iDFit – Quick Guide

Thank you for purchasing the iDFit Multifunctional Access Controller! To access detailed information about your new IDFit, please check the following link:

www.controlid.com.br/userguilde/idfit-en.pdf

Necessary Materials

In order to install your iDFit, you will need the following items: drill, wall plugs and screws, screwdriver or Philips, 12V power supply with at least 1A and an electronic lock.
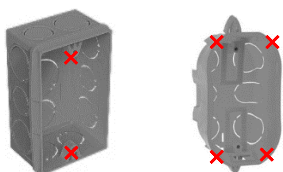
Installation

For the correct operation of your iDFit, the following precautions should be taken:

• Install in a place that is not exposed to direct sunlight and that is protected from rain and other natural phenomena.
• Avoid metallic objects near the rear of the device in order not to impair the proximity reader's range. In case this is not possible, use insulating spacers.
• Fix the IDFit inside a stand 1 – gang box ("4x2), 1.2m from the ground (measured to the bottom part of the equipment).
• Before securing the equipment in place, ensure all cables are correctly routed towards the equipment.

⚠ stand 1-gang boxes require a small adjustment in order to be compatible with the iDFit: the 2 "ears" for securing the screws need to be completely removed so that the iDFit can be inserted in the box.

⚠ Drywall 1 – gang boxes have a rounded format and need to be adapted on the corners so that they can be compatible with iDFit.

The equipment installation process is simple and should follow the sequence below:

1. Adapt the 4x2 box according to the notes above
2. Route all of the cables required for the operation and connect them to the extension cables provided according to the wiring diagrams in this guide.
3. Use the reference pattern in the back of this guide to drill the 4 holes required to install the equipment
4. Insert the wall plugs all the way into the drilled holes.
5. Remove the iDFit from the box and take out the front mirror (gently force the bottom part out).
6. Connect the connection cables provided to the iDFit
7. Screw the iDFit to the wall plugs
8. Put the front mirror back in place

Description of the Connecting Pins

Due to the great flexibility of your iDFit controller, there are 5 connector blocks on the back of the equipment besides the network connector (Ethernet).

2 - Pin Connector (Power Supply)

+12V	Red	Power supply +12V
GND	Black	Power supply ground

⚠ The connection to a +12V power supply capable of supplying at least 1A is fundamental for the correct operation of the equipment.

6 - Pin Connector (Wiegand and RS-485)

485A	Green/Wh	RS485 Communication (Pin A)
485B	Green	RS485 Communication (Pin B)
WOUT1	Yellow/Wh	Wiegand output - DATA1
WOUT0	Yellow	Wiegand output - DATA0
WIN1	Blue/Wh	Wiegand input - DATA1
WIN0	Blue	Wiegand input - DATA0

⚠ Wiegand external card readers should be connected to WIN0 and WIN1. In case a control board is used, we can connect the Wiegand WOUT0 and WOUT1 outputs to the controller so that the user´s ID, as identified in the iDFit is transferred to the controller.

⚠ The Wiegand input and output can be set to operate as Wiegand 26 (Standard) or ABATRACK II, check the manual.

7 - Pin Connector (alarm system)

AL+	Blue	Transistor alarm output +
AL-	Green	Transistor alarm output -
ZN1	Yellow	Alarm input 1
ZN2	Orange	Alarm input 2
ZN3	White	Alarm input 3
ZN4	Brown	Alarm input 4
ZN5	Purple	Alarm input 5

⚠ The ZN1 to ZN5 inputs correspond to the inputs for door, window and presence sensors etc. These must be dry contact sensors (transistorized or with a relay). Check the alarm wiring diagrams for more details.

⚠ The AL + and AL- outputs are transistorized and have a low current capability (<10mA). They are reserved for interconnections with other iDFit equipment or an external alarm system or dialer. If you wish to activate a siren, connect it to RELAY2 and activate this setting on the equipment.

11 - Pin Connector (door/relay controls)

DS2	Blue	Door sensor input (Relay 2)
BT2	Orange	Push button input (Relay 2)
NO2	Green	Normally open (NO) contact (Relay 2)
CO2	Yellow	Common contact (Relay 2)
NC2	Purple	Normally closed (NC) contact (Relay 2)
GND	Gray	Ground (common)
DS1	Blue/Wh	Door sensor input (Relay 1)
BT1	Orange/Wh	Push button input (Relay 1)
NO1	Green/Wh	Normally open (NO) contact (Relay 1)
CO1	Yellow/Wh	Common contact (Relay 1)
NC1	Purple/Wh	Normally closed (NC) contact (Relay 1)

⚠ Warning! By default, iDFit only comes with Relay 1 activated for door control purposes. You must always connect the lock to Relay 1. In case you wish to control more than one lock, use Relay 2 and activate the applicable settings on the equipment.

⚠ The push button and door sensor inputs may be set as NO or NC and must be connected to dry contacts (switch, relays.) between GND and the related pin.

10 - Pin Connector (Expansion)

This connector is reserved for expansion boards that are sold separately by Control iD.

