HARD DRIVE SETUP AND FUNCTIONAL TESTING

AMS-02 DDRS
### Change Record

<table>
<thead>
<tr>
<th>Rev.</th>
<th>Date</th>
<th>Originator/Phone</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>07/22/10</td>
<td>Wesley Gordon</td>
<td>Initial Release</td>
</tr>
<tr>
<td>A</td>
<td>7/31/13</td>
<td>Tim Urban</td>
<td>USE DELL LAPTOP AND QTY 2 DUAL Docks</td>
</tr>
</tbody>
</table>

This document is under the Document Configuration Control of AMS
Printed hardcopy is for uncontrolled reference only.
## Table of Contents

Change Record........................................................................................................ iii
Table of Contents..................................................................................................... v
1. INTRODUCTION................................................................................................. 1
2. PURPOSE............................................................................................................ 1
3. Hard Drive Initializing......................................................................................... 1
   3.1 Overview....................................................................................................... 1
   3.2 Format the Drive with NTFS......................................................................... 1
4. Performing the functional Test............................................................................ 7
   4.1 Overview....................................................................................................... 7
   4.2 Setup............................................................................................................ 7
1. INTRODUCTION
The hard drives that will be used for the AMS-02 DDRS come directly from the manufacturer. As a result, they have to be initialized, to allow Windows to recognize them, need to be functionally tested, and have a 48 hour burn in performed.

2. PURPOSE
The purpose of this procedure is as follows:

- Provide Instructions for Initializing hard drives for use with the DELL LAPTOP.
- Provide Instructions for setting up Functional Test Software (Bart's Stuff Test)

3. Hard Drive Initializing

3.1 Overview
When you receive a new drive from the manufacturer, they are not configured for any operating system. This step-by-step procedure describes how to use the Windows XP Disk Management snap-in to configure a basic disk and prepare it for use.

3.2 Test Configuration & Setup.
Configure Test Setup per Figure A below.

Hardware List (PN/SN listed on TPS Document)

1. DELL Laptop
2. DELL Laptop AC Adapter
3. Dual/Single Docking Station (including USB Cable and AC Adapter)
4. Hard Drive (under test)

![Diagram of Test Setup Configuration]

Figure A – Hard Drive Test Setup Configuration.

3.3 Format the Drive with NTFS
This document is under the Document Configuration Control of AMS
Printed hardcopy is for uncontrolled reference only.
Note: This procedure assumes that the drive has been installed/connected to the computer and that you have already logged into the computer as the proper user.

1. Click **Start**, right-click **My Computer**, and then click **Manage**.
2. Under Storage, click Disk Management.

3. Partition wizard will execute as shown below. Click Next

4. Select Primary Partition and click Next

This document is under the Document Configuration Control of AMS
Printed hardcopy is for uncontrolled reference only.
5. On the Partition Size Screen leave it as the default and simply click Next.
6. Ensure that **Assign the Following drive letter** is selected, click **Next**

![New Partition Wizard]

7. When the Format Partition Window is displayed ensure that the **Perform a Quick Format** has been selected and click **Next**

![New Partition Wizard]

This document is under the Document Configuration Control of AMS
Printed hardcopy is for uncontrolled reference only.

5
8. The confirmation window will be displayed, click **Finish**.

9. The status window will show 'Formating' message while the drive is being setup.
10. Once the setup is complete the Drive will display a 'healthy' message and you have successfully completed the drive setup.

11. Record the Hard Drive Letter that was assigned ____________________________

Note: Drive letter will be need to properly setup the testing software.

4. Performing the functional Test

4.1 Overview

bst5 (Bart's Stuff Test v5) is a small win32 application for long term heavy stress testing storage devices. bst5 supports testing at file and device level.

Device level support enables you to test local devices directly block-by-block. In bst5 this is seen as a "low" level test, bst5 writes/reads data directly to/from the storage device without the use of any file system. In other words, the storage device or media does not need to be partitioned or formatted before testing. If any file system exists on a storage device or media, a non-read only test will overwrite any data on it.

For normal operations the test will run forever and will perform a Read First Test, Sequential Test, Random Test, and Half Stroke Test.

4.2 Setup

1. **Double Click** on the bst5.exe icon
2. Change the path to the drive letter that you wish to test.
   **Note:** is this screen shot we are test drive e:\

This document is under the Document Configuration Control of AMS
Printed hardcopy is for uncontrolled reference only.
3. Click **Start**

4. Record the **Start Time:**

5. Allow the test to run for **At Least 48 Hours.**

6. **Click Stop**

7. Record the **Stop Time:**

8. Perform screen capture(s) of the test data and attach it to the TPS.