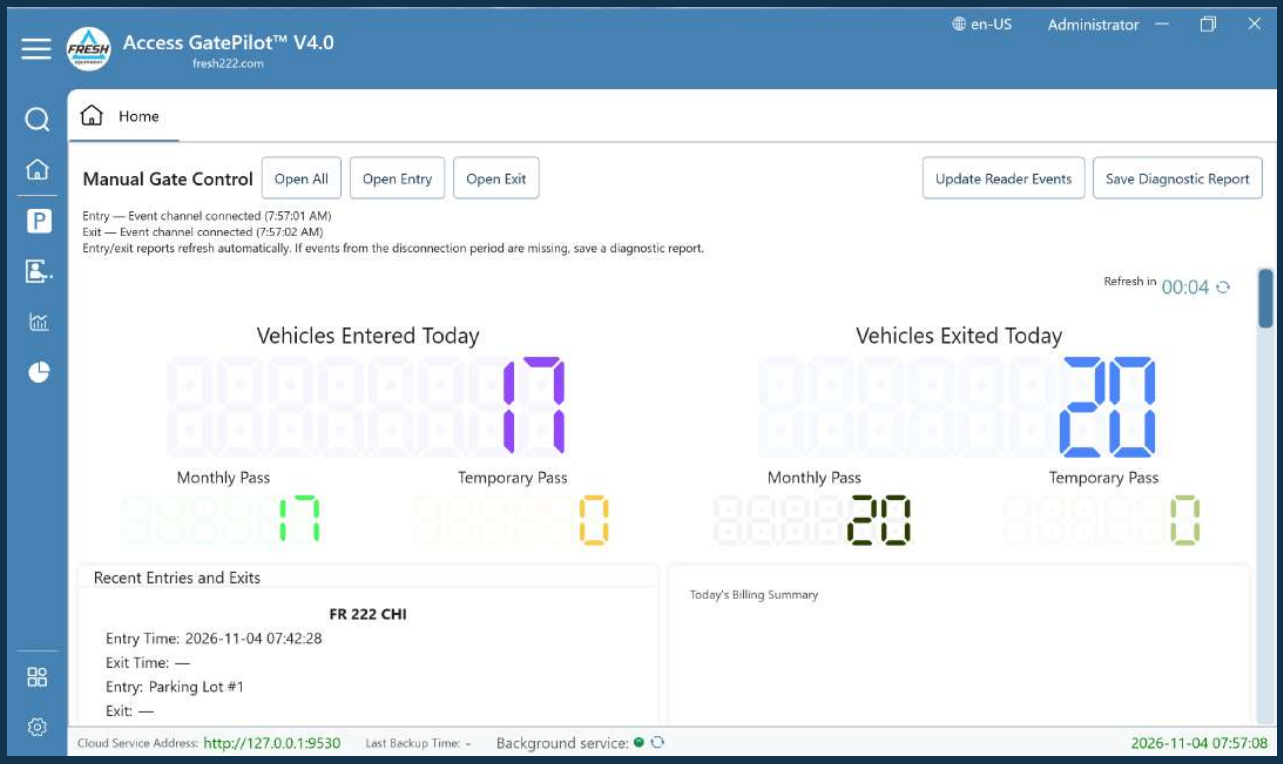
Access GatePilot™

FA-900 Access Management

USER MANUAL

Installation, commissioning and daily operation



Fresh USA, Inc.

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English (United States) | Version 4.0.5 | November 4, 2026

Illustrated with the supplied GatePilot V4.0 interface screenshots.

Searchable PDF with chapter links, bookmarks and original-resolution figures.

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01 Start here

This guide explains **Access GatePilot™ V4.0.5** for Windows, FA-900 gate readers and F-01/F-02 desktop enrollment readers. The application header displays **V4.0**; the distribution package carries the more specific maintenance version, such as **V4.0.5**.

The instructions use the current English labels and the supplied screenshots. Some captured labels retain older wording or internal names. Captured names, RFID codes, dates and network addresses are examples from that installation, not factory defaults or values to copy blindly.

The first successful installation

1. Plan the LAN and give the computer, router and each FA-900 different IP addresses.

2. Install GatePilot and sign in using the credentials generated by the installer.

3. Create or verify the parking zone, station and Entry/Exit lanes.

4. Discover each FA-900, test its identity and add it to the correct lane. Verify reader time.

5. Create an owner and vehicle, capture one unique RFID code and choose the appropriate pass type.

6. Use **Update Reader Access List**, select the receiving readers and wait for matching readback on each reader.

7. Present the test tag at Entry and Exit. Check the relay, HOME, Traffic Statistics and Vehicles on Site separately.

> **Three separate results**
> A saved vehicle is not yet a reader-list update. A relay opening is not proof that the computer received an event. A connected event channel is not proof that every offline event has been stored.

Developer and support

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Use the existing installation and current site records when upgrading. This manual does not require a new database, a factory reset or a change to the reader protocol.

02 System and site requirements

Requirement	GatePilot V4.0.5 package
Processor / architecture	Native Intel or AMD x64 Windows computer. The packaged reader SDK is not qualified for x86 or ARM64, including x64 emulation on ARM.
Windows client	Installer compatibility gate: Windows 10 version 1607 / build 14393 or later, or Windows 11. Compatibility gates are not a certification of every Windows edition and patch level.
Windows Server	Windows Server 2016, 2019, 2022 or 2025 with Desktop Experience. Server Core, Nano Server and Windows PE are not supported by this WPF package.
Permissions	Windows administrator approval for installation, services and the required firewall rules. Gate operation and automatic event-connection repair require the GatePilot administrator role.
Runtime and database	The supplied installer includes the application runtime and local native dependencies. The backend uses SQLite. A separate SQL Server / SQL Express / MySQL installation is not required for this package.
Network	Ethernet adapter on the computer; a local router or switch with enough LAN ports; unique IPv4 addresses; compatible cables and approved reader power supplies.
RFID hardware	FA-900 with its matching firmware/SDK. Enrollment: F-01 USB or F-02 with the appropriate COM/USB connection and matching Windows driver where required. F-02 direct mode needs its COM port visible in Device Manager. Use compatible tags.
RAM and storage	No certified numeric CPU-speed, RAM or free-disk minimum is specified by the supplied product sources. Allow capacity for Windows, both services, history, logs, update backups and your retention period; check available disk space before installation.
Display / input	Mouse and keyboard. Maximize the window during setup. The layout targets common 1280 x 720, 1366 x 768 and 1920 x 1080 viewports and 100-200% scaling; use visible scrolling and the Columns editor for dense reports.

The installer supplies the preserved .NET 6.0.36 WPF runtime. Microsoft ended .NET 6 support on November 12, 2024. Package compatibility does not mean the runtime or an older Windows release still receives vendor security support. Have site IT assess the deployment; do not independently replace SDK/runtime files. See the reference links at the end.

What must be connected

Use one Windows computer as the application/server computer for the standard universal installation. It runs GatePilot, the database service and the event receiver. The package installs these local components together; it is not a documented client-only deployment wizard.

• **Ethernet:** connect the computer and FA-900 readers to LAN ports on the same local network. Add a switch if the router does not have enough ports. The WAN/Internet port is not a reader LAN port.

• **Power:** use the power method and supply approved for the exact FA-900. An Ethernet connector alone does not establish PoE support. This software manual does not define supply voltage, wire colors or relay contact ratings.

• **Barrier:** have the installer connect the FA-900 relay output to the barrier controller's designated opening input using the approved wiring documentation. The reader does not directly power a barrier motor.

• **Desktop reader:** connect F-01 or F-02 to the enrollment computer. A desktop enrollment reader is different from the FA-900 that controls the lane.

• **Network access:** local reader communication does not require Internet access. Internet access is a separate requirement for any external service, update download or Internet time source you choose to use.

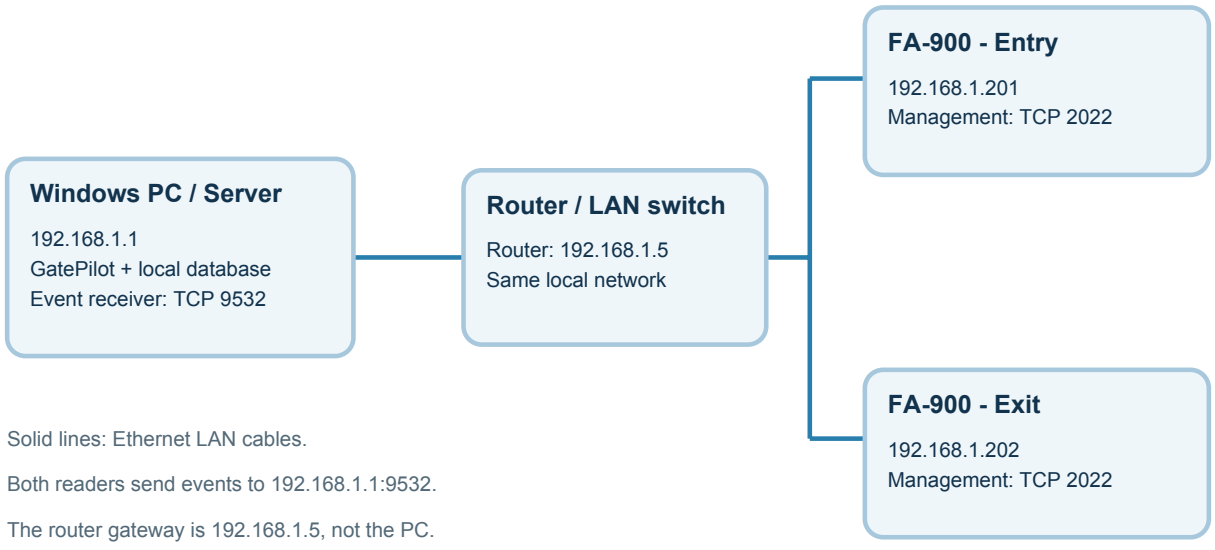
Two independent FA-900 readers
For a normal two-direction ASeries installation, use one reader assigned to the Entry lane and one assigned to the Exit lane. Each reader has its own IP address, configuration and stored access list. No maximum supported reader/lane count has been established by the supplied documentation; commission the intended site size.

Before a production lane is enabled

Verify physical passage detection and safety devices with the barrier installer. A successful software command, SDK acknowledgment or audible relay click is not an independent sensor confirmation that a vehicle passed through the gate.

03 Prepare the computer and LAN

Choose the address plan before connecting several factory-configured readers. If two readers have the same initial address, power and configure them one at a time. Record every reader's MAC address, IP address, management port, lane and physical location.



Solid lines: Ethernet LAN cables.

Both readers send events to 192.168.1.1:9532.

The router gateway is 192.168.1.5, not the PC.

Example subnet mask for every device: 255.255.255.0 (/24).

Equipment	Example IPv4	Subnet mask	Gateway
Router - LAN	192.168.1.5	255.255.255.0	Site / ISP setting
GatePilot PC	192.168.1.1	255.255.255.0	192.168.1.5
Entry FA-900	192.168.1.201	255.255.255.0	192.168.1.5
Exit FA-900	192.168.1.202	255.255.255.0	192.168.1.5

Example, not factory defaults
This plan assumes the router already uses 192.168.1.5. If your router is 192.168.1.1, do not also assign that address to the PC. Keep the router address and choose another free PC address, or have IT change the plan first. Never give two devices the same IP.

Set a stable Ethernet IPv4 address in Windows

The reader event destination must remain stable. Use an IT-approved static address or a DHCP reservation for the GatePilot server computer. Keep static reader addresses outside the router's dynamically assigned range, or reserve them appropriately.

Windows Settings method

1. Open **Settings > Network & Internet > Ethernet** and select the wired connection used by the readers.
2. Find **IP assignment** and choose **Edit**. Select **Manual** and turn on **IPv4**.
3. For the example plan, enter IP **192.168.1.1**, subnet mask **255.255.255.0** and gateway **192.168.1.5**. If Windows asks for a subnet prefix length instead of a mask, this mask is **24**.
4. Use the DNS addresses provided by site IT. A router address is suitable as DNS only if that router actually provides DNS forwarding. Numeric local IP connections do not depend on a public DNS server.
5. Save. Reopen Ethernet properties and verify the actual IPv4 address. On a managed computer, have IT make any changes restricted by policy.

Classic adapter dialog

Press **Windows + R**, enter **ncpa.cpl**, and open the correct Ethernet adapter's **Properties**. Select **Internet Protocol Version 4 (TCP/IPv4) > Properties**. Enter the approved IP, mask and gateway, then confirm the dialogs. Administrative approval may be required.

Verify the physical network

1. Connect the PC and each FA-900 to the router/switch LAN. Verify power and Ethernet link indicators.
2. Keep them on the same VLAN/broadcast domain for discovery. Guest-network isolation, VPN routing or separate VLANs can prevent the expected path.
3. Run **ipconfig** in a Windows terminal, or inspect Ethernet Properties, to confirm the adapter address. Then use GatePilot's **Test Connection** for RFID confirmation.

A successful ping identifies only an IP host. A reader can also fail to answer ping while its SDK connection works. Do not use ping as the only reader test. Microsoft's current IPv4 instructions are linked in Chapter 18.

Understand the three different ports

Connection	Direction and destination	Example
Reader management	GatePilot PC connects to each reader's own IP and configured management port. Used for identification, configuration and list transfer.	PC to 192.168.1.201:2022 or 192.168.1.202:2022
Reader event delivery	Each reader connects back to the computer running the event receiver. This carries entry/exit event traffic.	Both FA-900 readers to 192.168.1.1:9532
Application / database API	The Windows client communicates with the local application service. The status bar may call this Cloud Service Address.	http://127.0.0.1:9530 on the server computer

2022 is the management port in the supplied installation and screenshots. Confirm the actual current port before connecting; it is not a universal factory-default claim. Different reader IPs may all use the same management port. Both readers may use the same event receiver at **9532**.

Gateway versus event server
A gateway is the router that forwards traffic outside the local subnet. The Remote/Event Connection IP is the GatePilot server computer. In this example the gateway is .5 and the event server is .1. Some captured reader screens show .1 as a gateway; do not copy that value when .1 is your PC.

Keep the required application and reader-event paths allowed by the site firewall. The installer configures the event receiver for this deployment. Do not disable the entire Windows firewall or expose the SQLite database or reader ports to the public Internet to solve a local connection problem.

The lower status-bar address **http://127.0.0.1:9530** is normal for this local installation. The loopback address refers to this computer; it must not be entered into a physical reader as its event destination.

04 Install, update and sign in

1. Use the complete **Access-GatePilot-Setup-Universal-V4.0.5.exe** supplied by Fresh USA. Close GatePilot before installing an update.
2. Run the EXE and approve the Windows administrator prompt. The installer checks the native Windows architecture and OS build.
3. Allow setup to install its components, initialize a new local database when appropriate and start the services. Read the progress and Details text while it waits; service or MSI startup can take time.
4. Wait for the final result. Do not treat a partly completed installation, a closed progress window or a running process as proof of successful installation.
5. For a clean installation, open the installer's **Initial-Login.txt** document. Sign in as **admin** using the **generated temporary password** from that document.
6. After signing in, change the password from the account menu. Store the new password under your site's account-management procedure.

Current first-login rule
Do not use an old manual's blank password, 123456 or a date-based password. V4.0.5 generates a per-install temporary administrator password. An update preserves existing account credentials; it does not generate a replacement password for your existing database.

Clean installation versus update

The full EXE detects a recognized existing installation and applies the saved code changes while preserving the database, configuration and selected language. Intermediate maintenance installers are not a prerequisite: an accepted earlier version can be updated directly. Unknown or modified files may cause setup to stop for review instead of overwriting data.

On a clean install the first-run interface is English. A language chosen afterward is remembered. The standard universal installer sets up the local server and client together; do not follow older instructions that ask you to choose a separate Server checkbox or install SQL Express.

If setup or sign-in does not complete

What you see	Next action
Windows incompatibility message	Check native x64 architecture, Windows build and desktop edition. Use a compatible computer; do not bypass the installer checks.
Setup is still waiting	Read Details for the current service/MSI stage and elapsed time. Keep the installer open while it is making progress.
Setup reports failure	Keep the error and setup logs. Resolve the reported condition before retrying. Avoid repeatedly deleting the installation directory by hand.
Service unavailable at login	Check that the local application service is running and the local API is reachable. Do not initialize a second database as a network-repair shortcut.
Password rejected after an update	Use the account password from the existing installation. Initial-Login.txt applies to a new installation that generated that document.
An interrupted older install remains	Use the current full installer's recognized recovery path, or send the setup diagnostics to Fresh USA. Preserve any retained data before a deliberate clean restart.

Service names for the computer administrator

Windows service	Purpose
CFParkingServer	Local application and SQLite database service.
CFWorkerSocketServer	Reader event receiver; its original executable is Worker\CFSocketServer.exe.

The default program root is **C:\Program Files\FAccessManagement**. New universal installations create their working SQLite data in a protected, per-install folder below **%PROGRAMDATA%\FreshUSA\FAccessManagement\Data**; existing installations can retain an older location. Determine the real location from the installed configuration or support diagnostics rather than assuming an old manual's path.

Setup writes its result, error and preservation information under the setup location reported by that run. Keep the location displayed by setup. Protect Initial-Login.txt: it contains a credential, unlike an ordinary screenshot.

05 HOME, navigation and your account

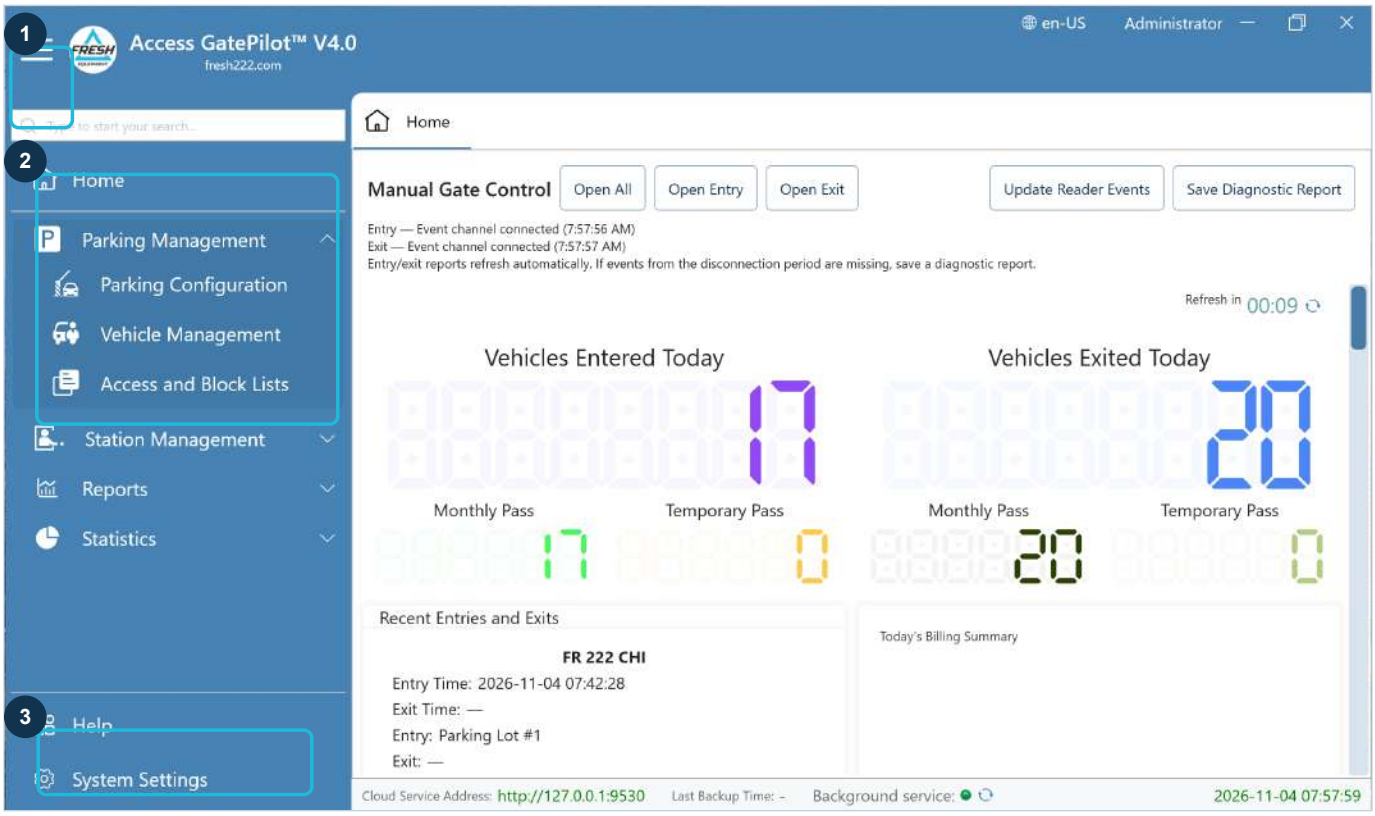


Figure 1. *The expanded navigation menu and HOME. (Source screen S314).*

1. Use the top-left menu icon to expand or collapse the navigation.

2. Open **Parking Management** for Parking Configuration, Vehicle Management and Access and Block Lists.

3. Open **Reports** for Traffic Statistics and Exception Report, and **Statistics** for Vehicles on Site.

4. Use **System Settings** for administrative records and **Help** for User Manual and About.

5. Use the tabs across the top to return to an open page. Close unused tabs to leave more space for the active view.

Menu availability depends on the signed-in account and role. A compact menu or a menu hidden by permissions is not the same as a reader disconnect.

Collapsed navigation shortcuts

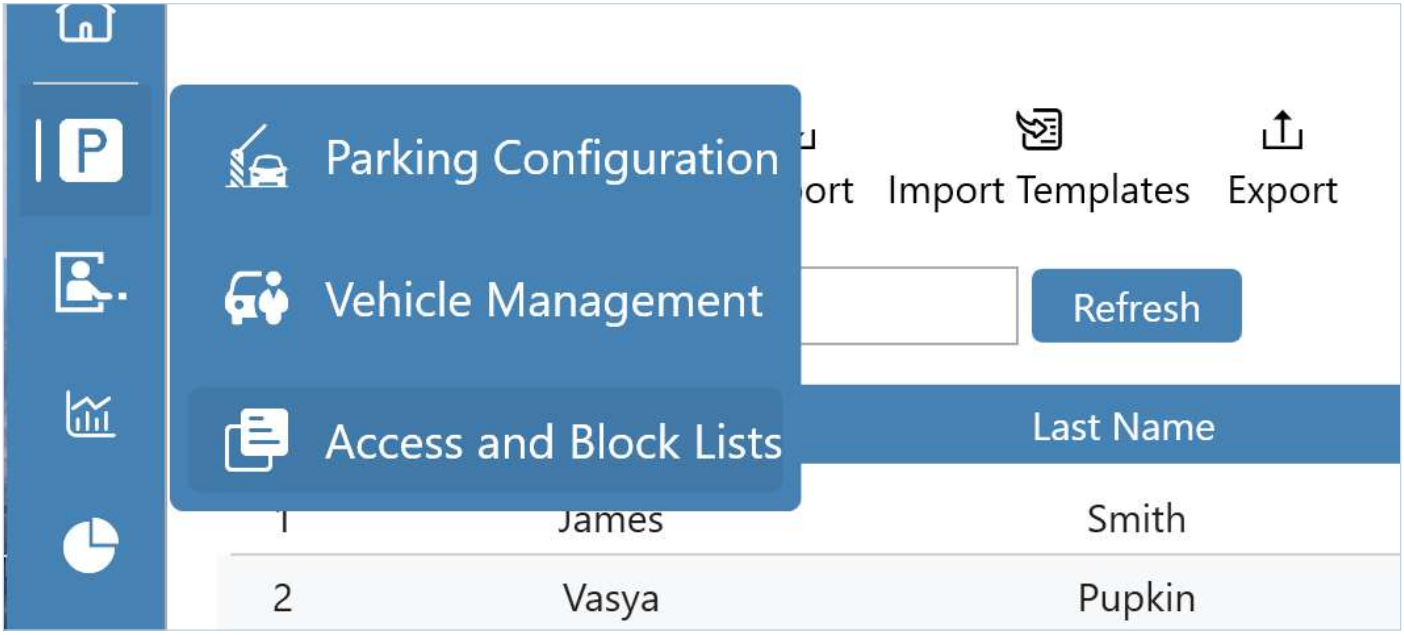


Figure 2. *Parking Management navigation: Access and Block Lists. (Source screen S342; detail crop).*

With the left menu collapsed, opening Parking Management exposes its original navigation items. Select **Access and Block Lists** to return to the card view. When you expand the left menu, the same destination appears in the full list.

The two update buttons to remember
Update Reader Access List sends the complete current allowed RFID set to selected readers.

Update Reader Events restores/checks event delivery and refreshes traffic information. It does not change the allowed RFID set.

This PDF preserves the original pixel resolution of the supplied figures. Increase PDF zoom when reading small table fields or identifiers. The numbered outlines identify controls without changing their captured text.

Language, profile and sign-out

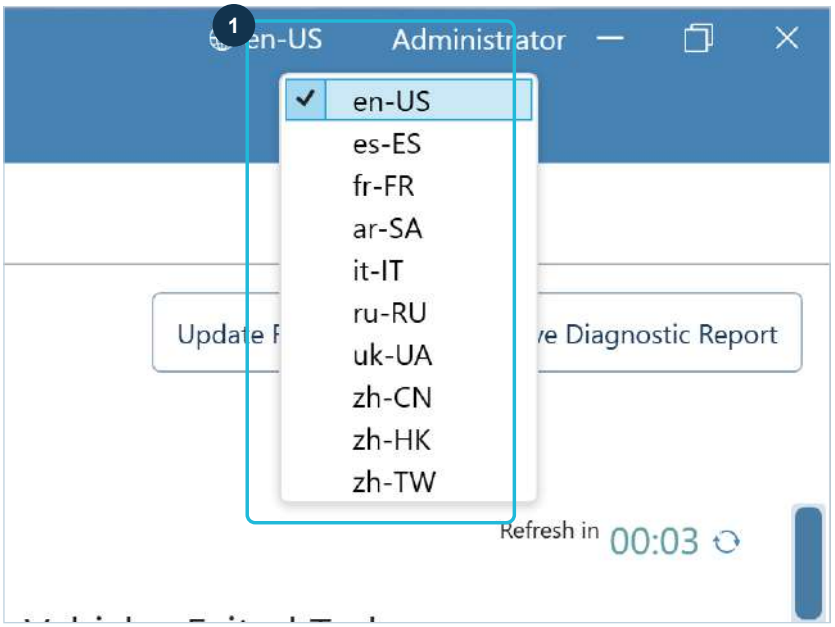


Figure 3. *Language selector in the top-right header. (Source screen S311; detail crop).*

Choose the working language from the header. The maintained translations cover **English US, Spanish, French, Arabic, Italian, Russian and Ukrainian**. Original Chinese language variants may still appear in the inherited selector. This guide documents the English interface and does not certify the additional legacy dictionaries.

