B-PASS | Release Notes

Secure streaming access panel

www.bettear.com

Software version 2.10 · supersedes 2.2.8 · October 2026



Summary

This release combines version 2.8.9, which was not published separately, with the new features of 2.10. It adds **calendar-driven passkeys** — a new passkey generated automatically as each meeting begins, synced directly with the room's calendar — together with **Wi-Fi internet access**, **online software updates**, multi-channel stream selection with language identification, CASTER reachability status, an on-screen tap confirmation and **adjustable screen brightness**. The panel now runs cooler, the Settings panel is reorganised into eight tabs, and a number of faults are fixed.

01 | RELEASE AT A GLANCE

Version	2.10.66 (build 141) — a maintenance update to 2.10.65 that makes phone taps work with Auracast™ tap-to-listen (see *Fixes*)
Supersedes	2.2.8 — the last published version. Includes 2.8.9, which was not published.
Package	bpass.apk
Update method	USB flash drive, root folder. From 2.10 onwards, also online: Settings › Application › Check for updates. Panels on 2.2.8 must take this release from USB.
Configuration	Preserved — CASTER addresses, Admin Tags, security, network and branding are retained. The former *Enable Security Control* setting carries over to *Enable Admin Tag*, so the panel keeps doing exactly what it did.
Downgrade	Not supported; the updater installs only a higher version
Reboot required	No — the application restarts itself

Items new in 2.10 are marked 2.10; items first built for 2.8.9 are marked 2.8.9. Both are new to anyone updating from 2.2.8. The fix added in 2.10.66 is marked 2.10.66.

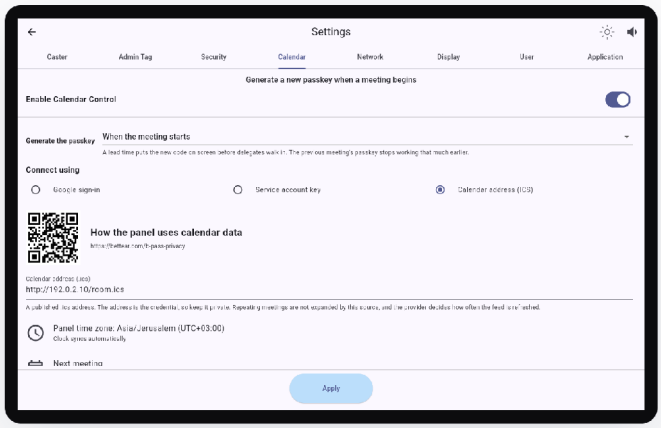
What's in this release

FEATURE	VERSION
Calendar-driven passkeys — Google sign-in, service account, published .ics	2.10
Wi-Fi internet access, independent of the CASTER control network	2.10
One switch per passkey trigger — Admin Tag and Calendar	2.10
Online software update — check, download and install from Settings	2.10
Display tab; Date & time on the Application tab	2.10
Status icons — Wi-Fi state and calendar warnings	2.10
Breathing QR and NFC dials; NFC dial repositioned	2.10
Multi-channel stream selection with language identification	2.8.9
CASTER reachability status and in-place address editing	2.8.9
Screen brightness control in the settings header; cooler-running defaults	2.10
On-screen tap confirmation and volume control	2.8.9

02 | NEW FEATURES

Calendar-driven passkeys 2.10

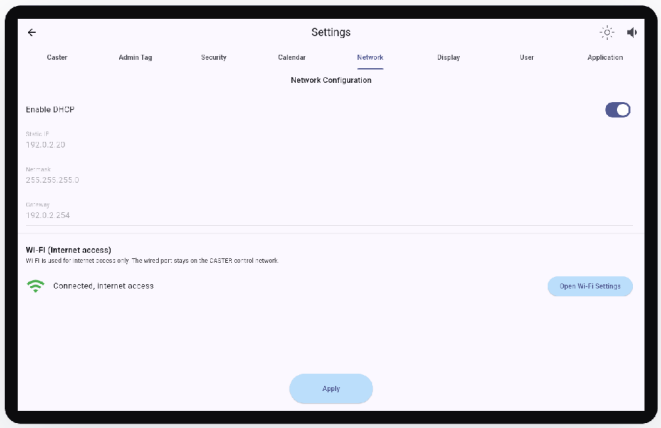
The panel connects directly to the room's calendar and generates a new passkey as each meeting begins, so only the listeners authorized for the meeting in progress can join. No Bettear server, gateway or extra software is involved.



