PRODUCT USER MANUAL

ZedCarHire Platform

Comprehensive operating guide for the multi-tenant fleet management and rental platform with ZRA Smart Invoice integration.

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This manual covers the complete operation of the ZedCarHire platform — fleet management, customer management, hire lifecycle, accounting, GPS tracking, mobile PWA and the ZRA Smart Invoice (VSDC) integration. It is published as a companion document to the ZedCarHire Product Warranty Statement.

Issued for:

Company-level administrators and operations staff of ZedCarHire subscriber companies, and the Zambia Revenue Authority Smart Invoice certification panel.

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Note: This PDF mirrors the web-based manual published at /docs/product-manual.html. Both documents are kept in sync. For supplementary deep-dive on the token model, see /docs/user-guide.html.

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1 About ZedCarHire

ZedCarHire is a cloud-based, multi-tenant car rental and fleet management Software-as-a-Service (SaaS) platform purpose-built for Zambian car hire businesses. It consolidates fleet records, customer relationships, hire transactions, double-entry accounting, GPS tracking, marketplace listings and ZRA Smart Invoice compliance into a single, integrated system accessible from any modern web browser or via the dedicated mobile Progressive Web App (PWA).

Who is it for?

- **Independent car hire operators** with one to five vehicles who need to professionalise their operations.
- **Growing rental fleets** (5–50 vehicles) needing accounting integration, GPS visibility and ZRA tax compliance.
- **Large operators and outsourcing brokers** requiring multi-user collaboration, vehicle profitability tracking and Smart Invoice certification for VAT reporting.

Platform architecture

Portal	URL	Audience	Purpose
Public Marketplace	/	End-customers	Browse and book vehicles
Company Admin	/admin/	Fleet operators	Day-to-day operations
Super Admin	/management/	ZedCarHire team	Tenant approvals, billing
Mobile PWA	/pwa/	Fleet operators (mobile)	Installable mobile app

ZRA Smart Invoice ready
ZedCarHire is integrated with the Zambia Revenue Authority's Virtual Sales Data Controller (VSDC) and supports real-time submission of customer registrations, item registrations and sales invoices. Smart Invoice is opt-in per company and only activates after device initialization. See Section 8 for the complete workflow.

2 Getting Started

Onboarding a new company on ZedCarHire takes three steps: registration, identity verification and first login. The entire process is typically completed within one business day.

Step-by-step registration

1. **Submit your company application** — Visit zedcarhire.com and click "Register Your Business". Provide company name, TPIN, contact phone, primary email and a director's name. Upload a clear photo of your business certificate of incorporation and the director's NRC.
2. **Wait for approval** — The ZedCarHire team verifies your details against the PACRA registry and ZRA TPIN portal. Approval normally completes within four business hours during weekdays.
3. **Receive your approval email** — You will receive an email confirming approval with a secure link to set your administrator password.
4. **Set your password and sign in** — Choose a strong password (minimum 8 characters, mixed case, with at least one digit).
5. **Complete your company profile** — Add your logo, physical address, bank details and tagline. These appear on every invoice, quotation and public listing.
6. **Activate your 30-day Free Trial** — Your trial begins automatically on first login with 10,000 free tokens and full access to all features.

> **Trial benefits**
> During your Free Trial you receive 0% commission on hires, can list up to 5 vehicles, get full marketplace exposure and have access to all reporting features. No payment card is required to start.

System requirements

- **Browser:** Latest two versions of Chrome, Edge, Firefox or Safari. Internet Explorer is not supported.
- **Internet connection:** Minimum 1 Mbps recommended. The PWA caches data for short offline use.
- **Mobile:** Android 8.0+ or iOS 13+. Install the PWA via "Add to Home Screen".
- **Screen:** Optimised for displays 1024×768 and above; fully responsive on tablets and phones.

3 Subscription Plans & Pricing

ZedCarHire uses a transparent **pay-as-you-go token model**. There are no fixed monthly fees. You only pay a small commission, drawn from your prepaid token balance, when a new hire is created. The commission rate depends on the plan you select.

> **1 token = 1 Zambian Kwacha**
> Tokens are denominated in ZMW for easy mental accounting. K1,000 worth of tokens equals 1,000 tokens.

Plan comparison

Plan	Commission	Vehicles	Best for
Free Trial	**0%**	**Up to 5**	**30-day evaluation, 10,000 free tokens**
Starter	**2%**	**Up to 2**	**Small operators just starting out**
Growth	**4%**	**Unlimited**	**Scaling fleets, full reporting & GPS**
Premium	**4%**	**Unlimited**	**Enterprise + ZRA Smart Invoice + SLA**

Choosing a plan

- **Operate fewer than 3 vehicles?** Start with Starter and a token balance of K2,000–K5,000.
- **Operate 4–50 vehicles?** Growth is the sweet spot — unlimited vehicles with reporting and GPS.
- **VAT registered or planning to be?** Choose Premium to unlock real-time ZRA Smart Invoice

submission.

