



ADVANTRA)))

Configuration Manual

for the

Dev Kit

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Confidential and Proprietary Information

1 General Description

This manual describes the steps necessary to configure the Dev Kit for use with all the Advantra International modules.

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Important Safety Information

The radio device in this Development Kit is only intended to be used for packaging evaluation. It is approved by FCC for use as a radio device. It has not passed UL or other product safety requirements. If you use it for any purpose except packaging evaluation Advantra International NV cannot be held liable for any consequence of its use in any way. In accepting this device you accept it as is, no warrantee is available.

This prototype device should only be used on a production network with the express permission of the provider. All North American ReFLEX network providers have been informed of the nature of these Development Kits - devices and will provide network information to enable them,

or not, at their discretion. Advantira International is not able to configure these prototype devices for operation on any North American network.

This device must never be used in life support applications.

2 Document Identity

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2.1 Related Documents

| Document Number | Type of Document | Title |
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| A722-11104-xxx | Technical Reference | Diagnostic Messages |
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2.2 Document History

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|----------|--|-----------|
| 1 | GENERAL DESCRIPTION | 2 |
| 1.1 | GENERAL DISCLAIMER | 2 |
| 1.2 | COPYRIGHT | 2 |
| 1.3 | TRADEMARKS | 2 |
| 1.4 | FCC COMPLIANCE IMPORTANT SAFETY INFORMATION | 2 |
| 2 | DOCUMENT IDENTITY | 4 |
| 2.1 | RELATED DOCUMENTS | 4 |
| 2.2 | DOCUMENT HISTORY | 4 |
| 3 | INTRODUCTION | 7 |
| 4 | GETTING STARTED | 7 |
| 4.1 | SUPPORTED DEVICES | 7 |
| 4.2 | EQUIPMENT REQUIRED | 7 |
| 4.3 | EQUIPMENT SET-UP | 8 |
| 4.4 | INSTALLING THE SOFTWARE | 10 |
| 4.4.1 | <i>Installation Procedure</i> | 10 |
| 5 | USING YOUR CONFIGURATION SOFTWARE | 11 |
| 5.1 | STARTING THE SOFTWARE | 11 |
| 5.2 | TOTAL DEVICE READ AND WRITE | 12 |
| 5.3 | SETTING READ AND WRITE OPTIONS | 12 |
| 5.4 | CONFIGURATION WINDOW STRUCTURE | 13 |
| 5.5 | USING HELP | 13 |
| 5.6 | READING AND PROGRAMMING A DEVICE | 14 |
| 5.6.1 | <i>Programming Overview</i> | 14 |
| 6 | TECHNICAL DESCRIPTION | 15 |
| 6.1 | TELEMETRY DEVICE | 15 |
| 6.2 | DEVELOPMENT KIT | 15 |
| 6.3 | TROUBLESHOOTING | 15 |
| 6.3.1 | <i>Telemetry device</i> | 15 |

Table of Figures

| | |
|---|----|
| Figure 1 AR100 Equipment Connection Diagram with small module | 8 |
| Figure 2 AR200 Equipment Connection Diagram with large module | 8 |
| Figure 3 Starting the software | 11 |
| Figure 4 Configurator - Main Dialog | 12 |

3 INTRODUCTION

This manual describes setup and operation of the Configurator software supplied with the Development Kit.

4 Getting Started

The Configuration Software provides the ability to check and set operational parameters in the telemetry device to meet specific service requirements.

To obtain the best results from the product, it is recommended that you take a few minutes to read this instruction guide.

4.1 Supported devices

The current configuration software version supports all Advantra International telemetry devices.

4.2 Equipment Required

The following list details the minimum equipment required to perform the functions listed in this document:

1. Personal computer (PC) (not included) c/w
 - a. Pentium I, 100 MHz CPU or higher
 - b. 16 MB available RAM (after system)
 - c. 10 MB available hard drive space
 - d. two (2) available serial ports
 - e. monitor (VGA or better)
 - f. Windows compatible mouse
 - g. Windows operating system (95/8/NT+SP5 min, 2k-SP2 min)
2. DC Power Supply (not included) c/w
 - a. Power supply cables (not included)
3. Development Kit board (included) c/w
 - a. Computer Interface cables (serial cables – 2 included)
4. Proto 1 Telemetry device (included)
5. Service Configurator Software (included, located on the CD):

Note: This software package has been developed to work only in the Microsoft Windows® environment. (There is no DOS version). Readers should be familiar with basic Windows concepts such as clicking and double clicking with a mouse, selecting menu options, opening and closing windows and moving between fields.

