

# Vesper Software, LLC

Get more out of what you have!



“How much will it cost me to make my **NCR 2127®** registers compliant with **DUKPT** and **2005 Sunrise?**” the owner of the store wants to know.

What solution would you rather propose? A complete replacement of the POS systems that will cost tens of thousands of dollars, disrupt store operations and require significant retraining for the staff? Or Vesper Software’s **d-PIN+** solution that provides DUKPT and support for 14 digit PLUs on the NCR 2127 for a small fraction of the cost, with no disruption and no retraining needed?

## Gap Technology

Vesper Software, LLC was established over a decade ago to provide hardware and software solutions that fill the gaps in existing POS applications. This focus sets us apart from other companies whose goal is to convince store owners that the only answer to initiatives such as DUKPT and 2005 Sunrise is an expensive new POS system.

We knew there was a smarter answer – use the inherent User Exit capability of the NCR 2127 to provide this support. After all, NCR created the 2127 with a forward-thinking design just so that it could handle changes in the grocery industry that no one could even imagine at the time.

## d-PIN+

**d-PIN+** is Vesper Software’s User Exit solution to enable NCR 2127s to utilize DUKPT key encryption technology for PIN-based debit and EBT transactions and to scan or key in products that have 14 digit PLUs (2005 Sunrise).

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*As we at Harding’s have worked to keep our IT costs down, we have made a decision to use our existing NCR 2127 POS equipment for as long as it is practical.*

*Brian DeVries  
Director of IT  
Harding’s Friendly Markets*

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Other companies may try to convince you that only a new POS can give you DUKPT and 2005 Sunrise. Don’t be fooled! Do your own research and **GIVE US A CALL!**

## Certifications

Vesper Software has received the Certification Release letter from Concord (now First Data Corp.) and RBS Lynk for our DUKPT solution, utilizing PINpad loads provided by Verifone, Inc. for the Omni 490. PINpad loads for Everest and Everest Plus are also available. We are beta-testing our solution using the same PINpad loads with other card processors.

Vesper Software has certified the NCR 7870, 7875 and 7880 scanners and scanner/scales as being able to read 14 digit PLUs. RSS-14 barcodes can be read by NCR 7875 scanners, although older models may need an updated chip installed.

*Vesper Software has been a great company to work with as we have worked toward this goal. They have an extensive knowledge of the 2127 and they have been willing to work with us no matter what challenges we presented them with.*

*Brian DeVries  
Director of IT  
Harding's Friendly Markets*

## What is DUKPT?

DUKPT (Derived Unique Key Per Transaction) is the preferred technique for providing exceptionally high levels of security for PIN-based events such as debit transactions at a register.

Instead of utilizing a single "master" key stored in the PIN pad's memory, DUKPT uses a key that is changed with each transaction. Because of this, if an individual were somehow able to read the working key in a DUKPT PIN pad, only the current transaction could be compromised. All earlier and later transactions would still be secure.

DUKPT is fully supported and sponsored by both Visa International and MasterCard International.

## What is 2005 Sunrise?

According to the Uniform Code Council, the 12-digit U.P.C. data structure has been used predominantly in North America, while EAN symbols have been used in the rest of the world. Converting to EAN-14 is allowing North American companies to handle a greater range of global products that have 14 digit PLUs. The 2005 Sunrise initiative enables North American retailers and trading partners to participate in efficient global commerce.

According to the UCC: **"The January 1, 2005 Sunrise date was selected to give North American companies ample time to address all conversion issues. The failure to update systems by that time can cause serious consequences."**

## What is a User Exit?

A User Exit is a built-in feature of the NCR 2127 that allows programmers to enhance or modify how the 2127 processes the events that occur in a transaction, in order to provide store-specific customization or support for newly-defined industry requirements.

These "exits" are like a highway's on and off ramps, built into the standard 2127 process flow at strategic and useful points. When the standard 2127 processing reaches one of these exit points, it checks to see if there is any custom processing to do. If so, the operating system will take the exit, perform the enhancement coded into the NCR User Exit and then resume processing from the original point of exit.



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