TAGTOUGH ONLINE · HOW-TO GUIDE

Cloud Lock — opening doors from a phone

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Cloud Lock is a web page (`https://online.tagtough.co.za/cloudlock`) that shows the locks a person may use, what state each one is in, and buttons to unlock, open or close them. Like GuardSense, it can be installed on a phone so it behaves like an app.

The lock itself is wired to a **Stationary Guard** unit (unit type 33). The unit drives the lock's motor or relay, reads its sensors, and watches for doors left open or forced. The server keeps the setup, decides who may press what, and sends the unit its commands.

Written for whoever sets locks up for a customer and supports the people using them. The technical design (the message format, the unit's settings, the database tables) is in ../LOCKS.md; logins are in How to log in — by email or by Telegram.

Words used on these pages

Word	Means
Unit	The Stationary Guard the lock is wired to. One unit can drive one door or two locks.
Door (or **lock**)	What a person sees and operates on Cloud Lock. It has a name, sensors and buttons.
Sensor	An input on the unit that tells the state of something: the lock (*locked / unlocked*), the door (*open / closed*).
Button	An action the unit can carry out: *Unlock*, *Open*, *Close*.
Alert group	The group (normally the site) whose occurrence book (eOB) gets the door's alerts and events.

Who can use it

Any login can open Cloud Lock; what it shows depends on one of:

- being a **lock manager** — a Super User, or a role with both `manage_locks` and `default_lock_access` (Distributor, Advance Distributor). A lock manager can use every lock on units they can reach;
- or having been **given access** on the Locks page (below): to one lock, or to every lock in a profile or site, always or on a schedule. **The role doesn't matter** — a Guard given access to the front gate can open it. The access is the permission.

Anyone else sees *No locks are set up for you.*

Access is checked again on every button press, so removing access or leaving a schedule's hours takes effect straight away.

Setting up locks

Equipment → **Locks** (`/locks/manage`). The menu entry needs `manage_locks`; the page needs `default_lock_access` as well. It has four parts.

1. Units

A list of every Stationary Guard you can reach, with the groups it's in, and whether doors are set up on it (**n doors** in green, **no doors set up** in amber). Use it to spot a unit that was installed but never finished. A unit that isn't here isn't in your tree; link it first (Groups → *Device to group link*).

2. Add doors to a unit

At the bottom of *Doors and alerts*. Fill in:

Field	
Unit	A unit that has no doors yet.
What is connected	One of three wiring layouts (below).
Door name	What people will see, e.g. *Front gate*. Letters, digits, spaces, `-` and `_`.
Second door	Only for *Two separate locks*.
Alerts go to	Optional. The group whose eOB gets this door's alerts. Left empty, it is the site or asset the unit is linked to (the profile if that's all it has).

Press **Add and send to the unit**. The doors are made and their settings are sent to the unit straight away.

The three layouts:

Layout	Sensors	Buttons	Alerts it starts with
A lock with a sensor and an unlock button	lock (*locked/unlocked*)	**Unlock** — pulses the lock for 5 s, stops as soon as it reads *unlocked*; only when it is *locked*	alert and repeat after 10 min unlocked
A door with a lock	lock; door (*open/closed*)	**Unlock** (as above); **Open** — runs the door motor until *open*, only when *unlocked*; **Close** — until *closed*, only when *open*	lock: 10 min unlocked. Door: warn after 1 min open, alert and repeat after 5 min, and a forced-entry alert
Two separate locks	one lock sensor each	one **Unlock** each	as the first, for each

To change the layout later, **Remove doors** and add them again.

3. Doors and alerts

One box per unit that has doors. Along the top:

Item	Means
Firmware v2 (green) / **Alerts need firmware v2** (amber)	Only a unit whose firmware announces protocol 2 can raise *open too long*, *unlocked too long* and *forced* alerts. Older units still lock and unlock.
In sync / **Not in sync** / **Not reported yet**	Whether the settings the unit reports match what's set here. *Not in sync* usually means the unit is offline or hasn't received them yet.
Send settings again	Sends whatever differs from what was last sent. Use it after a unit has been offline or replaced.
Remove doors	Deletes this unit's doors, and everyone's access to them, and clears them on the unit. It asks first.

Then a row per door: its sensors with their current state, a summary of its alerts, and **Edit**, which opens:

Field	
Name	The door's name.
Switched off (nobody can use it)	Hides the door from Cloud Lock for everyone, managers included, without losing its setup.
Watch for (per sensor)	The state that is a problem — e.g. *unlocked* or *open* — or *Nothing*.
Warn after / Alert after / Repeat every (minutes)	How long the sensor may stay in that state before an amber warning, then a red alert, then the alert again every so often. 0 turns one off.
Alert when it changes with nobody having used the lock	A forced-entry alert: the sensor went into that state without a command.

Save and send to the unit stores it and sends the changed settings. The times are counted by the unit itself, so alerts still happen if it loses its connection (they reach the server when it's back).

4. Who can use locks

The list of access given, with **Remove** on each.

Give someone access: choose the **Person** (logins you manage), **To** — *One lock* or *Every lock in a profile or site* (which also covers locks added there later) — and **When**: *Always* or a schedule. Press **Give access**.

There's no need to give lock managers access; they already have every lock they can reach. A guard given access uses the lock from Cloud Lock (install it next to GuardSense on their phone); GuardSense itself has no lock buttons.

