

Unique Micro Design Pty Ltd

Project BoonCard
Data Storage for Animal Tracking

BoonTech BoonCard Hand Held RFID Reader
Technical Manual

14 October 2004

Issue 1

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Reference : R:\PROJS\R438\DOCS\BoonCardReader-TM

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1. Introduction

The *BoonTech BoonCard Hand Held RFID Reader* incorporates a UMD M611 controller module. This controller interfaces to the RFID reader module, provides a keypad and display for interaction with the operator and utilises the BoonCard memory card for storage of transaction data.

The UMD M611 contains an application program that can be updated by downloading via it's serial port, allowing it to be upgraded in the field.

2. How to Update the Application Program

To program the *BoonTech BoonCard Hand Held RFID Reader* you will need a PC and programming cable. Typically the PC will run Microsoft® Windows™, but any serial terminal program with Xmodem transfer facilities will do. The instructions that follow pertain to Microsoft® Windows™.

Use the Hyperterminal for communications with the reader. Configure Hyperterminal to connect using the appropriate communications port (typically COM1). Set the Port Settings to this:

Bits per second: **9600**

Data bits: **8**

Parity: **None**

Stop bits: **1**

Flow control: **None**

Connect the supplied serial programming cable (UMD part number 2-6295-010-5, "M61x RS232 stereo to DB9F programming cable") to the module's stereo jack serial port and the DB9 connector into the PC's serial port (as selected above).

Power off the reader.

Put the cable into break mode by selecting the switch on the DB9 end to "B" for "Break". This will put a "break" character on the serial transmit line.

Power up the reader.

After three or so seconds, you should see the following on the Hyperterminal screen:

```
[? for Help]:>
```

You are now in the unit's low level "monitor".

Put the cable into program mode by selecting the switch on the DB9 end to “P” for “Program”.

Enter “rc” (for receive) followed by the enter key on the PC. You should now see:

Begin X-modem now:

With time, “C” characters will be output at regular intervals, this is expected:

Begin X-modem now: CC

At this stage, you are ready to download the updated application program.

Within Hyperterminal, from the top menu select “**Transfer**” and then pick “**Send File...**”. Ensure that the protocol chosen is “**Xmodem**”. Next, pick the application program file that wish to download, a typical filename is M611-F02.BIN. Click the “**Send**” button to transmit the file. A status dialogue should be displayed to indicate progress of the download.

Once the program has been downloaded, enter “go” (for jump to application) followed by the enter key within Hyperterminal, or simply power the unit down and back up again. The unit should beep to indicate successful start up.

5. Revision History

Issue	Date	By	Comments
1	14/10/04	HR	First Release