

## Radio Programming

Radio programming and firmware upgrades are performed using EFJohnson Technologies Armada™ software (and/or the EFJohnson Technologies Express Code Updater).

General guidelines for radio programming are given in the following paragraphs.

### 4.1 Programming with Armada

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The following paragraphs provide general information and requirements for programming Viking Portable radios with Armada.

For detailed instructions on programming radios, refer to the Armada Programming Manual.

#### 4.1.1 Computer Requirements

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The computer used to run Armada must meet the following minimum requirements:

- Microsoft Windows® XP, Vista, or Windows 7
- Intel Pentium® processor or equivalent
- A hard disk drive with at least 30 MB of free space
- A CD-ROM drive
- An available USB port

## 4.1.2 Programming Setup

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To program the with Armada, you need:

- Windows<sup>®</sup>-based computer (as described above)
- Armada programming software
- The items listed in paragraph 4.1.3.

## 4.1.3 Connections from Computer to Radio

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To connect the VP600 radio to the computer for programming, you will need:

Radio programming cable, Part No. 597-0600-970. This cable has a USB connector for connection to a USB port on your workstation and can be used with Armada.

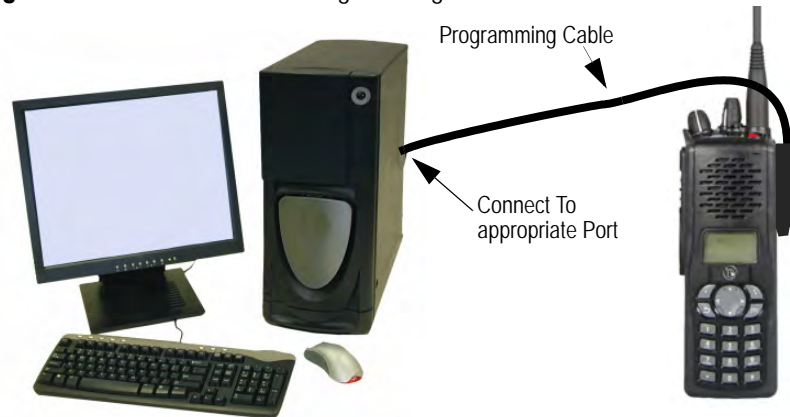
**Note** *Armada Kit No. 250-0600-xxx contains the USB programming cable and a CD with the Armada software and manual.*

**Figure 4.1** Portable Programming Cables, Part No. 597-0600-970



Figure 4.2 shows the connections you must make to program a portable radio. (Note that the illustration is an example, and does not depict a specific cable).

**Figure 4.2** Portable Radio Programming Connections



## 4.2 Programming with Express Code Updater

Express Code Updater is an auto-executable software file which updates the radio to the latest version of software/firmware. It is designed for simplicity and ease of use.

**Note** *Express Code Updater is version-specific. Express Code Updaters are available for the following portable radios:*

- Series 4 - x
- Series 6 - ES
- **Series ??? - Viking**

For details of Express Code Updater use, refer to the Express Code Updater Technical Guide.

## 4.3 Alignment Procedure

Alignment procedures should be performed if repairs or adjustments are made that can affect the factory alignment.

EFJohnson Viking Tune software is used to perform alignment procedures on the EFJohnson Technologies Viking Portable portable radios. Refer to the instructions in the Viking Tune manual included on the Viking Tune CD.

**Note** *Factory tuning is precise, and tuning in the field with Viking Tune is not normally required. For Viking radios, VikingTune version 1.2.x or higher is required.*

To verify radio operation, perform the Digital Performance Tests and the Analog Performance Tests in the Viking Tune manual included on the PC Tune CD.