

<b>Title:</b>	DS-K1107M(K) Card Reader Wiegand Encryption	<b>Version:</b>	1.0	<b>Date:</b>	8/19/20
<b>Product:</b>	Select Hikvision DS-K1107M(K) Mifare Card Readers	<b>Page:</b>	1 of 2		
<b>Action Required:</b>	None, Information Only				

## Summary

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- **Symptom:** Affected card reader in Wiegand mode may beep four times on scan, but will not send data to the controller, despite correct wiring and DIP switch settings.
- **Applies to:** Some DS-K1107M and DS-K1107MK card readers produced in 2020, in Wiegand mode only. RS-485 communication mode is not affected.
- **Solution:** If attempting to use Wiegand, flip DIP switch #5 and #6 ON, despite some earlier documentation that may suggest keeping only DIP switch #6 ON.

## Background

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On a Hikvision access control system, any card reader can be used to enroll cards for new and existing users. A recent change in card readers' Wiegand operation mode, however, has introduced a security feature that requires an extra step to use the readers for enrollment. This technical bulletin explains the new feature and how to deal with it.

Hikvision has introduced a new security feature that encrypts the data transmitted from the reader in Wiegand mode to the access control panel. When enabled, only a card previously enrolled by a USB enrollment reader with M1 Encryption Mode One can be scanned at the reader. In order to enable or disable the encryption, DIP switch #5 on the back of the card reader is used.

## Symptoms and Solution

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With the introduction of this new feature, the reader behaves "oddly" and does not accept reads of any cards presented, and in return beeps four (4) times. This new firmware is installed on a small number of readers (currently in stock) that has this encryption protocol in place. In this particular version of firmware, the Encryption is enabled when DIP switch #5 is in the OFF position (by default), and in order to disable the encryption, DIP switch #5 must be set to the ON position. In the past, DIP switch #5 was labeled as "reserved," but now it has the purpose of controlling the encryption. Figure 1 shows the location of DIP switch #5 on the back of a reader.

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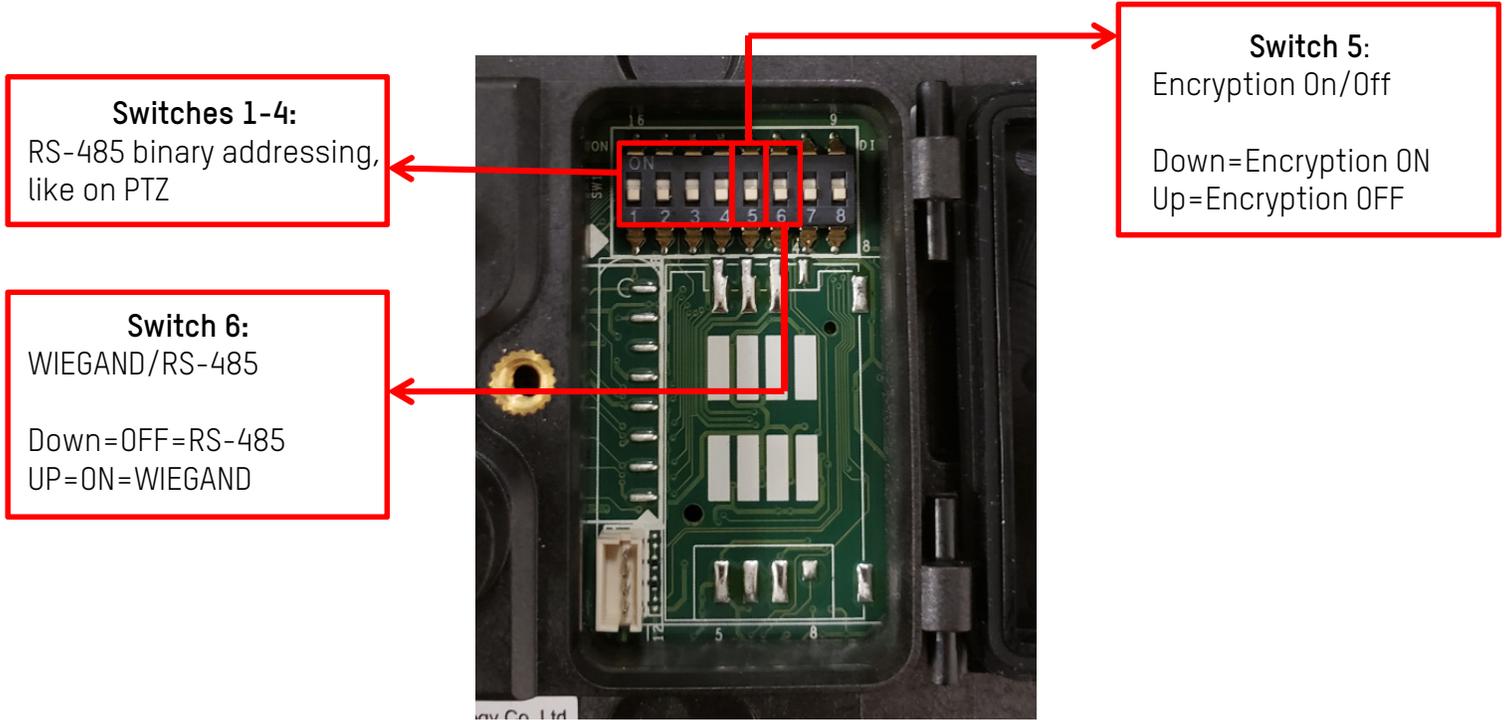


Figure 1, DIP Switch Location

Currently, in order to use the reader to enroll cards in Wiegand mode or to use the reader in Wiegand mode without encryption, DIP switch #5 and DIP switch #6 must be turned to the UP (ON) position, thus turning off the encrypted mode.

**NOTE:** The DIP switches must be set when the reader is powered down, or the reader must be rebooted if the switches were set while the reader was turned on

If there is a need to use the encrypted mode, DIP switch #5 must remain in the DOWN position, but the cards will have to be added using the **DS-K1F100-D8E USB Card Enrollment Station**. For more details on this feature and its use, please contact the Hikvision Technical Support team via phone or email.

**Conclusion**

This feature will be modified in the near future, and a new technical bulletin will be released at that time to announce the changes made. In the meantime, please refer to this bulletin if a card reader in Wiegand mode is beeping and is not accepting any cards presented.