

# How to decrypt a PIN block (tag 99) using uDemo?

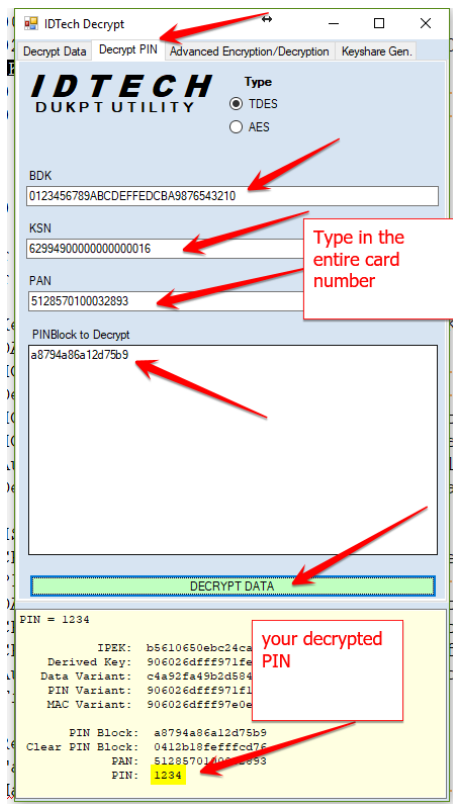
During an EMV transaction, the Complete Transaction stage will return tag 99 if a PIN was entered. The instructions below show you how to use the uDemo to decrypt the pinblock that resides in tag 99. Decrypting the pinblock requires knowledge of the BDK. So, these instructions assume your card reader/PIN pad is injected with a demo key.

uDemo (USDK\_DEMO) - Home

The screenshot displays the Universal SDK Demo application window. On the left, a sidebar lists various USB and IP device models, with 'Spectrum Pro' selected under the 'IP' section. The main interface is divided into several panels:

- Top Left:** IDTECH logo and 'Value through Innovation' tagline.
- Top Center:** Transaction parameters including 'Amount' (1.00), '8A' (3030), and checkboxes for 'Auto Authenticate', 'Auto Complete', 'Force Online', and 'Allow Fallback'.
- Top Right:** A yellow 'WELCOME' message box.
- Center:** A numeric keypad with buttons for digits 0-9, 'Cancel', 'Enter', and 'Back'. A red arrow points from the keypad to the 'Results' section.
- Bottom Center:** A 'Log' window showing a hex dump of transaction data. A red box highlights the data for tag 99: `99:a8794a86a12d75b962994900000000000016`. A red arrow points from this box to the 'Results' section.
- Bottom Right:** A 'Results' window displaying the decrypted PIN: `95: 0440040000`.

At the bottom of the interface, there are buttons for 'Start Capture To Disk', 'Stop Capture To Disk', 'Clear Logs', and 'Email Logs to Support'. A green 'Execute Command' button is located at the bottom left.



Related Articles:

- [Understanding PIN Pad Encryption/Decryption](#)
- [PIN Block format ISO 9564 Format 0](#)
- [How to decrypt a PIN block \(tag 99\) using uDemo?](#)