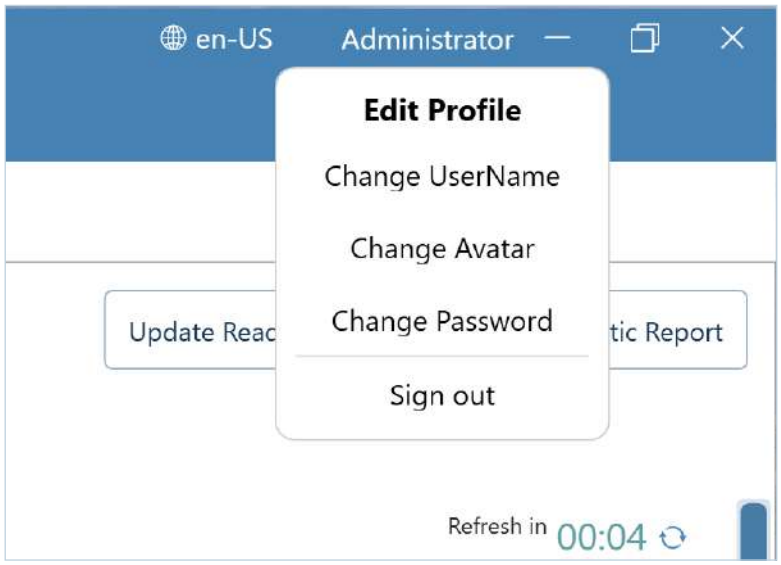


Figure 4. *The account menu. (Source screen S312; detail crop).*

Click the signed-in account name to open **Edit Profile**, **Change UserName**, **Change Avatar**, **Change Password** or **Sign out**. Changing the UI language does not delete traffic history. After a language change or restart, check the selected report date range, computer date, zone and filters before concluding that records disappeared.

Read the HOME dashboard

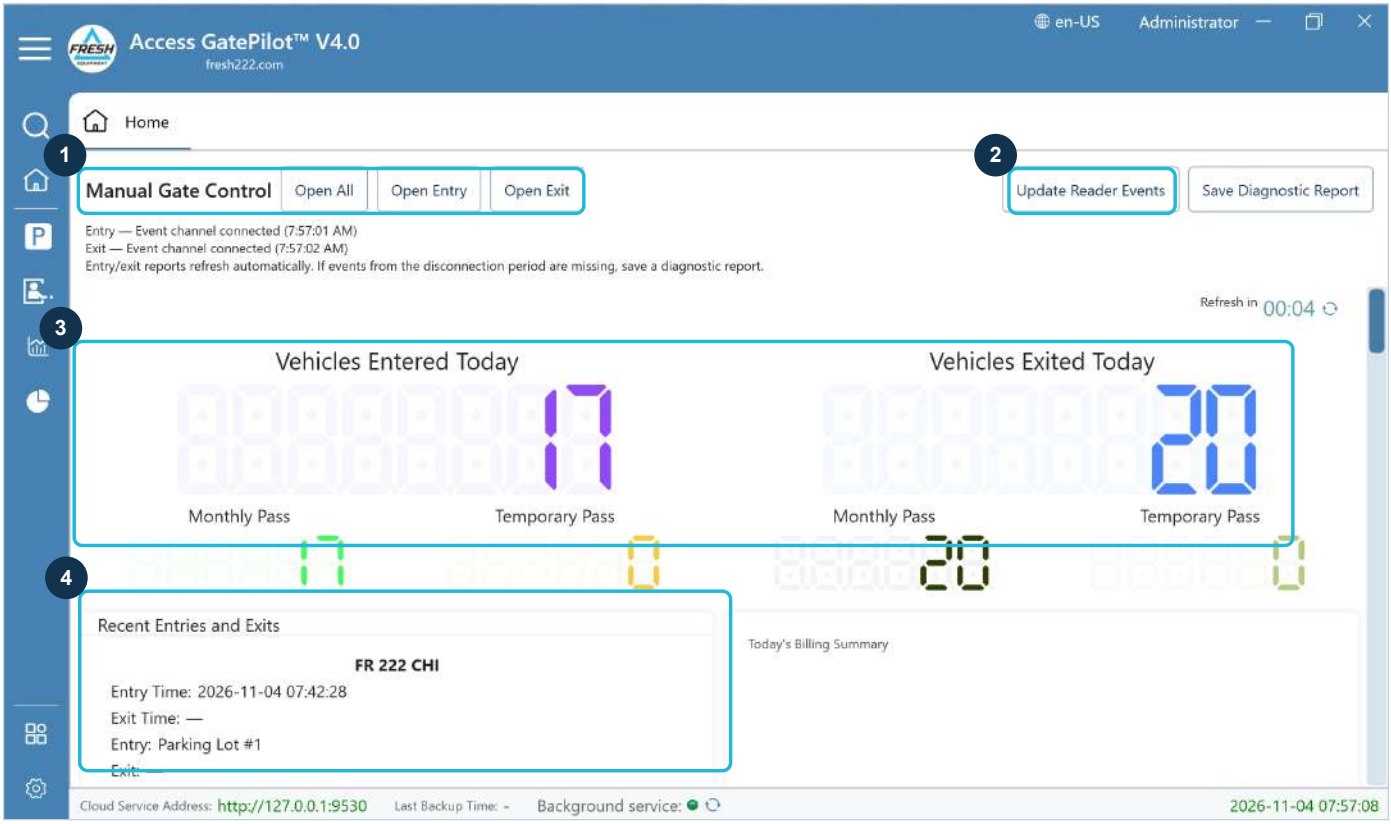


Figure 5. *HOME counters, event details and the two different update areas. (Source screen S310).*

Area	How to use it
Manual Gate Control	Open All and the named reader/gate buttons operate the relay workflow. Reader names come from the saved configuration.
Update Reader Events	Runs the event-connection procedure and requests a refresh of traffic data. It does not replace access lists.
Today's counters	Separate Entry and Exit totals, including pass-type subtotals. They are daily totals, not the current occupancy.
Recent Entries and Exits	Recent traffic records returned by the server. A record may have no exit time until its visit is completed.
Today's Billing Summary	A retained financial area. Do not interpret a blank panel as a missing access event; payment functions are outside the basic access workflow.

The **Refresh in 00:10** countdown belongs to the original dashboard refresh. Today's counters follow the computer's date; older records remain available in reports. Scroll down for details when the entire dashboard is taller than the window.

06 Build the parking hierarchy

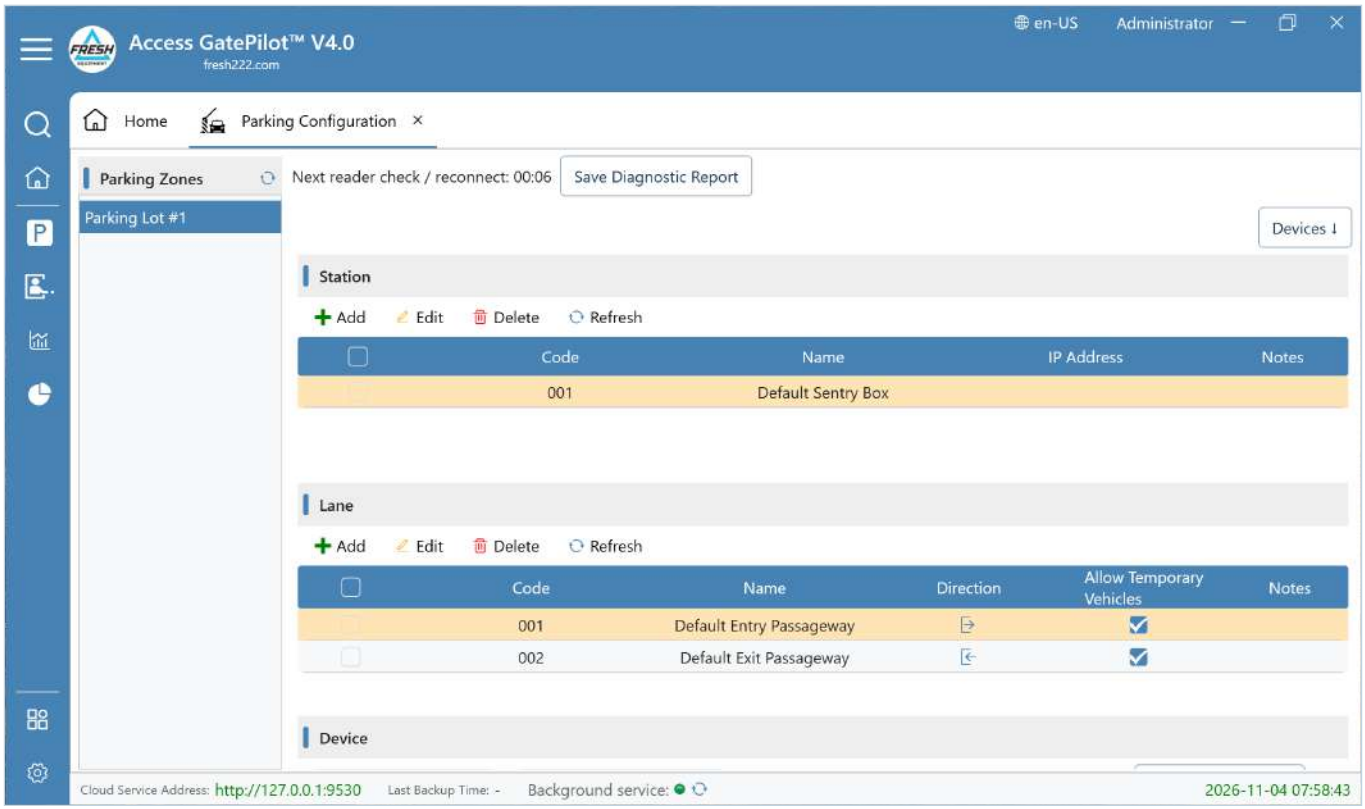


Figure 6. *Parking Zones, Station and Lane hierarchy. (Source screen S315).*

1. Open **Parking Management > Parking Configuration** and select the intended Parking Zone.
2. Create or edit a station with a useful code and name. The captured label **Default Sentry Box** is a legacy station name, not a special reader model.
3. Create or verify an Entry lane and an Exit lane. Set each lane's direction to match physical traffic.
4. Select the intended lane before using the Device section. A device is added under that selected lane.
5. Scroll the right-hand pane, or use the **Devices ↓** shortcut, to reach the saved reader list.

> **Use names operators recognize**
> Examples: North Entry and South Exit. The saved device name also becomes the HOME gate-control name. A code, a lane direction and a device name are different properties; renaming a device is not a direction change.

Verify both lane-to-reader assignments

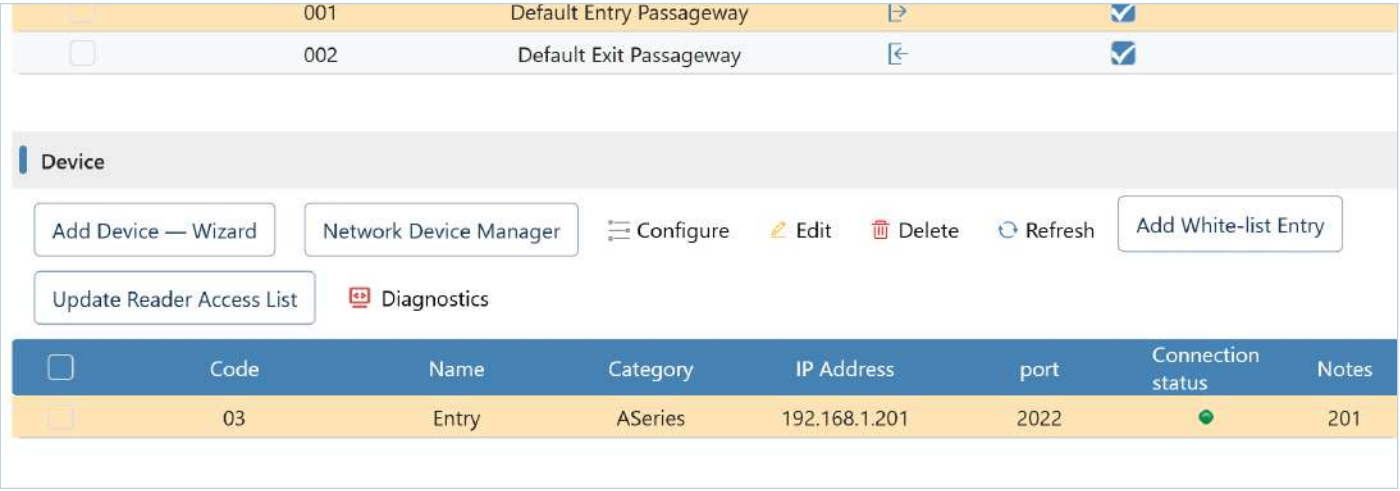


Figure 7. *The Entry device assigned under the Entry lane. (Source screen S316; detail crop).*

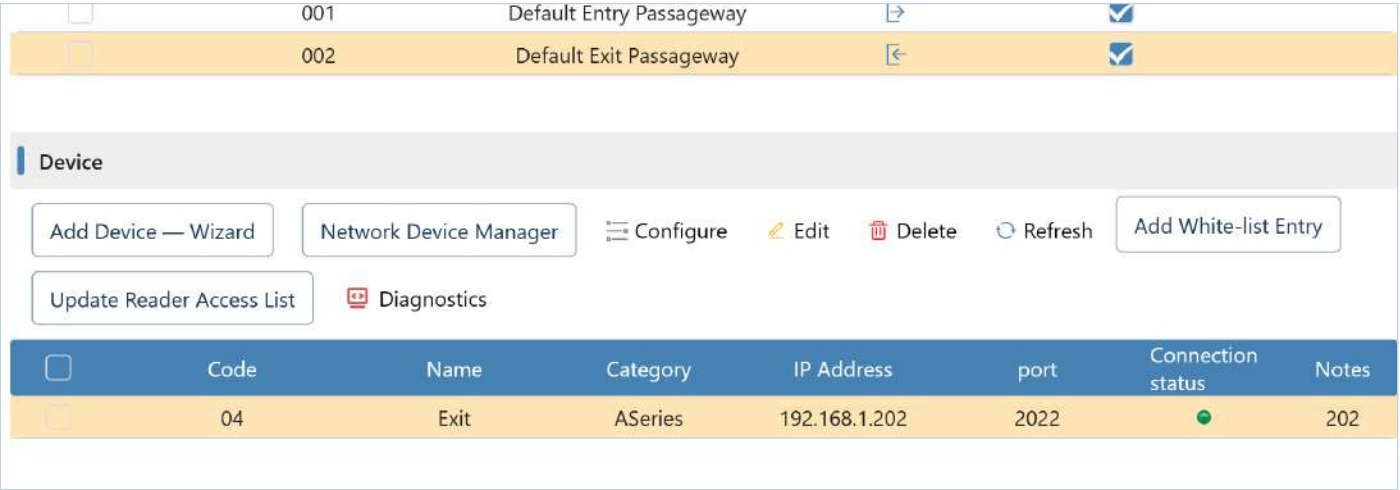


Figure 8. *The Exit device assigned under the Exit lane. (Source screen S317; detail crop).*

Select the Entry lane and confirm that its device is the Entry FA-900. Select the Exit lane and confirm the separate Exit FA-900. In the example, Entry is **192.168.1.201:2022** and Exit is **192.168.1.202:2022**. Each reader must have the intended hardware event direction as well as the correct lane association.

For ASeries, do not add the same physical reader to both directions. The inherited ASeries-G option is a different hardware/antenna arrangement; use it only for an explicitly compatible installation. The Lane checkbox **Allow Temporary Vehicles** is not a complete activation of the temporary-vehicle payment or gate workflow.

07 Discover, add and address FA-900 readers

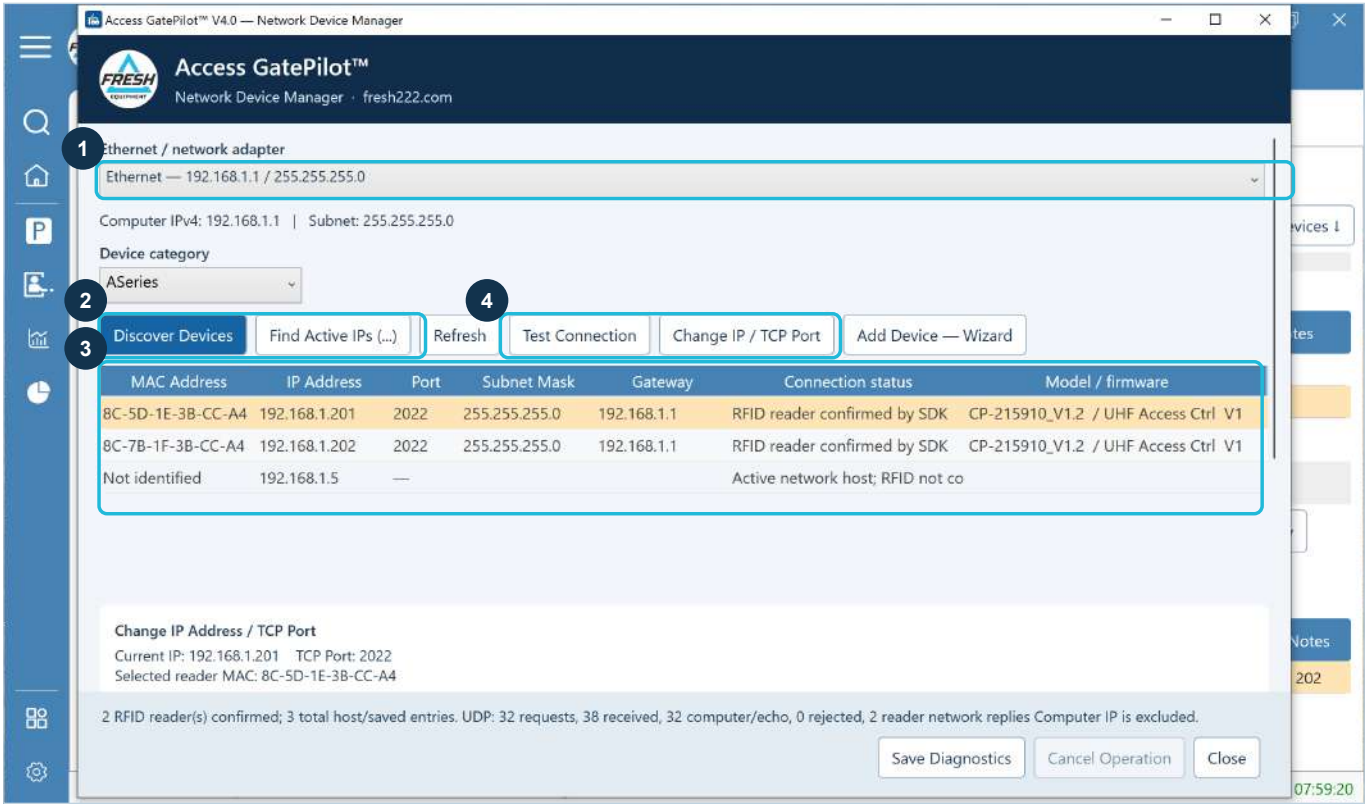


Figure 9. *Network Device Manager: select the adapter, identify readers and test the connection. (Source screen S318).*

1. From Devices, open **Network Device Manager**. Select the Ethernet adapter physically connected to the reader LAN.

2. Verify the displayed **Computer IPv4** and subnet. Leave **ASeries** selected for FA-900.

3. Click **Discover Devices**. Use **Refresh** or repeat discovery to search again without restarting GatePilot.

4. Inspect MAC, IP, port, subnet, gateway, status and available model/firmware. Use **Test Connection** to confirm the RFID SDK answers.

5. If necessary, use **Find Active IPs (...)** to locate network hosts. A host marked active is not yet a confirmed RFID reader.

6. Select the confirmed target and continue with **Add Device - Wizard**, or open the IP/port settings first.

The manager excludes the PC from confirmed reader results. The router or another network host may still appear as an unconfirmed active host. Match the MAC address to the physical reader before changing anything.

When discovery does not find the reader

1. Confirm reader power and link indicators. If several readers started with one address, connect only one of them for initial addressing.
2. Check the selected Ethernet adapter and actual Windows IP. A Wi-Fi/VPN/virtual adapter may use a different route.
3. Verify the PC and reader can communicate on the intended subnet. Discovery can search across IP subnets only where the original broadcast protocol can reach devices on the same Ethernet broadcast domain; it is not discovery through arbitrary routers or VLANs.
4. Use the manager's current-IP connection fields. Enter the reader's known **current IP** and **current management port**, then click **Connect / Identify Reader**.
5. Use Test Connection before adding the device. If it fails, preserve the error and save the manager's diagnostics. Do not assume a ping result confirms RFID operation.

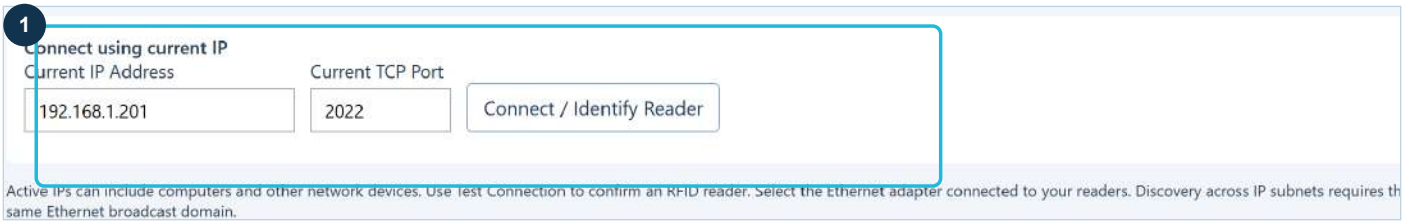


Figure 10. *Manual identification uses the current address, not the proposed new address. (Source screen S319; detail crop).*

A management connection has a limited meaning
Test Connection proves that a compatible reader answered at its management endpoint. Event delivery to the PC on 9532 and the stored access list are separate checks. Verify all three before normal operation.

Change a reader's IP address and TCP port

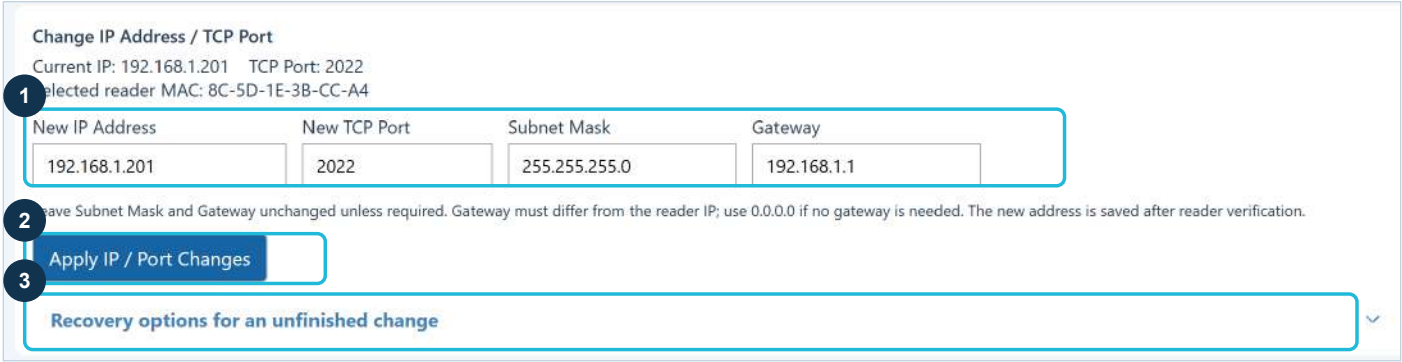


Figure 11. *Hardware IP/port changes and recovery controls. (Source screen S319; detail crop).*

1. Select the correct reader by **MAC address**. Confirm the displayed current IP and current port.
2. Click **Change IP / TCP Port**. Enter **New IP Address** and **New TCP Port**. Keep the current subnet and gateway unless the approved network plan requires a change.
3. Check that the new IP is free and is not the PC, router, another reader, subnet address or broadcast address. The valid TCP port range is **1-65535**.
4. Click **Apply IP / Port Changes** and wait. The device may temporarily become unreachable while the new settings take effect.
5. Require rediscovery and matching SDK readback for the same MAC. The saved application endpoint is updated only after verification. Test the connection at the new endpoint.

If the write is unconfirmed
Open **Recovery options for an unfinished change**. Use the available Verify / Recover or Verify Original Settings action and inspect both old and proposed endpoints. A reader may have accepted the command even if its acknowledgment was lost. Do not repeatedly send new addresses or delete the recovery state to bypass an error.

Add Device - Wizard and reader time

The wizard creates the saved device record and its lane association. Network Device Manager is the discovery and hardware-addressing tool; the two buttons serve different purposes.

1. Return to Parking Configuration and select the correct Entry or Exit lane.
2. Click **Add Device - Wizard**. In Choose Device Category, keep **ASeries** for FA-900. Other inherited categories remain available for their matching hardware.
3. Advance to communication, enter or confirm the reader IP and management port, and use **Test Connection**.
4. Enter a unique device code, an operator-friendly device name and useful location notes.
5. Complete the original wizard and confirm the saved device appears under the selected lane. Follow any synchronization prompt deliberately; use the full-list manager for verified access-list replacement.
6. Verify reader date/time and event destination. Adding and connecting supported readers includes clock synchronization and readback; an error must be investigated rather than ignored.



Figure 12. *Use Get Device Time / Sync Device Time to inspect the reader clock. (Source screen S328; detail crop).*

Correct the Windows computer's own date, time and time zone first. Then use **Configure > Advanced Settings > Get Device Time** and, when required, **Sync Device Time**. Do not confuse a clock error with a missing daily counter. Preserve the reader's approved time-zone setup.