- Three connection routes: **Google sign-in** (device approval from the administrator's phone), **service account key** (imported from USB) and **calendar address (ICS)** — Microsoft 365, iCloud and any publishing calendar.
- On time: the calendar is read every five minutes and a timer is armed for the exact start of the next meeting.
- **Generate the passkey** lead time: at the start, or 2–60 minutes before.
- A meeting created at short notice — first seen after it began — still rotates the passkey.
- Read-only; nothing from the calendar is stored. Privacy statement available by QR code on the Calendar tab (administrators only).
- Shows the panel time zone and the next meeting it will act on.

Setup per route is described in the **B-PASS Calendar-Driven Passkeys Guide**, available from the B-PASS page at www.bettear.com/products/b-pass.

Wi-Fi internet access 2.10



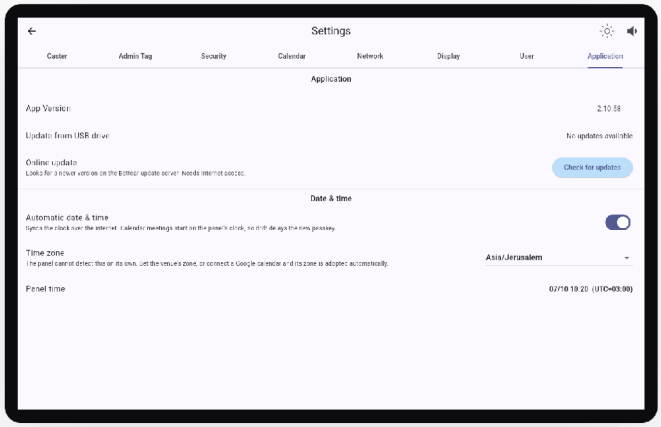
- **Open Wi-Fi Settings** on the Network tab joins a network without leaving kiosk mode.
- The wired port stays on the CASTER control network; internet traffic leaves over Wi-Fi. Neither has to be switched off for the other, and the two are never bridged.
- Where the wired network itself routes to the internet, calendar control works over it and Wi-Fi can stay off.
- The status line distinguishes *connected* from *connected with internet access*.

One switch per passkey trigger 2.10

The single *Enable Security Control* switch is replaced by one switch per trigger, on the tab where that trigger is configured: **Enable Admin Tag** and **Enable Calendar Control**. A venue can run the calendar for its timetable and keep a tag for unscheduled changes — or either alone. The Security tab now holds only the passkey rules (length and character type), which apply to every passkey whichever trigger generates it.

Display tab and Date & time 2.10

- New **Display** tab — "What visitors see on the panel" — holds **Display QR** (moved from Security) and **Branding** (moved from Application).
- **Date & time** on the Application tab: automatic clock sync, a time-zone picker and the panel's current time. Connecting a Google calendar adopts that calendar's zone.



Status icons 2.10

- A Wi-Fi icon at the top left while Wi-Fi is on — connected, or on but not connected. No icon when Wi-Fi is off.
- New warnings: *Calendar control is on but the panel has no internet access* and *Calendar could not be read*. Tap the warning triangle to see them.



Visitor screen 2.10

- Soft rings breathe outward from the QR and NFC dials to draw the eye; the animation pauses while Settings is open.
- The NFC dial sits lower on the screen, with the headings adjusted to match. Background templates are updated accordingly (**B-PASS Background Templates 2.10**).

Multi-channel stream selection 2.8.9

When the connected CASTERs broadcast more than one stream, the visitor screen presents a stream list. The end user selects the stream they need — typically their own language — before joining.



