Minda Immo641
Manual

1. General Info

1.1. Author

Role	Name
Electronics	Thomas Steingreß

1.2. Change History

Revision	Reason	Date	Name
1	Initial version	07.12.2017	Thomas Steingreß
2	Components drawing added CNR statement added	18.12.2017	Thomas Steingreß
3	Manufacturer address and Modelname corrected System drawing completed	21.12.2017	Thomas Steingreß
4	Antenna data added IC number added	08.02.2017	Thomas Steingreß
5	Warning for Canada added	19.04.2017	Thomas Steingreß

2. Index

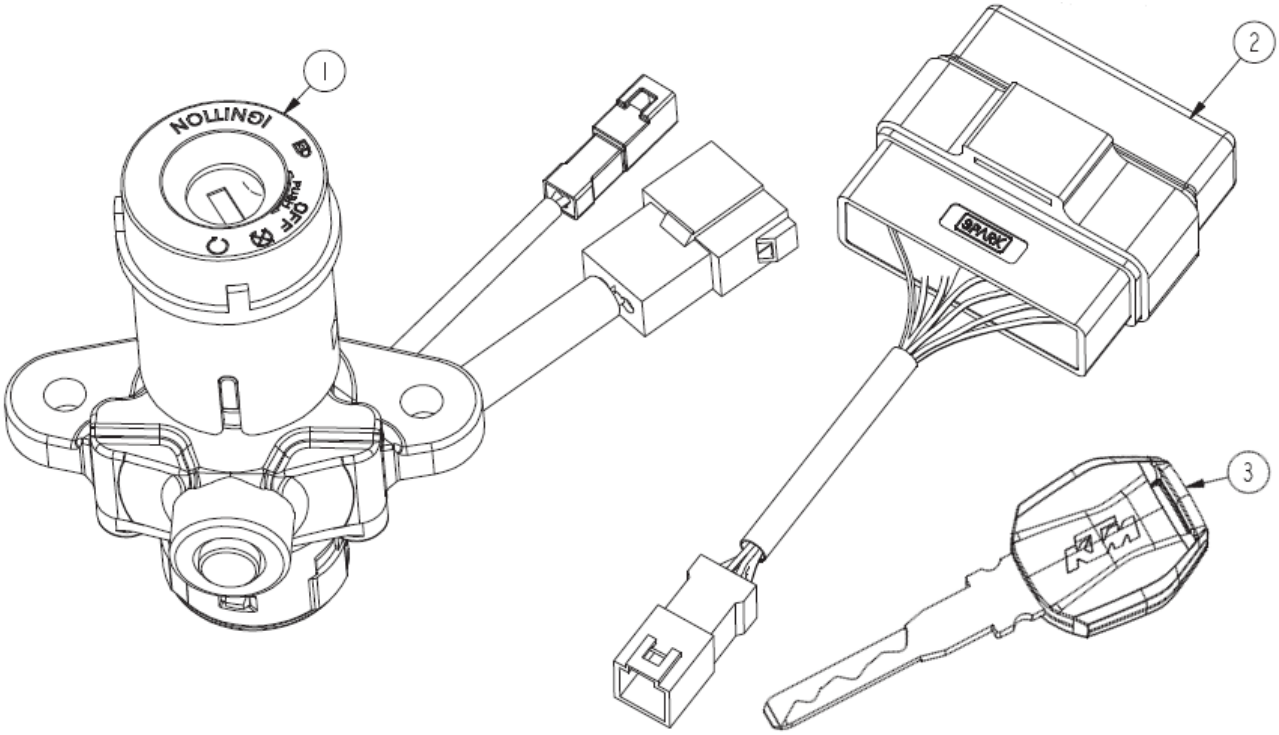
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3. Description

The Immobilizer is an electronic device to avoid unauthorized engine start for motorcycles.

The system consists of

1. Antenna (integrated in the ignition lock)
2. Immobilizer unit
3. Key with RFID transponder (passive)



3.1. Ignition on

After turning the key in the lock to position „ON“ the Immobilizer is powered up and transmits a radio frequency identification to the transponder in the key by the antenna. If the handshake with the transponder has been successful (transponder is valid) the Immobilizer performs a handshake with the engine control unit of the motorcycle via CAN bus to enable the start of the engine. Without valid handshake between engine control unit and Immobilizer engine start is not possible.

4. Technical Specification

4.1. Manufacturer

Minda Corporation Limited
D6-11, Sector-59,
Noida – 201301
Distt. G.B. Nagar U.P.
INDIA

4.2. Electrical features

Nominal voltage	12 V
Operating voltage	8 to 16 V DC
Operating temperature	-20 °C to +70 °C
Storage temperature	-30 °C to +80 °C
Operating current consumption	<= 150 mA at 12 V
Operating frequency	125 kHz

Antenna:

Inductance	500 ±10 µH @ 125 kHz (mounted on the lockset)
Resistance	7.5 Ω ±5% @ 26 °C
Number of turns	107
Q Factor	Not specified
Gain	Not applicable
Type	Air Core

4.3. Mechanical featues

Dimensions (with rubber mount)	53.5 x 46.0 x 25.5
Weight	80 g
Housing	PA–6+30%GF

5. Certifications

5.1. USA

5.1.1. FCC grantee code

Product name: Immo641
FCC ID: 2AKP9IMMO641

5.1.2. FCC Warnings

a) User Information according to FCC 15.21:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

b) Part 15 Statement according to FCC 15.19/RSS Gen Issue 4 Sect. 8.4

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

5.2. Canada

IC: 22273-IMMO641

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Warning / Avertissement:

To satisfy the ISED Canada exposure requirements a separation distance of 1 cm or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operations at closer distances than this are not recommended.

Pour satisfaire aux ISED Canada exigences RF exposition une distance de séparation de 1 cm ou plus doit être maintenue entre l'antenne de cet appareil et les personnes pendant le fonctionnement.

5.3. Taiwan

根據 NCC 低功率電波輻射性電機管理辦法 規定: 第十二條　經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。 第十四條　低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。 前項合法通信，指依電信法規定作業之無線電通信。 低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。