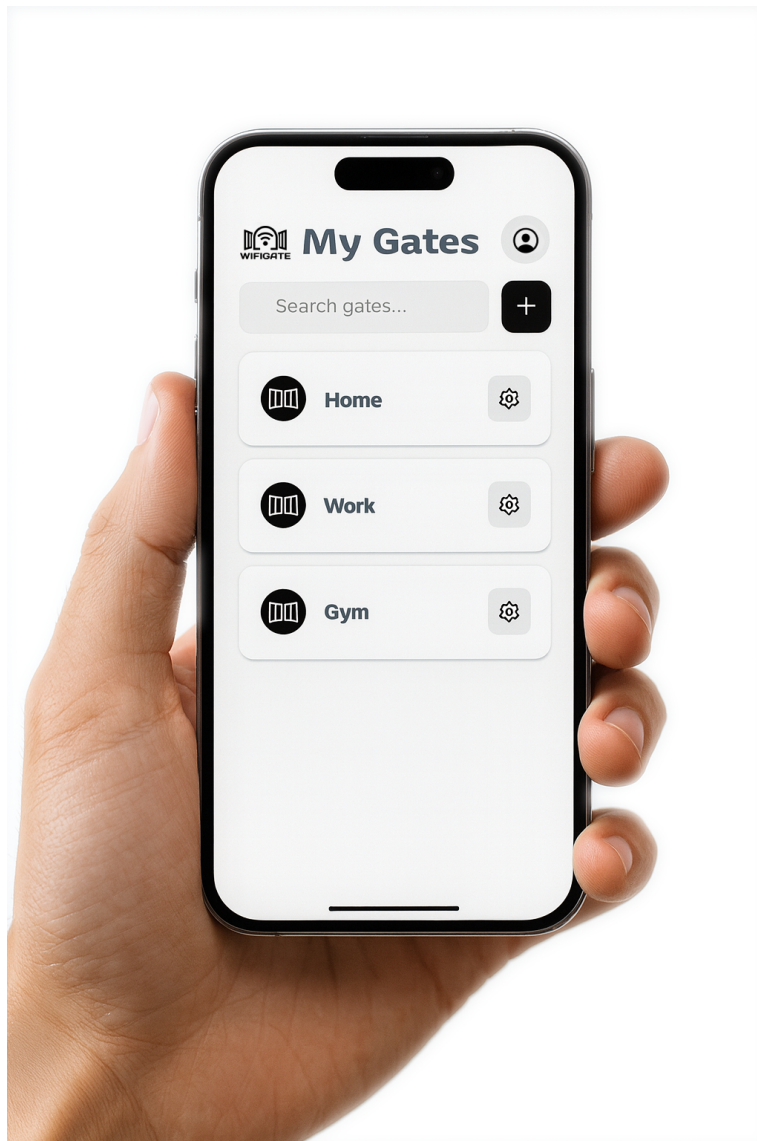




WIFIGATE System

User Manual — Version 1.0

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1. Product Overview — WIFIGATE

WIFIGATE is a secure, smart gate-opening system built for parking lots, residential complexes, sensitive or high-security sites, and private homes. A single, compact controller supports up to four parallel access channels (plan-dependent) for resilient, low-latency entry—even if one path is down. It installs quickly with simple wiring, while an optimized control algorithm triggers immediate gate activation. Administration is hardened and simple: one-tap RF remote enrollment plus an encrypted, on-device database that scales to thousands of users while safeguarding privacy and minimizing external exposure.

Key Capabilities

Access Channels (4 in parallel — plan-dependent)

- Wi-Fi
- Cellular (4G)
- Local/offline via WIFI/BLE
- 433 MHz RF remote

Redundant paths provide reliable operation even if one network is down.

Installation & Control

- Quick setup with simple wiring
- Optimized control algorithm for instant gate activation

Administration

- One-tap digital RF remote learning code
- Built-in, encrypted user database manager with CSV import/export
- Rapid user add/remove

Capacity & Privacy

- Supports up to 3,000 local users stored on the device
- No external exposure of names or phone numbers

Need more? Additional users are available for an extra fee.

Temporary Access

- Invite Guest issues 24-hour links for deliveries, contractors, and visitors—no permanent account required.

Hardware I/O

- Dry-contact Form-C relay (NO/COM/NC) with programmable pulse width
- Dry-contact input for external trigger/open command (e.g., wall push-button, intercom, or access panel)

Typical Ranges

- Up to 15 m for nearby BLE app control
- Up to 100 m line-of-sight for 433 MHz RF remotes

Power

- 12–24 VDC (SELV) for dependable, low-maintenance operation

Apps

- Intuitive iOS & Android app for daily use and administration

Operating Modes & Plans

1. Plan 1 — Offline: Wi-Fi/BLE/RF for maximum privacy and no ongoing cost
2. Plan 2 — Online (Wi-Fi): Worldwide remote control and added conveniences
3. Plan 3 — Online (Wi-Fi + Cellular): Worldwide remote control with cellular redundancy and added conveniences

2. Safety Information

1. Installers only: installation should be performed by qualified personnel.
2. Use SELV 12–24 VDC power only. Disconnect power before wiring or maintenance.
3. Do not connect relay contacts to mains. Use only with low-voltage control inputs.
4. Mount inside a weatherproof enclosure for outdoor installations; protect antennas and wiring.
5. Keep RF antennas away from metal and high-current lines for best range.
6. Observe local regulations for low-voltage and radio equipment.