- Selecting a channel updates both the QR payload and the RTX write target.
- Six rows are visible; the list scrolls beyond six.
- Rows are sorted alphabetically by the label displayed on the button.
- Identical streams reported by more than one CASTER are merged into one row.
- A single stream keeps the single-stream layout, with no list.
- A label too long for its button scrolls on the selected button, fading at the edges.

Language identification 2.8.9

Where a CASTER reports a language for a stream, the channel button shows the corresponding flag.

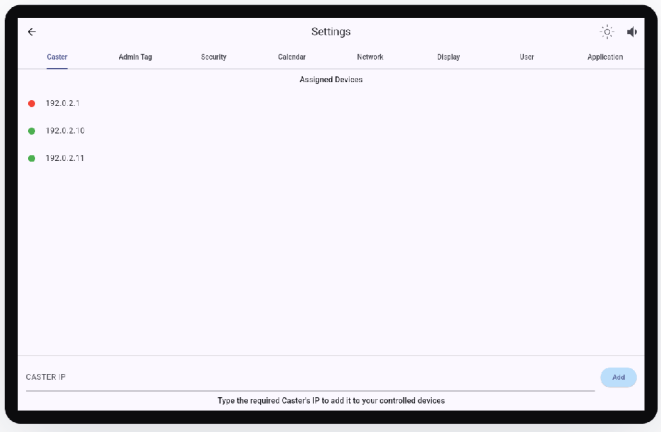
CASTER REPORTS	BUTTON DISPLAYS
Programme name	Programme name, plus the flag if a language is also reported
Language only	Language in its native script, English name in brackets, plus the flag
Neither	CASTER broadcast name

36 languages are recognised, covering Latin, Greek, Cyrillic, Hebrew, Arabic, Devanagari, Bengali, Thai and CJK scripts. Both ISO 639-2/T and /B codes are accepted; ISO 639-3 codes cmn and yue distinguish Mandarin from Cantonese. An unrecognised code is displayed as the raw three-letter code.

CASTER reachability status 2.8.9

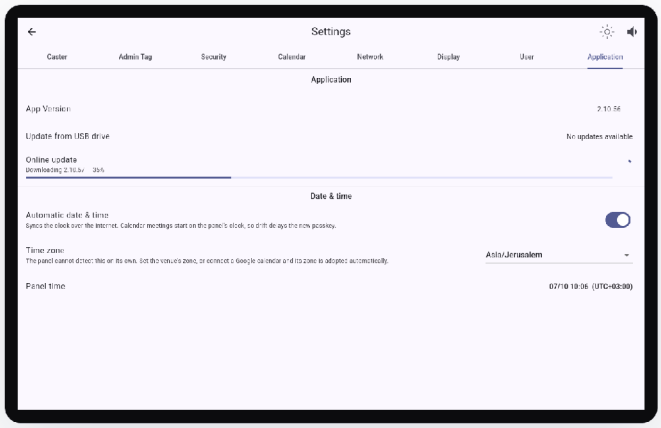
Settings › Caster reports the state of each assigned device: **green** responded, **red** no response, **grey** not yet checked.

Select a device and tap the pencil icon to change its IP address in place; tap **Update** to apply or **Cancel** to discard.



Online software update 2.10

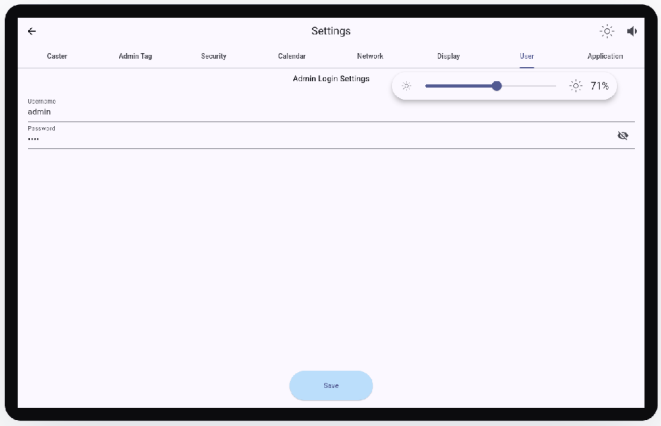
With internet access, the panel updates itself from the Bettear update server — no USB drive, no site visit.