How to upgrade or change plan

1. Open the **Subscriptions** page from the sidebar.
2. Locate the plan you want and click "Switch to this plan".
3. Confirm — your existing token balance carries across to the new plan unchanged.
4. The commission rate applied to *new* hires updates immediately.

> **Tokens always carry over**
> Whether you upgrade, downgrade or take a break — tokens never expire. A "migration" line item is added to your token statement so the audit trail is preserved.

4 Token Account & Billing

The Token Account is the prepaid wallet that powers your hire commissions. This section is a summary — for the complete deep-dive, see the dedicated Token Account User Guide.

4.1 Commission formula

Whenever you create a new hire, the platform calculates and deducts commission instantly using:

> **Tokens = Daily Rate × Commission % × Hire Days**
> Example: a K650/day vehicle on Growth plan (4%) hired for 7 days = 650 × 0.04 × 7 = **182 tokens** (K182).

4.2 Topping up

1. **Open the Token Account** — Sidebar ? Token Account.
2. **Transfer payment** — Pay to the MTN Mobile Money number or bank account shown under "Payment Methods".
3. **Upload proof of payment** — Take a screenshot of the SMS or bank statement, enter the amount and submit.
4. **Wait for approval** — Typically 2–4 hours during business hours.

4.3 Statement & alerts

The Token Statement page shows a month-by-month log of every credit and debit. Email reminders are sent at three thresholds:

> 20%	Healthy	No action required.

5 Fleet Management

The Fleet module is where you record every vehicle you operate. Each vehicle's record drives hire pricing, marketplace listings, service scheduling, profitability tracking and — for Smart Invoice users — ZRA item registration.

5.1 Adding a vehicle

1. **Open Manage Cars** — Sidebar ? Manage Cars ? Add New Vehicle.
2. **Fill in the vehicle details** — Make, model, registration, year, owner, ownership type, local rate, out-of-town rate, current mileage and service interval.
3. **Specifications** — Type, transmission, passengers, doors, fuel type, vehicle location.
4. **Marketplace settings** — Optional: list on portal, description, vehicle photo (max 5 MB).
5. **Smart Invoice fields** — If enabled, choose the UNSPSC classification and tax type.
6. **Save** — The vehicle is stored locally and (for Smart Invoice users) registered with ZRA.

5.2 Vehicle status

Status	Meaning
Available	**Free for hire. Visible on marketplace if portal listing is enabled.**
On Hire	**Currently rented out. Auto-set when a hire is in progress.**
In Service	**Undergoing maintenance. Not bookable.**
Retired	**Permanently removed from active fleet.**

5.3 Service tracking

Each vehicle has a *last service mileage* and *next service mileage*. When you record a service via "Service Vehicle":

- The cost is logged in your expenses ledger automatically.
- Last/next service mileage is updated.
- Dashboard alerts appear when a vehicle is within 500 km of its next service.

5.4 Vehicle Asset Register & Profitability

The **Vehicle Asset Register** captures the accounting view of each vehicle: purchase cost, accumulated depreciation, net book value, insurance and fitness expiry. The **Vehicle Profitability** report summarises revenue, expenses, net profit, margin and utilisation rate per vehicle — use it to identify under-performing vehicles.

6 Customer Management

Every hire must be linked to a customer record. The Customer module stores identity, contact, license and optional ZRA TPIN information for each individual or organisation that rents from you.

6.1 Adding a customer

1. **Open Manage Customers** — Sidebar ? Manage Customers ? Add New Customer.
2. **Capture required identity** — Full name, primary phone, NRC, address, driving license number. Optionally upload a clear NRC scan.
3. **Capture alternative contact** — Alternative name, NRC and phone (next-of-kin / referee).
4. **ZRA Tax PIN (optional)** — If the customer is VAT-registered, enter their 10-digit TPIN. Otherwise a default is used.
5. **Save** — For Smart Invoice users, the customer is automatically registered with ZRA via branches/saveBrancheCustomers.

> **Duplicate protection**
> NRC is enforced as a unique key per company — the system blocks creating two customers with the same NRC inside the same tenant. On the PWA, phone number is the duplicate guard.

6.2 Customer ratings & history

After a hire is closed, you may rate the customer (1–5 stars) with optional notes. Aggregated ratings appear on the customer profile and influence the default deposit suggestion on future hires. The profile also shows total spent, average hire length, late returns and favourite vehicle.

7 Hire Management

A hire is the core financial event on the platform. The lifecycle has four stages: **Quote ? Hire Out ? Hire In ? Close**. Each transition is timestamped, audited and reflected in your accounting ledgers.

