

## Vertex VX3000 Interface

The following items are included in the VX3000 interface kit:

1. VX3000 interface cable assembly.
2. Cable tie.
3. 100 K resistor.
4. Instruction sheet.

The following steps outline the procedure for interfacing VX3000 radio to the TrakIt-20.

1. Set the TrakIt-20 up for a bench test and use the AVL Installer program to set the following operating constants in the installer table to the indicated value:

Transmit indicator active:	Low
Receive indicator active:	Low
PTT output active:	Low
Enable Tx indicator as event 2:	No
Enable mic mute gate on TX	No
External output active:	Low
External output mode:	Speaker mute

2. Configure the following jumpers as indicated:

JP1	Cut
JP4	AB

3. Install a 10K resistor across R20 on the Trakit.
4. Most of the connection points in the radio require using wire wrap wire to make the actual connections on the board of the radio. Remove the external speaker jack from the back of the radio and install the interface cable in its place. Use the tie strap for adequate strain relief. Cover the speaker jack and the exposed wires with tape and secure. If the radio is for data only (no voice), the jack can be removed from J1001 (this also disables the speaker). The proper pins on J1001 could be shorted to re-activate the speaker.
5. Power for the Trakit must be Connected directly to B+ (The positive side of C1289). Using switched B+ causes problems with the radio. Use of an external delay off timer is recommended for the radio and Trakit.
6. Connect the DB-15 end of the VX3000 interface cable to the DB-15 connector on the back of the TrakIt-20.
7. Check the TrakIt-20's audio levels by performing the alignment procedure described in this manual.

## Vertex VX3000 Interface (cont'd)

Additional notes:

If the radio is for voice and data, mic mute must be used. The mic element is hot all the time and it would interfere with the Trakit data. **MAKE SURE THAT THE BOX FOR MIC MUTE ON TX IS NOT CHECKED USING THE INSTALLER SOFTWARE.**

If the radio is dedicated for data only, remove the external speaker jack from J1001. This will disable the speaker. Also, the mic mute and speaker mute connections do not need to be made.

TRAKIT 20 DB15

Vertex VX3000

1	RX Audio	Orange	J1003 Pin 5
2	TX Audio	Blue	*** Solder to pad connected to J1003 Pin 2 through 100K resistor
3	TX IND	Green	Q6003 Pin 5 (front B unit)
4	RX IND	White	Q6003 Pin 6 (front B unit)
6	Mic Mute	***	Connect to radio side of 100K resistor.
7	Mic Mute	Violet	J1003 Pin 2 (cut trace to blue wire's pad)
8	Power	Red	Positive side of C1289
9	Ground	Black/shield	Ground
10	PTT	Yellow	J1003 Pin 3
13	Spkr Mute	Gray	Q1045 Pin 1 (audio amp)

\*\*\*Note the 100K resistor in the TX audio line. It should be installed in the hood of the DB15 connector between pin 2 and the blue wire. The wire from pin 6 (Mic Mute) is connected to the junction of the blue wire and the 100K resistor.

The blue wire is connected to the pad in the radio that the circuit trace connects to J1003 Pin 2.

**VX3000 Interface Cable Kit  
106-VX2000**

Item	Description	Part No.	Qty.
1	HEAT SHRINK 1/16"	199-6098	2"
2	HEAT SHRINK 3/8"	199-6099	2"
3	CABLE TIE (SHORT)	200-0081	1
4	SCREW/CLIP KIT	231-0014	1
5	CONN DB15 MALE	231-0035	1
6	COVER DB15	231-0036	1
7	100 K RESISTOR	312-0003	1
8	CBL, 10 CONN 24 AWG STR	800-1115	2'