- **Check for updates** on the Application tab reads what the server offers; **Download and install** fetches it with a progress bar and installs it. The application restarts by itself.
- Every download is checked against the published size and SHA-256 checksum, and must be the B-PASS application, signed with Bettear's key and newer than the version installed. Anything else is discarded.
- Outbound HTTPS to bettear-updates.web.app only. The USB update path is unchanged.
- Wi-Fi power saving is held off for the length of a download, so it runs at full speed.

Screen brightness 2.10

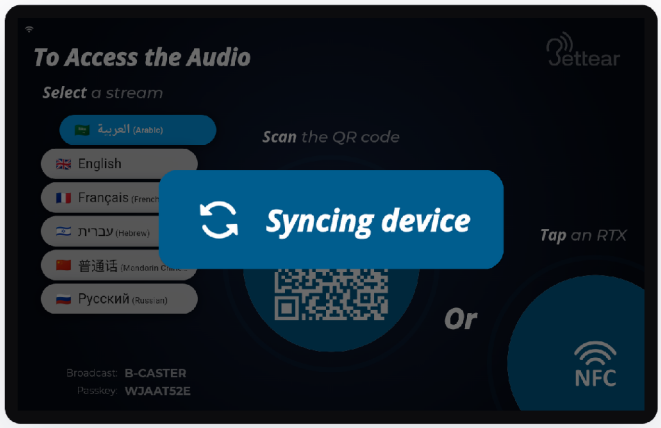
A sun icon beside the volume icon in the settings header opens a brightness slider, the same way volume works.



- 100% on the slider is the brightest level the panel is designed to run at continuously; full backlight is no longer used.
- New panels, and panels updating to this version, start at 71% on the slider, which suits most indoor rooms. The level survives restarts and power cycles.

On-screen tap confirmation and volume 2.8.9

A **Syncing device** message and a beep confirm a completed transfer — a B-RTX that has been written to, or a phone that has read the panel over NFC — not merely contact with the reader.



- Shown for about two seconds, then fades; a further tap restarts it.
- The visitor screen remains visible behind the message.
- A volume slider in the settings header sets the confirmation-tone level.

The B-PASS has no built-in speaker. Connect headphones or a powered speaker to the 3.5 mm jack for the tone to be audible; the on-screen message is shown regardless.

03 | FIXES

ISSUE	RESOLUTION
Phones did not join the stream when tapped on the panel 2.10.66	The panel handed the stream details to a tapping phone as plain text. It now presents them as the standard Broadcast Audio URI defined by the Bluetooth SIG, in an NFC URI record, so phones with Auracast™ tap-to-listen join the selected stream directly, encrypted streams included.
Memory use grew during long operation 2.10	The graphics renderer leaked memory while anything on screen animated. The panel now uses a renderer that holds memory flat over days of operation.
High processor load from the visitor-screen animation 2.10	The animation is redrawn far more efficiently, at a lower frame rate with the same look, and stops entirely while Settings is open. Together with the lower default brightness, the panel runs noticeably cooler.
Clock drift and slow name resolution on a static wired address 2.10	An incorrect DNS server was handed out with static addressing; lookups stalled until they timed out, which also kept the clock from synchronising. Corrected to 8.8.8.8 / 8.8.4.4.
Time zone could not be changed 2.10	The automatic time-zone setting silently blocked manual changes on this hardware, which has no cellular network to derive a zone from. It is now cleared before a zone is set, and a refusal is reported.
An offline CASTER delayed passkey changes 2.10	Sending the new passkey to an unreachable CASTER could take about 75 seconds to give up, delaying every CASTER behind it. Bounded at 10 seconds.
Replacing a background image had no visible effect 2.10	The previous image stayed on screen until the application restarted. A new image now appears immediately.
Calendar switch stayed greyed out after typing a calendar address 2.10	The switch now becomes available as soon as an address is entered.
Re-selecting a long channel name showed an error box 2.10	Corrected; the scrolling label restarts from the beginning each time it is selected.
Application restarted when a USB drive was removed 2.8.9	The update check held the candidate file open on the drive, and Android terminates processes holding files on a volume being unmounted. The candidate is now copied to internal storage before it is examined.
Update could fail if the drive was removed during installation 2.8.9	The update is installed from the internal copy.
USB drives not detected 2.8.9	A device policy prevented USB volumes from mounting, which also blocked software updates and image imports.
Kiosk mode could terminate the application 2.8.9	Toggling kiosk mode could cause a crash; the crash handler suppressed the cause. Both corrected.
Maintenance (ADB) state reported incorrectly 2.8.9	The switch reported the last value set rather than the actual state. It now reports the actual state and remains active until switched off or the panel is rebooted.
Update rejected after a signing-key change 2.8.9	The signature comparison was applied in the wrong direction and rejected valid updates.
Channel list ordering and label alignment 2.8.9	Rows are ordered by the displayed label; labels are vertically centred, and the language gloss is on one line.

