

DP DuPoL

DP-GSM

Intercom and access control unit operating on mobile GSM network with internet WEB access and mobile application

User manual v1.0

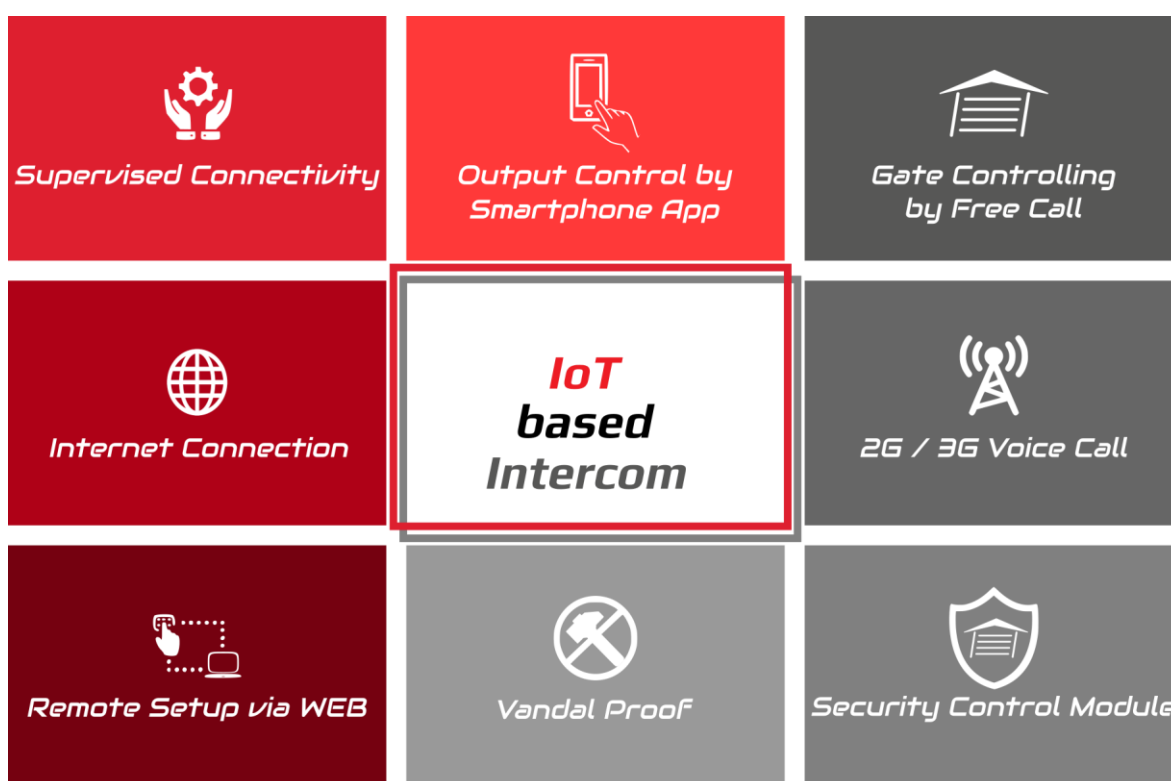



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1 General information

DP-GSM is an intercom unit which as a cell phone can call the owner's mobile or landline phone. By pressing the call button on the intercom, it makes the voice connection in a few seconds, this way it makes possible for the owner to receive the visitor's calls and talk to them at anytime and anywhere, even when not at home.

The relay and voltage outputs on the intercom can be controlled by free phone call e.g. to initiate the opening/closing the garage door or to open the electric strike.

The same outputs can be controlled parallelly by mobile applications (Andorid and IOS) as well.

The device can also be set remotely, which means that via WEB all settings and users can be modified and the operation of the unit can be monitored. For remote setting and control via mobile application a SIM card with internet access is necessary.

If the SIM card contains only voice based service, the above functions are unavailable.

