

# Application Note

**AN #: 524**

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

**RADIO MODEL:** Maxon SM-2000 Series - Conventional

**ENGINEER:** C. Carbajal

**APPROVAL INITIALS**

ENGINEER

DEPT. HEAD

Connections:	Pyramid	Function	Radio
	Black/Shield	Ground	DB15 pin 13
	White	Tx Audio Out	DB15 pin 15
	Blue	On Air Detect	N/C
	Green	PTT Out	DB15 pin6
	Red	Switched B+	DB15 pin 14
	Yellow	Rx Audio In	DB15 pin 1
	Violet	COR	DB15 pin 3
(Optional)	Brown	Audio Mute Out	N/C
(Optional)	Grey	Mic Mute/ Chan Chng	N/C

**2012/Merlin Jumpers:** J1 [Out] Tx audio level  
J2 [In] Local PTT Loop

**Pyramid Program:** Mobile COR Polarity: High  
Mobile Type: Conv.  
On-Air Polarity: Low

**2016 Jumpers:** J1 [In] Local PTT Loop  
J2 [Out] Tx audio level

**Additional Modifications (Merlin / 2012 / 2016):** Align unit as per service manual.

## Additional Modifications (Radio):

1. Remove black wire from pin 1 of option board connector. Jumper this wire through approx. a 50K Ohm resistor to pin 9 of IC 404. This is the MSK audio input to the radio.
2. Remove the black wire from pin 2 of option board connector. Jumper this wire to pin 2 of CN401. This will provide Switched +12V to pin 14 of the DB-15 connector.

*Note: Option board is an add-on PCB connected to CON 404. Pin 1 of the white option board connector is closest to edge of radio chassis.*