04 | CHANGES AND KNOWN LIMITATIONS

Changes

- Settings has eight tabs: Caster · Admin Tag · Security · Calendar · Network · Display · User · Application.
- Network tab: the disabled SSID / passphrase form is replaced by **Open Wi-Fi Settings** and a live status line.
- **Display QR** moved from Security to Display; **Branding** moved from Application to Display.
- *Enable Security Control* replaced by **Enable Admin Tag** (Admin Tag tab) and **Enable Calendar Control** (Calendar tab). The previous setting carries over to Enable Admin Tag.
- Settings › Caster: the field previously labelled *B-CASTER IP* is now *CASTER IP*.
- Application tab: the USB row is now **Update from USB drive**, beside the new **Online update**.
- Custom backgrounds are set on the new Display tab; the image browser opens on the USB drive, and a replaced image now appears immediately. Background design templates are remeasured for 2.10.
- Custom backgrounds can be created online with the free **B-PASS Background Designer** (www.bettear.com/b-pass-background): place the image, preview it under the panel's controls and download both PNGs ready to import. The **B-PASS Custom Backgrounds Guide** covers the process step by step.
- The visitor screen is restyled: circular QR dial, revised background and headings; NFC dial repositioned.

Known limitations

- Calendar addresses (ICS) do not expand repeating meetings, and the provider decides how often the feed refreshes. Prefer a Google route for recurring timetables.
- Wi-Fi networks behind a captive portal, and explicit HTTP proxies, are not supported.
- The time zone must be set once in Settings › Application unless a Google calendar is connected.
- Online update needs internet access, and is available only on panels already running 2.10 or later.
- A phone tap is occasionally missed at the first attempt, because the panel also scans for RTX receivers at the same time. Hold the phone in place a moment longer, or tap again.
- No built-in speaker — see *On-screen tap confirmation and volume*.
- Downgrade to an earlier version is not supported through the USB updater.

> Backgrounds designed for earlier versions should be checked against the 2.10 templates: the NFC dial now sits lower, and both dials animate.

05 | INSTALLATION

1. Download bpass.apk for version 2.10.66 from www.bettear.com.
2. Copy it to the root folder of a USB flash drive. The filename must remain **bpass.apk**.
3. Insert the drive into a USB-A port on the B-PASS.
4. On the visitor screen, tap the NFC circle six times and sign in. Default credentials: Username **admin**, Password **4308**, unless changed during commissioning.
5. Go to **Settings › Application** and tap **Update**. The application restarts automatically.

Panels already running 2.10 can update over the internet instead: **Settings › Application › Check for updates**, then **Download and install**.

Post-installation checks

1. Settings › Application reports App Version 2.10.66, and the time zone is correct.
2. Settings › Caster shows green for every assigned device.
3. Where calendar control is used: Settings › Network reads *Connected, internet access*, and Settings › Calendar names the expected next meeting.
4. If a custom background is in use, confirm it is applied to the layout in service.