1.1 Main features

- Intercom operating on mobile network
- 2 phone numbers can be assigned to each pushbutton (set as primary and secondary)
- Relay contact can be controlled (to start gate controls)
- Controllable voltage output (for the direct control of an electric strike)
- Gate control function by free call, 100 user phone numbers can be configured
- Gate control function by mobile application, receiving „PUSH notification“ about control
- Configuration via USB using the PC software found on the intercom
- Configuration via WEB, remote management function
- 2G (GSM) or 3G (UMTS) network
- Vandal-proof stainless-steel metal case

1.2 Areas of application

- Modern solution for wireless intercom system (private homes, resorts, offices, premises)
- Remotely controllable access control unit
- Keyless door opening
- Garage door opening/closing by phone

1.3 Advantages

- No missed clients, guests or visitors, since the intercom unit calls the owner's mobile phone, no matter where the owner is.
- On call, the owner can let in the guest, client or courier remotely
- In case of absence, burglary attempts can be prevented by imitating the apparent presence.
- Fast and easy installation, easy configuration using a PC.
- The intercom can be remotely managed via internet.
- Supports the use of the traditional and smartphone

2 Operation

2.1 Visitor mode

When the visitor pushes the call button, the device initiates a voice call to the configured phone number. During the call, the connection cannot be interrupted nor by making a call to the device, nor by pressing the button again. The call is ended automatically when the configured communication time expires, or the called party (the owner) can hang up the call at anytime on his/her phone. The call is ended automatically if the called party does not answer or is not available. If a secondary telephone number is also configured, then this number will be called if the primary number is unavailable.

A new call is initiated only if the button is pressed again.

2.2 Listen-in mode

The intercom unit can be called from the telephone numbers (owner) assigned to the telephone's push buttons and to start communication with the visitor or listen to the environment of the intercom. If the call is initiated from any other telephone number, the intercom rejects it. If the call is initiated from a phone number which is also configured in the unit as gate opener number, the device will consider the call as a gate opening call. In this case voice connection is not established, but the relay output is activated.

2.3 Gate control

The intercom has 2 controllable output as follows:

- **Independent relay contact (NO)** to start the gate moving units (REL/REL mark)
- **Controllable voltage output** (12V@1A) for the direct control of an electric strike (OUT+/OUT-)

The outputs can be controlled in 3 different ways:

- **By free call:** recognizing the phone number the unit controls the configured output if the caller is authorized
- **During the call by pressing 1#** of the phone's numbered keys OUT output while **2#** Relay output can be activated exclusively by the owner.
- **By mobile application:** by the virtual push button on the App's surface

2.4 Status LEDs

Status LEDs next to the **STAT** mark on the panel indicate the below status information of the intercom's operation.

Continuous red	SIM is missing
Blinking red	Connection to the mobile network is in progress
Continuous green and Blinking red	Connection to GSM/UMTS network has been established, GPRS data connection is in progress
Blinking green	All network connection is ok

3 Setting

Setting the intercom can happen in 2 ways:

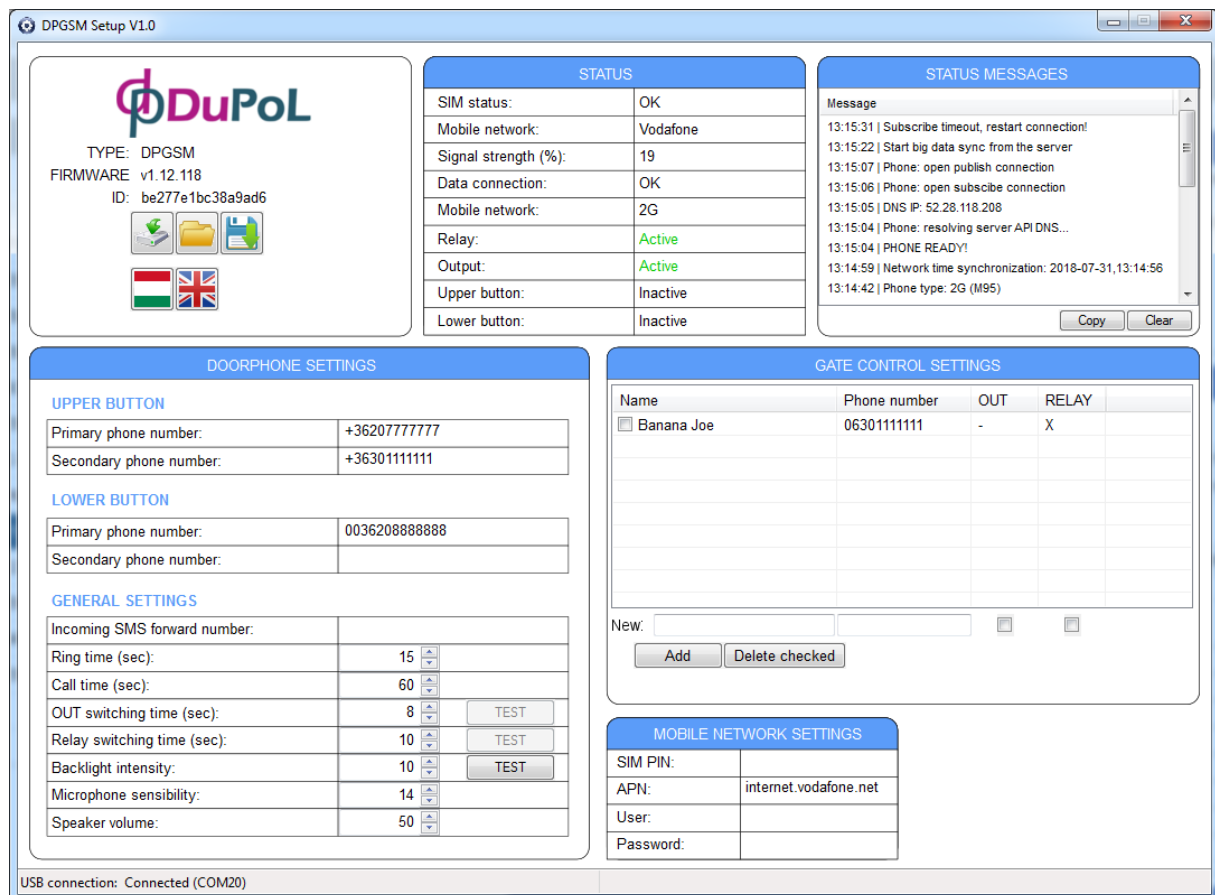
- Locally with MS Windows program (DPGSM_setup.exe) via USB
- Remotely with WEB browser (puloware.com) via IoT cloud server

3.1 Setting locally with MS Windows program

The intercom unit parameters (phone numbers, controls, backlight intensity, speaker volume, etc.) can be configured using the DPGSM_setup.exe program that can be downloaded from www.dupol.eu/documents/DPGSM_Setup_DUPOL.exe

Run the DPGSM Setup program (Windows 7, 8, 10 compatibility) and connect the USB port of the GSM Intercom to the PC using the supplied cable!

Important note: the power of the USB connector is not able to provide suitable energy for mobile connection; therefore, USB is only sufficient to make the settings! it is necessary to connect an external power for the tests of calls!



3.1.1 Administration and information area (dashboard)

The dashboard is divided into three main sections:

- Unit Information:**
 - Logo: DuPoL
 - TYPE: DPGSM
 - FIRMWARE v1.12.118
 - ID: be277e1bc38a9ad6
 - Icons for file operations (upload, folder, save) and flags for Hungary and the UK.
- STATUS:**



SIM status:	OK
Mobile network:	Vodafone
Signal strength (%):	19
Data connection:	OK
Mobile network:	2G
Relay:	Active
Output:	Active
Upper button:	Inactive
Lower button:	Inactive
- STATUS MESSAGES:**

Message log showing events such as 'Subscribe timeout, restart connection!', 'Start big data sync from the server', and 'PHONE READY!'.