7.1 The hire lifecycle

Stage	What happens	Token impact
Quote	**Pricing built for customer, can be emailed as PDF.**	**None**
Hire Out	**Vehicle collected. Deposit captured. Status: On Hire.**	**Commission deducted**
Hire In	**Vehicle returned. Extras, damage, fuel calculated.**	**None**
Close	**Balance settled, deposit released, hire archived.**	**None**

7.2 Creating a hire

1. Open **Hire Out** from the sidebar.
2. Select the customer (search by name, phone or NRC). New customers can be added inline.
3. Select the vehicle (only "Available" vehicles appear). The daily rate auto-fills.
4. Set rental date, planned return date and number of days.
5. Capture the deposit — amount, type (cash, transfer, MoMo) and reference.
6. Click "Hire Out". The system deducts commission tokens, creates the hire record, moves the vehicle to "On Hire", posts a journal entry for the deposit, and generates a PDF hire agreement.

7.3 Returning a vehicle (Hire In)

- Record actual return date (system flags late returns automatically).
- Add extras: extra days, additional km, fuel top-up, damages.
- Final amount is calculated, deposit is applied, balance is paid or refunded.
- Vehicle status returns to "Available".

7.4 Hire documents

For every hire the platform can generate: Quotation PDF, Hire Agreement PDF, Tax invoice (ZRA-stamped for Smart Invoice users with QR code) and receipts for deposits and final payments.

8 ZRA Smart Invoice (VSDC)

ZedCarHire integrates with the Zambia Revenue Authority's Virtual Sales Data Controller (VSDC) to provide real-time tax invoice submission. The integration is opt-in and only activates for companies that (a) are on the Premium plan, (b) have completed Device Initialization with ZRA, and (c) have toggled "Use Smart Invoice" in System Settings.

Two-level activation gate
Smart Invoice is gated by both a **platform-wide flag** (controlled by ZedCarHire after ZRA certification) and a **per-company opt-in** (controlled by the customer in System Settings). Both must be ON for any data to be sent to ZRA. This design ensures the module stays dormant until both parties are ready.

8.1 Prerequisites

- A valid 10-digit TPIN registered with ZRA.
- VSDC credentials issued by ZRA after Smart Invoice on-boarding.
- An active Premium plan on ZedCarHire.
- The platform-wide Smart Invoice flag enabled by ZedCarHire.

8.2 Setup sequence

Smart Invoice requires four sequential setup steps. Each step must succeed before the next can be performed.

1. **Device Initialization** — Smart Invoice ? Device Initialization. Enter TPIN (pre-filled from company profile), branch ID (typically 000) and device serial. The platform calls initializer/selectInitInfo and on success stores VSDC device details.
2. **Fetch Standard Codes** — Downloads reference data (tax types, payment methods, units of measure, country codes) via code/selectCodes. Stored in si_code_classes and si_codes.
3. **Fetch Item Classification Codes** — Downloads UNSPSC commodity codes via itemClass/selectItemsClass. Required before any vehicle can be registered with ZRA.
4. **Activate Smart Invoice** — System Settings ? ZRA Smart Invoice card ? toggle "Use ZRA Smart Invoice" ON ? Save. From this point on, customers, vehicles and hires are submitted to ZRA automatically.

8.3 Per-operation behaviour

Action	VSDC endpoint	Persisted on resultCd 000
Add a customer	**branches/saveBranCheCustomers**	**customers.si_cust_no**

Add a vehicle	items/saveItem	car_fleet.si_item_cd
Close a hire	trnsSales/saveSales (planned)	sales QR + signature

Local record only saved on ZRA success
For customer and vehicle adds, if ZRA rejects the submission (any resultCd other than 000), the local record is still saved but the corresponding si_cust_no / si_item_cd field stays NULL. This lets you investigate the ZRA error and re-submit without losing data.

8.4 Debugging Smart Invoice

Every VSDC request and response is appended to admin/logs/smart_invoice_debug.log. The log includes timestamp, event type, full request payload, full response (or cURL error) and the resolved VSDC URL. Within the admin UI, every Smart Invoice action displays a SweetAlert with the result and an expandable debug panel.

8.5 Switching environments

The VSDC base URL is stored in system_vsdc_settings. The platform ships pointing at ZRA's sandbox. After certification, ZedCarHire updates this row to the production URL. Per-company overrides are supported but rarely used.

9 Accounting & Reports

ZedCarHire ships with a complete double-entry accounting engine. Every financial event — a hire, a deposit, a payment, an expense, a service, a token top-up — is automatically posted to the general ledger. No manual journal entries are required for routine operations, but they are supported for adjustments.

