

## iDUHF – Quick Guide

Thank you for acquiring the iDUHF Access Controller! For more information, please access:

<https://www.controlid.com.br/en/access-control/iduhf/>

By using Control iD's products, you are accepting the Terms and Conditions of Use and Information on Protection of Personal Data available in:

<https://www.controlid.com.br/legal/eula.pdf>

### 1. Needed Material

For the physical installation of your iDUHF, you will need the following items: EAM – External Activation Module<sup>[1]</sup>, installation kit (support part + clamp + screws), a 13mm wrench<sup>[2]</sup>, a 12V/2A DC supply <sup>[2]</sup> and an installed support pole for antennas<sup>2</sup>.

[1] Optional as the installation scenario.

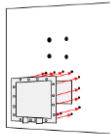
[2] Items sold separately.

**⚠ Use a high-quality 12V/2A supply without static, to assure the full operation of the product.**

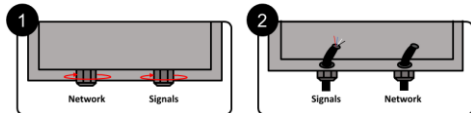
### 2. Physical Installation

The equipment installation is simple and must follow the sequence below:

a) Take off the sixteen bolts from the sealing part to have access to the connections.



b) Unscrew and pass the network cables and signals uncovered by the cable grip of the sealing part. We recommend a 26 AWG cable (0.4mm of diameter) for the signals.

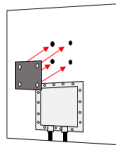


**⚠ Passing cables already crimped by the hole is not possible. Only crimp and connect the cables after passing them through the cable grip and sealing part holes.**

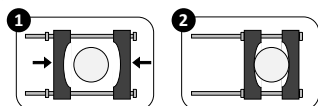
c) Identify your installation scenario on item 4 of this document and make the electrical connections described in the corresponding diagram, connecting the cables to the terminal and crimping the network connector.

d) Tight the cable grip and put in the sixteen screws of the sealing cover again.

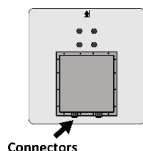
e) Fix the support part of the installation kit on iDUHF's back, using the four screws that come with the product and a wrench.



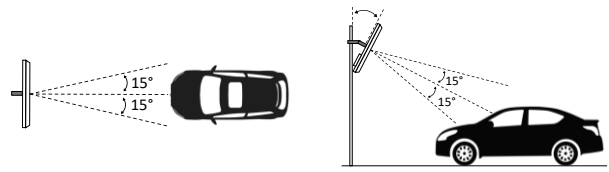
f) Use the clamps of the support part and a wrench to allocate iDUHF on the support pole already previously installed in the environment.



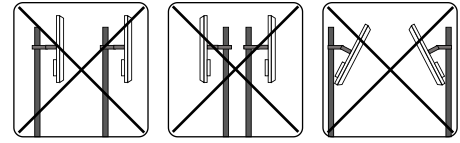
**⚠ Make sure that iDUHF's connectors are facing down.**



g) With the aid of a wrench, adjust iDUHF's angle so that its front size is faced to the vehicle passage location. In this process, consider that the signal emitted has a 30° opening to all directions.



**⚠ Do not install two iDUHF's units covering the same reading area.**



### 3. Description of the Connection Pins

iDUHF has a network door (Ethernet) dedicated to the configuration of its parameters and integration its parameters and integrate with Control iD's access software (iDSecure), in addition to a terminal bar of 14 positions to ensure the communication with EAM and a full integration with several installation environments.

Check the table below with the descriptions of External Activation Module – EAM and iDUHF interfaces.

#### EAM - 2-pin connector (Power Supply)

GND	Black	Grounding of the Power Supply
12V	Red	Power supply +12V

#### EAM - 4-pin connector (Connection with iDUHF)

GND	Black	Grounding of the Power Supply
B	Blue / White	Communication B
A	Blue	Communication A
+12V	Red	Output +12V

#### EAM - 5-pin connector (Wiegand In/Out)

WOUT0	Yellow/ White	Wiegand Output - DATA0
WOUT1	Yellow	Wiegand Output - DATA1
GND	Black	Grounding (Common)
WI N0	Green/ White	Wiegand Input - DATA0
WI N1	Green	Wiegand Input - DATA1

#### EAM - 6-pin connector (Relay Control)

DS	Purple	Door Sensor Input
GND	Black	Grounding (Common)
BT	Yellow	Push-button Input
NC	Green	Normally Close Contact
COM	Orange	Common Contact
NO	Blue	Normally Open Contact

### EAM – Communication Modes

- Default: EAM will communicate with any equipment.
- Advanced: EAM will communicate strictly with the equipment to which it was set up in this mode

**⚠ To return EAM to the default mode, turn it off, connect the WOUT1 pin with BT and then turn it on. The LED will quickly flash 20 times, which indicates that the change was made.**

#### iDUHF - 14-pin connector

GND	Grounding of the Power Supply
12V	12V Power supply
W00	Wiegand Output
W10	Wiegand Output
485A	RS485 Communication (Pin A)
485B	RS485 Communication (Pin B)
TGR	Trigger Sensor
DS	Door Sensor
TX	RS-232 TX / 113200 bps 8N1
RX	RS-232 RX / 113200 bps 8N1
NO	Normally Open Contact
COM	Common Contact
NC	Normally Close Contact
GND	Grounding of the Power Supply

Máx 30VDC

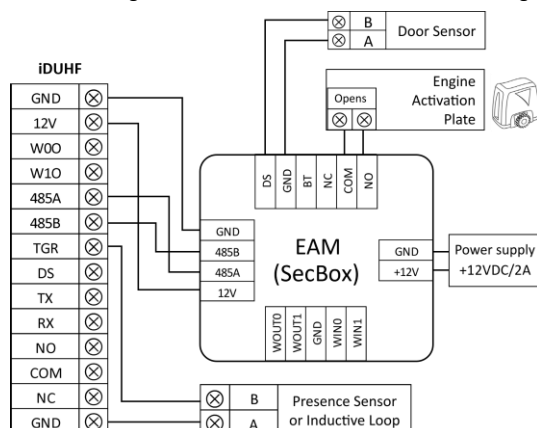
### 4. Use Cases

Check the electrical equipment of each one of the product installation options.

