For more information please contact support@innovative-technology.co.uk

NV9 USB firmware 3.33 released

NV9 USB firmware is now at version 3.33. This latest firmware is contained in the NV9 USB currency dataset files available to download from the Support / Currency Download section of our website. NV9 USB currency dataset files are all being re-released incorporating this new firmware _NV0009333.

New features include:

- Validator updates Note Float firmware if incompatible with validator firmware
- Supports new SSP commands (see GA138 Version 27 for command details)
 - Poll with acknowledge,
 - Note counters,
 - Smart empty,
 - Event initialising
- Supports new ccTalk payout command
 - Set note float storage limit
 - Improved status reporting
 - Improved software recovery from error states.

SMART Hopper firmware 6.09 released

SMART Hopper firmware is now at version 6.09. This latest firmware is contained in the available SMART Hopper currency dataset files available to download from the Support / Currency Download section of our website.

New features include:

- Smart Empty data command now works with all modes.
- New payout modes available: ALL ROUTES AUTO coins that are routed to the cashbox will be paid out if they fit into the payout amount.
 ALL ROUTES SPLIT – coins routed to the cashbox will be included in a split-down calculation of coins to pay.

To set these options PIPS 1.4.6 is required – available from Technical Support.

NV10 USB firmware 3.29 released

NV10 USB firmware is now at version 3.29. As firmware is included in the currency dataset files (Support / Currency Download), no separate download is necessary. NV10 USB currency dataset files are all being re-released incorporating this new firmware _NV0010329. New features include:

- Support for ccTalk DES
- New configuration card ga959 (available from the NV10 USB product page)
- Double note detection with compatible dataset
- Improvements to USB update
- ccTalk Buffer Bill event counter now increment on Master inhibit activated

NB: This new configuration card must be used if reprogramming NV10 USB with firmware 3.29 or later. The configuration card should always be completed with black ink, preferably felt. SEE PAGE 5 and ensure page scaling is set to none before printing.

Validator Manager 3.3.13 released

This latest version supports new products and new features and it is strongly advised that all customers update their BNV Currency Manager to this latest version. Please ensure any old versions are removed before installation of version 3.3.13 New features: Improvements to Diagnostic for NV9 SD/UK for lens sensors test

NV9 USB main housing assembly

The NV9 USB Main Housing Assembly (PM974) has been altered. The main addition is shown below and functions as a guide mechanism for the Note Float unit door. This alteration does not affect the functionality of the NV9 USB bank note validator in any way.



NB: When using Note Float it is critical that power is removed before the Note Float unit is removed from the validator body.

Newly released datasets - March 2011

| Name | Code | Reason | Validator |
|-----------------|----------|-------------------------|---------------------|
| Bolivia | B0B01/02 | Improved acceptance | BV20 |
| Bulgaria / Euro | E0066 | New dataset | NV10/USB |
| Chile | CLP01/02 | New notes added | BV20 |
| Denmark | All | New 500DKK note added | NV9/USB NV10/USB |
| Indonesia | IDR01/02 | New release | SMART Payout |
| Mexico | MXN01/02 | New 100 Peso note added | BV100 |
| Mexico | MXN01 | New release | BV50 |
| Philippines | PHP02 | New release | NV200 |

OPERATIONAL MANUALS

Over the coming months all of our product Operational Manuals are being updated to a new style. The new manuals, designed to be more user friendly, are split into six sections.

Section 1 – Quick Start and Configuration Guide

- Section 2 Field Service Manual
- Section 3 ITL Software Support Guide
- Section 4 Mechanical and Electrical Manual
- Section 5 Software Implementation Guide
- **Section 6 Technical Appendices**

The manuals will be delivered in a zip file with each section designed to contain the information relevant to a specific area of operation / development.

Quick Start and Configuration Guide:

- This section contains the essential information that a user needs to quickly assemble and configure the unit ready for installation into the host machine.
- The Quick Start and Configuration Guide should be download by most users. Eg. software engineers looking at how to operate the validator, project engineers evaluating their first unit, or installation engineers fitting the unit into a host machine.

Field Service Manual:

- This section contains the essential information that a field service engineer needs to clean or maintain the unit that is installed in a host machine and identify faults.
- The Field Service Manual is typically used by field service engineers who are maintaining the product.

ITL Software Support Guide:

- This section contains the information needed for a user to configure and program the unit, using a range of software tools such as PIPS.
- The ITL Software Support Guide is relevant to any user who wants to test the functionality of the unit, reprogram the firmware or dataset, or set up the encryption key, address or routing for the unit.

Mechanical and Electrical Manual:

- This section contains all the mechanical and electrical information a designer needs to effectively integrate an ITL unit into a host machine
- The Mechanical and Electrical Manual is relevant to design engineers who are designing a host machine cabinet, or looking to integrate an ITL unit into an existing cabinet.

Software Implementation Guide:

- The information in this section details the communications protocols, specific commands and interfaces used including eSSP and ccTalk.
- The Software Implementation Guide is relevant to software engineers looking at how to implement an ITL unit in their host machine, or design engineers looking at including the unit in their host machine.

Technical Appendices:

- This section includes information on product approvals, technical specifications and ordering information.
- The Technical Appendices have no specific audience, but users can find relevant and useful information here.

The SMART Payout Operational Manual ga860 is available in this new style now from our website within Products / SMART Payout / Manual. Other product manuals will be announced in future Technical Bulletins.