08 Configure the reader

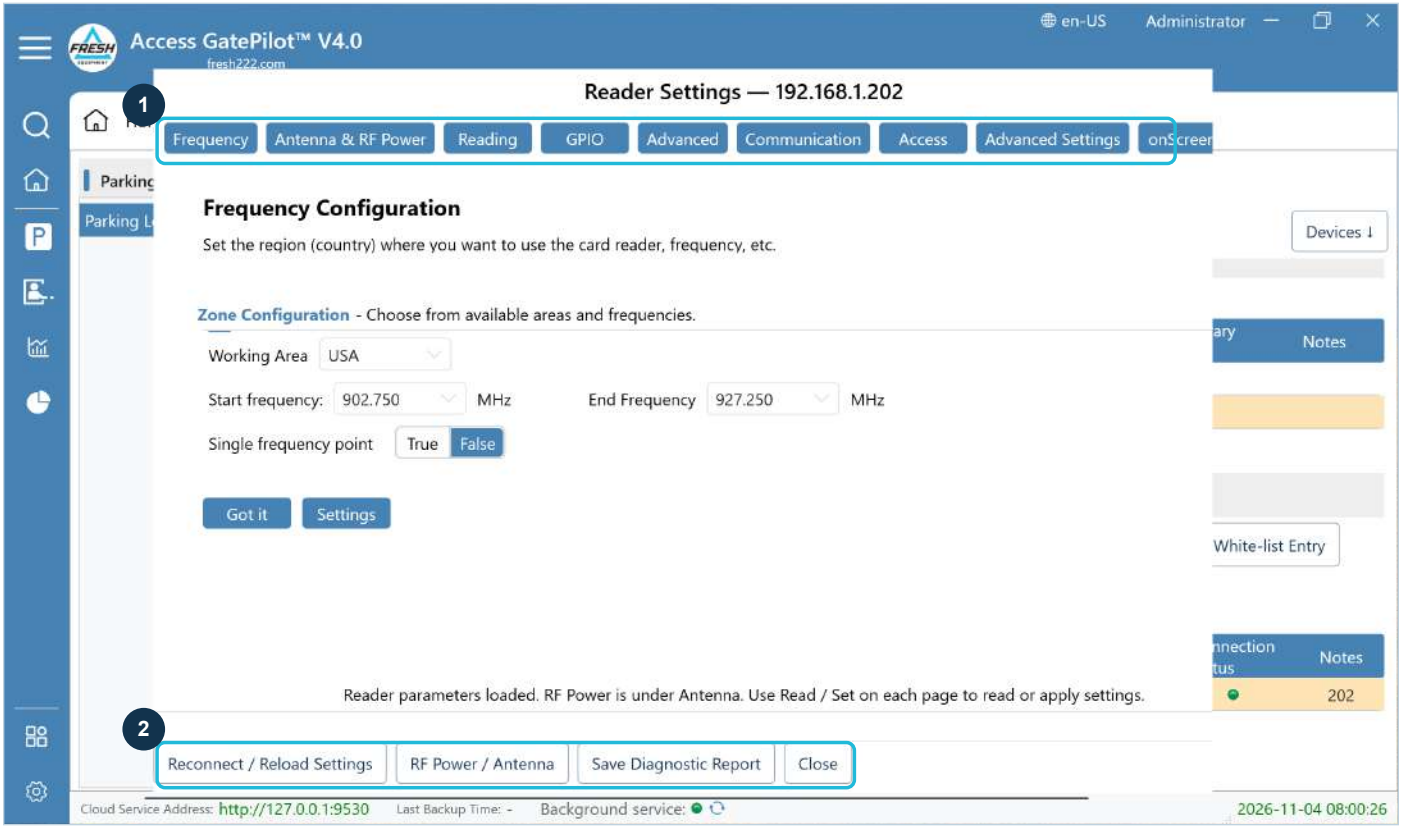


Figure 13. *Configure opens Reader Settings for the selected endpoint. (Source screen S321).*

1. Select one saved reader in Devices and click **Configure**. Verify the IP in the Reader Settings title before changing parameters.
2. Wait for the loaded/failed status. If loading fails, use **Reconnect / Reload Settings** and save diagnostics if it still fails.
3. Choose a settings tab. Existing page buttons labeled **Got it** mean read/get the current device values; **Settings** means write/set the edited values.
4. Read before changing, apply a deliberate change, then read again to verify. Closing the window alone is not confirmation that a hardware setting was written.

Periodic reader checks pause while Configure owns the SDK connection and resume when it closes. If the window is smaller than its content, use the visible scrollbar inside the settings window, not just the main background page. Tabs may wrap.

Frequency: select the correct region

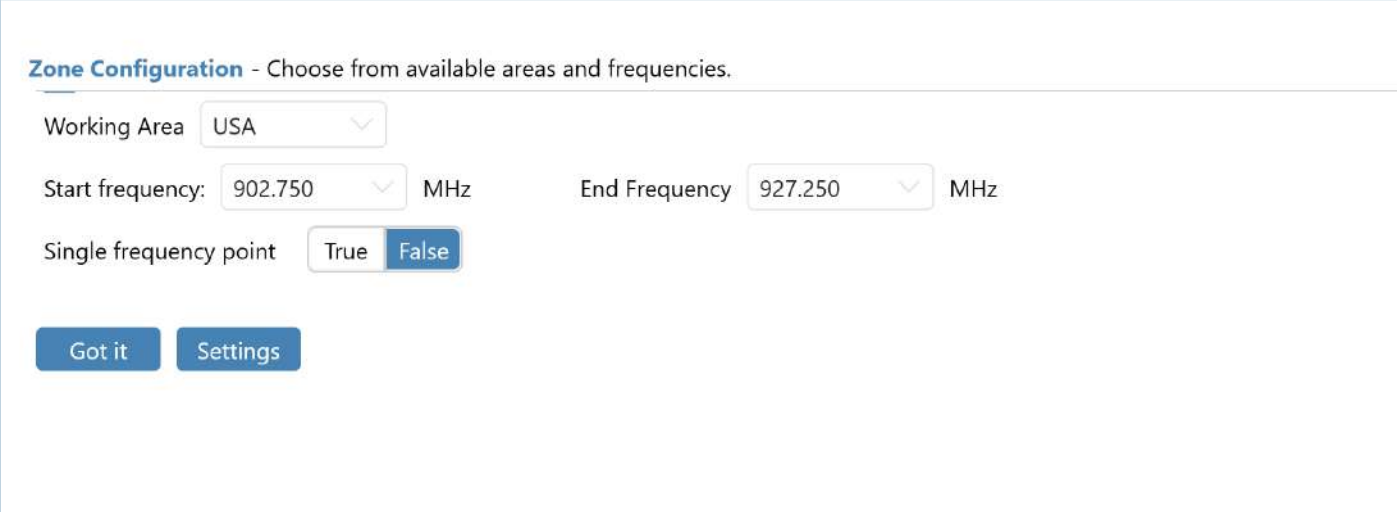


Figure 14. *Frequency Configuration and the reader's current region. (Source screen S321; detail crop).*

1. Open **Frequency** and read the current values with **Got it**.
2. Keep the supplier-approved country/region for the exact reader and installation location. The captured **USA** profile is an example of that device's settings.
3. Preserve the approved start/end frequencies and single-frequency mode unless the hardware setup calls for a specific change.
4. If a change is authorized, apply with **Settings**, read back, then test the intended lane and nearby lanes.

Do not copy radio frequencies from another site or select a different country to increase range. This manual does not replace the device's radio authorization, antenna limits or local installation requirements.

Antenna & RF Power: set the read zone

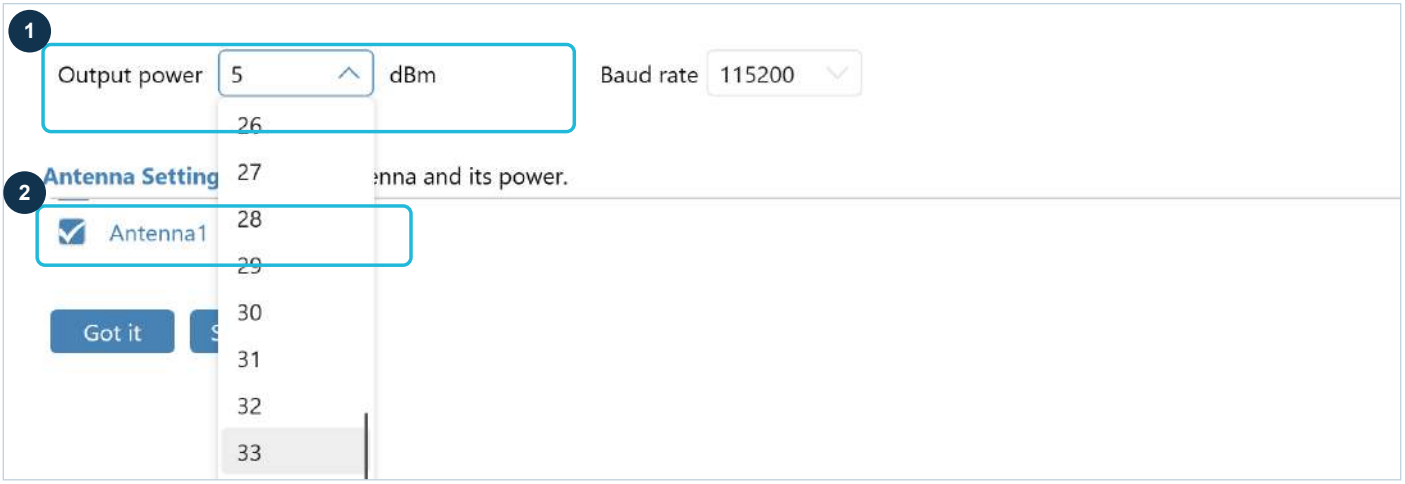


Figure 15. *Output power and antenna controls. (Source screen S322; detail crop).*

1. Click **Antenna & RF Power**, or the lower **RF Power / Antenna** shortcut.

2. Read the current output power and enabled antenna ports. Values and available ranges depend on hardware and firmware; a dropdown value is not a site recommendation.

3. Adjust output power in small, controlled steps to cover the intended tag position. Apply with **Settings** and read back.

4. Test the intended lane, opposite-direction lane and adjacent traffic. A tag detected by two readers can generate two different lane events.

5. Keep only the antennas required by the commissioned design. An external-antenna option in the software does not prove that the fitted FA-900 has that hardware connection.

Tune for the lane, not maximum power
A higher RF output can create unintended cross-reads. Use a known test tag at the real mounting position and check both the physical relay response and the event direction after each change.

Reading Settings: EPC and start/stop modes

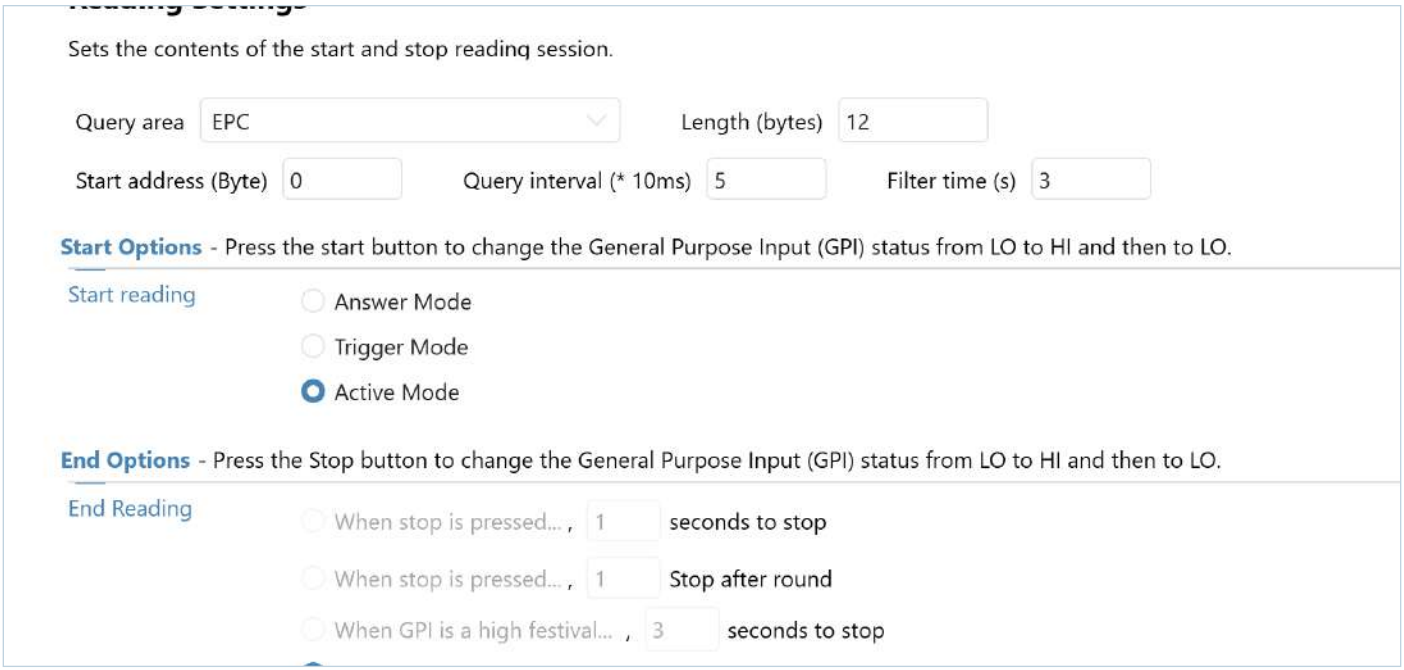


Figure 16. *Reading parameters, start modes and stop conditions. (Source screen S323; detail crop).*

Control	Operator meaning
Query area / start / length	Defines which supported tag memory area is read and how much data is requested. Preserve the commissioned EPC layout so enrollment and lane readers use the same credential.
Query interval / Filter time	Controls polling and repeated-read filtering. Units are shown in the UI; do not assume the interval field is milliseconds when it is labeled x 10 ms.
Active Mode	The shown continuously active reading configuration. Verify actual relay and event behavior rather than assuming a mode name alone enables access.
Trigger / Answer modes	Alternative reading workflows controlled by commands or inputs. Use only when the connected equipment and lane design require them.
End Options	Defines stopping behavior where supported. A wrong stop condition can prevent expected reads.

GPIO: relay and interface settings

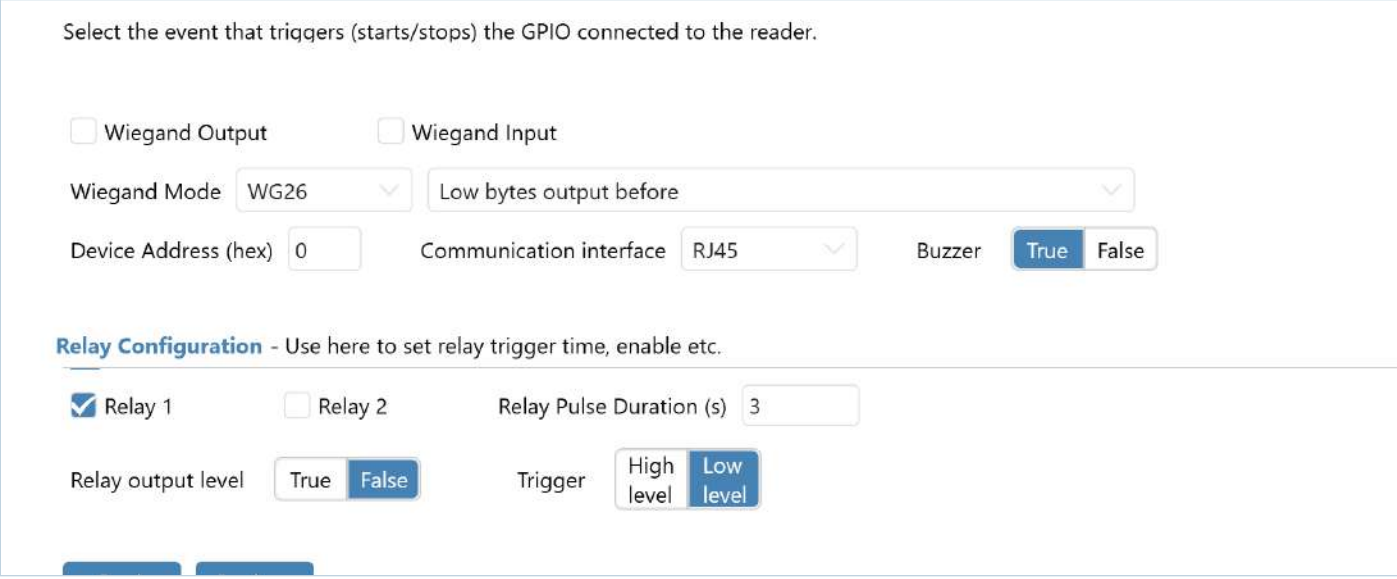


Figure 17. *GPIO and Relay Configuration. (Source screen S324; detail crop).*

1. Read the current GPIO configuration. Confirm the intended communication interface and any Wiegand settings against the connected hardware.
2. Verify the commissioned relay selection and **Relay Pulse Duration (s)**. Relay 1 corresponds to GPO1 in the supplied hardware instructions; Relay 2 corresponds to GPO2.
3. Keep the relay output level and trigger level consistent with the barrier installer's wiring. Do not infer an electrical rating or a wire function from the UI alone.
4. Apply and read back. Have the installer test the intended barrier input with the lane clear.

The HOME manual-open command uses the preserved primary-relay command with a 3-second pulse. This is a deliberate gate-opening operation, not a connectivity probe. The automatic connection checks do not pulse relays.

Advanced: reader passwords, masks and protocol

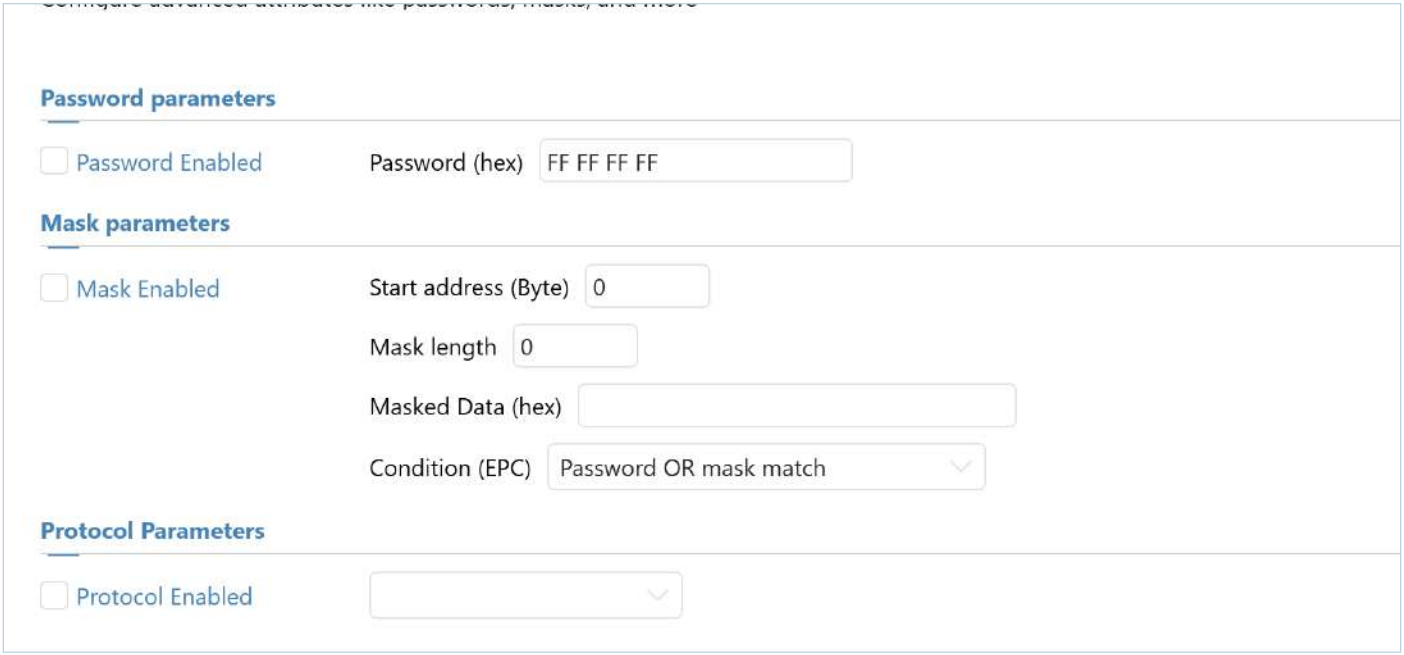


Figure 18. *The Advanced tab retains hardware password/mask controls. (Source screen S325; detail crop).*

This page contains **Password Enabled**, password bytes, **Mask Enabled**, mask start/length/data, protocol and cache options supported by the reader. These are hardware parameters, not the GatePilot account password.

1. Read and document the working values before making a change.
2. Change a password or mask only under an approved tag/reader configuration plan. A mismatch can stop valid cards from being recognized.
3. Apply one change, read it back and test both a valid and an invalid credential before returning the lane to service.

Enrollment is not tag programming
Capturing a code into Vehicle ID (RFID) registers the identifier in GatePilot. It does not, by itself, write the tag EPC, initialize a tag password, lock tag memory or make a tag satisfy a reader password/mask rule. Use the matching approved hardware tools when tag programming is required.

Communication: separate the reader and the event server

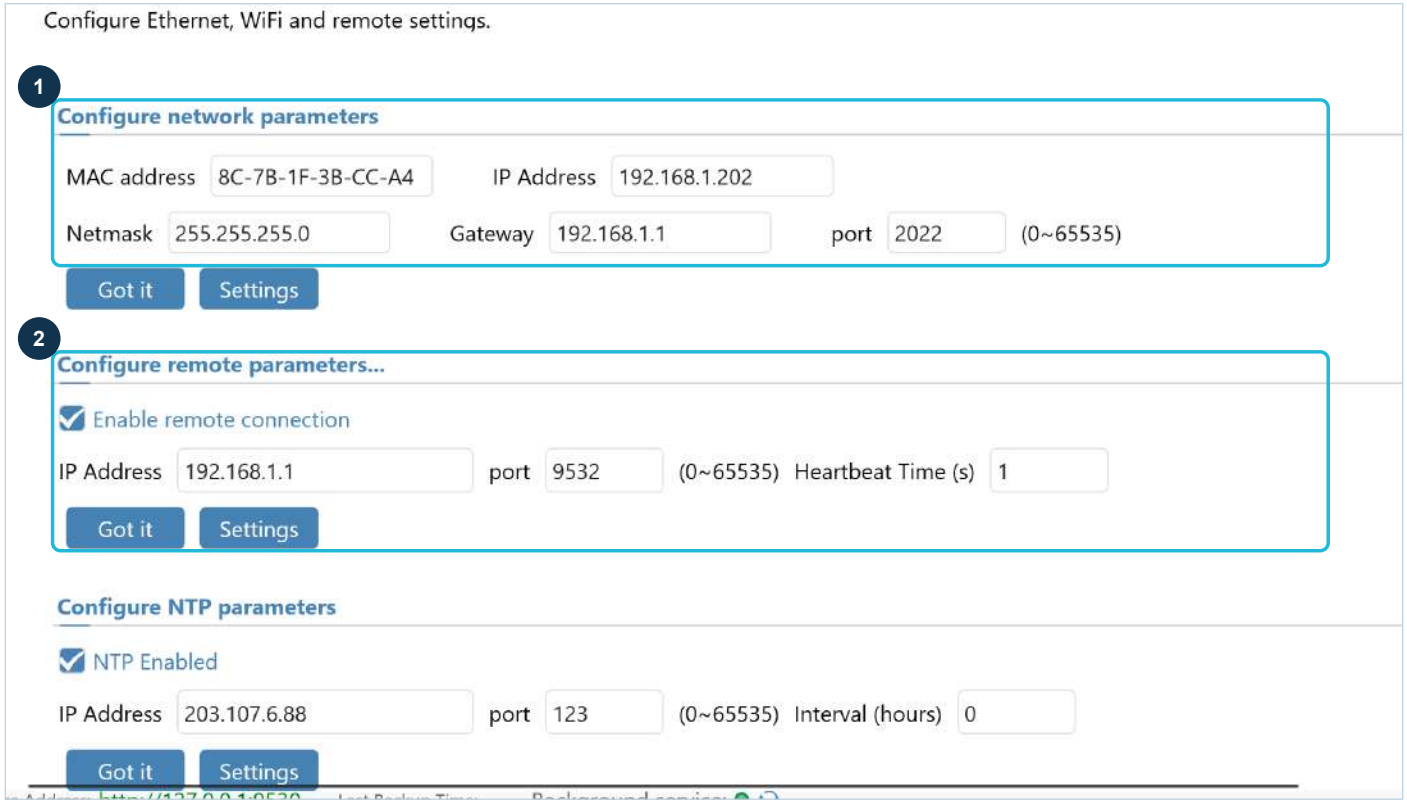


Figure 19. *Reader IP settings and remote event destination. (Source screen S326; detail crop).*

Section	Use
Configure network parameters	The reader's own MAC, IP, netmask, gateway and management port. Prefer Network Device Manager for a tracked, verified IP/port change.
Configure remote parameters	Enable the reader's reporting connection. The destination is the GatePilot server PC, for example 192.168.1.1, and its event receiver port 9532. This is not the router or the reader's own IP.
Configure NTP parameters	Optional hardware time service settings. Use an approved, reachable time source. Do not copy the captured public server address as a required default.

The reader's management port and the server event port are different settings. If the PC address changes, both readers must target the new reachable server address. Use the existing **Event Connection** procedure or **Update Reader Events** to repair the reporting path.

Access: authorized and unauthorized output actions

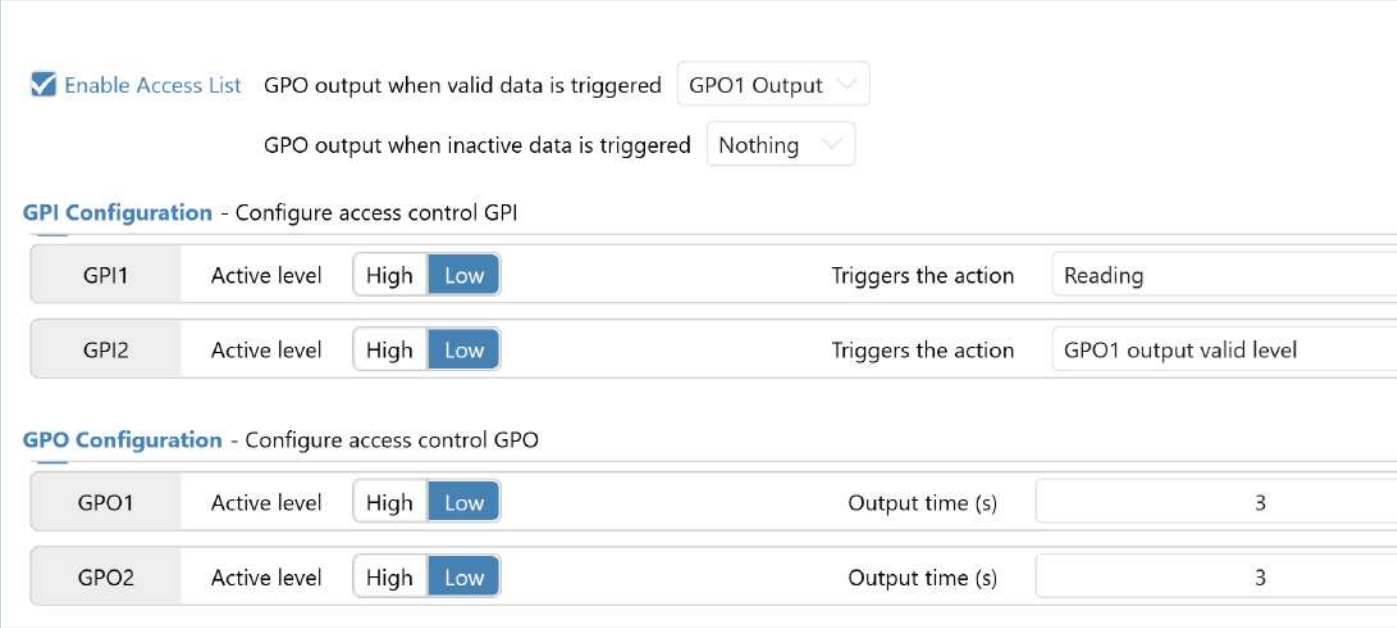


Figure 20. *Access List, GPI and GPO behavior. (Source screen S327; detail crop).*

Enable Access List activates the supported device-side access-list workflow. The valid-data action determines the GPO action for an authorized credential; the invalid-data action determines what the reader does for an unauthorized credential. These are separate from the application's saved access records.