⚠ Never connect any type of device or cable that is not coming from an expansion board towards one of the contact points in this connector. The warranty term will be automatically voided and the equipment may be damaged.

iDFit Settings

The settings for your new iDFit can be set through the LCD display (Graphical user interface – GUI) and/or through a standard internet browser (as long as the iDFit is connected to an Ethernet network).

In order to configure the IP address, subnet mask and gateway through the touch screen, follow these steps: **Menu → Settings → Network**. Update the information as you wish and connect the equipment to the network.

Web Interface Settings

First, connect the device directly to a PC via a network cable (cross or direct). Next, set a fixed IP on your computer for network 192.168.0.xxx (where xxx is different from 129 so that there is no IP conflict) with mask 255.255.255.0.

To access the equipment settings screen, open a web browser and enter the following URL: http://192.168.0.129

The login screen will be shown. The default access credentials are:

• Username: **admin**
• Password: **admin**

⚠ Through the web interface you can change the equipment´s IP. If you change this parameter, remember to write down the new value so that you can connect to the product again.

Electronic lock types

iDFit, through its two internal relays, is compatible with almost all of the locks available in the market.

Magnetic Lock

The Magnetic or electromagnetic lock consists of a coil (fixed part) and a metal part (armature plate) which is attached to the door (mobile part). While there is a current passing through the magnetic lock, the fixed part will attract the mobile part. When the distance between these two parts is small, ie. When the door is closed and the dock is on top of the fixed part, the attraction force between the parts can be over 1000kgf.

Thus, the magnetic lock is normally connected to the NC contact of the activation relay, as we normally want for the current to go through the electromagnet and, if we want the door to open, the relay must open and interrupt the current flow.

In this guide, the magnetic lock will be represented by:
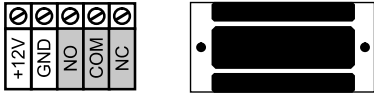
⚠ The gray terminals represent the door sensor and may not be present in all locks. If they are not used, they can be left open.

Electric bolt

The electric bolt lock, also known as solenoid lock, consists of a fixed part with a mobile pin connected to a solenoid. The lock normally comes with a metal plate that will be attached to the door (mobile part). The pin on the fixed part enters the metal plate preventing the door from opening.

In this guide, the electric bolt lock will be represented by:
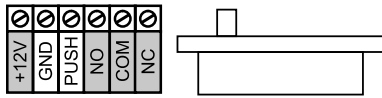
⚠ The gray terminals may not be present in all locks. If there is a power input (+ 12V or + 24V), it is essential to connect it to a power supply before operating the lock.

Electromechanical Lock

The electromechanical lock or strike lock consists of a latch connected to a solenoid through a simple mechanism. After opening the door, the mechanism returns to its initial state allowing the door to be closed again.

Thus, the electromechanical lock typically has two terminals connected directly to the solenoid. When current passes through the lock, the door will be unlocked.

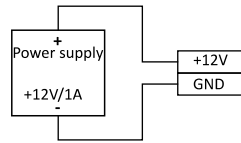In this guide, the electromechanical lock will be represented by:

⚠ Confirm the operating voltage for the lock before connecting it to the iDFit!
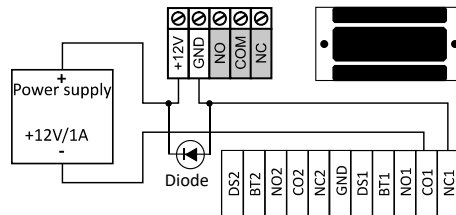Many electromechanical locks operate at 110V/220V and must therefore use a different wiring set up.
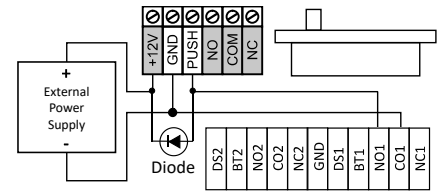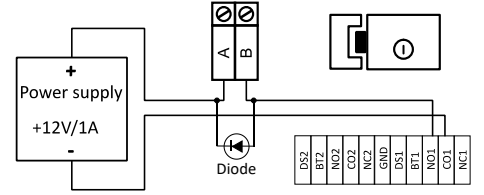
Wiring Diagrams

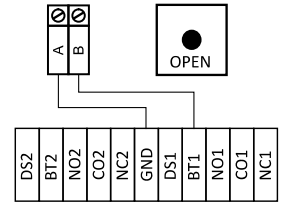### Power Source (Mandatory)

Magnetic Lock

Electric bolt lock
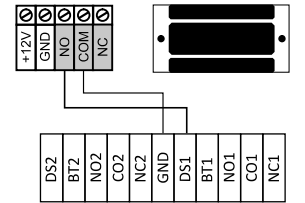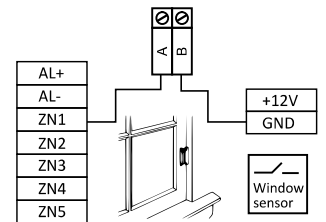

Electromechanical Lock

Push Button

Door Sensor

Alarm Inputs

Reference Pattern for Installation