GA 959 NV 9/10 USB Configuration Option



| NV9/10 | Insert this end first | NV9/10 | |
|--|-----------------------|--|------|
| T | | | |
| Parallel Enabled pulse SSP | | Pulse Pulse (MDB (Select Interface) CcTalk (| |
| CH 1 CH 2 CH 3 CH 4 | | SI 2 CH 5 CH 6 CH 7 CH 7 CH 8 | |
| High speed # pulse x1 # pulse x2 # pulse x4 # pulse x8 | | Low speed # pulse x16 # pulse x32 # pulse x64 # pulse x18 # pulse x18 | 8 73 |
| 8 bit ccTalk checksum Credit hold | | CecTalk plain/ Binary No escrow timeout | |
| - | GA 959 rev 1.4 | | |

Instructions for use

1 - Cut card around outline - check measurements as printed. Check print options 'Page scaling' is set to 'None' when printing a pdf file to ensure correct size.

2 - Fill in sections as required. Take care to fill in the sections correctly, keep inside the lines and fill boxes fully as example below:



3 - Power-up BV and allow to reset.

4 - Click 'Function' button on BV to access Configuration Mode, BV bezel LEDs should be flashing at 1 second interval.

5 - Enter card into NV in direction indicated by arrows.

6 - Card will be rejected and if configuration was good the, bezel LEDs will flash at a fast rate while programming takes place. TAKE CARE TO ENSURE THE POWER IS NOT REMOVED AT THIS STAGE, THE BV MAY SUFFER PERMANENT DAMAGE !! The NV will then reset.

7 - If an error has occurred, the card will be rejected and the bezel LEDs will flash slowly a number of times to indicate the error cause. (See table below for codes).

8 - IMPORTANT - CHECK THAT THE CONFIGURATION REQUESTED HAS BEEN SET IN THE NV BEFORE USE!

| Flash | Error | | | | | | |
|-------|--|--|--|--|--|--|--|
| 2 | Invalid card read - card entered wrong way round, card mis-read or card wrong version. | | | | | | |
| 3 | No interface selection was detected on card. | | | | | | |
| 4 | Multiple interface selection detected. | | | | | | |
| 5 | Invalid interface selected - the selected interface is not available for this NV. | | | | | | |
| 6 | Selected interface not compatible with NV version. | | | | | | |
| 7 | Pulse configuration error. Selected pulse options invalid.(e.g. multiple pulse per dollar) | | | | | | |
| 8 | Not used | | | | | | |
| | | | | | | | |

Program Check Procedure

To check settings on a programmed unit:

- 1 Power on unit.
- 2 Click program set button on unit twice (like double click on mouse).
- 3 Monitor bezel led and check flash codes on table below

| | Flash count | Pulse High | Pulse Low | Pulse per dollar | High speed | Disabled | cctalk plain | octalk 8 bit | lowpower | binary | Credit Hold | No escrowt/out |
|----------|-------------|------------|------------------|------------------|------------|-----------|--------------|--------------|----------|---------|--------------------|----------------|
| SSP | 1 | | | | | | | | | | | |
| Pulse | 2 | ms/10 | ms/10 | value | | | | | | | 3flæsh | |
| MDB | 3 | | | | | | | | | | | |
| IF30 | 4 | | | | | | | | | | | |
| IF31 | 5 | | | | | | | | | | | |
| octalk | 6 | | | | | | 1 flæsh | 2 flæshes | | | | 3 flashes |
| SIO | 7 | | | | 1 flæsh | 2 flashes | | | | | | 3 flashes |
| Parallel | 8 | | | | | | | | | 1 flash | | 2 flashes |
| SP4 | 9 | ms/10 | ms/10 | value | | | | | | | 3flæsh | |
| NIS | 10 | | | | | | | | | | | |
| IF32 | 11 | | | | 1 flæsh | | | | | | | |
| spare | 12 | | | | | | | | | | | |
| spare | 13 | | | | | | | | | | | |
| spare | 14 | | | | | | | | | | | |

For example:

- A pulse inteface with 50ms high, 100ms low, 2 pulse per dollar will flash as follows 2,5,10,2
- A SSP interface will only ever flash once
- A cctalk interface with 16 bit checksum, no encryption wil flash 6,1
- A cctalk interface with 8 bit checksum, no encryption wil flash 6,1,2
- A Binary interface will flash 8,1

| /9/10 | Insert this end first | NV9/10 | | NV9/10 | Insert this end first | NV9/* | 10 |
|--------------------------|-----------------------|---|---------------|--------------------------|-----------------------|-------------------------|------------|
| | | | | | | | |
| Parallel | |) Pulse og | | Parallel | | Pulse | face |
| Enabled pulse | | MDB dt | | Enabled pulse | | MDB | ect Inte |
| SSP | | | | SSP | | ccTalk | Sele |
| SIO | | SI 2 | | SIO | | SI 2 | |
| CH 1 | | CH 5 | | CH 1 | | CH 5 | |
| CH 2 | | CH 6 est | | CH 2 | | CH 6 | isable |
| CH 3 | | CH 7 to | | СН 3 | | CH 7 | ict bill d |
| CH 4 | | СН 8 В НО | 3" nm) | CH 4 | | CH 8 | Sele 3" |
| High speed | | Low speed | 8.2; (210n | High speed | | Low speed | 8.2 |
| # pulse x1 | |) # pulse x16 | 1 | # pulse x1 | | # pulse x16 | suo |
| # pulse x2 | |) # pulse x32 es | | # pulse x2 | | # pulse x32 | lse opti |
| # pulse x4 | | pulse x64 =================================== | | # pulse x4 | | # pulse x64 | elect pu |
| # pulse x8 | | پ # pulse x128 | | # pulse x8 | | # pulse x128 | ŭ |
| 8 bit ccTalk checksum | | ccTalk plain/ Support | | 8 bit ccTalk checksum | | ccTalk plain/ Binary | tions |
| Credit hold | | General Opt | | Credit hold | | No escrow timeout | General Op |
| > | | | | > | | | |
| | GA 959 rev 1.4 | | | | GA 959 rev 1.4 | | |