1. Read and preserve the commissioned authorized and unauthorized actions. For an access-control lane, verify that unauthorized cards do not open the gate.
2. Check the GPI levels and actions only if external triggers are part of the installed design.
3. Confirm each GPO active level and output duration against the barrier wiring.
4. After writing, read back and test a permitted tag and a denied/unknown tag. Confirm the correct gate, event direction and report entry.

Changing RF power, writing a whitelist and changing relay-output rules are different operations. An access-list transfer does not repair an incorrect GPIO configuration.

Advanced Settings: time and pass-opening behavior

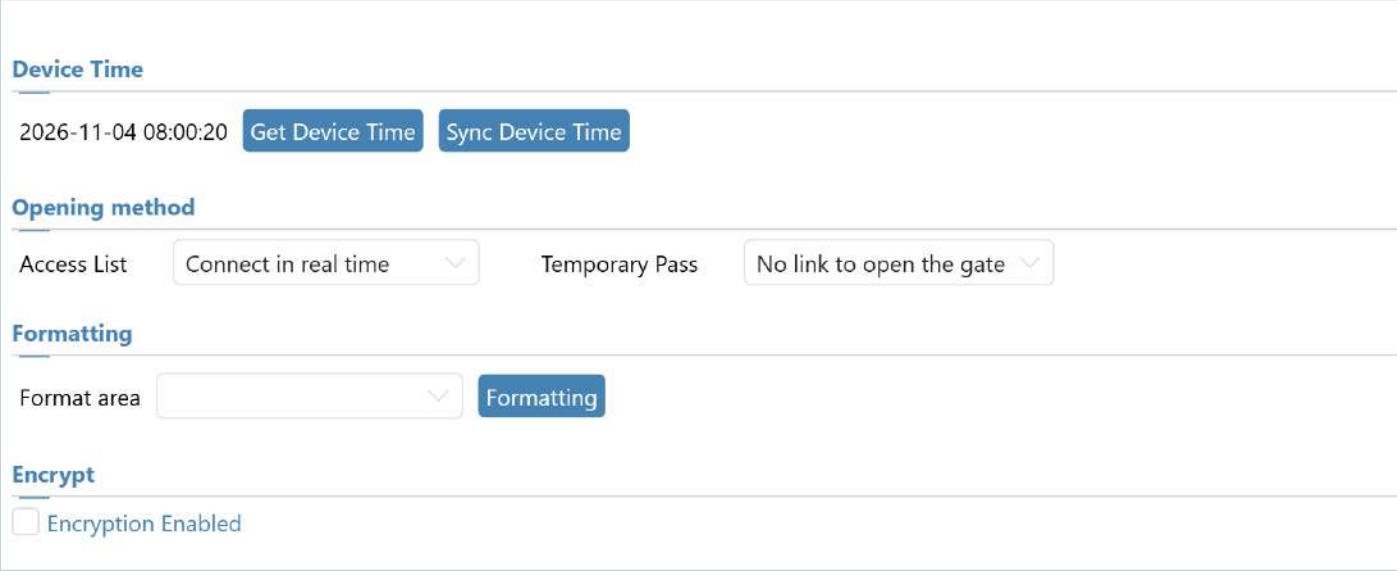


Figure 21. *Clock controls and separate Access List / Temporary Pass opening modes. (Source screen S328; detail crop).*

Control	How to use it
Get Device Time / Sync Device Time	Read the reader clock or synchronize it through the original SDK. Verify the computer's own date/time first.
Access List opening method	Retains the original regular-access / monthly-pass operating mode. Keep the configuration verified for the site.
Temporary Pass opening method	The captured configuration is No link to open the gate. Do not assume a temporary tag behaves like a Monthly Pass.
Formatting / Encryption	Hardware maintenance functions. Do not use Formatting, initialization or encryption changes to troubleshoot an ordinary connection or synchronization problem.

Temporary Pass is a different workflow
The original documented default does not automatically open either gate for Temporary Pass. Enabling its real-time linkage is documented as an entry workflow, with exit handled by the payment/manual process. It is not proof of automatic access-only exit. Use the tested Monthly Pass workflow for ordinary authorized access, or obtain a commissioned temporary/payment configuration.

Display and other reader maintenance options

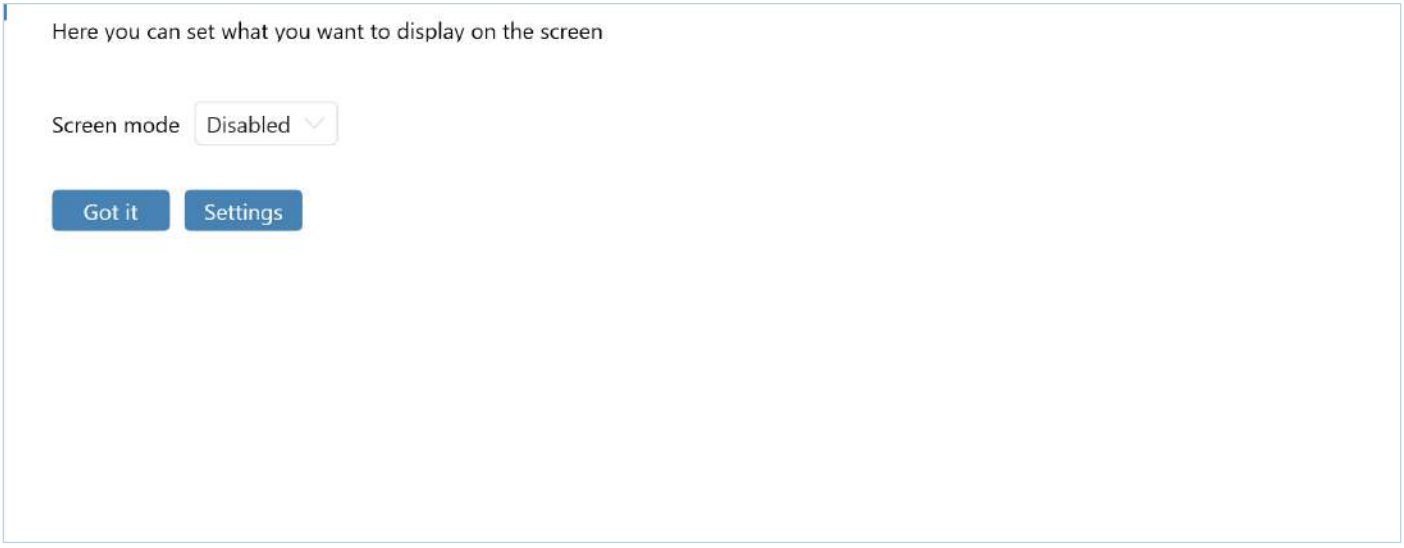


Figure 22. *Display Settings are for hardware that supports the corresponding display. (Source screen S329; detail crop).*

onScreen / Display Settings configures a supported reader display. The inherited manual describes vendor-supported display hardware, with the correct display mode enabled. Do not assume a third-party RS485 display is compatible merely because the tab is visible.



Figure 23. *Other Setting: export, load configuration and initialization. (Source screen S330; detail crop).*

Export saves a supported device-configuration INI profile. **Loading data...** loads a device profile. **Initializing** resets reader configuration. Exporting a profile is not a backup of the GatePilot database, and loading/initializing is not part of routine list synchronization. Save current values and consult Fresh USA before using reset functions.

09 Owners, vehicles and RFID enrollment

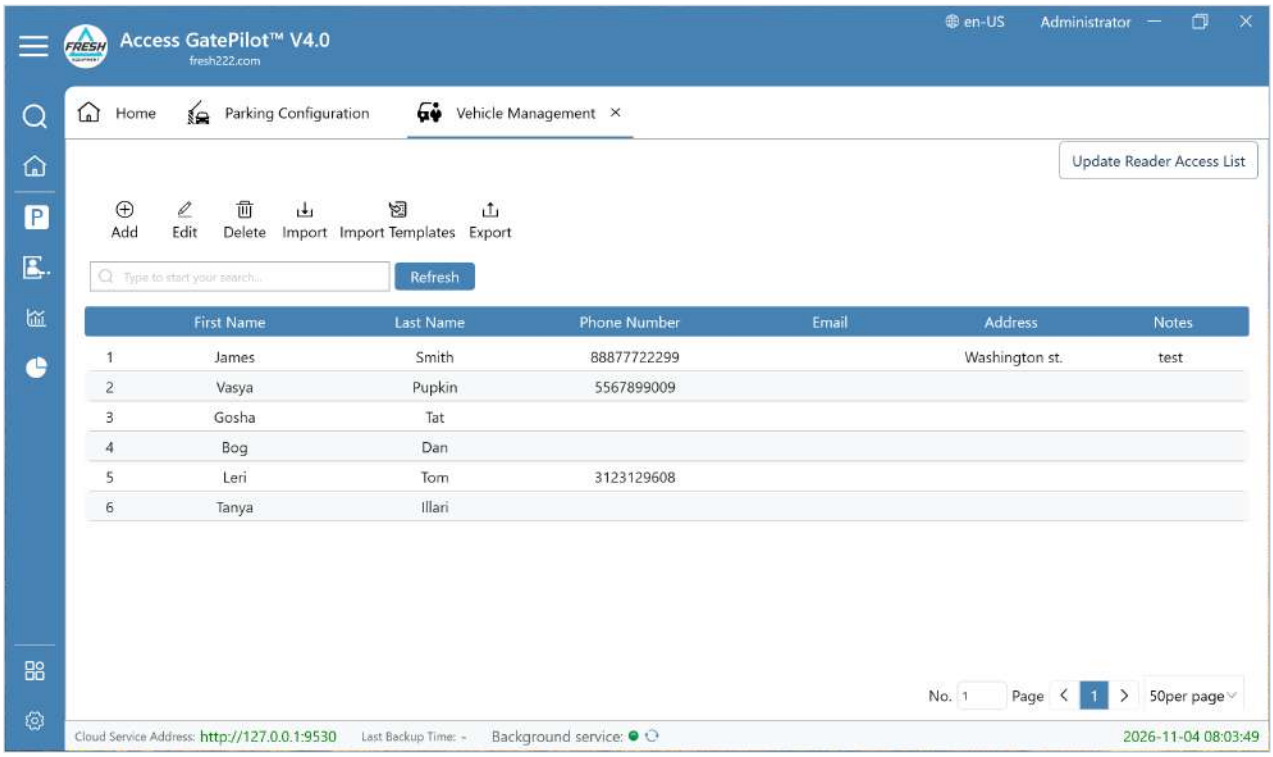


Figure 24. *Vehicle Management lists vehicle owners and their contact details. (Source screen S331).*

1. Open **Parking Management > Vehicle Management**. Search for the owner before creating another record.
2. Click **Add** to create an owner. Use **Edit** for the existing owner and **Delete** only for an intentional removal.
3. Use the owner's First Name and Last Name. Enter only the contact details your site needs.
4. Select an owner and open the owner editor to add or edit that person's vehicle records.
5. Use **Refresh** after changing search criteria or records. Page controls apply to the displayed table, not the full reader upload.

The toolbar also includes **Import**, **Import Templates** and **Export**. Download the current template and preserve its required columns before importing. A source file saved on disk is not proof that its records passed import validation or reached a reader.

Create or edit an owner and associated vehicles

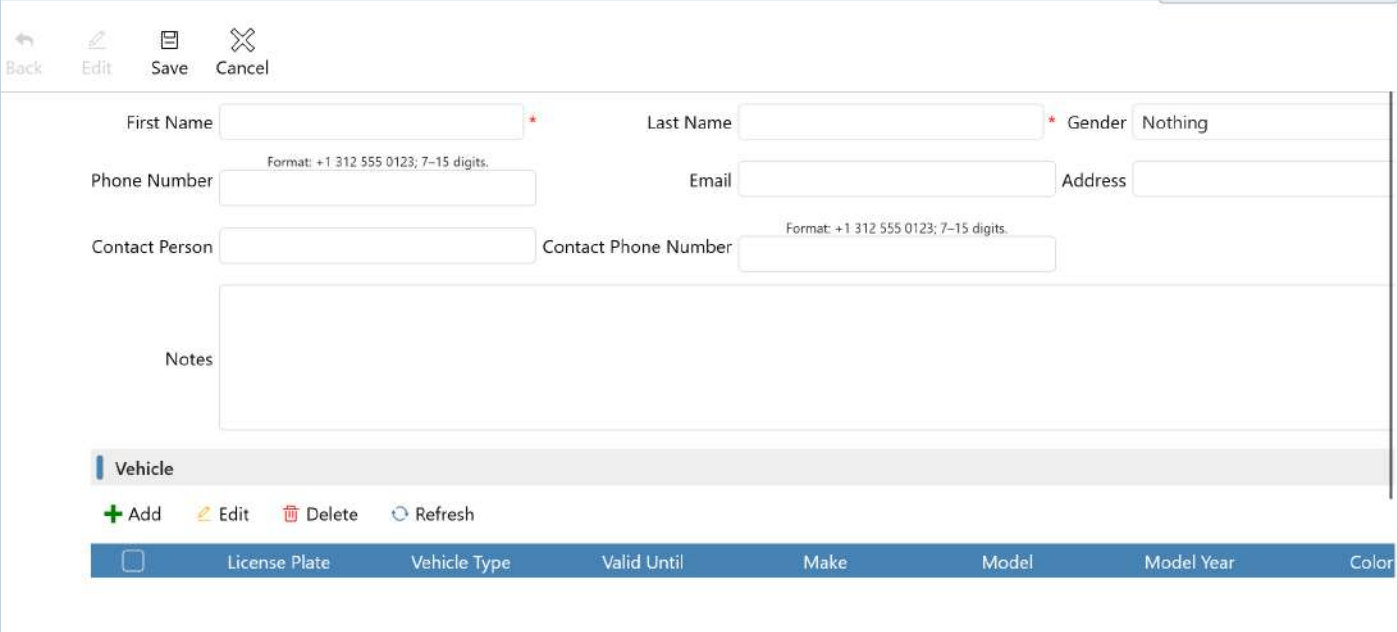


Figure 25. *Owner editor with the nested Vehicle section. (Source screen S332; detail crop).*

1. Enter the required First Name and Last Name. Review Gender, Phone Number, Email, Address and Notes as applicable.
2. Use the **Vehicle** section below the owner details to add or edit a vehicle. Scroll down if its controls are below the visible part of the form.
3. Save the owner and vehicle through their respective forms. The upper **Back / Edit / Save / Cancel** controls belong to the owner editor, while the vehicle dialog has its own confirmation.
4. Use Cancel to abandon unsaved edits. Verify the saved owner/vehicle in the list before uploading reader access rights.

Phone fields show the expected format, such as an international +1 number. A required-field marker must be resolved before saving. The sample contact data in the captured list is illustrative; it does not prefill a new database.

Add a vehicle: plate, pass type and validity

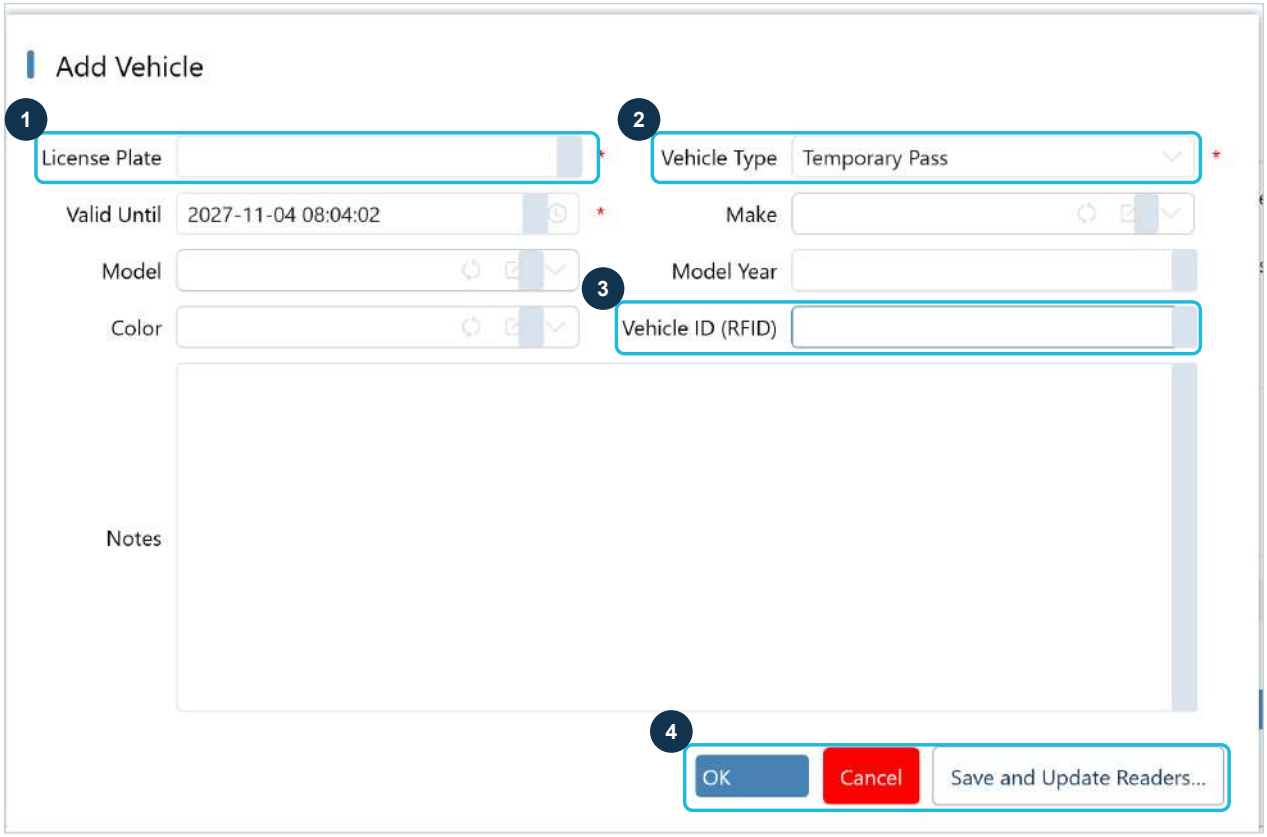


Figure 26. *Add Vehicle: the RFID field is distinct from License Plate. (Source screen S334; detail crop).*

1. Enter the **License Plate**. This is a human-readable vehicle field, not the tag EPC.

2. Choose **Vehicle Type**. For the commissioned ordinary access-only workflow, choose **Monthly Pass** rather than assuming Temporary Pass will operate the relays.

3. Set **Valid Until** deliberately, including the time. Monthly Pass is a category label; the saved expiry determines how long the credential remains valid.

4. Capture or enter the tag in **Vehicle ID (RFID)**. In GatePilot this field stores the RFID identifier; it is not the automobile's manufacturer VIN.

5. Optionally enter make, model, model year, color and notes.

6. Click **OK** to save to the application, or **Save and Update Readers...** to save and then open the full-list synchronization manager.

F-01 and F-02: choose the enrollment reader



Figure 27. *The enrollment profile list contains F-01 and F-02. (Source screen S333; detail crop).*

Workflow	Connection and expected behavior
Direct F-01 USB	Select F-01 and click Connect F-01 USB. COM selection is not needed for that direct USB profile. Wait for the connected/ready status.
Direct F-02 COM	Select F-02, choose its current COM port and click Connect COM. Use Refresh COM after attaching the device. Confirm the model and COM number in the status.
External keyboard emulator	If your reader is configured to type as a keyboard, click inside Vehicle ID (RFID), then scan one tag with an Enter or Tab suffix. Do not open the same COM port in GatePilot and an external emulator at the same time.

1. Enable **Capture one RFID code**. Present only one tag.
2. Confirm that one complete code appears in Vehicle ID (RFID). A successful capture locks that field against repeated scans being appended.
3. To replace a mistaken capture, click **Clear RFID / Read again**, refocus the field and present the correct tag.
4. Keep the same reader/model/COM choice while entering the next vehicle. The direct reader connection is retained between editors for the current application session; changing the selected reader or port releases the old connection.

The selected model/COM preference can be remembered, but a saved preference is not proof that a device is still physically connected after restarting Windows or GatePilot. Check the current connection status.

RFID field state and duplicate prevention

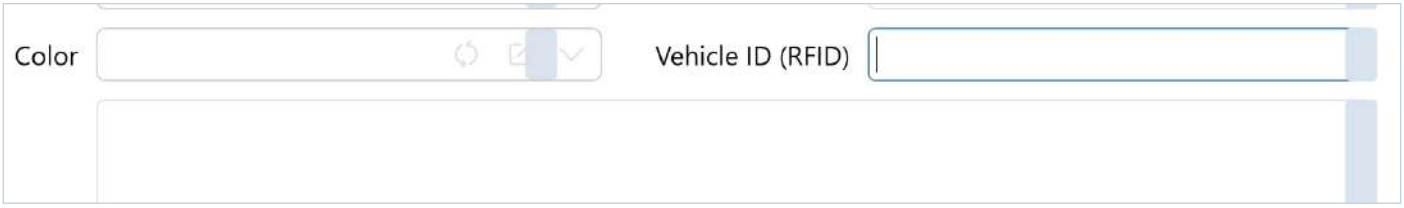


Figure 28. *Before a successful capture, the RFID field can receive typed or emulated input. (Source screen S335; detail crop).*

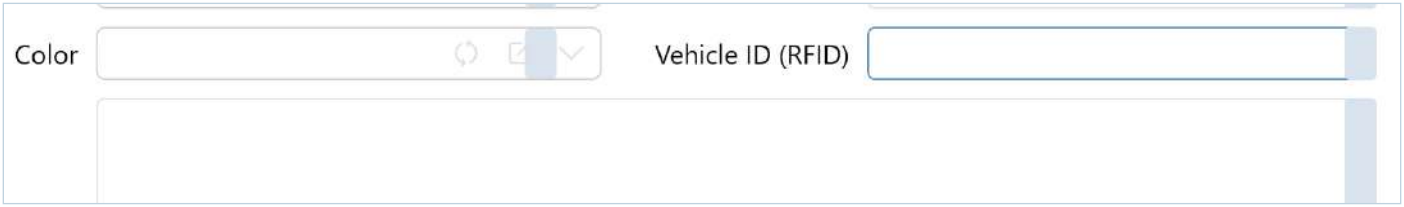


Figure 29. *The same field remains the target; reading a second card is an explicit action. (Source screen S336; detail crop).*

Once a code is accepted with **Capture one RFID code** enabled, further reads do not concatenate more copies. For an existing vehicle, the capture option may be off so that the stored record remains editable. Use Clear RFID / Read again when deliberately replacing its tag.

One RFID code must identify one registration
Do not add the same RFID to a different vehicle or access-list record. Matching ignores letter case and surrounding spaces; leading zeros remain significant. A duplicate warning means locate the existing record and edit the correct registration instead of creating a second one.

Saving the original record without changing its own code is permitted. Existing historical duplicates are not automatically deleted by opening a form; have the administrator resolve them before a verified full-list update. A lookup, database or validation error is not permission to bypass uniqueness checks.

Use the complete EPC reported by the enrollment reader. Do not convert a hexadecimal EPC to decimal, drop leading zeros, add punctuation or paste several reads together. The access-list writer validates nonempty identifiers and can stop an upload if they are malformed.

10 Access and Block Lists

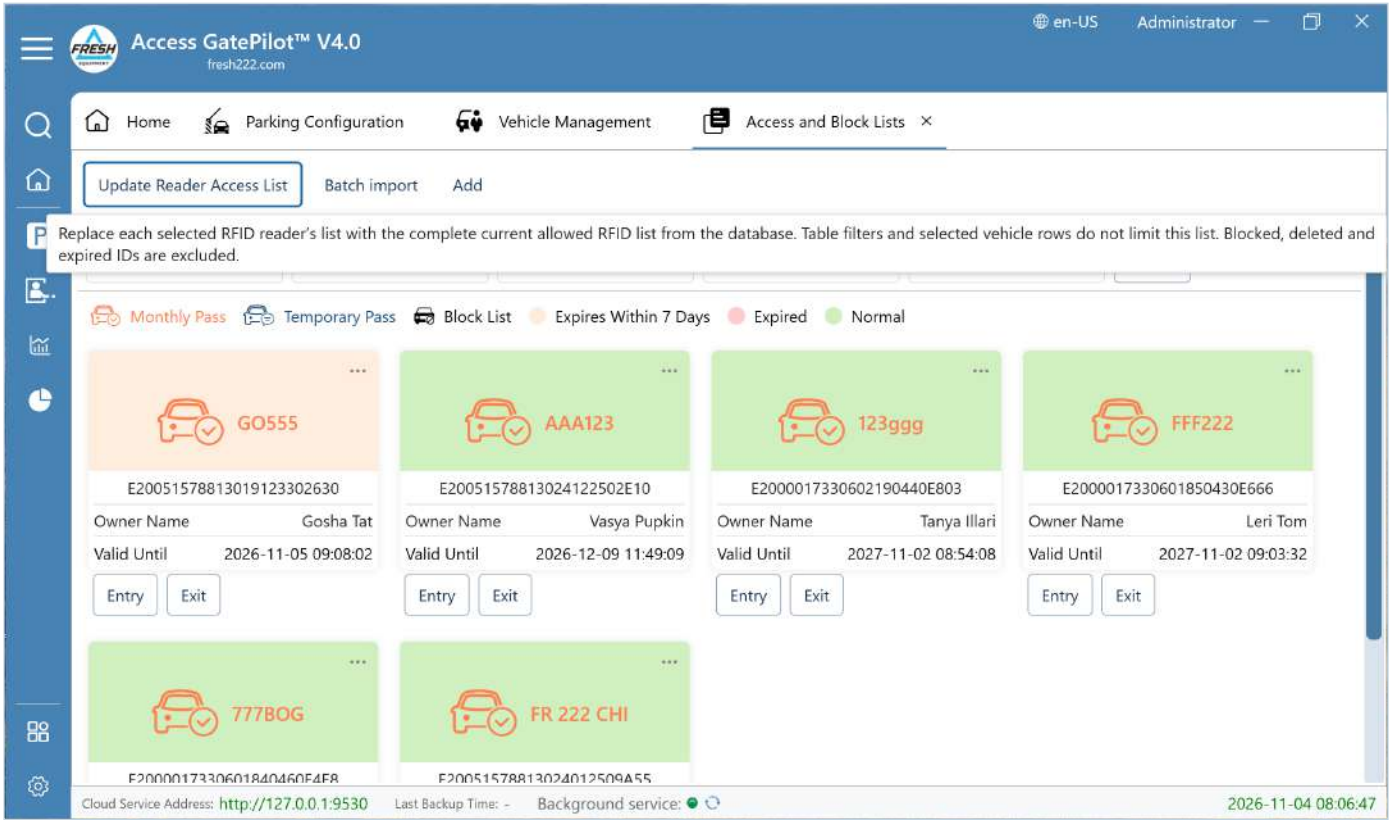


Figure 30. *Cards show pass type, RFID, owner and validity, with manual Entry/Exit actions. (Source screen S344).*

1. Open **Parking Management > Access and Block Lists**.
2. Use the License Plate, Owner, Valid Until, Vehicle Types and list-state filters as needed, then click **Search**. Clear all relevant filters to inspect the full set.
3. Read the card legend: Monthly Pass, Temporary Pass and Block List are different categories/states; Normal, Expires in 7 Days and Expired are validity indications.
4. Use the card's action menu for the available edit/validity actions, or double-click the vehicle icon to open its editor where supported.
5. After any access-right change, save and run **Update Reader Access List** for the intended readers.

