

Application Note

AN #: 542B

DATE: 14-Sep-06

Page 1 of 1

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

RADIO MODEL: Kenwood TK-7180 / TK-8180

ENGINEER: C. Carbajal

APPROVAL INITIALS

ENGINEER _____

DEPT. HEAD _____

Order the Pyramid 2017/3012/2016 TK-x180 interface cable Part # 7520-10-1245

Connections:	Pyramid	Function	Radio DB-25	
	Black/Shield	Ground	DB-25 Pin 7	GND
	White	Tx Audio Out	DB-25 Pin 5	DI
	Blue	On-Air Detect	DB-25 Pin 20	TXS
	Green	PTT Out	DB-25 Pin 13	EXTPTT
	Red	Switched B+	DB-25 Pin 14	SW B+
	Yellow	Rx Audio In	DB-25 Pin 19	DEO
	Violet	COR	DB-25 Pin 8	TOR
(Optional)	Brown	Audio Mute Out	N/C	
(Optional)	Grey	Channel Change	DB-25 Pin 24	DTC

2012/Merlin Jumpers:	J1	[Out]	TX audio level	Pyramid Program:	Mobile COR Polarity:	High
	J2	[Out]	PTT loop back		Mobile Type:	Conv/Trunk
2016 Jumpers:	J1	[Out]	PTT loop back		On-Air Polarity:	High
	J2	[Out]	TX audio level		I/O Pin 9	Chanl. Chng.
						Method = Continuous

Additional Modifications (2012/2016/Merlin):

Additional Modifications (Radio):

Using the KPG-89D software, program the following:

1. From the **Extended Function/AUX** screen, set **Pin 8**: **I/O= Output, Function = TOR, Active = High**
2. From the **Extended Function/AUX** screen, set **Pin 13**: **I/O= Input, Function = EXT PTT (Data)**
3. From the **Extended Function/AUX** screen, set **Pin 20**: **I/O= Output, Function = TXS, Active = High**
4. From the **Extended Function/AUX** screen, set **Pin 24**: **I/O= Input, Function = DTC**

Note: To enable Data Terminal Channel change (DTC) on the TK-x180 series radios, you will need to designate one talk group per zone as a data talk group. First, select data talk group in the desired Zone. Click **GID Edit** and ensure that the **data** checkbox is checked. Next, click **Zone Edit** and ensure that the **Data Zone-CH/GID** to equal to the desired zone and channel for use with data.