

# Encoded iCLASS cards work on ILS Locks but generate Invalid Card Format events on HID iCLASS readers

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## Symptom

Encoded 2K/2, 16K/2, or 16K/16 cards for Lenel ILS locks generate invalid card formats on HID iCLASS SE readers and generate a long hex string in the **SCPDebug.txt** file like the following:

```
22758 Jan 24 14:39:19 SCP-21:674 ACCESS READER-0, 3:1 143 bits:
FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
22765 Chnl-270, SCP-7.0 (32/0), (0) rx: 5B 80 1F 00 23 81 06 04 0F 00 78 72 06 00
22765 > 6E 5F 13 DE 09 00 00 06 0D 0F 04 FA 93 AE 00
```

## Resolution

To allow the use of a single-encoded card to function on Lenel ILS locks and HID iCLASS SE readers, two (2) encodings must be performed.

HID 2K/2, 16K/2, and 16K/16 cards have 2-4 application areas. For each card, Application area 1 is reserved for HID while Application area 2, 3, and 4 are used for third-party encoding.

If you are seeing FF in the **SCPDebug.txt** output, this indicates the card has yet to be encoded on Application area 1.

To encode this application area, complete the following steps in System Administration:

1. From the **Administration** menu, select **Card Formats**.
2. Click [Add] to create a new card format. The Choose Card Format Type window is opened.
3. Select "Smart Card", and then click [OK].
4. Enter a name for the card format.
5. From the **Application** drop-down, select "HID Access Control (iCLASS)".
6. Select "Access Control Only" as the **Card Type**, and then select your **Access Control Card Format** to encode.
7. Make sure the **Access Control Key type** is set to "HID". (It is typically set to this by default.)  
Note: The hex key is pre-generated since it is shared between OnGuard and HID, so there is no need to enter another value.
8. Select the **Memory configuration** that matches the card used, and then click [OK].
9. Encode a test card to make sure this works. If it does not, you may need to adjust your card format until a "Granted Access" event is generated on the HID iCLASS reader.

Card Format Custom Encoding

Name: HID Access Control (iCLASS)

Type: Smart Card

Application: HID Access Control (iCLASS) ▾

Application Settings

Number of badges secured with GSC Key - unlimited.

Card Type: Access Control Only ▾

Access Control Card Format: Wiegand 36 ▾

Access Control Key type: HID ▾ Key (hex): [XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX]

BioClass Key type: Lenel ▾ Key (hex): [XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX]

Memory configuration: 2kbits / 2 Application Areas ▾

Make Access Control Configuration Card...

## Applies To

OnGuard (All versions)

## Additional Information

A configuration card is not required.

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