Note: The Telemetry device should be handled using ESD protocols to avoid the possibility of damage during assembly of the Development Kit. Assembly in static prone areas should be avoided as it is possible for the on-board ESD protection to fail in extreme cases.

4.3 Equipment Set-up

Set up the Devkit with the module installed as per the instructions in the Development Kit User Guide.

First identify the module – the AR100 (Karli, Karli Lite and Wiriki) module is shown in Figure 1, the larger, AR200 (Barran) module is shown in Figure 2.

Ensure that the module is oriented and the serial cable connected as shown in Figure 1.

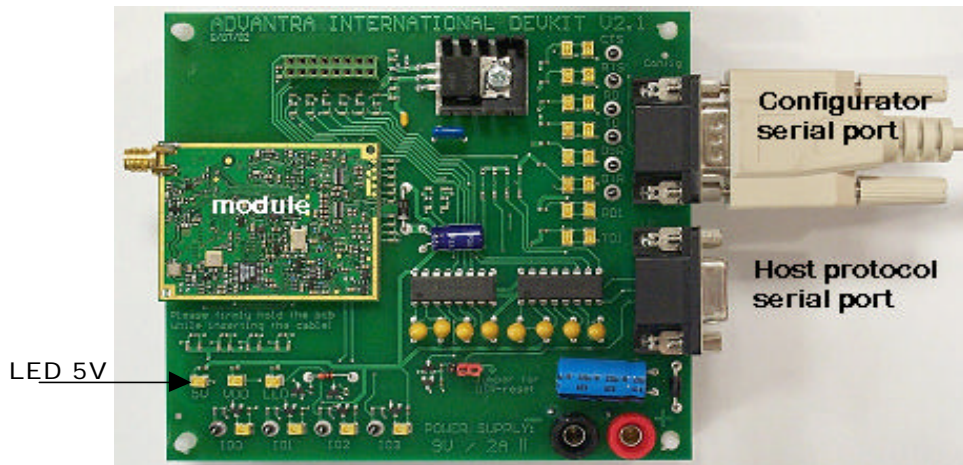


Figure 1 AR100 Equipment Connection Diagram with small module

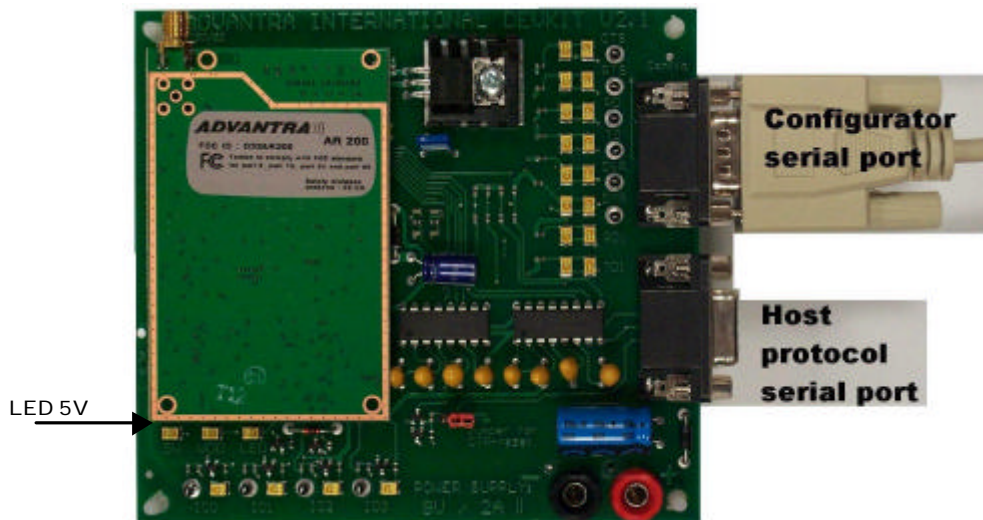


Figure 2 AR200 Equipment Connection Diagram with large module

Note:

1. *Use only the Advantra supplied Programming Kit cables to connect the development kit to the computer. Use of non-approved cables may result in improper operation of the device.*
2. *If the device module is unshielded (as in Figure 1) put the antenna at least 1 meter away from the device using an extension cable. If, however, the device is shielded, the antenna can be connected directly to the device.*

Note: The VDD indication is a feature of the pin header connector that may not be available if another (future) telemetry device is connected.

