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1. Diary of Changes

Issue 1.0	July 2003
Issue 1.1	June 2004

2. Introduction

Hopper Test has been developed to enable users to test the following products:-

- MK1 Serial Compact Hopper (SCH1)
- MK2 Serial Compact Hopper (SCH2)
- Serial Universal Hopper

Kit contents 3.

The complete kit consists of the following:

- > PC interface pod
- CD containing Hopper Test software package.
- +12 DC loom (red and black)
 PC to pod loom (blue)
- Loom for Hopper.

4. Hopper Test Software

4.1 Software Installation

Place the CD-ROM into your CD-ROM Drive and the software should start to install automatically. If it does not, run the ccComms.exe program on the CD and follow the on screen instructions.

Figure 1: Hopper Test Software installation			
Welcome to the HopperTestUnEncrypted installation program. Setup cannot install system files or update shared files if they are in use. Before proceeding, we recommend that you close any applications you may be running.			
-	OK Exit Setup		

Click on the icon to continue. You can change the directory that the software is installed to if desired. Figure 2: Hopper Test Software installation (cont. 1) Pegin the installation by clicking the button below. Egin the installation by clicking the button below. Click this button to install HopperTestUnEncrypted software to the specified destination directory. Directory: C:\Program Files\HopperTestUnEncrypted\ Exit Setup

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Figure 3: Hopper Test Software installation (cont.2)

撮 HopperTestUnEncrypted - Choose Program Group 🛛 🔀		
Setup will add items to the group shown in the Program Group box. You can enter a new group name or select one from the Existing Groups list.		
Program Group: Hopper Test UnEncrypted		
Existing Groups:		
Accessories Adobe Ahead Nero Avery Products ccComms ccProgrammer_32 DP Editor Exif Viewer Hopper Test UnEncrypted		
► <u>C</u> ontinue Cancel		
c on Continue and then select OK. The software is now installed.		

Clic

Figure 4: Hopper Test Software installation (cont.3)



4.2 Product Select Screen

The product select screen is the first screen visible when the program is running. In this screen you can choose which product you have attached by placing your mouse cursor over its image and clicking on it.

Figure 5: Product Select Screen

4.3 Test Screen

Once the product has been selected, you will enter the test screen. In this example the MK2 Serial Compact Hopper screen has been chosen.

Figure 6: Test Screen

Money Controls Serial Hopper Test Program - UnEnc	rypted version [MK2 Serial Compact Hopper] V1.U.U
	Test Commands
Port Enable Hopper	Product Info Dispense 5 Coins
	Test Hopper Software Reset
Product Info	Hi / Low Status and Coin Dispense
Serial Number	Nearly Empty
Manufacturer	Nearly Full
Software Revision	Low Level Sensor Supported
Comms Revision	High Level Sensor Supported
Life Dispense Counter	
Dispense Counter	Coins Dispensed Successfully
est Hopper	
Absolute Max Current Exceeded	Opto Fraud Attempt - Short Circuit During Payout
Payout Timeout Occurred	Single Coin Payout Mode
Motor Reversed During Last Payout to Clear a Jam	Checksum A Error
Opto Fraud Attempt - Path Blocked During Idle	Checksum B Error
Opto Fraud Attempt - Short Circuit During Idle	Checksum C Error
	Checksum D Error
Opto Blocked Permanently During Payout	
Opto Blocked Permanently During Payout Power-up Detected	Power Fail During NV Memory Write

4.4 Comms set up

Ensure that the Hopper is connected and that there is power. Select the relevant COM port which your pod is connected using the Comms Port selection at the top left of the screen (*see Figure 7*).

Figure 7: Comms set up

🗞 Money Controls Serial Ho			
Comms			
Port			
COM 1 💽	START		
СОМ 2 🔿 .			

4.5 Start up

Figure 8: Start Up



Start

Once the correct com port has been selected, press *Start. The Enable Hopper* button will become selectable.

> Enable Hopper

Select Enable Hopper and the Test Commands will become available for you to use.

4.6 Test Commands

Figure 9): Test	Commands
----------	---------	----------

al Co	mpact Hopper) V1.0.16		×
[]	est Commands		
	Product Info	Dispense 5 Coins	
	Test Hopper	Software Reset	

> Product Info

Acquires information from the Hopper. The information is then displayed in the Product Info box on the test screen.

> Test Hopper

Runs a continuous polled test until the button is pressed again. This information is displayed as either a tick \checkmark or a cross \varkappa in the 'Test Hopper' boxes on the test screen. This information can be reset using the *Software Reset* button.

> Dispense 5 Coins

When selected the hopper dispenses 5 coins then stops. The hopper stops after a period of time if no coins are dispensed.

> Software Reset

This resets all the information in the *Test Hopper* boxes. The hopper must be enabled following this reset using the *Enable Hopper* button.

4.7 Information index

Product Info

- > Serial Number Serial number of the hopper.
- > Manufacturer Name of manufacturer.
- **Software Revision** Hoppers internal firmware revision.
- Comms Revision Version of ccTalk used.
- > Life Dispense Counter Total number of coins paid out in hoppers lifetime.
- Dispense Counter Number of coins paid out since last reset. This counter is resettable but not with this software.

Hi / Low Status and Coin Dispense

The following flags are only used if level sensors are attached and supported.

- > Nearly Empty Signal from low-level sensors.
- > Nearly Full Signal from high level sensors.
- > Low Level Sensor Supported Indicates whether this sensor is supported.
- > High Level Sensor Supported Indicates whether this sensor is supported.
- Coin Dispensed Successfully Indicates whether any errors have been seen during pay out.

Test Hopper

- > Absolute Max Current Exceeded Maximum current for hopper exceeded.
- Payout Timeout Occurred No coin has been paid out during the specified time limit. Usually seen when hopper is empty.
- > Motor Reversed During Last Payout to Clear a Jam Indicates a reverse.
- Opto Fraud Attempt Path Blocked During Idle Indicates blocked opto while motor is stationary.
- Opto Fraud Attempt Short Circuit During Idle Indicates a fraud attempt such as light being shone into opto's whilst motor is stationary.
- Opto Blocked Permanently During Payout Indicates a permanent jam in opto whilst motor running.
- > **Power-up Detected** Power up of hopper seen.
- > Payout Disabled Shows the status of the Enable Hopper button.
- Opto Fraud Attempt Short Circuit During Payout Indicates a fraud attempt such as light being shone into opto's whilst motor running.
- Single Coin Payout Mode Shows status of this flag although the Hopper Test Software only pays out in multi coin mode.
- > Checksum A Error Internal counter error.
- > Checksum B Error Internal counter error.
- > Checksum C Error Internal counter error.
- > Checksum D Error Internal counter error.
- **Power Fail During NV Memory Write** Power disrupted whilst writing to E^2 .
- PIN Number Mechanism Shows status of this flag although the Hopper Test Software does not request PIN number verification.

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