#### 4.1. iDUHF as an Access Controller connected to EAM

In this scenario, iDUHF reads and identifies the vehicle TAG, authorizes the release according to access rules (location or in server – iDSecure) and uses EAM (SecBox) to control an external engine activation plate.

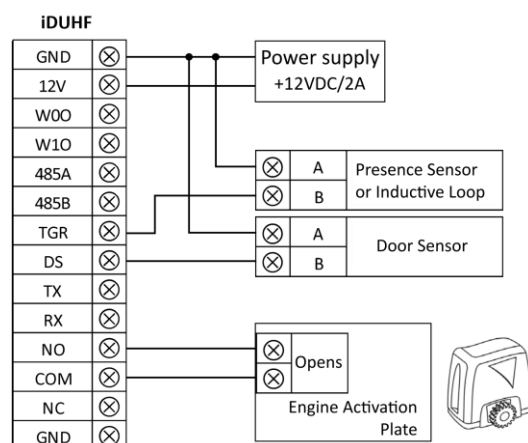
For this setting, make the connections illustrated in the diagram below.



#### 4.2. iDUHF as an Access Controller without EAM

In this scenario, iDUHF reads and identifies the vehicle TAG, authorizes the release according to access rules (location or in server – iDSecure) and controls an external engine activation plate by using an internal relay, without the need of EAM.

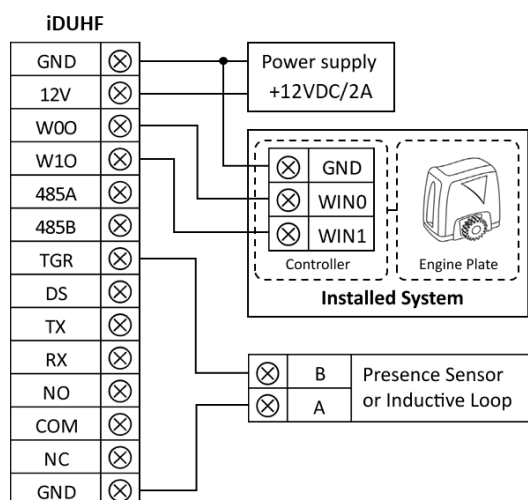
For this setting, make the connections illustrated in the diagram below.



#### 4.3. iDUHF as an UHF Reader (Wiegand)

In this scenario, iDUHF reads the vehicle TAG ID number and sends it to an external control plate (control central system) through Wiegand protocol.

For this setting, make the connections illustrated in the opposite diagram.



### 5. Sensors

#### 5.1. Trigger Sensor (TGR)

The functionality of the input signal **TGR** is controlling the TAG reading activation based on a specific event. By using a barrier sensor or an inductive loop, for example, you are ensuring that iDUHF will only make the identification when the vehicle is in a proper position, avoiding undesired and unnecessary readings.

#### 5.2. Door Sensor – DS

The input signal **DS** can be used to verify the current status of the gate (open/close). Thus, when integrated with monitoring systems, this feature can

activate alarms that indicate an unusual behavior at the location (gate break-in, for example).

### 6. Setting Interface Web

#### 6.1. Accessing the Interface Web

To set iDUHF through network, connect the equipment directly to a PC by means of a Network cable (cross or point-to-point). Then, set up a fixed IP in your machine at network 192.168.0.xxx (where xxx is different from 129 to avoid IP conflict) with mask 255.255.255.0.

To access the equipment setting screen, open a web browser and type the following URL: <http://192.168.0.129>

The login screen will appear. By default, the access credentials are:

- Username: **admin**
- Password: **admin**

**⚠ To redefine the factory default IP (192.168.0.129), Unplug the power supply an plug it back again but with Trigger and Door Sensor contacts connected to GND. The product power supply with Trigger and Door Sensor contacts connected to GND.**

#### 6.2. Setting UHF Reading

To make easy iDUHF integration and use with the access control system, access in the web interface the option **Leitor UHF [UHF Reader]** and set up the following parameters:

- **General**
  - Bits of Wiegand output - 26 (default), 32, 34 or 66 bits.
  - Antenna transmit power - between 15 and 24 dBm to regulate the distance reading of vehicle TAGs.
  - Mode of operation – *Continuous* for constantly enabled readings or *Trigger* for reading activation due to Trigger input
  - Trigger Timeout – time when the TAG reading will be enabled after the trigger sensor activation.
  - Interval between readings
    - Same Tag – time interval between each reading of the same TAG.
    - Different Tags – time interval for each TAG reading with different IDs.
- **Advanced**
  - Channel Selection – choose the reading frequencies that iDUHF can operate. We recommend using this setting to avoid interferences when there is more than a product installed in the environment.

#### FCC Compliance Statement

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. CAUTION: The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment. 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 the FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and all persons. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

#### Canadian Compliance Statement

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada license-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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;
- 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

NOTE: This equipment complies with RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 22cm between the radiator & your body. REMARQUE: Cet équipement est conforme aux limites d'exposition aux radiations RSS-102 établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance minimale de 22 cm entre le radiateur et votre corps.

**"This equipment is not entitled to harmful interference protection and will not cause interferences in systems duly authorized."**