4.4 Installing the software

Older versions of CLP-communicator must be uninstalled before installing this version.

On the CD supplied with the kit there is a directory 'Communicator' this contains the communication software; the directory contains a file called 'setup.exe'. Running this file automates the installation process.

4.4.1 Installation Procedure

Note: You must be in the Windows operating system before beginning to install the software. No other applications (including any Windows programs) should be running while installing or using this software.

Perform the following steps to install the programming software:

1. Place CD in the CD drive.
2. On the 'Taskbar' click the 'Start Button'.
3. On the 'Start menu', select 'Run'.
4. In the text box of the dialog that opens, the location of the Setup.exe file must be entered. Instead of typing this, you can locate the file using the 'Browse' feature. Find the 'Configurator' directory on the CD and double-click on the file 'Setup.exe'.
5. Once the Setup.exe location is in the text box, click 'OK' or press 'Enter'.
6. Follow the on-screen instructions.

5 Using Your Configuration Software

This section describes the procedures that can be performed with this software:

1. Starting the software
2. Reading and configuring a telemetry device.
3. Using Help.

5.1 Starting the Software

From the Start -> Programs menu the Service Configurator may be started in the way indicated in the picture.



Figure 3 Starting the software

Note: The picture shows the Start menu directory names created in the standard installation. If different names were used in the installation process appropriate changes to this instruction must be made.

Select the 'Universal configurator' menu item. The Service Configurator program will start up.