The captured card caption **Owner Name** refers to the owner's full name; older screens may use **Name**. A card's color is an application indication, not proof of the contents currently stored in an autonomous reader.

Edit validity, block or remove a credential

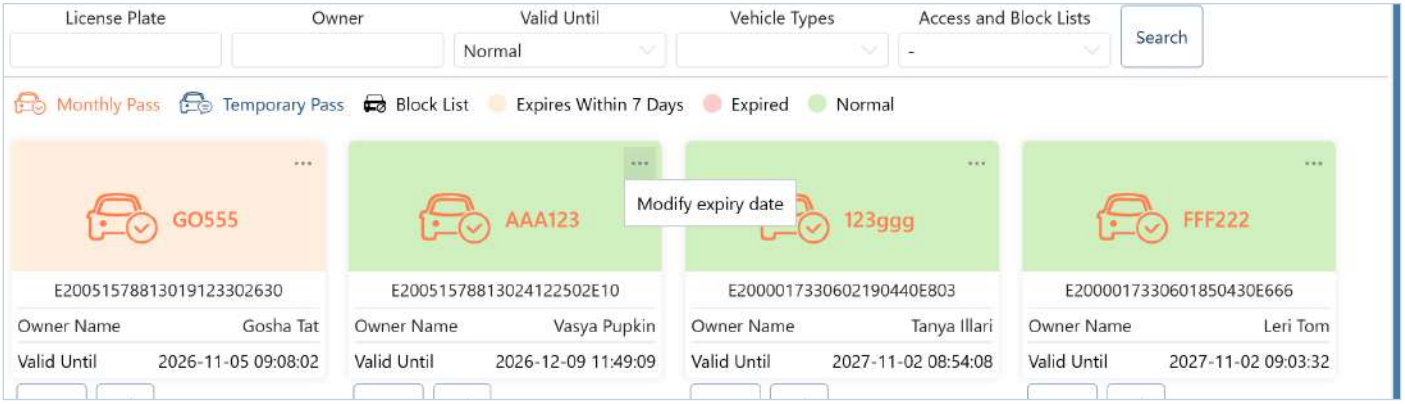


Figure 31. *Card action menu and the search filters. (Source screen S345; detail crop).*

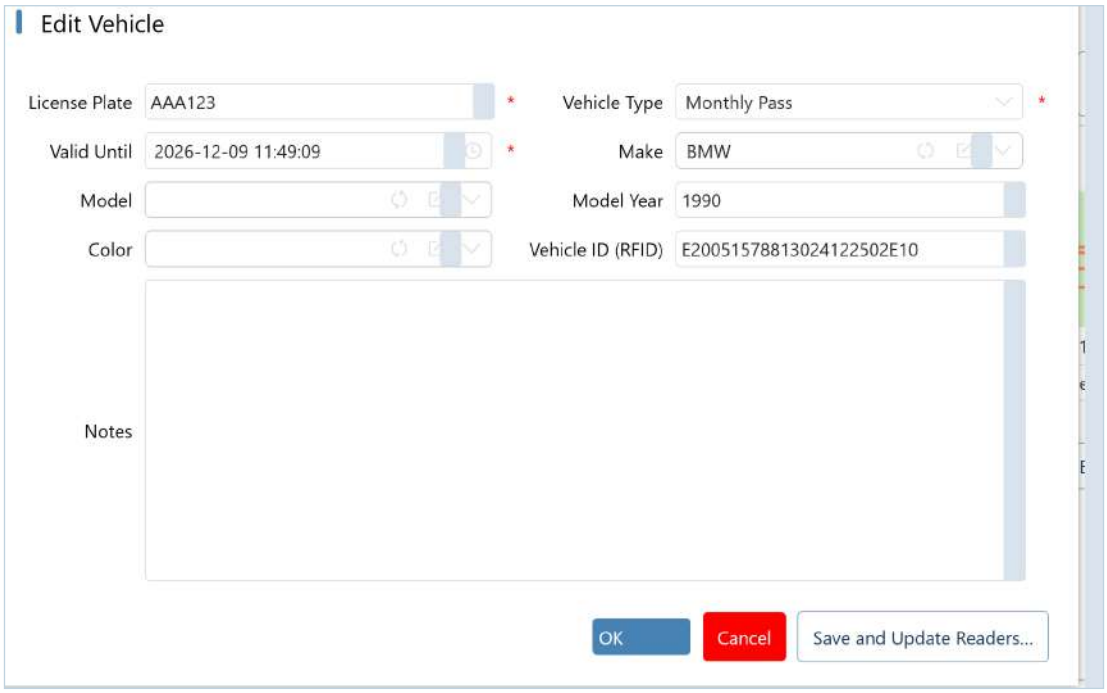


Figure 32. *Edit Vehicle retains the saved RFID and pass type. (Source screen S346; detail crop).*

Open the correct card and change its permitted data or validity, then save. To block or remove access, use the appropriate record/list action and verify the saved state. A blocked, deleted or expired identifier is excluded from the newly prepared allowed list.

The reader keeps its previous list until it is updated
A database change alone does not remove a card from a disconnected FA-900. Update every intended reader and check its individual readback result. The reader's own expiry enforcement also depends on a correct device clock.

Add a direct access-list entry or import records

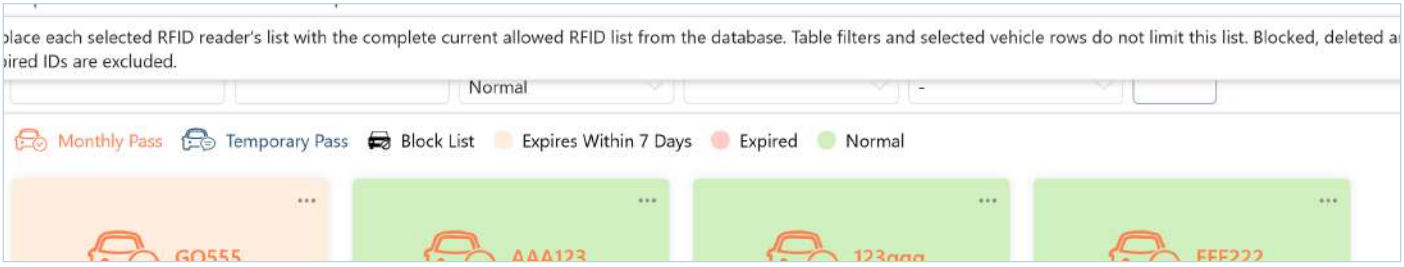


Figure 33. *Access-list toolbar: Update Reader Access List, Batch import and Add. (Source screen S343; detail crop).*

1. Search existing registrations before adding. Use **Add** for the standalone access/block entry form, or register the owner and vehicle in Vehicle Management when those details belong together.
2. Enter a unique RFID code and the required plate, type, validity and access/block state. Use the same one-code capture workflow.
3. For **Batch import**, use the template/format supported by that screen, validate every required field and inspect the actual import result. Do not assume a file import bypasses duplicate protection.
4. Refresh and inspect the saved records.
5. Run the complete reader access-list update after registration, import, blocking, expiry changes or deletion.

The record source can differ between Vehicle Management and a standalone access-list entry, but the same RFID must not be registered twice across them. Table row selection and screen filters do not limit the set transferred by the full-list update manager.

11 Update and compare reader access lists



Figure 34. *Update Reader Access List is available from Vehicle Management. (Source screen S337; detail crop).*

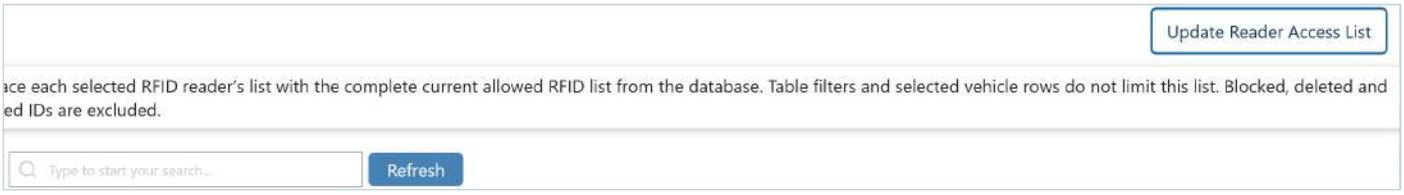


Figure 35. *The same full-list action is available while browsing owners. (Source screen S338; detail crop).*

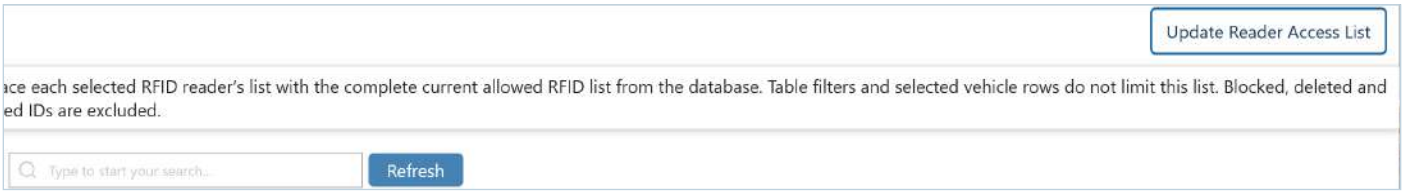
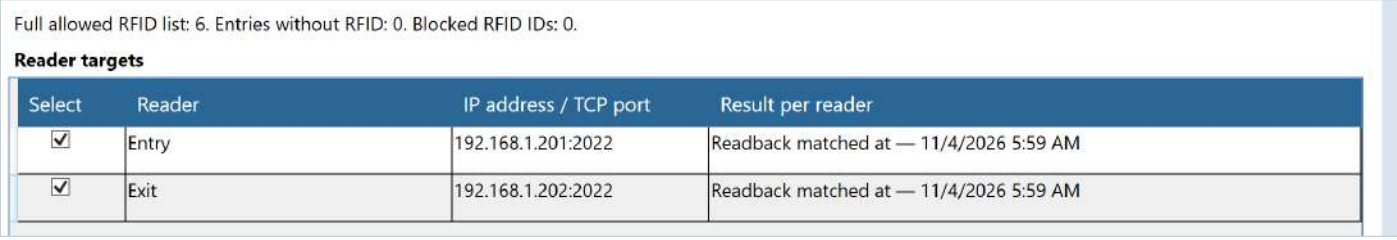


Figure 36. *The tooltip explains that transfer uses the complete allowed list. (Source screen S339; detail crop).*

Use **Update Reader Access List** from Vehicle Management, Access and Block Lists or Devices. It opens the same manager. **Save and Update Readers...** first saves the edited card and then opens that manager; it is not a separate single-card hardware write.

Full replacement, not a one-card append
Each selected FA-900 receives the complete current allowed list prepared from the application database. Selecting one vehicle or applying a table filter does not restrict the upload to that row or result page. Existing allowed records in that reader are replaced by the prepared set.

Select the receiving readers and update


Full allowed RFID list: 6. Entries without RFID: 0. Blocked RFID IDs: 0.

Reader targets

Select	Reader	IP address / TCP port	Result per reader
☑	Entry	192.168.1.201:2022	Readback matched at — 11/4/2026 5:59 AM
☑	Exit	192.168.1.202:2022	Readback matched at — 11/4/2026 5:59 AM

Figure 37. *Reader targets and the complete-list counts. (Source screen S340; detail crop).*

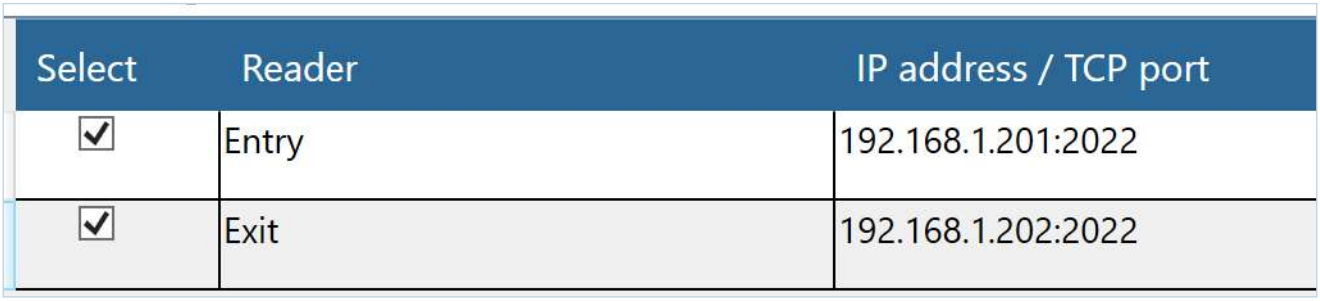


Figure 38. *Detail: tick the actual target checkboxes, not just the highlighted row. (Source screen S340; detail crop).*

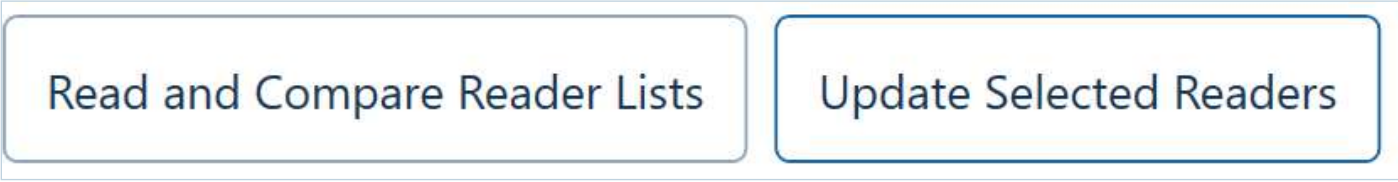


Figure 39. *Detail: Read and Compare Reader Lists and Update Selected Readers. (Source screen S340; detail crop).*

1. Save all intended card changes first. Open **Update Reader Access List** and inspect the full allowed count and the missing/blocked RFID counts.
2. Tick the checkbox beside each receiving reader. Verify its name and IP/port; a single available reader may be selected automatically.
3. Optionally use **Read and Compare Reader Lists** before changing a device. Reading and comparison do not replace its stored list.
4. Click **Update Selected Readers**, confirm the replacement and keep the readers reachable until the operation finishes.
5. Check the **Result per reader** column for matching readback. A result is separate for Entry and Exit.
6. If a reader fails or differs, resolve its connection/configuration issue, then use **Retry Unverified Readers** or repeat the complete update.

The current manager builds one common database-derived allowed set for the selected compatible RFID readers. It does not create separate per-reader access profiles from a card selection. If your site needs different allowed sets for different readers, obtain a configuration review instead of assuming the UI selection provides that separation.

Readback, empty-list replacement and recovery

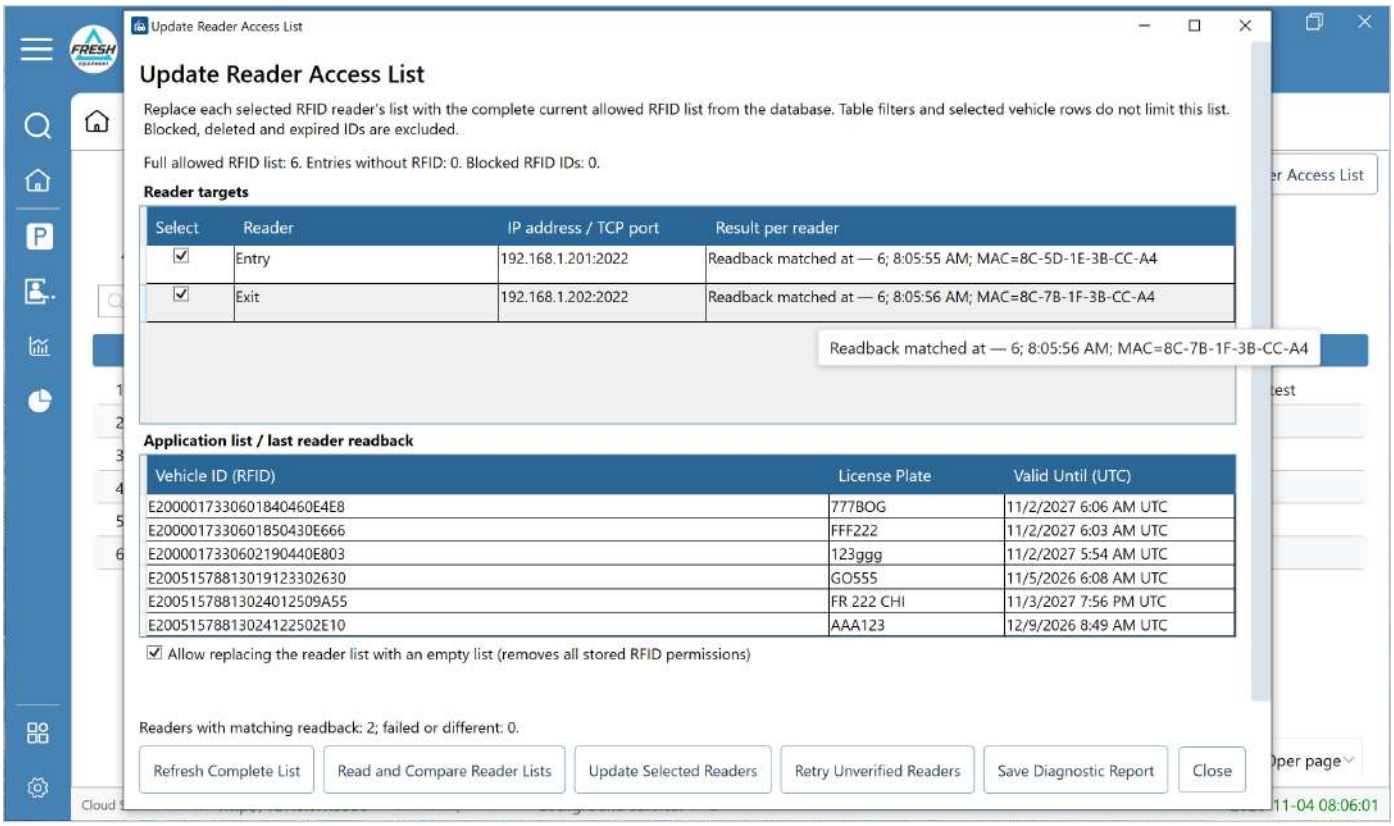


Figure 40. *A completed update shows matching readback separately for both targets. (Source screen S341).*

Readback matched means the complete returned list matched the prepared application snapshot for that reader at the displayed time. The update verifies the complete records rather than assuming a command acknowledgment proves success. Later edits or another client can change either side.

Action / result	Meaning
Refresh Complete List	Reload the application snapshot after saved changes; this is not a reader write.
Read and Compare Reader Lists	Read the selected devices and compare their lists with the application. This does not reconstruct owners or import old rights into the database.
Allow replacing with an empty list	A separate safeguard for intentionally removing all stored RFID permissions by sending an empty prepared set. Leave it off for routine updates.
Failed / different / unverified	Do not treat the whole batch as successful. Save diagnostics, correct the issue and retry the complete current set for the affected reader.

The checkbox allowing an empty replacement is checked in the supplied example capture. It is **not** an instruction to enable it during normal operation. After an interrupted write, the device may contain a partial or changed list; restore a verified complete list before relying on it.

What remains in FA-900 after reinstalling GatePilot?

The application database and each reader's autonomous memory are separate. Uninstalling the Windows program does not itself erase the reader's stored access list. A newly installed empty database does not automatically recover owner names, all vehicle fields or the complete original database from that reader.

1. If you need to inspect retained rights, add the correct reader and use **Read and Compare Reader Lists** before an update.
2. Compare the returned RFID/plate/expiry information with your intended application records. Retain a database backup if you need the complete owner and traffic history.
3. If old reader rights must be replaced, create and save the new intended database list, then use **Update Selected Readers**. A successful full replacement removes old allowed records that are not in the new set.
4. For an intentional empty result, review the preview, enable the empty-list safeguard and confirm the replacement. Verify each reader afterward.

Access-list synchronization is not event recovery
The access list determines who is allowed to open a gate autonomously. **Update Reader Events / Event Connection** restores event delivery to the computer. Do not rewrite an access list just because traffic reports need to reconnect.

Keep the application/server computer available when you require live HOME and report updates. A reader can continue its commissioned autonomous access behavior during a PC/network interruption, but completeness of the later recovered event history must be checked against the real site test.

12 Manual gate operation and event recovery

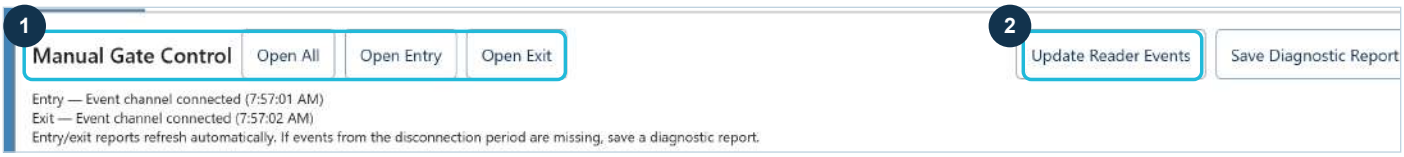


Figure 41. *Compact manual gate toolbar, named gate buttons and event update. (Source screen S310; detail crop).*

Open one gate or all gates

1. Sign in with an account authorized for gate operation. The current manual gate controls require an administrator.
2. Identify the physical lane by its saved reader name. Keep the lane clear and follow the site's gate-operation procedure.
3. Click **Open <reader name>** for one gate. Use **Open All** only when opening all configured gates is intentional, and confirm the prompt.
4. Inspect the result for each target. Reader acceptance of the command does not prove barrier movement or vehicle passage.

Newly added active compatible readers are reflected in the named HOME buttons after the next refresh. The buttons use the saved reader names; a name change is visible after the configuration is refreshed. Open All is a batch of commands, not a guarantee that all relays switch at exactly the same instant.

Opening a relay is not a vehicle registration
A HOME open command has no selected vehicle and does not create a completed vehicle entry/exit record by itself. Its operation result is retained in the diagnostic/operation logs. The transient HOME command message clears after a subsequent dashboard refresh.

Manual Entry / Exit for a specific vehicle

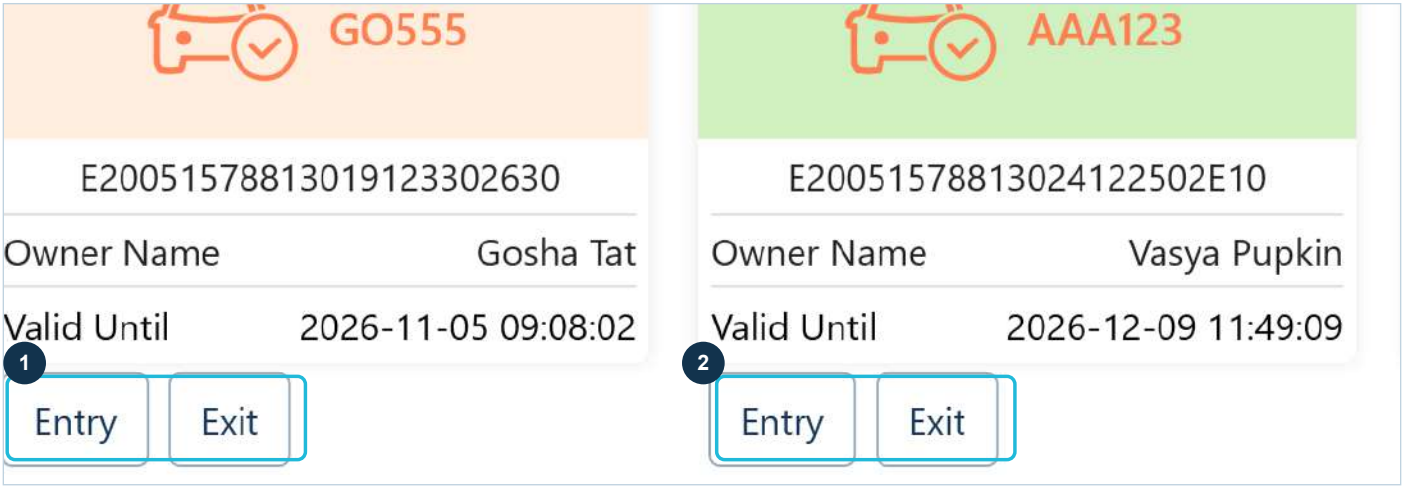


Figure 42. *Use the Entry / Exit buttons on the chosen vehicle card. (Source screen S344; detail crop).*

1. Open **Access and Block Lists** and identify the correct vehicle. This workflow is useful when its physical tag is lost or damaged.
2. Click that card's **Entry** or **Exit** button, rather than a general HOME gate button.
3. Select the appropriate gate for that direction and enter a clear reason. Confirm the intentional gate operation.
4. Wait for the gate command and database-record result. Check HOME, Traffic Statistics and Vehicles on Site.
5. If the relay command was accepted but record saving failed, use the offered record-only recovery action. Do not repeatedly open the gate to retry a database save.

A manual Exit requires an applicable open entry record; the workflow rejects an ambiguous record or an exit with no matching entry. A manual Entry is refused when that vehicle already has the relevant open visit. It is an operator-entered passage record, not an independent physical-passage sensor confirmation.

Update Reader Events: the HOME shortcut

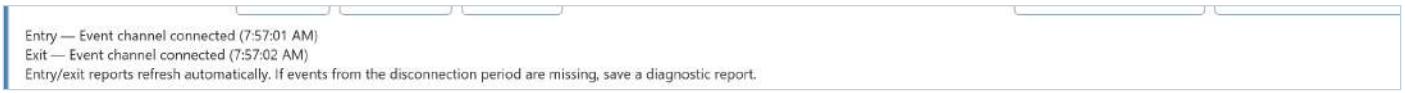


Figure 43. *Per-reader event status below the HOME toolbar. (Source screen S310; detail crop).*

Use **Update Reader Events**, to the left of Save Diagnostic Report, when a reader has reconnected or traffic information needs to be refreshed. It uses the same underlying Event Connection setup procedure available in a selected reader's Diagnostics.

