



THE DARK PORTAL

DISPLAY DEVICE

User Setup & Configuration Manual

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v1.0



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1 What's in the Box

- **The Dark Portal Display** — 3D-printed enclosure with a 3.5-inch 320×480 colour LCD

IMPORTANT

Power the device with any standard **5V USB-C** charger or computer USB port, via the USB-C connector on the back of the enclosure.

2 Device Overview

The Dark Portal is a self-contained ambient display that joins your home **2.4 GHz** Wi-Fi and shows one of four visual modes on its LCD. All settings are managed through a built-in web page on a phone or computer — no app required. Once configured, the device remembers Wi-Fi and settings through power cycles.

DARK PORTAL

Looping Dark Portal animation fills the entire screen. Default ambient mode.

PHOTO FRAME

Your photos — local uploads or a public shared album — cycling on a timer you set.

AZEROTH CLOCK

Gold 7-segment clock, a WoW creature GIF, compact character stats; portal on a timer.

CHARACTER SHEET

Creature GIF plus Raider.IO sheet: class, iLvl, M+, guild, raid, and a clock.

Four display modes, chosen in the web UI.

C NOTE

This radio is **2.4 GHz only**. A 5 GHz-only network name will not join. Use a 2.4 GHz SSID, or the 2.4 GHz side of a dual-band router.

3 First-Time Setup

When powered on for the first time (or after a Wi-Fi reset), the Dark Portal creates its own temporary Wi-Fi hotspot so you can configure it.

Hotspot name	Dark-Portal-Setup
Password	none (open network — no lock icon)
Config page	http://192.168.4.1

3.1 Connecting from iPhone (iOS)

- **Open Settings → Wi-Fi.** Wait a few seconds for networks to populate.
- Select **Dark-Portal-Setup**. It appears without a lock icon.
- Dismiss the “No Internet” alert. Tap **Stay Connected** or **Use Without Internet**.
- Open Safari and go to <http://192.168.4.1>

C TIP

iOS often drops open networks that have no internet. Stay on Dark-Portal-Setup until you have tapped **SAVE & RESTART**.

3.2 Connecting from Android

- **Open Settings → Network & Internet → Wi-Fi** (some phones: Connections → Wi-Fi).
- Tap **Dark-Portal-Setup** (open network) → Connect.
- When Android says “Connected, no internet,” choose **Yes / Use this network as-is**.
- Open Chrome and go to <http://192.168.4.1>

TIP

After **SAVE & RESTART** the device reboots onto your home Wi-Fi. Rejoin your normal network, then finish setup at `http://Dark-Portal-xxx.local` — the unique hostname is shown in the config page header.

4 Web Configuration Interface

Open a browser to `http://192.168.4.1` (first-time setup) or `http://Dark-Portal-xxx.local` (after Wi-Fi is configured). The page is divided into cards. Changing **Display Mode** reveals extra cards for Photo Frame, Azeroth Clock, or Character Sheet. Firmware version is printed in the header.

4.1 Mode Selection

Dark Portal	Full-screen looping Dark Portal animation.
Photo Frame	Local photos and/or a public shared album.
Azeroth Clock	Gold 7-segment clock, creature GIF, compact WoW stats; portal on a timer.
Character Sheet	Creature GIF + Raider.IO sheet (class, iLvl, M+, guild, raid) and a clock.

4.2 Wi-Fi Setup

SSID: type your 2.4 GHz network name, or tap **SCAN** and pick from the list. **Password:** enter the Wi-Fi password, or leave blank to keep the one already saved.

PRIVACY

Credentials are stored in on-device flash (NVS) and are never shown on the page.

4.3 Time & Timezone

Once on Wi-Fi the device syncs time via NTP. Pick a timezone from the list, or Custom (POSIX). **AUTO-DETECT FROM IP** estimates timezone and lat/long from your public IP; location is used for sunrise/sunset auto-dim.

4.4 Display & Auto-Dim

Brightness (10–100%) updates the backlight live. When auto-dim is checked, the device switches to daytime brightness at sunrise and night brightness at sunset (defaults 80% / 25%). You can override either calculated time.