5.2 Total Device Read and Write

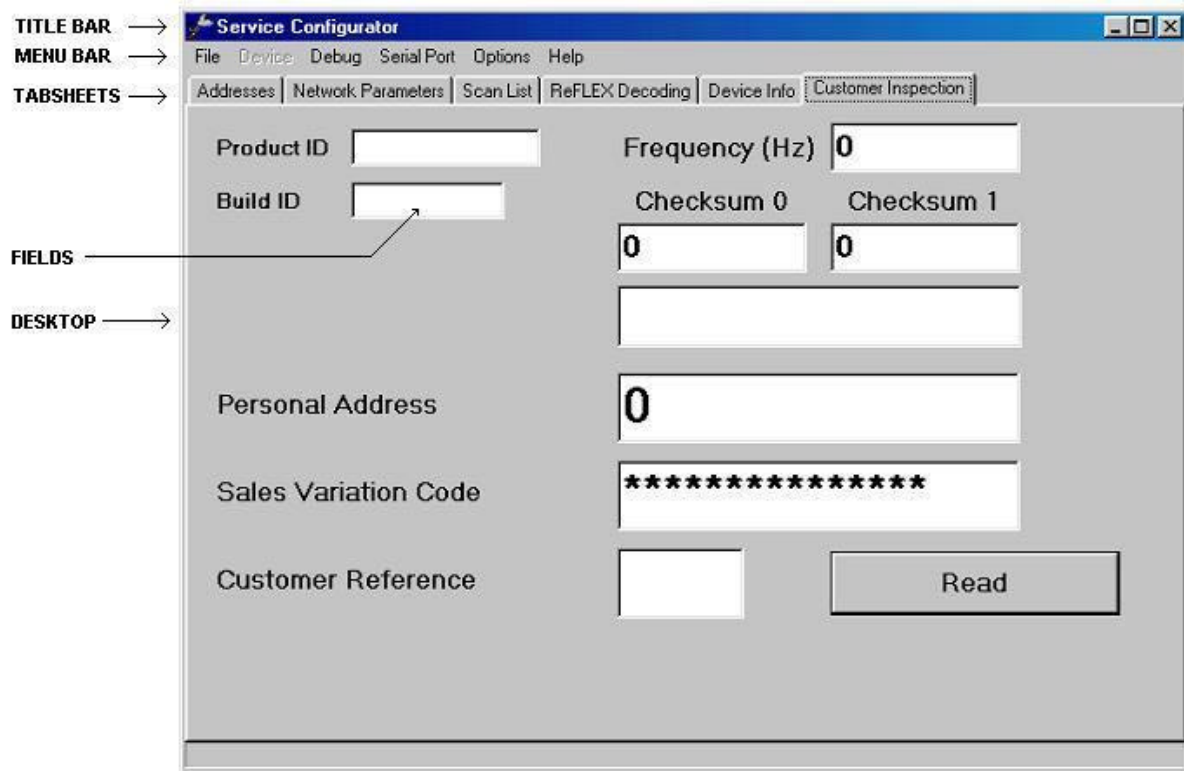


Figure 4 Configurator - Main Dialog

If the telemetry device is properly installed on the Development Kit board, the 'Device' menu will be normal, instead of being "grayed out" as seen in Figure 4.

Use Device Menu -> Check Device/Read to perform a total device read, which downloads all configuration information from the device for all of the tabs of the Configurator.

After every write-action, the action Check Device/Read must be repeated.

The Read button seen in Figure 4 is typical for many of the Tabs of the Configurator in that it causes the reading of only the information shown on the particular tab sheet, in this case the 'Customer Inspection' tab.

5.3 Setting Read and Write Options

You may control the sections of the configuration that are read and written using the Options Dialog (Option menu). Normally one would set the write options first, after starting the Configurator, to restrict subsequent write operations to just the sections of interest.

Read and write for each section may be enabled separately

5.4 Configuration Window Structure

The table below describes the layout of the main window of the Service Configurator. Refer to Figure 4 for the locations of these items:

Table 1 window structure used in the configuration software

| Window Item | Description |
|-------------|--|
| Title Bar | Shows the application name and version. |
| Menu Bar | Clicking the mouse on a menu title will expose a drop down list of menu items, or will open a dialog. Some menu options may offer additional options. |
| Tabs | Click with the mouse on the tabs to open them. Each tab groups related configuration parameters. |
| Fields | Fields display and/or accept information. Click with the mouse to activate a field for data entry. Press the Tab key to advance the active field to the next field in sequence. Use the arrow keys to move the cursor inside a field. Fields are able to hold more data than they display so the arrow keys must be used to see portions of the data hidden at the end of a field. |
| Desktop | The background area of the main dialog. |

There are many secondary dialog windows that are opened by some UI actions to display specific information, give warnings or error messages and take specific input from the user.

5.5 Using Help

Help is available within the Configurator. Explanations of the menus and of certain common elements of the UI are provided:

Operations located in the menus:

- a. File
- b. Device
- c. Tests
- d. Debug
- e. Serial Port
- f. Options
- g. Help

How to use the fields:

- a. Explanations of the fields.
- b. Explanation on the content of the fields.
- c. Which ones are accessible or not.
- d. What can be filled in for the accessible.

5.6 Reading and Programming a device

This section provides an overview of the details required for programming the telemetry device from a Service/Warranty perspective.

5.6.1 Programming Overview

Here is the basic procedure to configure a device:

1. Read the device's current configuration.
2. Set the read & write options to restrict access to sections of the configuration.
3. Modify the configuration parameters.
4. Write the new configuration to the device.

Note that it is possible to save a device's configuration to an archive file.

6 Technical Description

6.1 *Telemetry device*

The telemetry device consists of a Radio Frequency (RF) transceiver (combined receiver and transmitter) and a microcomputer-controlled decoder, referred to as the controller.

Messages are received from a network as encoded signals on an RF carrier. The receiver decodes the signal, extracts the data and passes it to the controller. The controller corrects the data (where possible and necessary), stores the message and signals the host to indicate that a new message is available. It is then up to the host to retrieve the new message.

The controller receives messages from the host and uses the transmitter to send it to the network.

6.2 *Development Kit*

The Development Kit is fully described in its user guide.

6.3 *Troubleshooting*

6.3.1 *Telemetry device*

Leadless-component technology requires the use of specialized equipment and procedures for repairing and servicing this device. Irreparable damage to the device can result from service by unauthorized personnel. Unauthorized attempts to remove or repair parts will void any warranty or extended performance agreements with the manufacturer. Please contact Advantra International for assistance troubleshooting on the telemetry device.