

# **Manual**

## **CAN2BT Adapter**



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### **Technical support**

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### **Scope of delivery:**

CAN2BT Adapter

There are two models available:



Part number NI337 – angular connector

Part number NI336 – round connector

You can download the ref. smartphone app for control the agricultural machinery from the internet – Apple Store or Google Play store .

### **Description**

The CAN2BT adapter is the hardware interface for the communication of the AMAZONE App with an agricultural machine from AMAZONE. The adapter is connected to the CAN interface

(CAN bus terminals) of the agricultural machine and enables a bidirectional communication from a Smartphone APP (Android and iOS) with devices connected to the bus.

The adapter is supplied via the serial interface.

### **How it works**

With the CAN2BLE adapter it is possible to use the Smartphone App:

To receive messages from the CAN bus and send them to the bus,

Filter messages,

Configure the adapter,

Evaluate error messages,



*Figure 1: Housing variants*

The adapter is available in 2 versions: see Figure.1.

After plugging in, the adapter is put into Bluetooth pairing mode via a CAN message and a PIN is generated, which is shown on the display in the vehicle.

Now the user can connect to a Smartphone and the AMAZONE App to the adapter.

The generated PIN has to be entered by the user.

After a successful pairing process the device remains paired until a new CAN message triggers a new pairing process.

If the adapter is paired with the smartphone, the data exchange can take place via a Bluetooth Low Energy data connection.

Please follow instructions in AMAZONE app description.

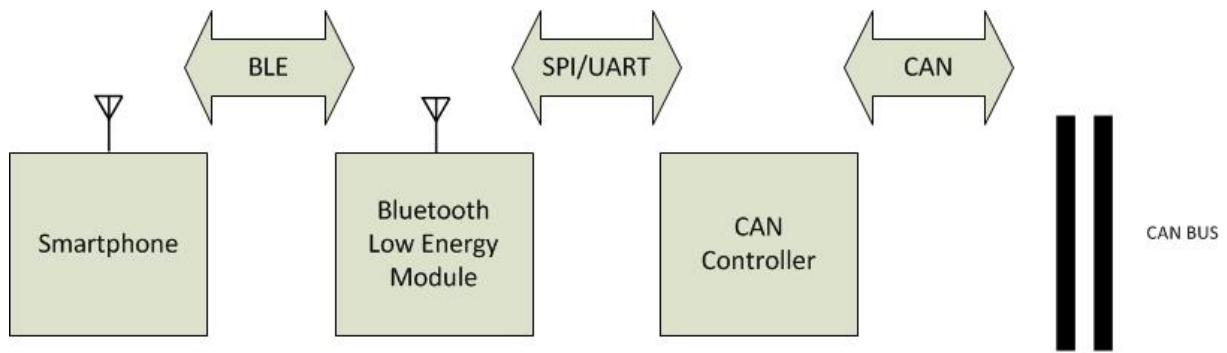


Figure 2 Communication scheme

### Technical description

- Bluetooth Low Energy 4.2, 2,4 GHz frequency range, between 2,402 – 2,48 GHz
- Modulation: : GFSK
- Antenna: multilayer chip antenna, peak gain 2,5 dBi ( see datasheet antenna AT8010 attached)
- RF Output power 4.38dBm(ForCE)
- Operating/storage temperature -40 until 85°C
- Operating Relativity Humidity Range: 100 %, protection class IP65
- Power supply 12V over connector (see figure 1)
- CAN-bus termination
- Internal protection against overcurrent (Coverage area between  $U_b$ , min 9V and  $U_b$ , max 16V)
- Reverse polarity protection
- Inputs and outputs of the components are permanently short circuit protected against  $U_b$  and ground
- Immunity to load dump pulses
- Immunity to conducted disturbances on the supply lines
- Immunity to field-bound interference
- Communication Profile: LinTech BLE SPP service
- Update ( MCU, BLE module ) over the Air
- Report of internal errors to CAN-bus and App
- Can-Bus baudrate 250 kB

## Update

The firmware of the CAN2BT adapter can be updated over the air by using the AMAZONE smartphone app. Please follow the instructions in AMAZONE app description.

### **FCC Caution:**

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

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 any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

## **ISEDC warning**

This device complies with ISEDC licence-exempt RSS standard (s).

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'ISEDC 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.

Radiation Exposure Statement:

This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. ce matériel est conforme aux limites d'exposition aux rayonnements rf énoncées dans un autre environnement. cet émetteur ne doit pas être situées ou opérant conjointement avec toute autre antenne ou l'émetteur.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Ce matériel devrait être installé et adapté à une distance minimale de 20cm entre le radiateur et votre corps.