

Application Note

AN #: 537

DATE: 07-Feb-03

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PYRAMID MODEL #: 2012 / 3012 / 2017 Merlin / 2016
RADIO MODEL: Vertex VX-4000 Single Band / Single Head
ENGINEER: C. Carbajal

APPROVAL INITIALS

ENGINEER _____

DEPT. HEAD _____

| Connections: | Pyramid | Function | Radio {DB-25 Connector} |
|--------------|--------------|----------------------|-------------------------|
| | Black/Shield | Ground | Pin 7 |
| | White | Tx Audio Out | Pin 13 |
| | Blue | On Air Detect | Pin 12 |
| | Green | PTT Out | Pin 11 |
| | Red | Switched B+ | Pin 14 |
| | Yellow | Rx Audio In | Pin 17 |
| | Violet | COR | Pin 20 |
| | Brown | RX Audio Mute | N/C |
| | Grey | Mic Mute / Ch. Chng. | N/C |

| | | | | | | |
|-----------------|----|-------|----------------|-----------------|----------------------|-------|
| Merlin | J1 | [Out] | Tx audio level | Pyramid | Mobile COR Polarity: | Low |
| Jumpers: | J2 | [Out] | Local PTT Loop | Program: | Mobile Type: | Conv. |
| | J4 | [Out] | COR Pull Up | | On-Air Polarity: | Low |
| 2012 | J1 | [Out] | Tx audio level | | I/O Pin 9 | Mute |
| Jumpers: | J2 | [Out] | Local PTT Loop | | | |
| | J3 | [Out] | COR Pull Up | | | |
| 2016 | J1 | [Out] | Local PTT Loop | | | |
| Jumpers: | J2 | [Out] | TX audio level | | | |

Additional Modifications (2012 / 2016 / Merlin): None

Additional Modifications (Radio):

1. Ensure the VX4000 has firmware v116 or later.
2. Ensure that DSUB 20 & 21 are programmed for "None" in VX-4000.
3. Ensure that VX-4000 jumpers are set as follows:

| | |
|--------------|------------|
| JP4 = Closed | JP7 = Open |
| JP5 = Open | JP8 = Open |
| JP6 = Closed | JP9 = Open |
4. In the VX-4000 Remove F2001.
5. Add a jumper from the base of Q2012 to J2001 (DB-25) pin 20. Brings COR out to DB-25.
6. Install a 2 amp fuse between J2001 (DB-25) pin 14 and the positive side of C2208.
Brings Switched 12 Volts out to DB-25.