NOTE

Auto-dim needs a timezone and location. Use **AUTO-DETECT FROM IP** first.

4.5 Photo Frame

Visible when Mode is Photo Frame. Source is **Local images** or a **Gallery URL**.

Local: drop JPEG / PNG / WebP onto the page. Photos are resized to a 320×480 cover-crop. About 1 MB is reserved. Each photo shows for the slideshow interval (default 30 s). After the last local photo, the portal animation plays twice.

Gallery URL: a *public* shared-album link (anyone-with-the-link). Google Photos, iCloud Shared Album, a JSON list, one URL per line, or a single JPEG. Images are fetched at 320×480. **Test gallery** resolves the album before you save. Local files are kept if you switch to a gallery URL.

TIP

Portrait photos fill the screen best. Private Google Photos links will not resolve.

4.6 Azeroth Clock

Gold seven-segment time, day and date, the creature GIF, and compact WoW stats when a character is configured. **Portal plays every** sets how often the Dark Portal clip interrupts the clock (1 minute to 24 hours).

4.7 Character Sheet

Enter **region** (us / eu / kr / tw / cn), **realm**, and **character name**. Data comes from the public Raider.IO API — no API key. The character must exist on raider.io. The sheet shows class, spec, item level, Mythic+ score, guild, raid progress, and a portrait when available.

4.8 Creature Picker

Change Clock Animation applies immediately — no restart. Nineteen creatures from Wowpedia's WoW Model Viewer GIF catalog (Basilisk through Venom Spider; default Murloc).

4.9 Save & Danger Zone

SAVE & RESTART writes form changes and reboots. **RESET WIFI CREDENTIALS** clears the saved network and returns to the Dark-Portal-Setup hotspot. Other settings are kept.

5 Display Modes

Dark Portal Mode

A looping Dark Portal fills the 320×480 screen. Default ambient mode — no extra setup.

Photo Frame Mode

- Each photo shows for the slideshow interval (default 30 seconds).
- Local source: after the last photo, the portal plays twice, then the cycle repeats.
- Gallery source: photos stream from the public album and cycle while online.

Azeroth Clock Mode

Gold 12-hour seven-segment time with a blinking colon, day and date, the selected creature, and a compact stats line. The portal clip plays on the interval you set.

Character Sheet Mode

Creature animation with a Raider.IO sheet and a small clock. Stats refresh in the background while the device is online.

6 Returning to Configuration

Once on your home Wi-Fi, open:

`http://Dark-Portal-xxx.local`

The suffix **xxx** comes from the device MAC and is printed in the page header. Phone or computer must be on the same Wi-Fi. You can also use the IP from your router.

TIP

If .local fails on Windows, install Bonjour Print Services for Windows, or use the raw IP.

7 Troubleshooting

Problem	Solution
Screen is black / no display	Check the USB-C cable and 5V charger. Try another port or brick.
Dark-Portal-Setup hotspot doesn't appear	Wait up to 45 seconds after power-on. Cycle power. The hotspot starts when no Wi-Fi is saved, or after RESET WIFI.
Config page won't load at 192.168.4.1	Stay on Dark-Portal-Setup (dismiss "no internet"). Refresh. Only 2.4 GHz radios can join the setup AP.
Won't join home Wi-Fi	2.4 GHz only. Dual-band routers often present a strong 5 GHz signal with the same name — move closer or use a dedicated 2.4 GHz SSID.
Clock shows wrong time	Needs internet. Wait up to 60 seconds for NTP. Check timezone on the config page.
Dark-Portal-xxx.local not found	Same Wi-Fi as the device. Try the router's IP listing. Windows may need Bonjour.
Auto-dim not working	Needs timezone and location. Time & Timezone → AUTO-DETECT FROM IP.
Photo upload fails	Storage bar near 1 MB: delete photos first. Use JPEG/PNG/WebP.
Gallery URL finds no photos	Album must be public (anyone with the link). Use Test gallery on the config page.
Raider.IO error	Check region, realm, and character name. The character must exist on raider.io.
Need to change Wi-Fi	Update SSID/password and SAVE & RESTART, or RESET WIFI CREDENTIALS for the setup hotspot.

■ THE DARK PORTAL ■

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