1. Check that the computer and FA-900 readers are powered and reachable on their saved addresses.
2. Click **Update Reader Events** once. Read the separate status and check time for each reader.
3. Allow the event channel and the original report refresh to complete. Check both the count and detailed records, not only a green status dot.
4. If the channel remains disconnected, inspect the server PC address, receiver service and firewall. Save a diagnostic report before changing access lists.

Automatic operation in V4.0.5

After sign-in, GatePilot checks event connections in the background at approximately 10-second intervals, including while another tab is open. It requires a fresh RFID SDK reply and checks the local receiver's TCP path; an old Windows Established flag after a cable pull is not sufficient once the reader stopped answering.

After an observed outage has lasted at least 20 seconds and the reader/receiver are available, an administrator session makes one bounded repair attempt. Manual requests are limited to one repair per reader every 30 seconds. If automatic repair is unconfirmed, use the visible manual action and diagnostics. A remote server's TCP table is not locally observable, so unattended repair is not performed for that deployment.

Confirm the recovered history
The owner has confirmed that manual Event Connection updates real reader data. That observation does not certify the completeness or deduplication of every automatic offline recovery. After a disconnection, verify the actual missing entries/exits and their original times in Traffic Statistics.

Event Connection in a selected reader's Diagnostics

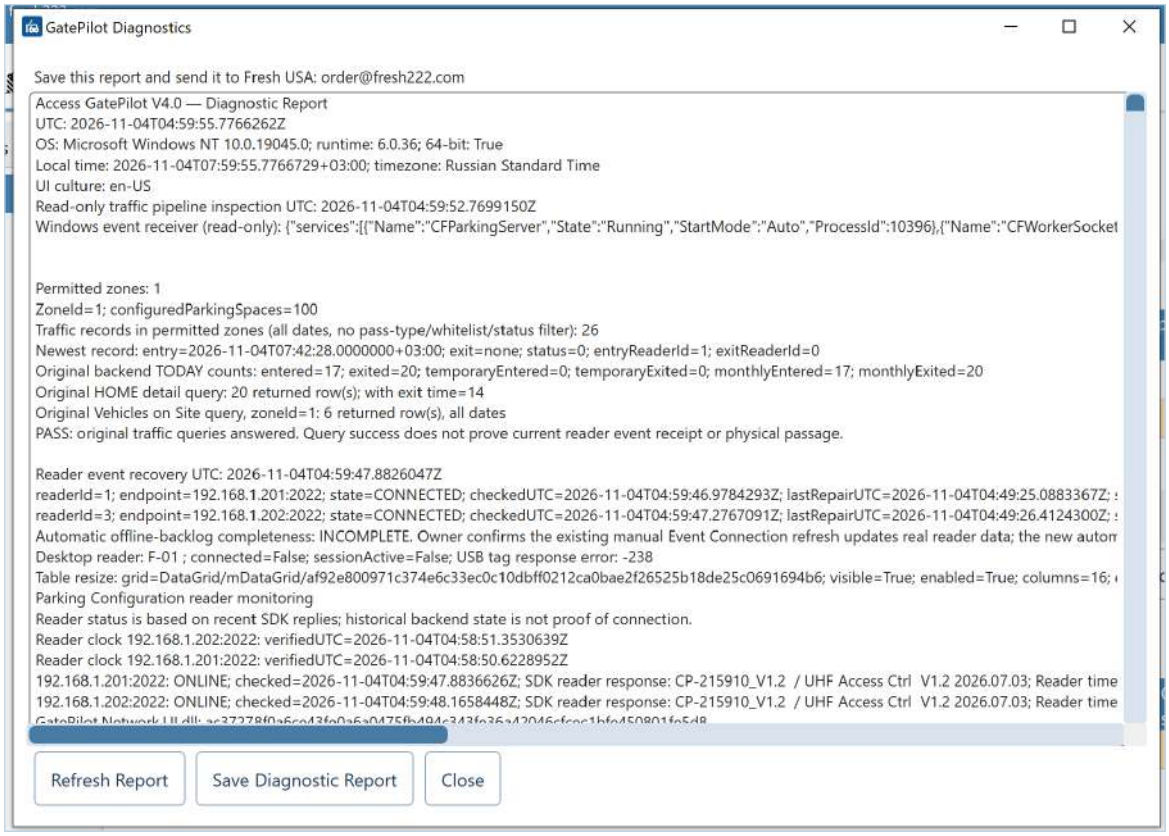


Figure 44. *Diagnostic report example; selected-reader diagnostics add reader-specific actions. (Source screen S320; detail crop).*

1. Open Parking Configuration and select the saved FA-900. Click its **Diagnostics** action.

2. Use **Event Connection** to inspect or apply the reporting destination. In the example LAN it is **192.168.1.1:9532**.

3. Confirm that this is the computer running the event receiver. Keep an approved custom receiver port if the actual server deployment uses one.

4. Apply and check the readback result. A settings readback proves the settings, while a connected channel and newly received traffic are separate evidence.

5. Check the same vehicle's Entry and Exit after restoration, then save the report if anything is missing.

The captured report is a system/parking diagnostic example. The exact additional buttons depend on the entry point: a selected-reader report can offer **Test Selected Reader** and **Event Connection**; a general HOME/System Settings report is intended for the wider application state.

13 Traffic reports and Vehicles on Site

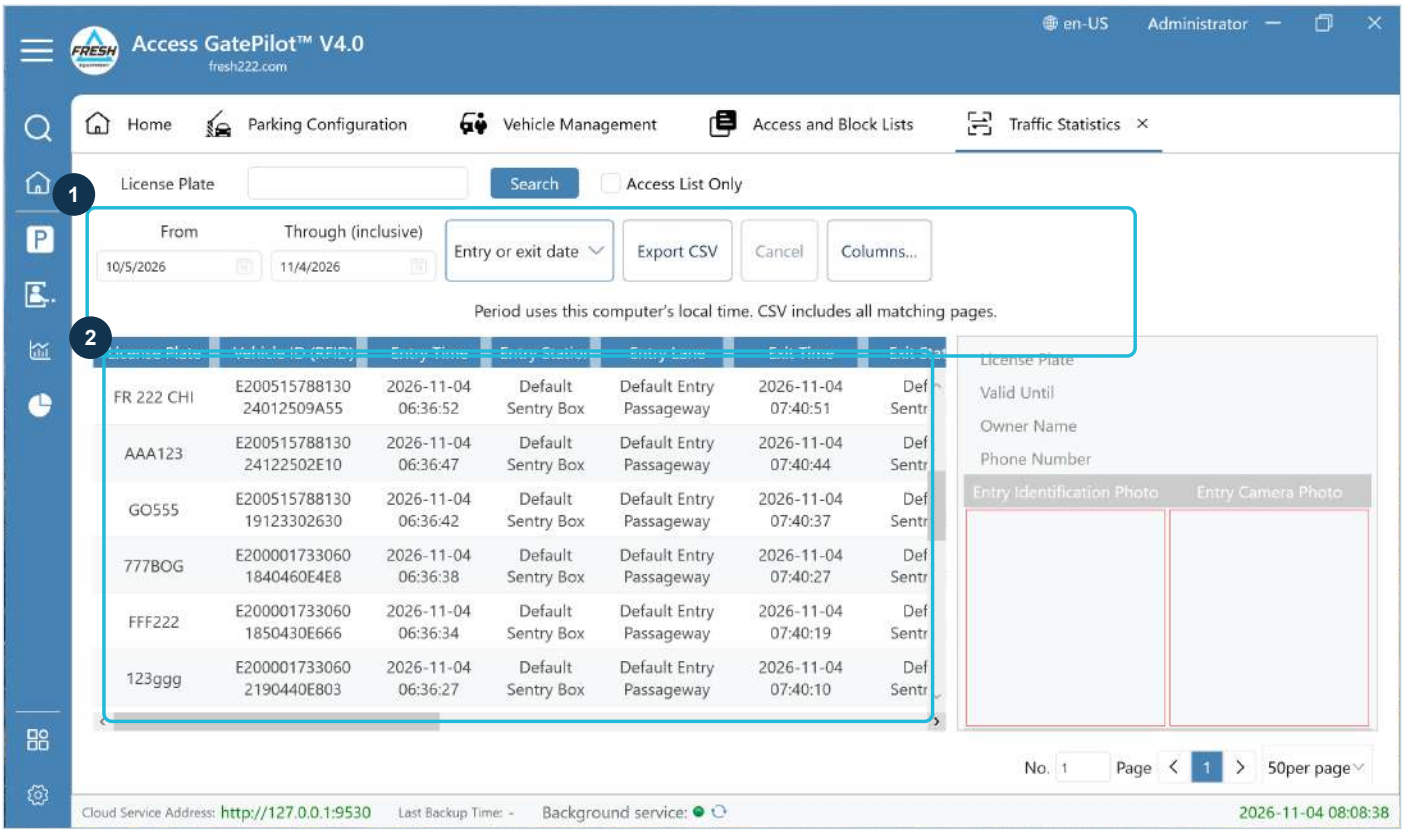


Figure 45. *Traffic Statistics with date filters, export and column controls. (Source screen S348).*

1. Open **Reports > Traffic Statistics**. Enter a License Plate if you want one vehicle; leave it blank for the broader permitted result.
2. Choose **From** and **Through (inclusive)**. Select **Entry date**, **Exit date** or **Entry or exit date** as appropriate.
3. Review **Access List Only**. It can hide records you intended to include. Click **Search**.
4. Read Entry Time, Entry Station/Lane, Exit Time and Exit Station/Lane. Use the table's horizontal scrollbar for additional columns, while the page itself remains usable vertically.
5. Select a row to inspect the available details. Camera/image areas remain empty when no supported capture is associated with that record.

Date filters use this computer's local time. A vehicle still inside can have an entry with no exit. HOME daily totals and a multi-day traffic report will not necessarily show the same numbers.

Export CSV, parking duration and column widths

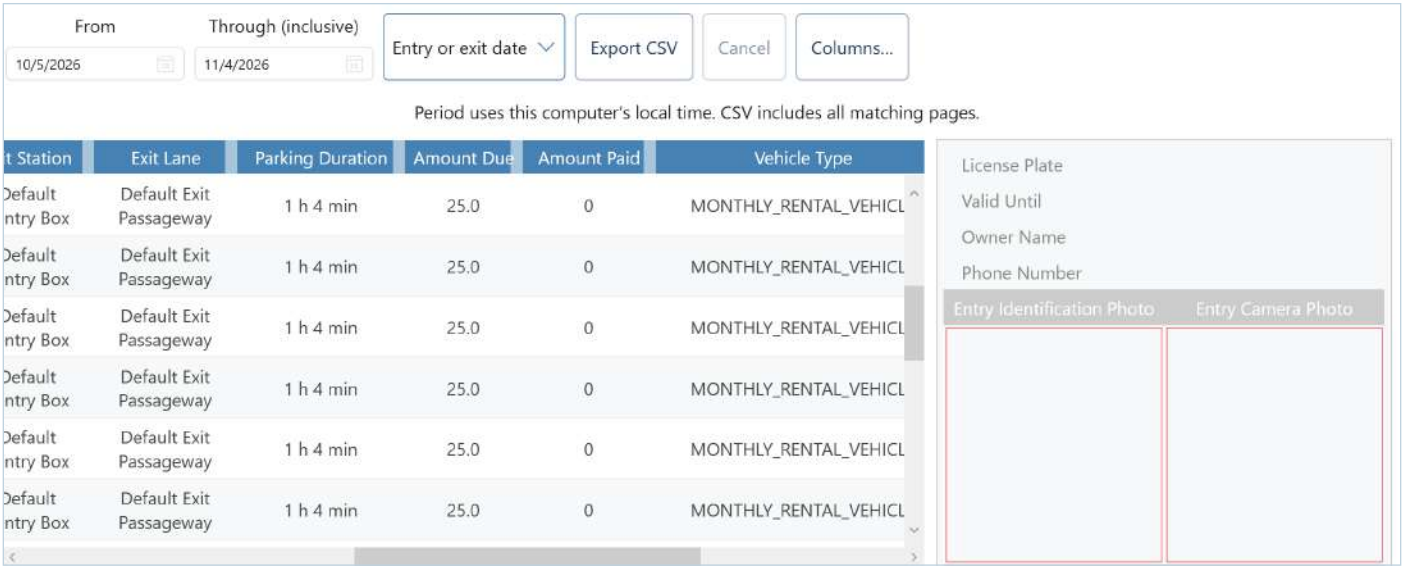


Figure 46. *Additional traffic columns include Parking Duration and legacy financial fields. (Source screen S349; detail crop).*

1. Set the report filters first and click Search. Choose **Export CSV**, select a destination and wait for the saved-record count.
2. The export includes all matching report pages, not just the visible page. It retains the permitted filters. Use **Cancel** to stop a running export.
3. If the dataset changes or the query cannot be completed, the export reports an incomplete result rather than saving a misleading partial file. Retry after the data is stable.
4. For width changes, drag a column-header separator. If a separator is difficult to use, choose **Columns...**, enter widths from **40 to 4096**, and click **Save**. Use **Auto Size All** to remove the saved widths for that table.

Widths are stored per Windows user and table and are restored after restart. **Parking Duration** is formatted from the original stored minutes, for example **1 d 12 h 51 min**. CSV includes both the readable duration and a separate numeric minutes column.

Amount Due and Amount Paid are inherited financial columns; their presence is not evidence that the optional payment module is active or that a customer should be charged.

Exception Report

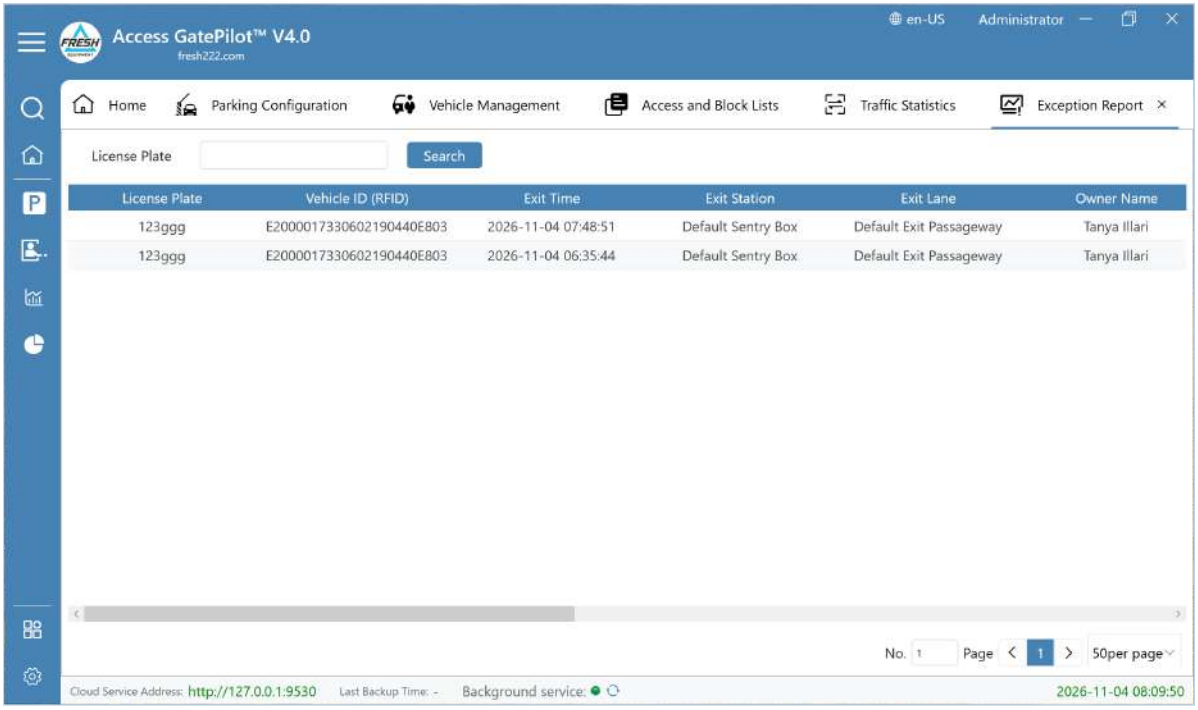


Figure 47. *Exception Report lists the records returned by the original exception query. (Source screen S350).*

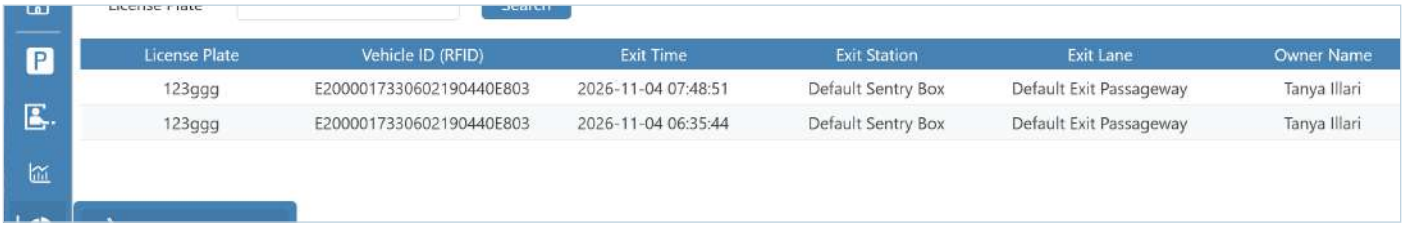


Figure 48. *The same report can be reached from the Reports navigation. (Source screen S351; detail crop).*

Open **Reports > Exception Report**, enter a plate when required and click **Search**. Inspect the RFID, exit time, station/lane and owner fields. Keep a screenshot and the related diagnostic report when investigating a discrepancy.

An exception row is not automatically a reader fault, and an empty report is not a universal proof that no faults occurred. Interpret its records with the matching Traffic Statistics visit and the site's actual lane test. Do not delete or initialize the database to clear an unexplained exception.

Vehicles on Site: occupancy and current visits

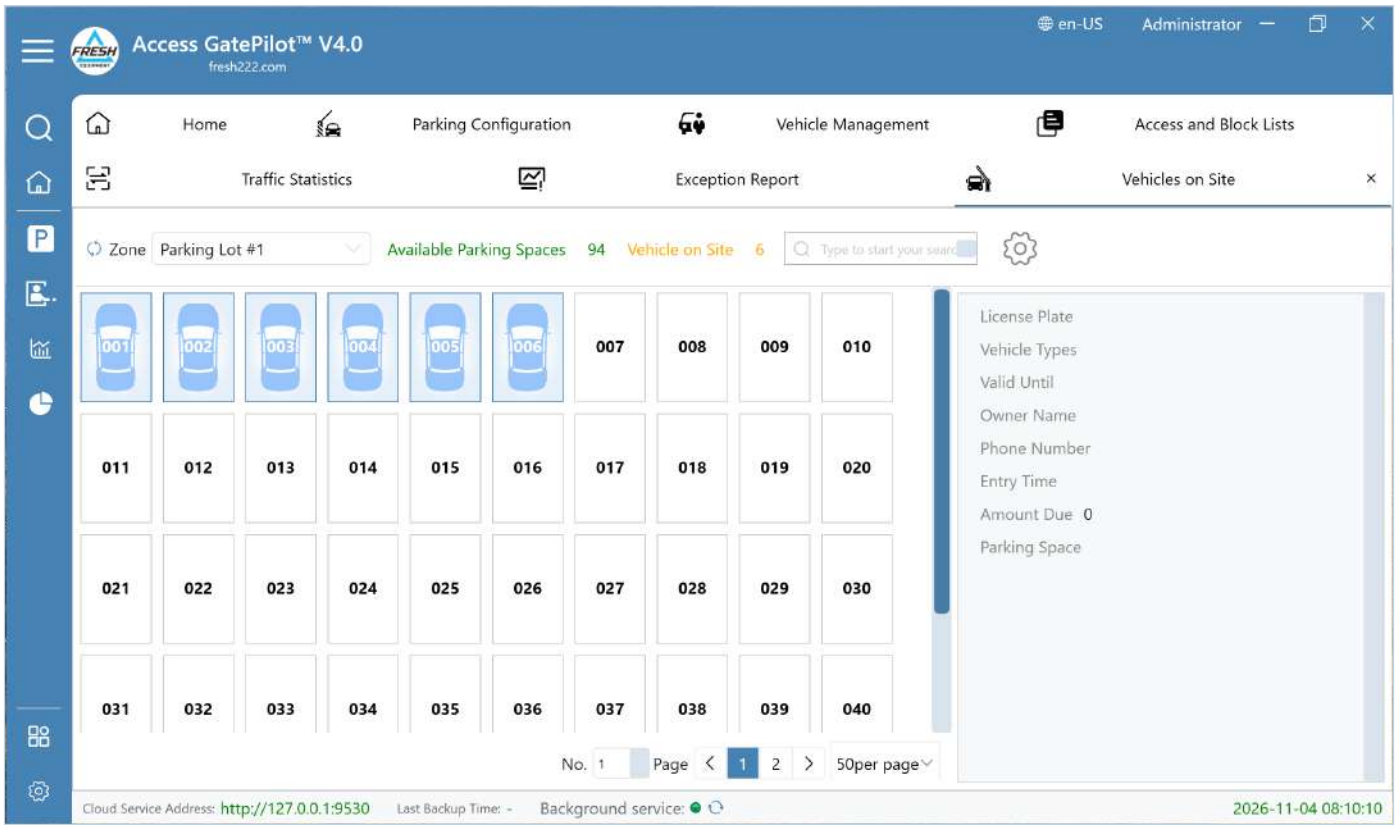


Figure 49. *Select a zone and inspect its current vehicle records. (Source screen S352).*

1. Open **Statistics > Vehicles on Site**. Choose the intended **Zone**.
2. Compare **Available Parking Spaces** and **Vehicle on Site**. These describe the selected zone and are different from today's Entry/Exit totals.
3. Use the search field to locate a displayed vehicle. Change pages if necessary; the search/filter state is separate from a reader's access permissions.
4. Select an occupied tile to inspect the plate, type, owner, entry time and available details.
5. A processed Exit closes the visit and removes it from the current on-site set after refresh. The page refreshes periodically and when brought back into view.

Tiles are not proof of a bay sensor
The original documentation does not establish working physical parking-bay detection for this build. The numbered display is a presentation of records/capacity; do not assume a tile is a measured physical bay or move a car in software to repair missing Exit events.

Parking capacity and on-site record details

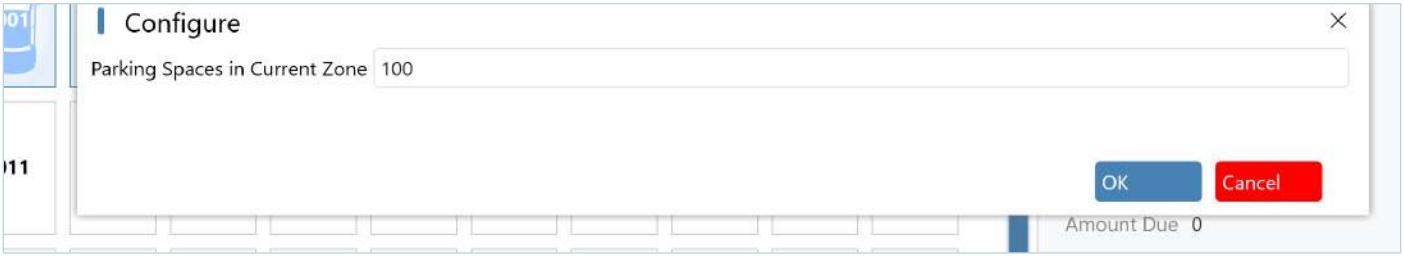


Figure 50. *Configure the parking-space capacity for the selected zone. (Source screen S353; detail crop).*

Use the gear/configuration action to review **Parking Spaces in Current Zone**. Set the actual managed capacity deliberately and save. Capacity influences the display and availability count; it is not the number of authorized RFID credentials.

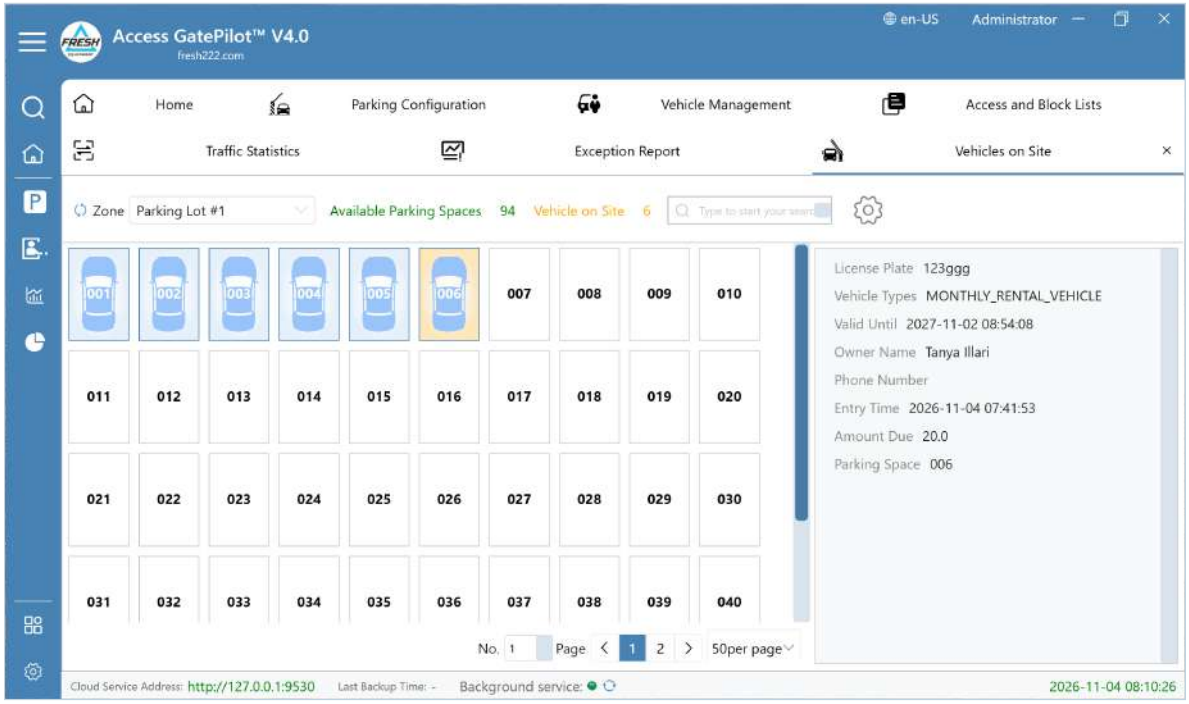


Figure 51. *An occupied tile shows the selected vehicle's current visit details. (Source screen S354).*

If a vehicle remains on site after a physical exit, first check that the Exit reader is assigned correctly and that its event reached the server. Use Update Reader Events and inspect the corresponding Traffic Statistics record. Refreshing a page cannot invent an exit the backend has not processed.