After connection to USB the program displays the unit's data and settings.

Administration window with the below information:

- brand: DuPoL
- type identifier: DPGSM
- FW program version
- The unit's device ID for configuration on WEB and mobile application

-  uploading the modified data to the memory of the intercom
-  File operation icon: opening and saving stored configuration

STATUS window shows mobile network connection and the status of the intercom's peripheries

STATUS MESSAGES window records the unit's events for diagnostics reasons.

3.1.2 General settings

The settings window is titled 'DOORPHONE SETTINGS' and is organized into three sections:

- UPPER BUTTON:**

Primary phone number:	+36207777777
Secondary phone number:	+36301111111
- LOWER BUTTON:**

Primary phone number:	0036208888888
Secondary phone number:	
- GENERAL SETTINGS:**

Incoming SMS forward number:		
Ring time (sec):	15	
Call time (sec):	60	
OUT switching time (sec):	8	TEST
Relay switching time (sec):	10	TEST
Backlight intensity:	10	TEST
Microphone sensibility:	14	
Speaker volume:	50	

- **Primary phone number:** telefon the telephone number that is called first when the button is pressed
- **Secondary phone number:** if the number called first is not available the intercom calls this number

- **Incoming SMS forward:** Forwards the SMS messages received on the unit's SIM card to this specified phone number, (e.g. balance information received from the GSM service provider). It is recommended to configure this in case of using a pre-pay type SIM card.
- **Ring time (10-120 sec):** The maximum time allowed for ringing the called number from pushing the call button.
- **Call time (10-600 sec):** The maximum time allowed for a call initiated from the intercom. When this time is reached the intercom automatically disconnects the call.
- **OUT active time (1-120 sec, monostable):** The voltage output activation time.
- **Relay active time (1-120 sec, monostable):** The relay contact output activation time.
- **Backlight intensity (0-10)**
- **Microphone sensitivity (5-14)** default value: 13
- **Speaker volume (10-50)** default value: 40

3.1.3 Gate control settings

GATE CONTROL SETTINGS			
Name	Phone number	OUT	RELAY
<input checked="" type="checkbox"/> Banana Joe	06301111111	-	X

New:

The telephone numbers set here are authorized to remote control the output or outputs assigned free of charge, since in case of calls initiated from the phone number specified here the intercom performs the control and does not take the call but rejects it. Maximum 100 user phone numbers can be added.

3.1.4 Data connection settings

MOBILE NETWORK SETTINGS	
SIM PIN:	
APN:	internet.vodafone.net
User:	
Password:	

The APN configuration of the SIM card with mobile internet capability necessary for remote configuration and the use of mobile application and the PIN code (if the card is protected by PIN code) of the inserted SIM card can be entered here.

3.2 Remote configuration via internet (WEB)

Almost the complete configuration of the intercom and their modification can be done remotely via the internet. The condition of this is for the intercom to connect to the internet with a SIM card having mobile internet. Configuration can be accessed on www.puloware.com where the complete configuration surface can be seen the same way as on the PC program.

IMPORTANT NOTE: the function and the use of the webpage is free of charge, however requires registration! After entering the registered account the device ID of the intercom (ID) has to be added to the list so that the intercom's configuration can be seen and modified on the surface.

3.2.1 User account registration on IoT server

The first step is to register a user account on the server. This step has to be done only once, after this unlimited number of devices can be registered in the account.

To access IoT server click: [0](#)

The image shows two identical login forms side-by-side. Each form has a grey header with the text 'LOGIN TO YOUR ACCOUNT'. Below the header, there are two input fields: 'Username:' and 'Password:'. Below the input fields, there is a blue button labeled 'LOGIN' and a link that says 'or register a new'. Below each form is a circled number: '1' under the first form and '2' under the second form.