5. Schedules

Named time windows for access, e.g. *Office hours*, Mon–Fri 08:00–17:00. **New schedule**: a name, **From**, **Until** and the days. The times are the **unit's** local time. An end earlier than the start runs overnight (22:00–06:00 on a Monday means Monday 22:00 to Tuesday 06:00). A schedule in use can't be removed; remove or change the access using it first.

Getting alerts by email or Telegram

Door alerts are eOB entries on the door's alert group, so they appear on the live eOB screens and can be sent like any eOB entry: **Notifications**, an eOB notification (trigger *eOB entries*) for that group or the profile above it. See Shifts and notifications. What gets written:

When	eOB entry	Colour
Warn time reached	*Warning: Front gate - door has been open for 1 minutes*	amber
Alert time reached (and every repeat)	*ALERT: Front gate - door has been open for 5 minutes* — a repeat while the last alert is still unacknowledged doesn't add another entry	red, needs acknowledging
Forced	*ALERT: Front gate was forced - door open without a command*	red, needs acknowledging
Back to normal after an alert	*Front gate - door is closed again after 7 minutes*	green, already acknowledged

Every lock or door state change the unit reports is also written to the eOB of the groups the unit is in.

Using Cloud Lock

People reach it from the sidebar (**Cloudlock**), from `/cloudlock`, or from the installed app.

Item	What it does
☰ (top left)	Back to the main site. Not shown to the *No Access* role.
Cloud Lock v1.2	The page's name and version.
⬇ (top right)	Install as an app (below). Only appears when the browser offers it.
Lock name	The lock shown now.
◀ ▶	The previous / next lock. On a phone, **swipe** left or right instead. It wraps around. The page reopens on the lock last looked at.
Sensor lines	Each sensor and its state, e.g. *door: closed*. **Green** — fine; **red** — in the state being watched for; **grey** — *unknown*, nothing reported yet. Hold or hover for *since …*, when it last changed. A badge shows an active **warning**, **ALERT** or **FORCED**.
Buttons	*Unlock*, *Open*, *Close* — whatever the door has. A **grey** button can't be pressed now; hold or hover to see why, e.g. *needs locked (it is unlocked)*.
Message under the buttons	What happened to the last command, and who pressed it (below). Red when it failed.
Recent activity	The last 10 events: commands with their outcome and who pressed them, and the door's alerts (*System*). Times are in your own timezone.

What happens when a button is pressed

1. The server checks you still have access (and the schedule allows it now) and that the door is in the right state, then sends the command. The message reads **Unlock by Anna: sending…**
2. When the unit has received it: **sent to the lock…**
3. When the unit reports back: **done**, or **did not work** with its reason (e.g. the lock didn't move).
4. A command the unit hasn't carried out within **30 seconds** is dropped — **was not carried out in time** — so a lock never opens minutes later when nobody is there. The unit is probably offline; try again once it's back.

While a command is on its way the page checks every 2 seconds. Otherwise it refreshes by itself whenever the lock reports a change.

If there are no locks for you, the page says **No locks are set up for you. Ask an administrator to give you access.**

Installing it as an app

Installed, it opens full screen with its own icon, named **Cloud Lock**, and starts on the lock page.

Android (Chrome):

1. Open `https://online.tagtough.co.za/cloudlock` in Chrome and log in.
2. Tap the ⬇ at the top right, then **Install**. If it isn't there, use Chrome's menu (⋮) → **Install app** or **Add to Home screen**. Once installed the ⬇ doesn't show again.

iPhone (Safari):

1. Open the page in **Safari** and log in.
2. Tap **Share** → **Add to Home Screen** → **Add**. (The ⬇ never appears on an iPhone.)

> **iPhone: log in with the code.** A Home Screen app keeps its own login, separate from Safari, and a login link opens in Safari. In the app, ask for a login and type the **code** from the email or Telegram message into **Or type your login code** — see How to log in — by email or by Telegram. Use only the app on that phone afterwards: Safari and the app count as two places, and most roles may be logged in in only one.

Someone who has both GuardSense and Cloud Lock installed on an iPhone has two separate apps with separate logins — the same rule applies; for them, only one can stay logged in unless their role allows multiple logins.

When something doesn't work

1. **No Cloudlock in the sidebar** — the link shows only when there's a lock the person may use right now: access given (and inside its schedule), the door not switched off.

2. **"No locks are set up for you"** — no access given, or the access has a schedule that's outside its hours now, or the door is *Switched off*, or the unit isn't in your tree. Check *Who can use locks*.
3. **A button is grey** — the door isn't in the state the button needs (hover to see). If the sensor shows *unknown*, the unit hasn't reported yet; the button still works and the unit checks for itself.
4. **"was not carried out in time"** — the unit didn't pick the command up in 30 seconds. Check the unit is online (Equipment → Devices).
5. **"did not work (...)"** — the unit tried and reported failure, e.g. the lock didn't reach *unlocked* in time. A wiring or mechanical problem at the door.
6. **Doors and alerts shows Not in sync** — press **Send settings again**; if it stays, the unit is offline.
7. **No alerts** — the unit needs firmware v2 (the badge says so), and *Watch for* must be set with a time. For emails or Telegram, an eOB notification must exist for the alert group.
8. **A unit's doors vanished from both pages, but the lock still works** — its door rows were lost from the database while the unit kept its settings. `tools/migrate_lock_doors_from_settings.py` rebuilds them from what the unit holds (dry run by default, `--apply` to write; it sends nothing to the unit). It isn't in the deploy; run it on a machine with the database.
9. **"This page is out of date. Reload it and try again."** — the page was open from before the last login (its security token no longer matches). Reload it. The Locks page says *That page was out of date* for the same reason.