14 System Settings

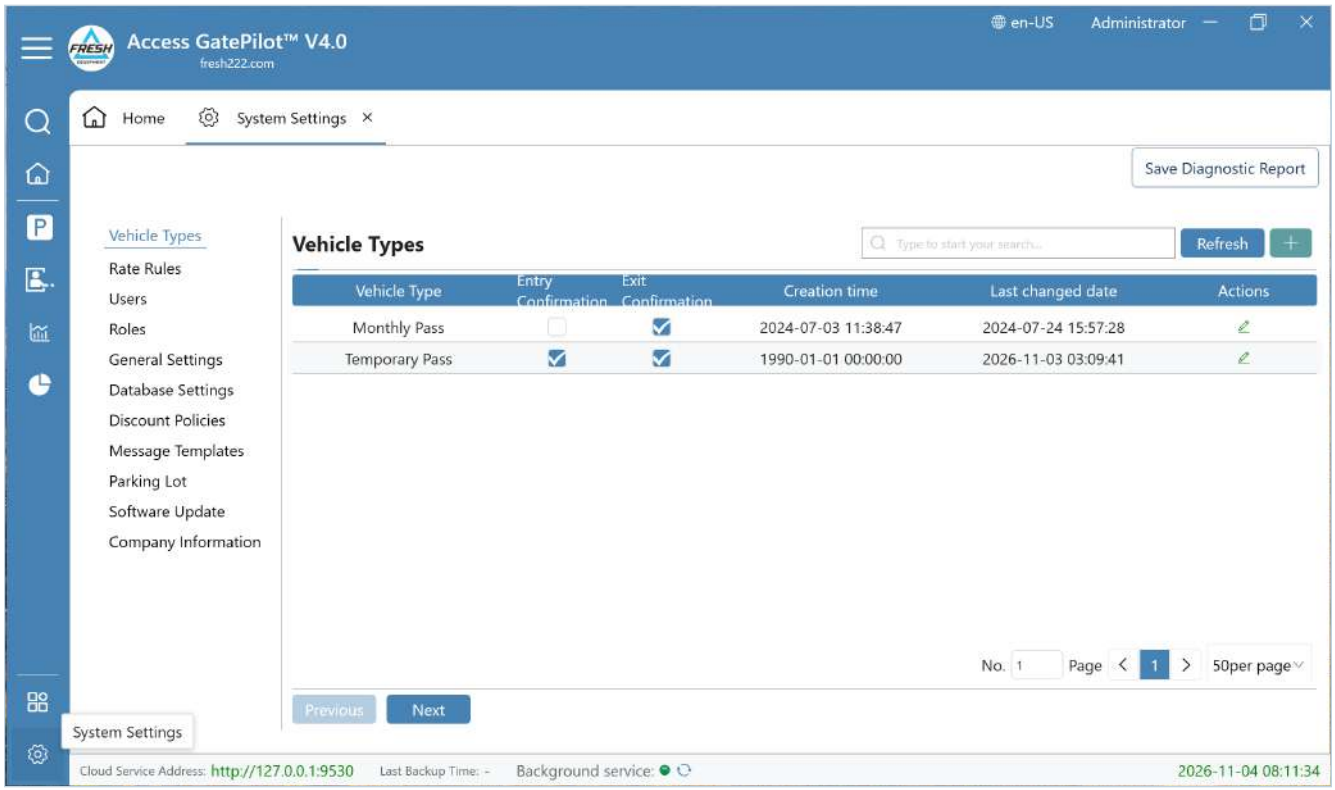


Figure 52. *System Settings and the two default Vehicle Types. (Source screen S356).*

Open the gear icon / **System Settings**. Page availability depends on the account. The left list contains Vehicle Types, Rate Rules, Users, Roles, General Settings, Database Settings, Discount Policies, Message Templates, Parking Lot, Software Update and Company Information.

Vehicle Types

The original system provides Monthly Pass and Temporary Pass. Edit a type using its row action. Do not assume the visible plus icon creates an arbitrary new type; the inherited workflow documents editing the supplied categories.

Field	What is established for this build
Entry Confirmation	Saved per-vehicle-type entryConfirm flag. True/False enables/disables that stored flag; the full server-side decision associated with it is not established in the accessible client source.
Exit Confirmation	Saved per-vehicle-type exitConfirm flag. It is separate from the entry flag; its full server-side confirmation behavior is likewise not established by the exposed client code.

Keep the values commissioned for your site. These labels are not instructions to reverse a lane, change an FA-900's hardware direction, enable Temporary Pass or repair relay wiring. Ask Fresh USA before using either flag as an operating-policy change.

Users and Roles

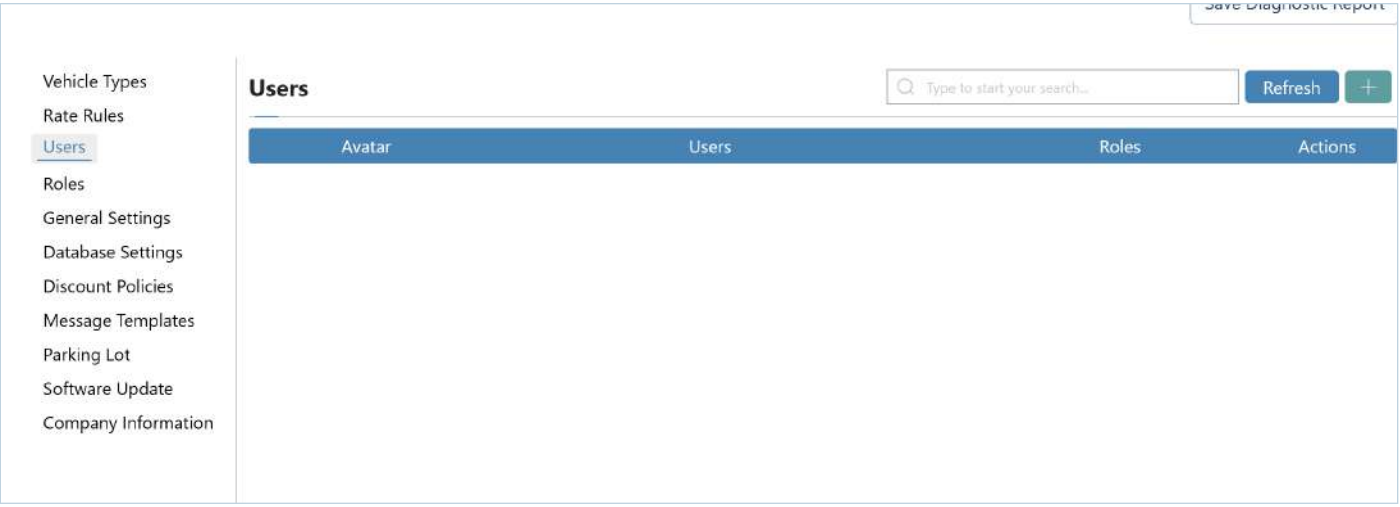


Figure 53. *Users: account management is controlled by the signed-in role. (Source screen S358; detail crop).*

Use **Users** to manage approved individual accounts and their roles. Keep the administrator account available. Search and Refresh before treating an empty list as lost data; a search, a permission restriction or a query issue can also affect the view.

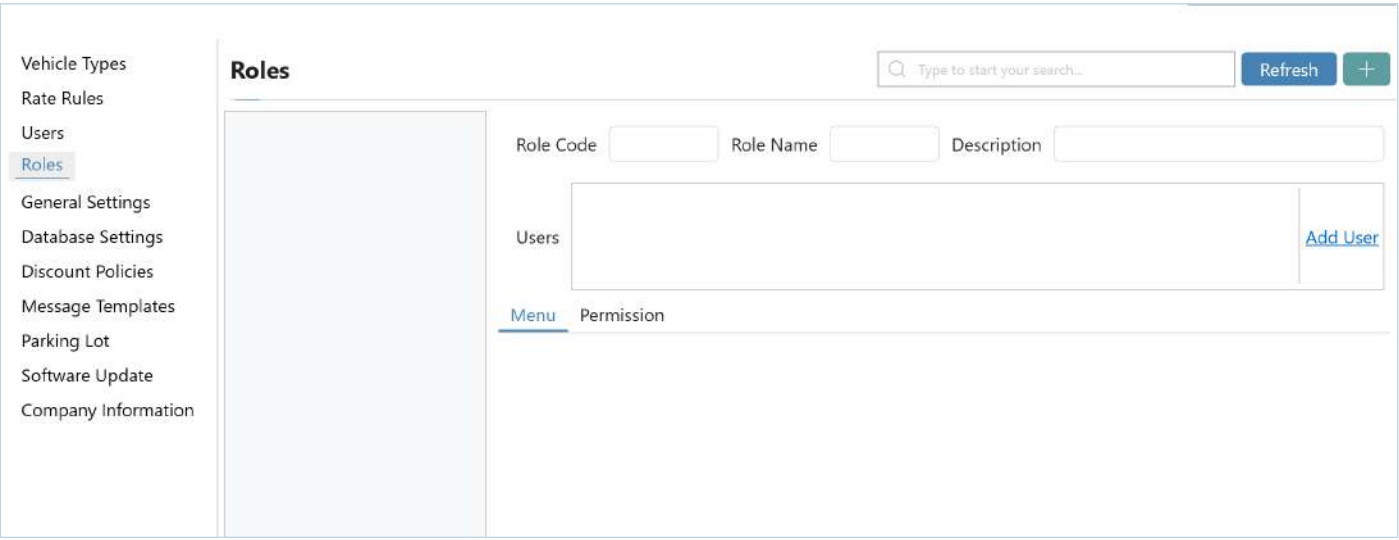


Figure 54. *Roles contains role identity, users, Menu and Permission controls. (Source screen S359; detail crop).*

Use **Roles** to assign the intended menus, permissions and users. Review the Menu and Permission tabs separately. Save deliberate changes and verify access with an ordinary operator account. Avoid sharing the administrator account for routine work.

Protected settings use your current sign-in password

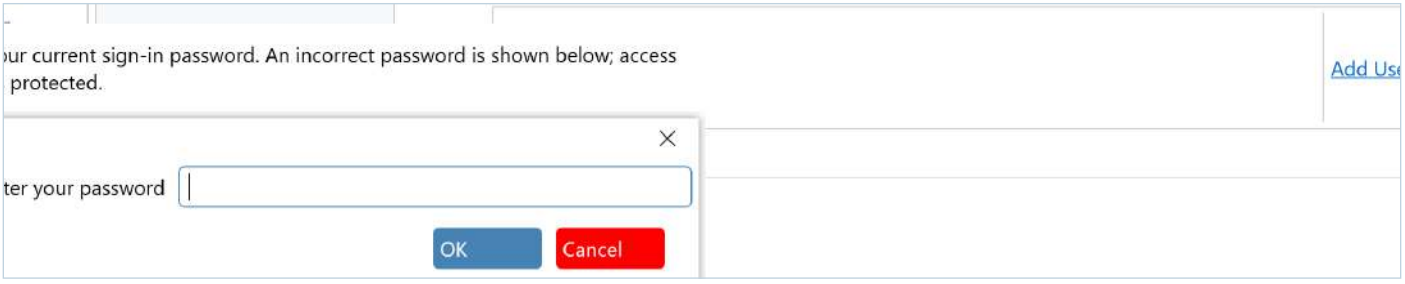


Figure 55. *The protected-settings prompt asks for the current account password. (Source screen S360; detail crop).*

1. Open the required protected settings page, such as General Settings.
2. Enter your **current GatePilot sign-in password** in the prompt and confirm.
3. An incorrect password must remain a failed authorization; do not try an old date-code rule or a password from a different application.
4. If the correct password is accepted but the page does not load, capture the exact state and save a diagnostic report.

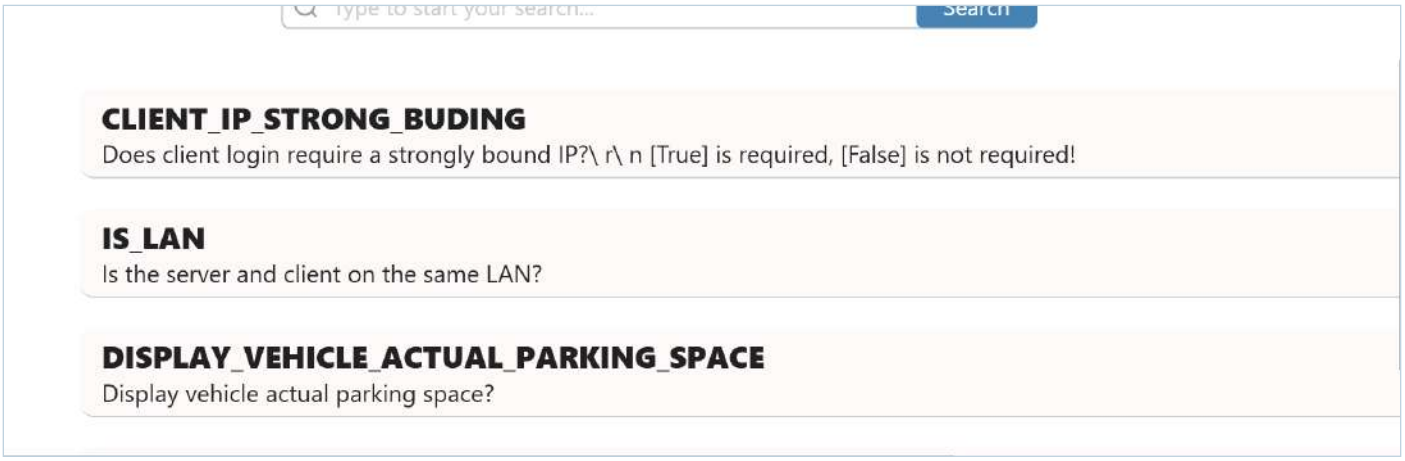


Figure 56. *General Settings contains internal parameter keys and their descriptions. (Source screen S361; detail crop).*

Search for the exact parameter you intend to review. Keys such as **CLIENT_IP_STRONG_BUDING** are retained internal names. Read the description and preserve working settings unless a documented site requirement calls for a change.

General Settings: LAN, parking display and timing

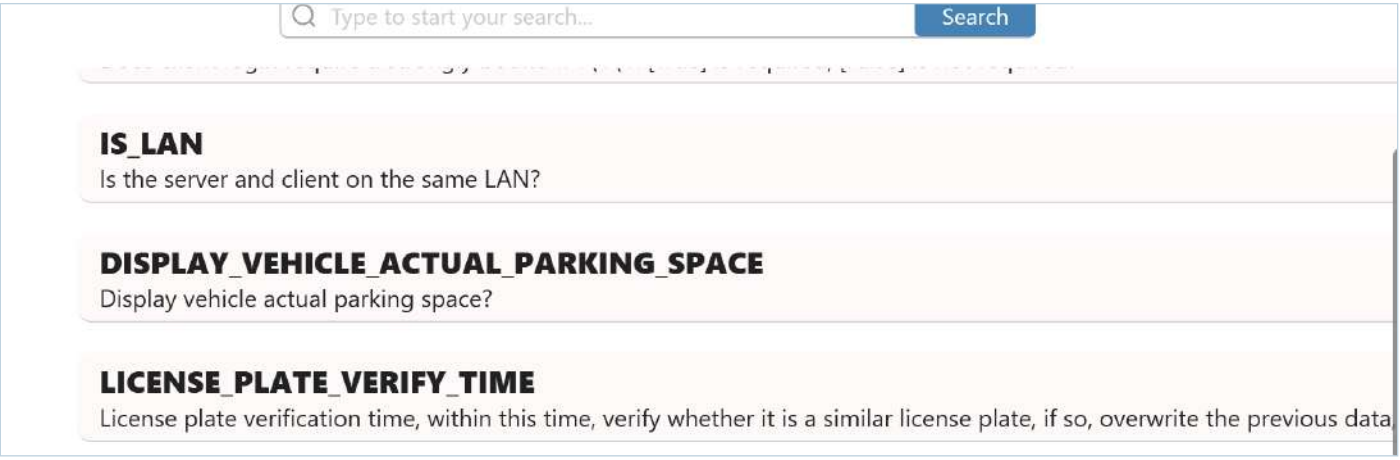


Figure 57. *More General Settings parameters are reached with vertical scrolling. (Source screen S362; detail crop).*

Visible parameter	Practical interpretation
IS_LAN	Indicates the original server/client LAN configuration. Keep the correct commissioned deployment setting; it is not the PC's IPv4 address.
CLIENT_IP_STRONG_BUDING	The inherited IP-binding option. Changing it can affect sign-in behavior; do not enable it as a discovery or event-repair shortcut.
DISPLAY_VEHICLE_ACTUAL_PARKING_SPACE	The original manual describes actual-space display configuration as not currently supported. Do not use it as proof of installed bay sensors.
LICENSE_PLATE_VERIFY_TIME	An original plate-verification / duplicate-observation timing parameter. The screen description refers to similar-plate handling. Do not change it to solve an RFID code-uniqueness error.

Some parameter screens require scrolling within a panel as well as the main page. Use the displayed description rather than expanding the meaning of an internal key by guesswork. If a value or explanation is unclear, save the diagnostic report and ask Fresh USA with the exact parameter name.

15 Backups, maintenance and customer records

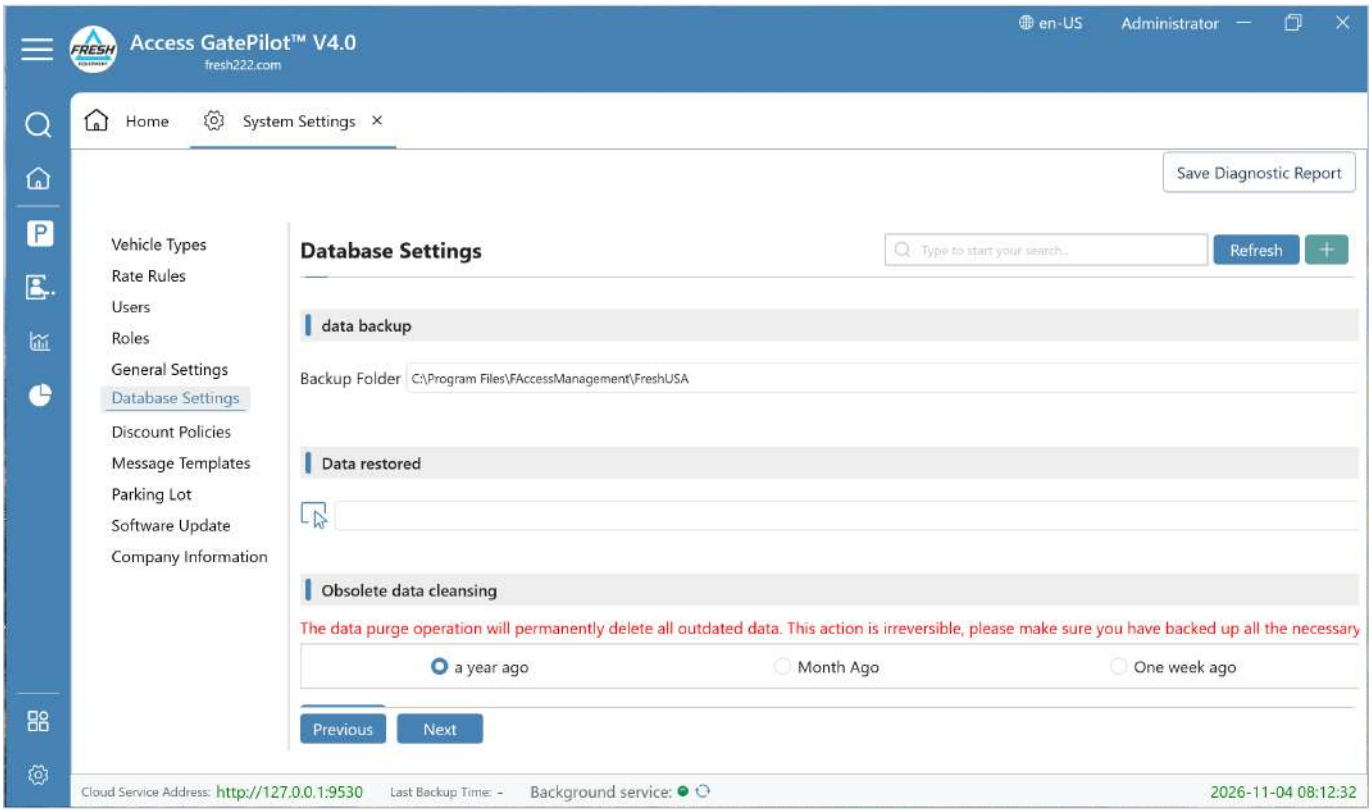


Figure 58. *Database Settings: backup, restore and obsolete-data cleanup. (Source screen S363).*

1. Open **System Settings > Database Settings**. Choose a writable backup destination appropriate for the installed server.
2. Run the page's backup action and wait for the application's completion message. Selecting a Backup Folder alone is not a completed backup.
3. Verify the backup file exists and preserve an off-computer copy under the site's retention policy.
4. To restore, first preserve the current database. Select the intended **.db** backup using the restore-file control, run Restore and follow the restart prompt.
5. After restoring, verify owners, vehicles, traffic history and the configured readers before uploading lists again.

Cleanup and initialization are different from backup
Obsolete-data cleanup permanently removes the selected older data. Initialization is a reset operation. Do not use either during routine commissioning or to make a report look empty. Restore changes the application database; it is not an automatic rollback of autonomous reader memory.

Discount Policies and Message Templates



Figure 59. *Discount Policies is a retained payment-related configuration area. (Source screen S364; detail crop).*

Discount Policies contains inherited payment/discount definitions. Its visible configuration does not make the optional Booth Payment workflow active. It is not required for the ordinary Monthly Pass access-list procedure.

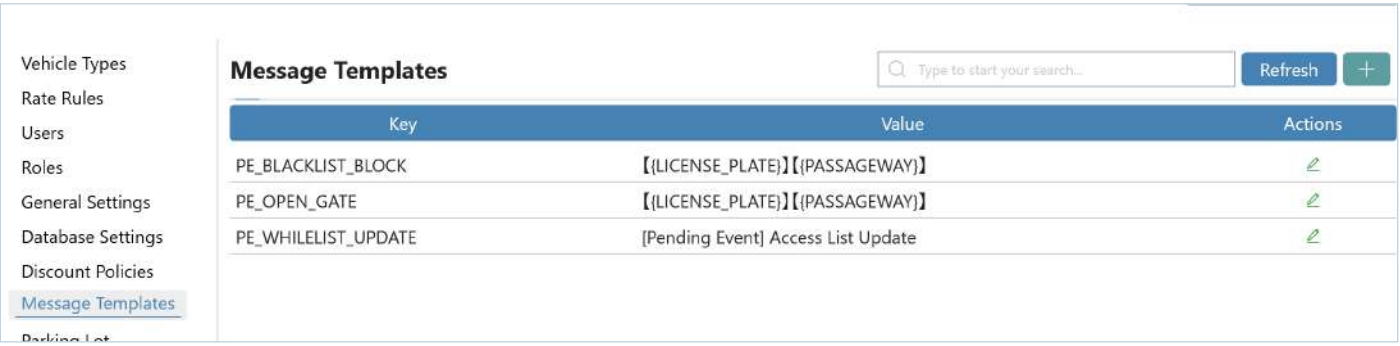


Figure 60. *Message Templates and the original placeholder fields. (Source screen S365; detail crop).*

Message Templates contains event/message text such as the captured PE_BLACKLIST_BLOCK, PE_OPEN_GATE and PE_WHITELIST_UPDATE keys. Edit only the intended text and preserve required placeholders such as **[{LICENSE_PLATE}]** and **[{PASSAGEWAY}]**. A message template changes a displayed message, not the hardware permission list or the physical event direction.

Parking Lot and Company Information

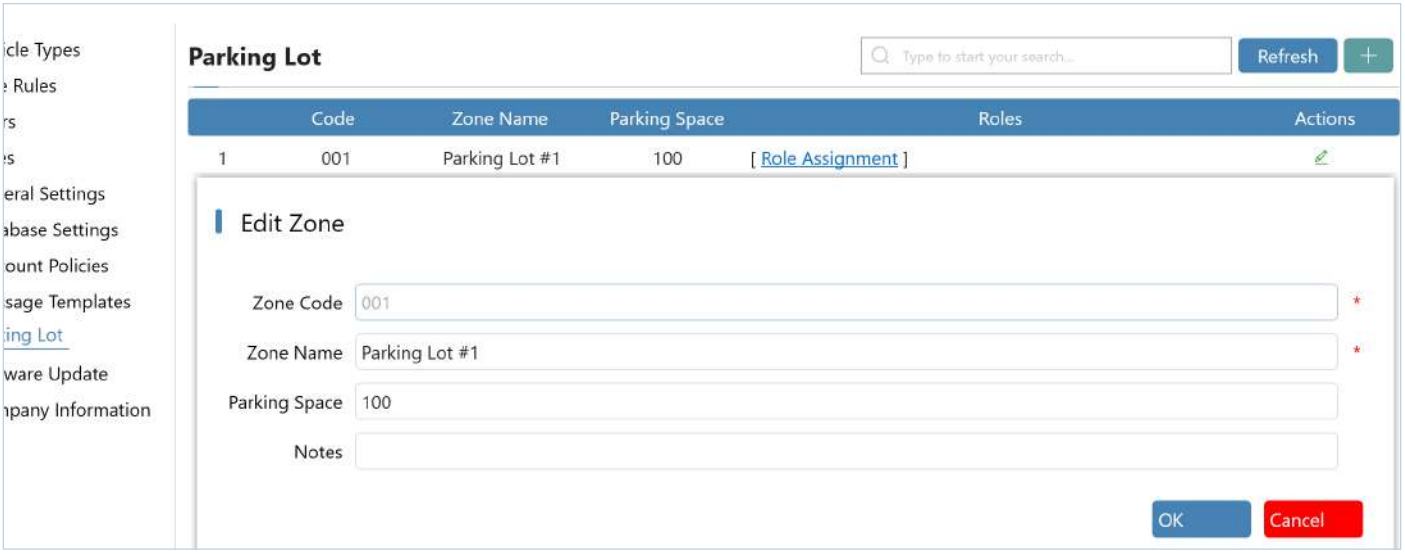


Figure 61. *Edit a zone's code, name, capacity and notes. (Source screen S366; detail crop).*

In **Parking Lot**, keep a unique zone code, a name operators recognize and the correct parking-space capacity. Review the Roles/Role Assignment area for zone access where used. A zone name is a site record, not the reader's hardware name.