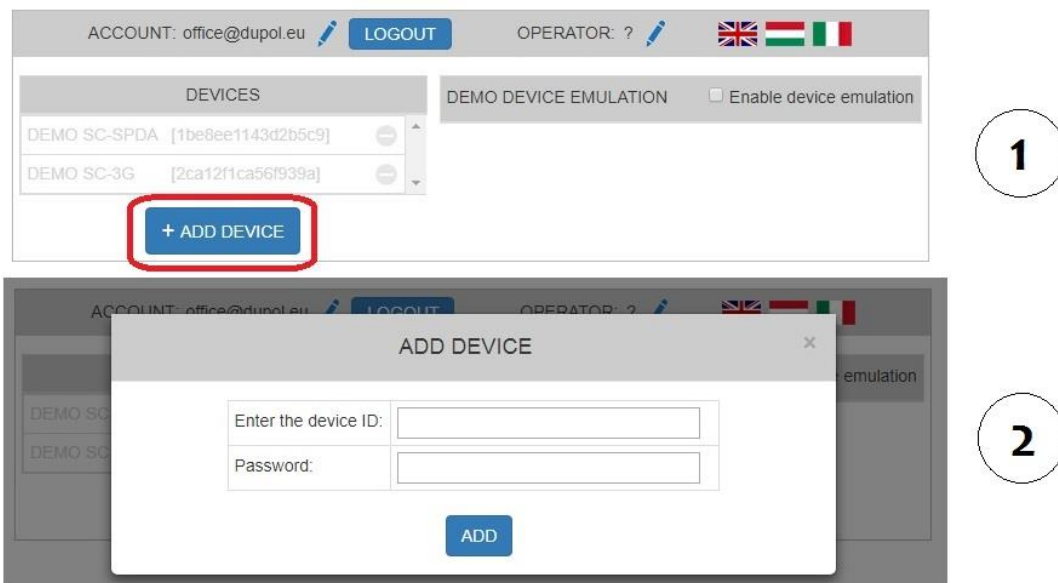
At user registration no personal data is required from the server, only a desired email address and password are required.

IMPORTANT NOTE: Since the login data cannot be restored from the system, so in case of forgetting the password or email address the registration of a new account is required!

IMPORTANT NOTE: The password of the account is not identical with the password of the account that can be assigned to the device withing the application.

3.2.2 Adding devices to account

After entering the established account, the device ID-s of the remotely manageable devices can be registered remotely.



Besides the intercoms the system supports several different devices (e.g. gate controls, etc.) so these can be entered one after the other in the account.

The device ID is a character containing 16 digits (combination of letters and numbers), which individually identifies the intercom.

IMPORTANT NOTE: Because of the above mentioned information please handle the device ID confidentially!

4 Installation

4.1 Preparation on the SIM card

For the operation of the intercom a micro SIM card is necessary which is capable of voice and data communication; it can be subscribed or pre-pay.

IMPORTANT NOTE: Before installation it is necessary to have the SIM card.

Suggested types: Domino Fix SIM or Domino Fix Extra SIM

The expected monthly data traffic of the SIM card is less than 10Mbyte!

Before installation the below modifications are necessary:

- Delete the PIN code request of the card
- Activate the card (if possible)
- Have telephone number display permitted

In case of Domino cards telephone number display takes place in the below way:
menu point: 2321211

4.2 Basic settings on the intercom

If the SIM card is active, the intercom can be put into operation according to the below:

- Inserting SIM
- Connecting antenna
- Connecting USB and power supply

After these steps APN configuration for internet communication via the program described in the previous chapter needs to be entered as well as the telephone numbers of the clients to be called.

IMPORTANT NOTE: the power of the USB connector is not able to provide suitable energy for mobile connection; therefore, USB is only sufficient to upload the settings! it is necessary to connect an external power for the tests of calls!

