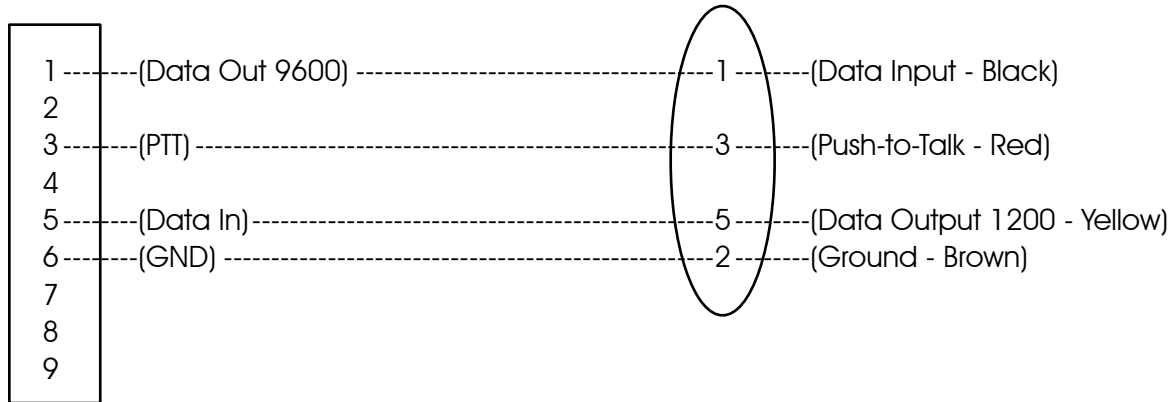# Kantronics KPC3 Plus to Kenwood and Yaesu Transceivers

Dr. John A. Allocca WB2LUA

12/26/11

Yaesu CT-39A Cable

```
 1 -------(Data Out 9600) ------------------------------ 1 ------(Data Input - Black)
 2
 3 -------(PTT) ----------------------------------------- 3 ------(Push-to-Talk - Red)
 4
 5 -------(Data In)-------------------------------------- 5 ------(Data Output 1200 - Yellow)
 6 -------(GND) ----------------------------------------- 2 ------(Ground - Brown)
 7
 8
 9
```

Kantronics DB9 Female Connector

Yaesu CT-39A 6 Pin mini DIN Male Connector

Pin Number	Function
1	Transmit Audio
6	Ground
3	PTT
5	Receive Audio

Wire Color	Pin Number	Function
Black	1	Data Input (RX Audio)
Brown	2	Data Ground
Red	3	PTT (Push-to-Talk)
White	4	TX Data Output (9600)
Yellow	5	TX Data Output (1200)
Green	6	Squelch Status

DB9 Male Connections

Pin Number	Color
1 ------------------	Black
3 ------------------	Red
5 ------------------	Yellow
6 ------------------	Brown

Kenwood PG-5A Cable

```
1 --------(Data Out 9600) -------------------------------1 -------(Data Input - Brown)
2
3 --------(PTT) ----------------------------------------3 ------(Push-to-Talk - Orange)
4
5 --------(Data In) -------------------------------------5 ------(Data Output - Green)
6 --------(GND) ----------------------------------------2 ------(Ground - Red)
7
8
9
```
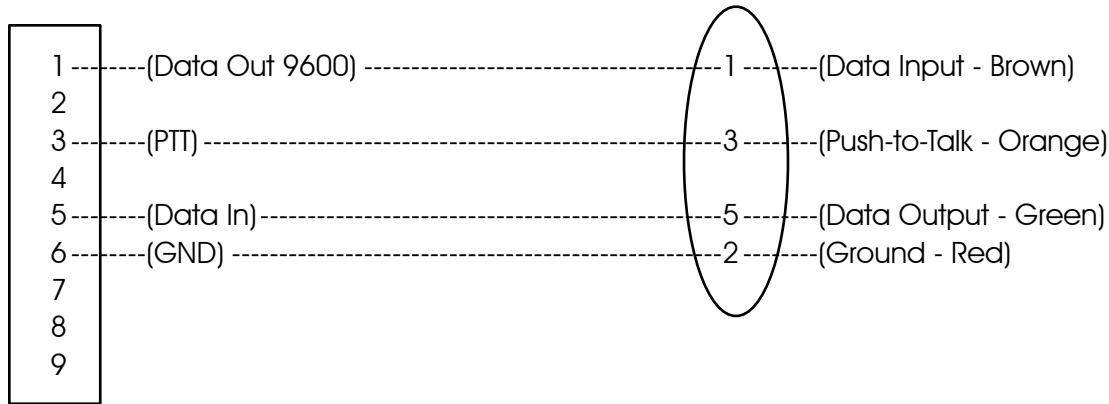
DB9 Male To Kantronics   PG-5A 6 Pin mini DIN Male to Transceiver

Pin Number	Function		Wire Color: Old/New	Pin Number	Function
1	Transmit Audio		Brown	1	Data Input (RX Audio)
6	Ground		Red	2	Ground
3	PTT		Orange/White	3	PTT (Push-to-Talk)
			Yellow/Gray	4	TX Data Output (9600)
5	Receive Audio		Green/Black	5	TX Data Output (1200)
			Blue	6	Squelch Status

DB9 Male Connections

Pin Number	Old Cable Color	New Cable Color
1	Brown	Brown
3	Orange	White
5	Green	Black
6	Red	Blue

KPC3+ Transmit Level Adjustment

The 1200-baud data drive level (transmit audio voltage, TXA) from the KPC-3 Plus to your radio is adjusted digitally, using your keyboard and the transmit level (XMITLVL) or the calibrate (CAL) command.

You should adjust the drive level to provide about 3 to 3.5 kHz of deviation with your radio. If you don't have access to a deviation meter, adjust drive so your packet transmissions generate about the same audio sound as packets heard from other stations.

The XMITLVL command has a parameter default value of 100; this corresponds to a drive voltage of about 50 mV. You may change this level by increasing the parameter/count. For counts below 256, the voltage is increased in 0.5 mV steps; above that, the drive increases roughly 15 mV per step.

The KPC-3 Plus ships with NEWUSER as the default INTFACE mode. Also, the KPC-3 Plus will be in NEWUSER mode after a hard reset.

To enter a command, the KPC-3 Plus needs to be in COMMAND (<Ctrl+C>) Communication Mode.

To switch to the full command set of the KPC-3 Plus, get in COMMAND Mode and give the command INTFACE TERMINAL. To switch back, give the command INTFACE NEWUSER.

XMITLVL n (n = 0-502)
default 100
This command may be used to set the modem drive level. The voltage range set by the XMITLVL command is from 1 mV to 4 V p-p. From a count of 0 to 255, the voltage is increased from 1 mV to (approximately) 130 mV, or 0.50 mV per step. From a count of 256 and above, the voltage is increased linearly but in larger steps (approximately 15 mV per step) until 4 V (max) is reached at a count of 502. Yaesu FT-897D, set to XMITLVL 100 (default).