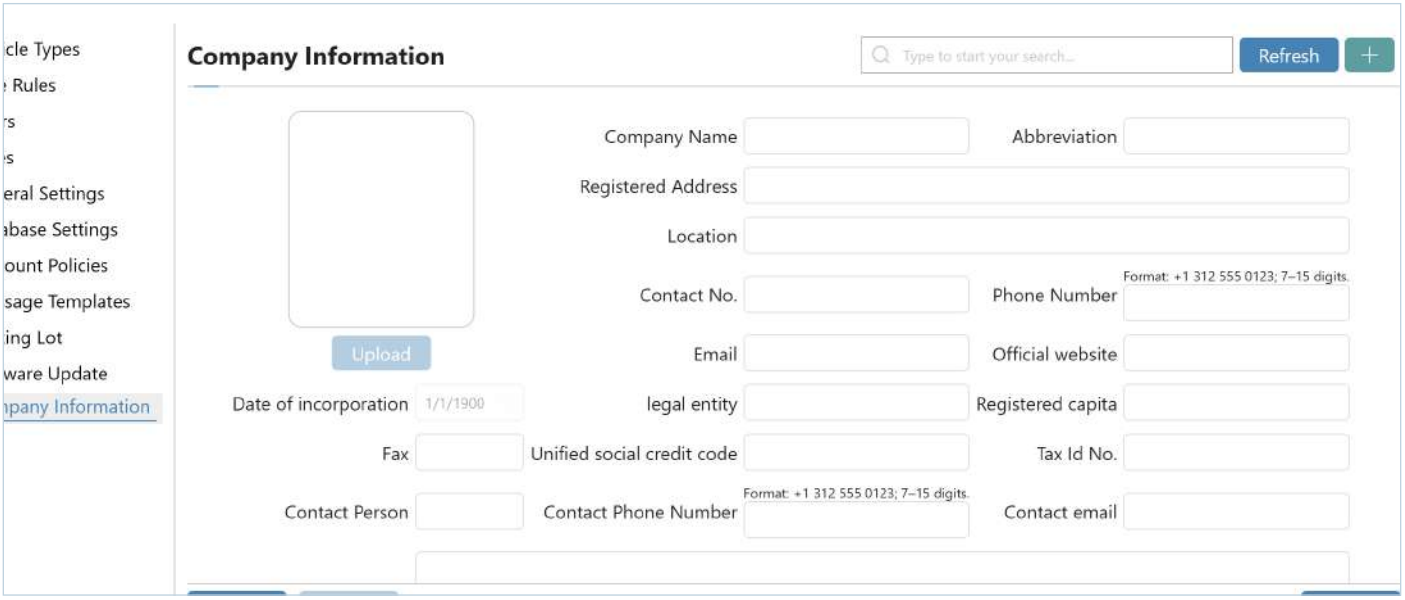


Figure 62. *Company Information stores the customer/site organization details. (Source screen S367; detail crop).*

Company Information is for the organization operating the installation. It is separate from the software developer identity shown in About. Fill only the fields required by your organization; Fresh USA, Inc. remains the software developer regardless of the customer's saved company name.

Updates, removal and preserving data

1. Before an update, make and verify a database backup. Record the current application version and keep the previous installer.
2. Close GatePilot, run the approved full universal EXE and let its recognized update procedure finish. Intermediate maintenance versions do not need to be installed in sequence.
3. Read the final result. A recognized update preserves current configuration and user language; it does not intentionally reset your database.
4. For ordinary updates, retain the existing installation rather than manually deleting its folders. If setup rejects an unknown modified version, send the setup report for review.
5. After the update, verify sign-in, both Windows services, each FA-900 connection, access-list status and a complete Entry/Exit test.

The inherited **Software Update** page can depend on an approved update distribution. Its presence is not a promise that this build silently downloads and installs maintenance versions. Use the complete package supplied by Fresh USA for the documented update path.

A deliberate clean start
If you intentionally remove the Windows software and create a new database, preserve any data you want first. The reader's retained access list is a separate memory store and can continue operating. Decide whether to inspect it or replace it with the new complete allowed list before returning the site to service.

Do not delete unknown SQLite files or edit connection strings as a routine uninstall step. New and older installations can use different working-data paths. The installer's preservation/result information and site backups are the appropriate starting points for recovery.

16 Optional paid features and Help

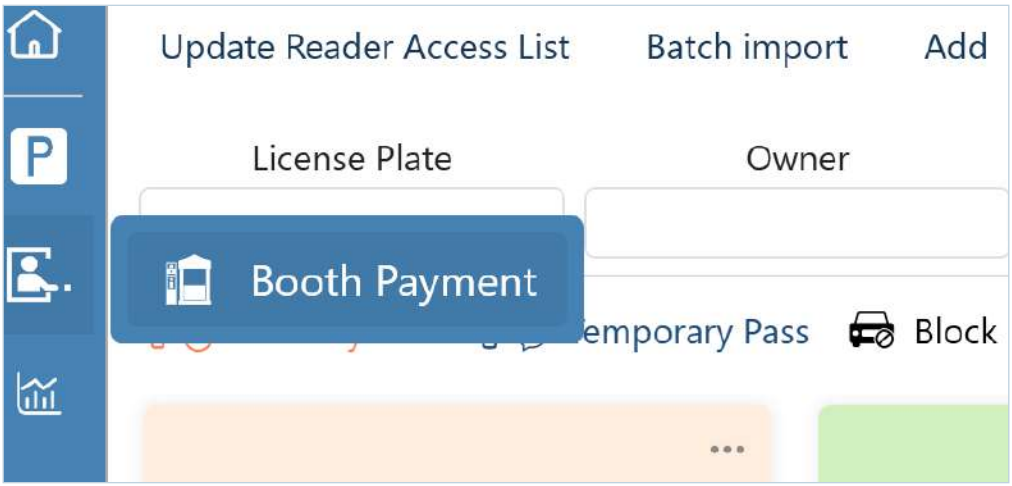


Figure 63. *Booth Payment remains visible in its original navigation position. (Source screen S347; detail crop).*

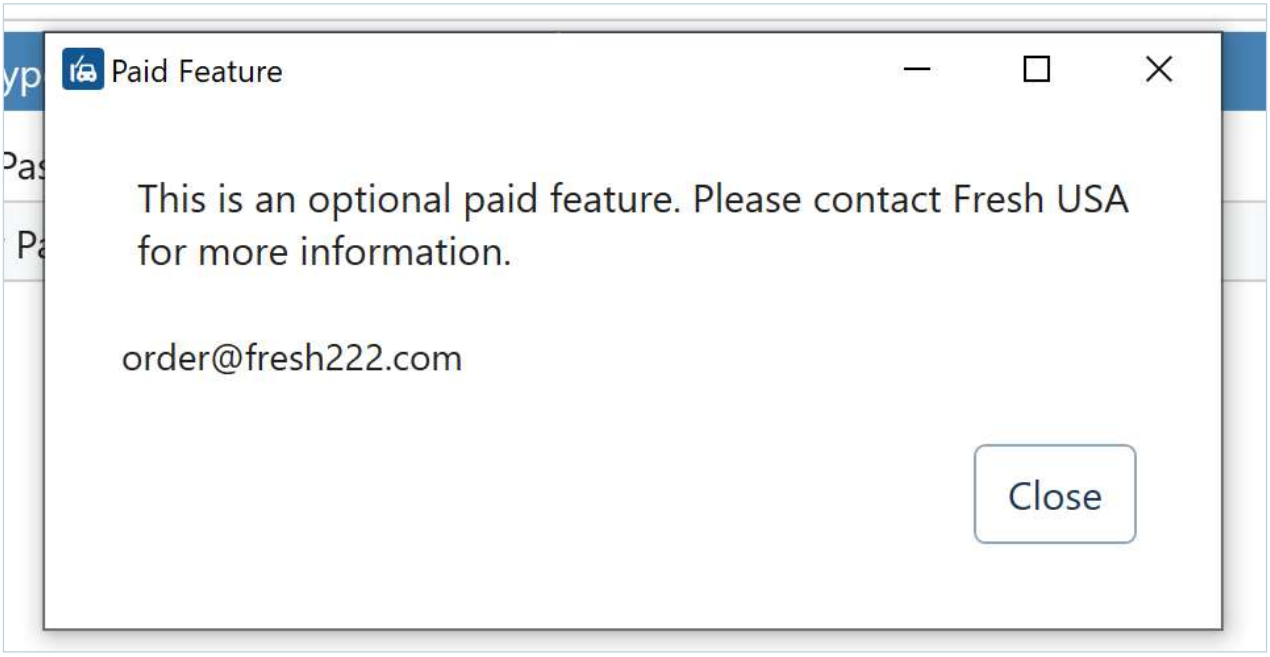


Figure 64. *The Paid Feature notice for a retained optional commercial module. (Source screen S357; detail crop).*

The retained **Cloud Service Settings**, **Booth Payment** and **Rate Rules** entry points show the common notice: **Paid Feature**. The message is: "This is an optional paid feature. Please contact Fresh USA for more information." Contact **order@fresh222.com**, or choose **Close**.

The ordinary local API status bar, reader-IP setup, access lists, diagnostic reports and basic GatePilot account sign-in are different from these commercial entry points. A local address labeled Cloud Service Address does not itself mean you must purchase a cloud subscription.

Temporary Pass, billing displays and Help

Temporary Pass is not a substitute name for a regular access card
In the supplied configuration, Temporary Pass has no automatic gate-opening linkage. The original payment workflow has additional entry/exit handling; merely uploading the tag or checking Allow Temporary Vehicles does not establish that workflow. Do not promise automatic Temporary Pass entry and exit in the access-only installation.

Today's Billing Summary, legacy amounts in Traffic Statistics and Discount Policies are inherited financial areas. They are not instructions to activate payment handling, and a blank financial area does not mean access events were erased.

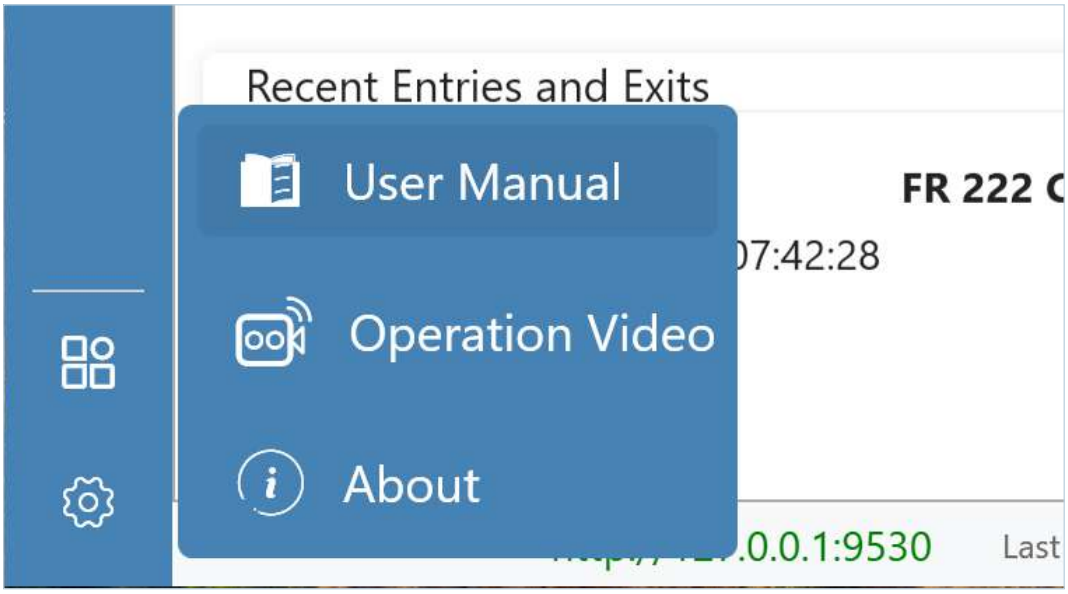


Figure 65. *Help provides User Manual, Operation Video and About. (Source screen S355; detail crop).*

1. Open **Help > User Manual** to reach the installed manual folder. The separately supplied PDF may be newer than the document already installed there.
2. Use **Operation Video** only when the appropriate content is available for your build.
3. Open **About** for Access GatePilot V4.0 and the developer: **Fresh USA, Inc.**, **order@fresh222.com**, **www.fresh222.com**.

17 Diagnostics and troubleshooting

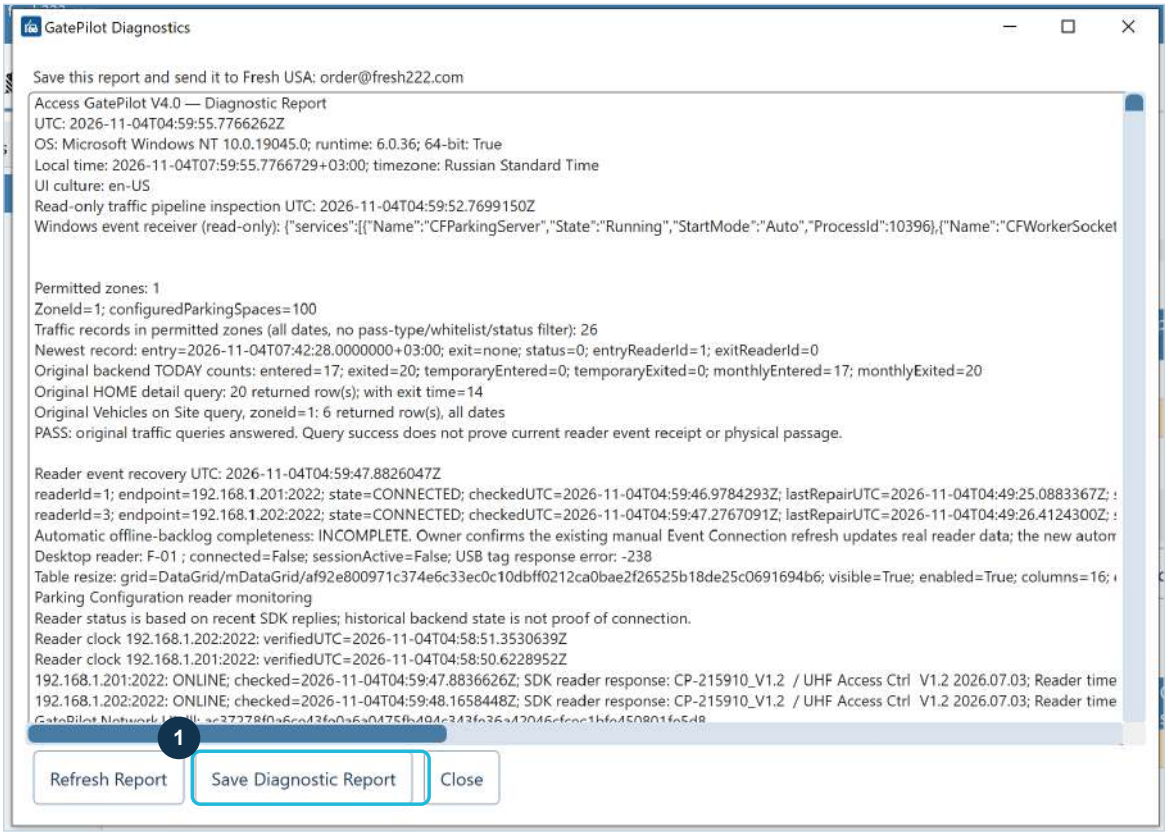


Figure 66. *Save a report from the diagnostic window. (Source screen S320; detail crop).*

1. For a specific reader, select its Device row and click **Diagnostics**. Test the selected reader or use Event Connection when that action is available.
2. For application-wide context, use **Save Diagnostic Report** on HOME or in System Settings. These reports include broader service, traffic-pipeline and application evidence.
3. Use **Refresh Report** to collect the current state.
4. Click **Save Diagnostic Report**, choose a location and retain the resulting **GatePilot-Diagnostics-YYYYMMDD-HHMMSS.txt**.
5. Send the file to **order@fresh222.com** with the action, expected result, actual result, reader name/IP and the exact local time of the test.

The local support log is **%LOCALAPPDATA%\FreshUSA\GatePilot\support.log**. Reports are not automatically emailed. Redaction removes common credential/identifier patterns, but review a report before sending it and do not attach Initial-Login.txt or passwords.

What diagnostics can and cannot prove

Evidence	What it establishes
Fresh RFID SDK answer	A compatible reader answered the management connection at the checked endpoint. It is stronger than a cached green indicator.
Reader network / Remote settings	The address settings and reporting destination returned by the SDK. They help distinguish wrong PC/gateway/port values.
Service and receiver inspection	The available Windows service and TCP receiver evidence. Inspection can be incomplete when the server is remote or access is restricted.
Traffic-pipeline snapshot	Original backend query results, daily counters and current on-site/detail evidence available to the signed-in user.
Access-list result / hash / MAC	A historical per-reader transfer/comparison result and its checked identity; it is not a permanent guarantee that neither side later changed.
Event-recovery status	Per-reader connection state, check time and repair attempt. A connected socket does not prove complete offline backlog delivery.
Relay acknowledgment	The reader accepted a command. It does not prove physical gate movement, vehicle passage or a saved traffic visit.

A useful event-recovery test report

1. Save a report before the test and note the tag/vehicle and computer time privately.
2. Make a known Entry, save a report, then make the corresponding Exit and save another report.
3. For a disconnect test, record the order of autonomous Entry/Exit operations while offline, reconnect, allow recovery and save a fresh report.
4. State whether each relay clicked and whether the barrier actually moved. Compare Traffic Statistics, HOME and Vehicles on Site separately.

Connection and missing-event problems

Symptom	Check in this order
No readers discovered	Power and link; unique initial addresses; correct Ethernet adapter; subnet/VLAN; known current IP/port; Connect / Identify Reader and Test Connection. An active IP result is not RFID proof.
Management connection works, HOME has no new events	Verify Remote enabled, reachable server PC address, event port 9532, receiver service and firewall. Use Update Reader Events. Confirm a new record rather than relying on the relay.
Exit relay operates but the vehicle remains on site	Verify Exit reader MAC/IP and Exit lane assignment; verify hardware event direction in diagnostics; restore the event channel; inspect the matching open visit and Exit time.
All Today counters are zero	Check the computer date/time, whether events belong to another day, user/zone permissions and channel state. Search Traffic Statistics over an appropriate period.
Events appear late after reconnecting	Allow both the event-channel procedure and the report refresh. Compare original event times and the full missing sequence. Save diagnostics if records remain missing or repeat.
Repeated physical Entry produces no new visit	An already-open visit can retain its first Entry under the original logic. Verify whether the earlier Exit was actually processed before expecting a new visit.
Reader looks online after a cable pull	A cached backend status or stale TCP Established flag is insufficient. Inspect fresh SDK/check timestamps and the recovery state; use a diagnostic report.

Do not fix an event-delivery issue by changing every RF, GPIO, password and list setting at once. Preserve the last working configuration and correct the identified connection/processing path.

Enrollment, access-list and interface problems

Symptom	Practical next action
RFID field will not accept another scan	If one code was already captured, use Clear RFID / Read again. For keyboard emulation, focus Vehicle ID (RFID) and require Enter or Tab.
F-01/F-02 stopped or COM unavailable	Verify model, cable and current Device Manager port. Refresh COM and reconnect deliberately. Close an external emulator that owns the same port.
Same tag is rejected as a duplicate	Locate the existing vehicle/access-list record. Edit the intended original registration; do not create another record using a case change or whitespace.
Reader target checkbox seems ineffective	Open the full update manager, tick the actual reader checkbox and inspect the selected-reader count. Ensure no transfer is currently running and do not confuse row highlighting with selection.
Save and Update Readers did not finish	Verify that the card itself saved. Select targets in the opened manager, confirm the full replacement and wait for each readback result.
Update is failed or unverified but some cards open	The device may have accepted some/all data without a verified final readback. Restore a complete verified snapshot; an audible relay is not a complete-list comparison.
Temporary card does not open either gate	Check the pass type and commissioned opening mode. The shown default has no automatic Temporary Pass linkage; it is not the Monthly Pass workflow.
Controls appear cut off	Maximize the window. Scroll inside the correct panel; check lower sections. Use Columns... for report widths. Save a screenshot with Windows resolution/scaling if a control remains inaccessible.
Search seems empty	Clear plate, owner, validity, type and list filters as applicable. Check the report mode/date range and permissions, then Search/Refresh. A screen filter does not define the full reader upload.

18 Commissioning, glossary and references

Commissioning record: one complete visit

Test	Expected observation / record
Network plan	All PC/router/reader addresses are unique; correct subnet, gateway, management ports and event destination are recorded.
Reader identity	Entry and Exit match the intended MAC/IP and lane. Reader time agrees with the approved computer time.
One Monthly Pass tag	Exactly one intended vehicle record holds the RFID. Plate and expiry are correct.
Full access update	Each intended reader reports matching readback for the complete application list.
Entry	Correct Entry relay/barrier behavior; a corresponding entry is visible in Traffic Statistics and Vehicles on Site after refresh.
Exit	Correct Exit relay/barrier behavior; matching visit gains Exit time and disappears from Vehicles on Site; HOME counters/details update.
Unknown / blocked / expired tag	No unintended gate opening under the commissioned configuration. Confirm the actual output behavior, not just the record color.
Manual gate open	Correct named gate responds; result is logged. Do not expect a selected-vehicle visit from the general HOME command.
Manual card Entry / Exit	Correct card, gate and reason; command and record outcomes are distinguishable.
Disconnect / reconnect	Autonomous behavior remains as commissioned. On reconnection, verify every expected event and its direction/time; check duplicates and on-site state.
Save and restart	Sign-in, language and saved table widths persist as expected; desktop reader connection state is checked again.

Perform this check before normal traffic and after a material configuration change. This guide describes procedures; it is not a certificate that every site, Windows/DPI combination or hardware recovery sequence has been tested.

Short operating checklist and glossary

At the start of a shift

1. Confirm the intended date/time, server availability and current event-channel state.

2. Check that Entry and Exit devices have the expected names and endpoints.

3. Review unresolved per-reader synchronization or event-recovery messages.

4. After editing access rights, complete the full reader update and inspect every target result.

5. Retain backups and save a diagnostic report when a discrepancy is first observed.

Term	Meaning in this manual
Vehicle ID (RFID) / EPC	The electronic tag identifier stored in GatePilot, not the vehicle manufacturer VIN.
Monthly Pass	The regular authorized-access category used in the commissioned access-only workflow; expiry is set by Valid Until.
Temporary Pass	A separate original workflow with different opening/payment handling; not an automatic synonym for a regular allowed card.
Access List / whitelist	The current allowed RFID set. Update Reader Access List replaces the complete set on selected devices.
Block List	Application records denied access; the prepared allowed list excludes the matching blocked identifier.
Station / Sentry Box	A configured grouping/operator station in the original parking hierarchy.
Lane / Passageway	The configured Entry or Exit path under a station.
Remote / Event Connection	Reader-to-server event delivery, normally TCP 9532 for this package.
Readback matched	The complete returned reader data matched the prepared snapshot at the stated verification time.
Got it / Settings	Legacy device-page labels meaning Read/Get and Write/Set respectively.

Technical basis, boundaries and further help

This edition was prepared from the supplied **GatePilot™ Screenshots.zip** (57 PNG captures), the saved V4.0.5 source snapshot ending at repository commit **1524b85**, installer/source behavior and the original supplier manual dated June 26, 2026. Obsolete r3.3 installation, blank-password and separate-server instructions were not carried forward.

The screenshots show the real V4.0 application header. Their captured values and some legacy captions are retained. Numbered outlines and detail crops are editorial annotations; no application controls were fabricated. The screen index below identifies every supplied capture, including near-duplicate views.

Boundaries that matter to operation

• Installer OS gates and source/layout checks are not acceptance results for every Windows release, display scale or hardware combination.

• The server/worker includes closed components. The full decision semantics of Entry Confirmation / Exit Confirmation are not established by the exposed client source. Keep commissioned values.

• Manual Event Connection updating real reader data was reported by the owner. Complete automatic recovery, original event times and duplicate handling still need site-level verification.

• Reading a reader access list does not reconstruct the full application database. Camera images, physical-bay sensing, external displays and payment workflows depend on their actual supported configuration.

• No physical reader command, application build, software audit or GitHub Actions run was performed to create this document.

Authoritative Windows references

Microsoft Support: Essential Network Settings and Tasks in Windows - Ethernet/IPv4 setup and verification.
Microsoft .NET Blog: .NET 6 end of support - lifecycle information for the preserved runtime. References checked November 4, 2026.

Contact the developer

Fresh USA, Inc.
Email: order@fresh222.com
Website: www.fresh222.com
Include the maintenance version, exact action, time, reader endpoint, saved diagnostic report and a clear screenshot.

Screen index: supplied views 310-340

Screen	Subject / use in this guide
S310	HOME dashboard, gate controls, event status and Update Reader Events.
S311	Language selector.
S312	Account/profile menu.
S314	Expanded main navigation.
S315	Parking zone / station / lane hierarchy.
S316	Entry device under the selected lane.
S317	Exit device under the selected lane.
S318	Network Device Manager discovery and confirmed readers.
S319	Hardware IP/port change, recovery and manual identification.
S320	Diagnostic report and save controls.
S321	Reader settings and Frequency.
S322	Antenna & RF Power.
S323	Reading Settings.
S324	GPIO and relay configuration.
S325	Advanced passwords, masks and protocol.
S326	Communication, network and Remote settings.
S327	Access List / GPI / GPO behavior.
S328	Reader time and opening methods.
S329	Display settings.
S330	Other settings and reader-profile maintenance.
S331	Vehicle owner list.
S332	Owner editor and nested vehicle table.
S333	F-01/F-02 enrollment selection.
S334	Add Vehicle and Vehicle ID (RFID).
S335	RFID input detail.
S336	RFID input detail, alternate view.
S337	Update Reader Access List in owner editor.
S338	Update Reader Access List in owner list.
S339	Full-list transfer tooltip.
S340	Reader targets and full-list preview.

Screen index: supplied views 341-367

Screen	Subject / use in this guide
S341	Matching readback result for both readers.
S342	Parking Management navigation to Access and Block Lists.
S343	Access/block list toolbar and cards.
S344	Cards with manual Entry/Exit actions.
S345	Card menu and search filters.
S346	Edit Vehicle.
S347	Booth Payment navigation.
S348	Traffic Statistics filters and export.
S349	Traffic duration and additional columns.
S350	Exception Report.
S351	Report navigation and exception result.
S352	Vehicles on Site overview.
S353	Parking capacity configuration.
S354	Selected on-site vehicle details.
S355	Help menu.
S356	Vehicle Types and Entry/Exit Confirmation.
S357	Paid Feature notice.
S358	Users.
S359	Roles.
S360	Protected-settings password prompt.
S361	General Settings.
S362	Additional general parameters.
S363	Database backup, restore and cleanup.
S364	Discount Policies.
S365	Message Templates.
S366	Parking Lot / zone editor.
S367	Customer Company Information.

The numbering follows the provided files; no S313 PNG was present. Some source views are near-duplicates and are shown as enlarged details rather than repeated full-screen pages.