4.3 Mounting

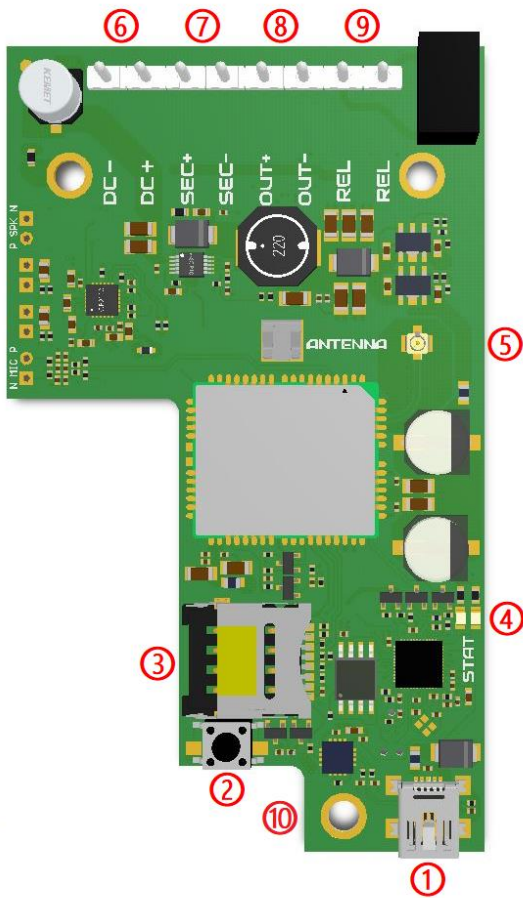
To make mounting easier the connecting part of the cables can be pulled off the panel. Due to this the serial connector itself is enough at the connection of the cables then it can easily be connected to the panel. Connection of the antenna is as simple as that.

Steps of mounting:

- Preparing the name-plate (by releasing the bottom screw the paper of the name-plate can be taken out)
- Mounting the intercom's frame (flush and surface mount) and pulling the cables out
- Connecting the cable
- Clicking the cable on the prepared and set front-plate
- Antenna connection
- Closing the device by the joining part and screwing it with the security screw

The package contains the 12V/1.5A capacity power supply of the intercom as well. If the electric strike will also be mounted, the electronic parameters of it should fit in the power supply!

4.4 Connection diagram



- ① USB connector
- ② RESET push button
- ③ SIM card case
- ④ Status LED
- ⑤ Antenna connector
- ⑥ Power input
- ⑦ Coded control output
- ⑧ Voltage output
- ⑨ Relay contact output
- ⑩ Name-plate fixing screw

Functions and features of terminals/plugs:

- Voltage input: DC 12V / 1.5A
- Coded control output: the output of the security relay modul driver
- Voltage output: connected 12V@1A output for the direct control of an electronic strike
- Relay contact: control connected independent contact with max. load 24V / 1A

5 Content of the package

- DP-GSM intercom with front plate
- Mounting frame SM or FM
- Security screw+screwdriver bit
- Antenna 2G or 3G
- USB cable
- Power supply DC-12V / 1.5A
- Antenna mount bracket
- Wall mounting screws
- User manual

6 Technical details

Jellemző	Érték
Power supply	12-24V DC
Maximum current consumption	1.5A @ 12V DC
Nominal current consumption	150mA @ 12V DC
Dimensions	98x75x24 mm
Operating temperature	-30°C / +60°C
Communication	GSM Quad-band 850/900/1800/1900MHz

7 Setting and use of PULOWARE mobile application

The outputs of the intercom can directly be controlled via smartphone with the help of a mobile application. The free of charge PULOWARE mobile application can be downloaded on the user's device depending on the platform from Google Play or Apple App Store. When you start the application, a setup wizard requires an operator (user) name and then the **Device ID** of the DP-GSM intercom to be controlled and the relating password to be entered. The device ID - the 16-digit combination of letters and numbers which can be found on the sticker on the panel - which is the individual identifier of the intercom in the system. In case of a new device there is no password, the setting of this can be done in a separate account in the IoT server surface on www.puloware.com

Start in the application and initial settings

Download and start PULOWARE application, then enter the appropriate data.

