# Application Note

**PYRAMID MODEL #**: 2012 / 3012 / 2017 Merlin / 2016
**RADIO MODEL**: Kenwood TK-863G
**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 15 |
| | 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 |
| | Brown | Audio Mute | N/C |
| (Optional DTC) | Grey | Mic Mute / Chan Chng | KCT-19 Pin 1 |
| {Used only for Data Channel Change} | | | |

| 2012/Merlin Jumpers: | J1 | [Out] | TX audio level | Pyramid Program: | Mobile COR Polarity: | High |
|---|---|---|---|---|---|---|
| | J2 | [Out] | PTT loop back | | Mobile Type: | Conv/Trunking |
| | | | | | On-Air Polarity: | High |
| 2016 Jumpers: | J1 | [Out] | PTT loop back | | I/O Pin 9 | Ch. Change |
| | J2 | [Out] | TX audio level | | | |

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

**Additional Modifications (Radio):**

1. Remove the Brown/White wire from the KCT-19 CN-5 Pin 3 and connect to CN6 pin 3 (8TC). CN6 is located midway back on the topside of the TKx63 main PCB. It is a row of 10 pads with NO connector. This provides On-Air detect signal to the Pyramid MDT.

2. From the *Edit* pull down menu in the Kenwood KPG-76D programming software, select the *Optional Features* menu, *Optional Features 3* tab. Program the following:
   a) **Squelch Logic Type = Active High**
   b) **Squelch Logic Signal = TOR**
   c) enable **Data TX with QT/DQT.**
   d) **Ext. PTT = PTT**
   e) **ACC Hook/DTC = DTC.** {If data channel change is required and Pyramid I/O Pin 9, Gray wire is connected to KCT-19 pin 1}

3. Data Group is determined by entering the *Data System/Group* under *System Programming* and checking the *Data* parameter under *Group Programming*.