

# Application Note

**AN #: 513D**

DATE: 12-Nov-03

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

**RADIO MODEL:** Kenwood TK-x80 Series Mobile V1 & V2

**ENGINEER:** C. Carbajal

**APPROVAL INITIALS**

ENGINEER

DEPT. HEAD

Connections:	Pyramid	Function	Radio
	Black/Shield	Ground	KCT-19 Pin 6
	White	Tx Audio Out	KCT-19 Pin 9
	Blue	On-Air Detect	KCT-19 Pin 5
	Green	PTT Out	KCT-19 Pin 8
	Red	Switched B+	KCT-19 Pin 7
	Yellow	Rx Audio In	KCT-19 Pin 4
	Violet	COR	KCT-19 Pin 11
(Optional)	Brown	Audio Mute Out	N/C
(Version 2 Only)	Grey	Mic Mute/Channel Select	KCT-19 Pin 15

<b>2012/Merlin</b>	J1	[Out]	TX audio level
<b>Jumpers:</b>	J2	[Out]	PTT loop back
<b>2016</b>	J1	[Out]	PTT loop back
<b>Jumpers:</b>	J2	[Out]	TX audio level

<b>Pyramid</b>	Mobile COR Polarity:	High
<b>Program:</b>	Mobile Type:	Conv/Trunk
	On-Air Polarity:	High
	I/O Pin 9	Mute

**Additional Modifications (Pyramid):** None

**Additional Modifications (Radio):** Install the KCT-19 "E" plug into CN-2.

Using the KPG-49 software, program the following:

1. Program the COR output for active high under the **Edit/Optional Features/Logic Signalling**; Select "Squelch Logic Type : High" and "Squelch Logic Signal : TOR".
2. To enable PTT input on pin 8 of the KCT-19, under Edit/Optional Features, program Com2 as "Aux Hook/PTT".

**Note for Version 1 Radios:** To enable Data Terminal Channel select on the TK-x80 series Version 1 radios, you must use Kenwood 80 series firmware version 8050 checksum. Additionally you will need to designate one talk group per system as data. To do this, select the talk group and hit F9 (Set System/Group #). Also, select data talk group again, and hit F10 (Set Data = YES). A detailed installation guide is available, contact Pyramid Technical Support.

**Note for Version 2 Radios:** To enable Data Terminal Channel select on the TK-x80 series Version 2 radios, you must connect the Grey wire from the Pyramid to Pin 15 of the KCT-19. Additionally you will need to designate one talk group per system as data. To do this, select the talk group and hit F9 (Set System/Group #). Also, select data talk group again, and hit F10 (Set Data = YES). A detailed installation guide is available, contact Pyramid Technical Support.