3. What's in the Box

1. WIFIGATE controller unit
2. 2-pin DC power terminal
3. 3-pin relay terminal (NO/COM/NC)
4. 2-pin dry-contact input
5. Quick-start card (QR to app)

4. System Features

1. **Four access channels (plan-dependent):** Wi-Fi, Cellular 4G, BLE nearby, and 433 MHz RF remote.
2. **Local-first design:** primary data stored on device for privacy; works even without internet.
3. **Fast digital RF learning:** add a new remote code with a single tap.
4. **Built-in user database:** add/remove users quickly; import/export via CSV.
5. **Programmable relay pulse width** and secure, isolated dry-contact output.
6. **Dry-contact input (plan-dependent):** Trigger an open-gate command from an external sensor/button.
7. **Invite Guest:** grant 24-hour temporary access via the app.
8. iOS and Android WIFIGATE app with nearby control.

5. Specifications

Parameter	Value
Power input	12–24 VDC (SELV)
Relay output	Isolated Form-C (NO/COM/NC), programmable pulse width
RF remote	433 MHz receiver; typical range up to 100 m (open field)
App nearby range	Up to ~15 m via WIFI/BLE
Data model	Local storage by default; privacy-focused design
Operating environment	–20 °C to +60 °C (enclosure-dependent)
Dimensions	Compact board-level module (see product page)

6. Installation Guidelines

1. Choose a dry, sheltered location close to the gate/door controller.
2. Attach antennas before power-up; place them clear of metal surfaces.
3. Connect power (12–24 VDC) observing polarity.
4. Wire the relay NO/COM to the controller's trigger input as per the operator manual.
5. Optionally connect a dry-contact input (sensor or push-button).
This input only triggers opening the gate (momentary N.O. contact; do not apply voltage).
6. Re-check wiring, secure all terminals, and only then apply power.

7. Wiring Connections

- Power (2-pin): +V (12–24 VDC) / GND.
- Relay (3-pin): NO / COM / NC — connect to gate 'open/step' trigger.
- Optional input: dry-contact input (momentary N.O.) to trigger opening the gate — do not apply external voltage.

Note: Keep signal wiring separate from high-current motor lines to reduce interference.

8. Commissioning & App Setup

1. Install the WIFIGATE mobile app (iOS & Android).
2. Power the device. Then press and hold the Setup button until the status LED starts blinking (ready for commissioning).
3. Release the button once the blinking begins. From the app, add the device (scan QR/enter serial) and set basic preferences.
4. If desired, connect Wi-Fi or insert SIM for remote access (Plans 2–3).
5. Set relay pulse width, add users, and test open/close from the app.

9. Operation

- App nearby (WIFI/BLE): open the gate when within up to ~15 m.
- Wi-Fi/Cellular (remote): open worldwide (Plans 2–3).
- 433 MHz RF remote: typical range up to 100 m line-of-sight.
- Invite Guest: send a 24-hour access link to a visitor or service provider.

10. User & Guest Access

- Up to 3,000 users stored locally; CSV import/export for fast onboarding.
- Encrypted local storage for users data (encrypted at rest).
- The user database operates without internet connectivity (Plan 1), making it ideal for privacy-sensitive and high-security sites.
- RF remotes: practically unlimited — remote IDs are learned digitally.
- Guest access: 24-hour, time-limited permission via the app.
- Need more than 3,000 users? Capacity can be extended for an additional fee.

11. Plans & Pricing

We offer three plans so you can choose the right balance of features and cost. We particularly recommend Plan 1 for sites that value privacy and zero monthly fees.

Why is Plan 1 so attractive?

- No Monthly Fee — stop paying subscriptions just to open a gate.
 - Privacy by design — user names and phone numbers remain encrypted on the local device.
 - Works without internet — perfect for sensitive sites and remote locations.
 - Supports up to 3,000 users locally via the WIFIGATE app (iOS & Android).
- Note: higher user capacities are available for an additional fee.

Plan	Monthly	Highlights
Plan 1 — No Monthly Fee	¥0 / month	Up to 3000 users; BLE nearby app; 433 MHz receiver; CSV import/export; Open via WIFIGATE app near the gate; Highly secure local data; Programmable relay pulse width
Plan 2 — Remote via Wi-Fi	~\$1.52/ month	Everything in Plan 1 + Wi-Fi remote access worldwide
Plan 3 — All-in-One 4G	~\$3.66 / month	Everything in Plan 2 + Cellular 4G remote access worldwide

12. Maintenance

1. Plug-and-play: no periodic hardware maintenance required.
2. No service intervals: no lubrication, calibration, or routine checks.

Administrative maintenance:

- Add and remove users via the local WIFIGATE app only (no cloud access, for security purposes).

13. Troubleshooting

Symptom	Resolution
App cannot open gate nearby	Ensure you are within up to 15 m; power-cycle the device if needed.
Remote range is poor	Place RF antenna away from metal; check remote battery; verify receiver antenna connection.
Gate doesn't react	Verify relay wiring to the controller's trigger and adjust pulse width. Then do a multimeter continuity ("beep") test across NO-COM while triggering WIFIGATE: if you get a momentary short (beep), the WIFIGATE relay is working and the issue is in the gate operator control board/wiring, not in WIFIGATE system.
No power/LEDs	Confirm 12–24 VDC at input and correct polarity; check fuses and connections.

14. Regulatory & Compliance

- Designed for compliance with CE/RED, FCC Part 15, and equivalent regional standards.
- Operate with supplied or approved antennas only. Maintain ≥ 20 cm separation from antennas.
- Use 12–24 VDC SELV power sources and install per local low-voltage codes.

15. Warranty & Support

- Limited 12-month hardware warranty against defects in materials and workmanship.
- For sales and assistance: Contact Sales | Learn More via your distributor or WIFIGATE partner.
- Technical support: email and knowledge base; response during business hours.

For the latest documentation, firmware notes, and accessories, contact your WIFIGATE representative.