. MCOR signal: Add a jumper from IC103 Pin 4 to CN106 pin 9 (HN2).
2. Tx Data input to radio: On the TK-x30 control PCB, remove R177 (adjacent to VR101) and install a jumper from point "E" on the control PCB to point "F" on the Tx/Rx PCB (located between VR301/VR302).
3. Mic Mute input: Remove R178 on the TK-x30 control PCB.
4. Speaker Mute input: On the TK-x30 control PCB, move the zero Ohm jumper from R131 to R181 located on the bottom of the PCB.