

User Manual / Functional Description

of the

Siemens VDO

Immobilizer

type 5WY 8301

General description of the immobilizer

The described system is a transponder-based immobilizer for an automotive vehicle.

The immobilizer system consists of :

- up to 4 ignition keys with transponder integrated in the key head
- the antenna for energizing and communication with the transponder with its integrated electronic modulator/demodulator driver
- the external status indicator (LED) for displaying the immobilizer status

The purpose of the immobilizer system is to provide an additional anti-theft-system which is installed in the vehicle. Checking of user authorization is done by use of an ignition key whose head integrates a crypto-transponder.

In case of a blocked immobilizer system (unauthorized key), the ECM control unit locks the engine control by cutting off the ignition circuit and the injectors circuit.

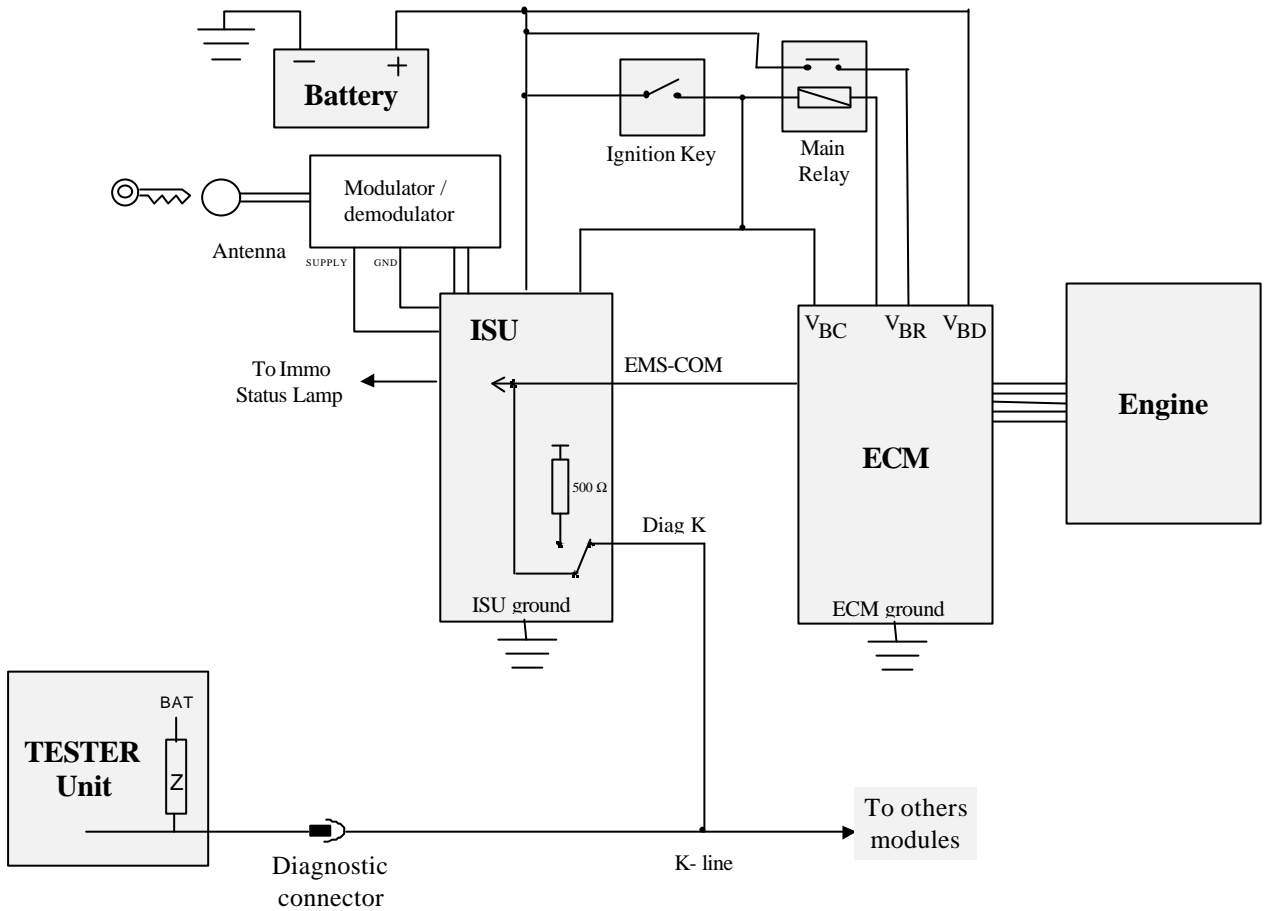
The antenna is a coil allowing to create the electromagnetic field necessary for transponder operation. The antenna generates an electromagnetic field using a frequency of 134.2 kHz. This field induces energy into the transponder by way of its resonant circuit.

The external status indicator (LED) displays the immobilizer status, and has an additional deterrence function.

Variant:

Siemens type designation	frequency	
5WY 8301	134.2 kHz	Immobilizer antenna

Block diagram



Technical Data:

Carrier frequency:	134.2 kHz ± 0.6 %
Output power/field strength:	< 42 dBμA/m @ 10 metres
Type of modulation:	FSK
Number of channels:	1
Power supply:	12,8 V
Type of battery:	vehicle battery
Transmission range:	<5 centimeter

Label design:

Europe:



134.2 kHz

5WY 8301



USA / CANADA



134.2 KHz

FCC ID:KR55WY8301

CAN: 267 xxx xxxx

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept interference received, including interference that may cause undesired operation.