9.1 Standard reports

Report	Purpose
Income Statement	Revenue, expenses, profit & loss
Balance Sheet	Assets, liabilities, equity at a point in time
Cash Flow Statement	Operating, investing and financing flows
Trial Balance	All ledger accounts
General Ledger	Drilldown by account
Aging Report	Debtors by age bucket
Audit Pack	Full set, one click
Revenue Analysis	By car, by month, by client

9.2 Revenue recognition policy

- **Recognise at Rental Date (default):** The full hire value is booked to the month the hire starts. Simple — appropriate for most SMEs.
- **Daily Pro-Rata:** Revenue is spread across the actual days of the hire. Required by IFRS 15 strict reporting.

9.3 Expenses & cashouts

Use "Manage Expenses" to log every operating cost — fuel, repairs, salaries, rent, fees. Each expense is linked to a category and optionally to a specific vehicle. Outsourced vehicle payouts are recorded as "Cashouts" and flow into the income statement automatically.

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9.4 Export formats

- **PDF** — Print-ready, branded with your logo. Used by all reports.
- **Excel (XLSX)** — Tabular exports for further analysis.
- **CSV** — Raw data downloads from the general ledger and statement pages.

10 Vehicle GPS Tracking

Optional vehicle telematics — supported on Growth and Premium plans. The platform integrates with major GPS hardware vendors via standard protocol adapters.

10.1 Configuring a tracker

1. Open "Tracker Configuration" from the sidebar.
2. Select the vehicle and enter the device IMEI, SIM number and protocol (GT06, Teltonika, Concox, etc.).
3. Save — the platform begins polling for position fixes within minutes.

10.2 Live view & reports

Vehicle Tracking shows all active vehicles on a single map with their current location, speed and ignition state. Click any vehicle marker for trip history and a 24-hour timeline replay. **Tracking Reports** exports daily distance, idle time, geofence breaches and over-speed events to PDF or Excel.

11 Mobile App (PWA)

The ZedCarHire mobile app is delivered as a Progressive Web App (PWA). It installs from the browser, requires no app store and offers offline-capable read access to your fleet, customers and hires.

11.1 Installing the PWA

- **Android (Chrome):** open zedcarhire.com/pwa ? menu ? "Add to Home Screen".
- **iOS (Safari):** open zedcarhire.com/pwa ? Share ? "Add to Home Screen".
- The app icon appears on your home screen for a full-screen, app-like experience.

11.2 Features

- Add vehicles, customers and new hires from your phone.
- Snap photos directly to vehicle profiles or NRC fields.
- View live KPIs (active hires, today's revenue, fleet status).
- Push notifications for low token balance and pending approvals.
- Smart Invoice submissions work identically to the desktop portal.
- Read access continues for up to 24 hours offline using cached data.

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12 System Settings

Available at Sidebar ? System Settings. Administrator-only. Lets you customise platform behaviour without affecting other tenants.

12.1 Operational toggles

- **Auto-redirect when overdue** — sends users to Manage Hires when overdue vehicles exist.
- **Block actions when overdue** — prevents new hires while overdue vehicles exist.
- **Show overdue alerts** — displays dashboard banners for overdue and upcoming returns.
- **Upcoming returns threshold** — how many days ahead to surface upcoming returns.

12.2 Revenue Recognition Policy

Choose between "Recognise at Rental Date" (simple) and "Daily Pro-Rata" (period-accurate). Reporting only — does not change pricing or VAT.

12.3 Hire Terms & Conditions

Your custom T&Cs appear on every public vehicle listing and on the hire agreement PDF. Leave blank to use the ZedCarHire system default.

12.4 Bank Accounts & Expense Categories

Manage the bank accounts your business operates and the categories used to classify expenses. These feed the financial reports.

12.5 ZRA Smart Invoice

Visible only when ZedCarHire has activated Smart Invoice on the platform. Toggle "Use ZRA Smart Invoice" ON to begin sending customer, vehicle and hire data to ZRA.

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13 Security & Data Protection

13.1 Authentication

- Passwords are hashed using bcrypt with a per-user salt. Plaintext passwords are never stored.
- Session cookies are HTTP-only and use secure transport in production.
- Failed login attempts are rate-limited.
- Password reset uses single-use, time-limited tokens delivered by email.

13.2 Transport security

All production traffic is encrypted in transit using TLS 1.2 or higher. The certificate is renewed automatically and monitored.

13.3 Multi-tenant isolation

Every database query is scoped to your company_id. There is no shared user, customer, vehicle, hire or report data between tenants. Super admin staff have a separate portal and never see operational data unless they impersonate a tenant for support — and every impersonation is logged.

13.4 Backups

Production databases are backed up nightly and retained for 30 days. File uploads (NRCs, vehicle photos) are mirrored to redundant storage. Backups are encrypted at rest.

13.5 Data ownership & export

You own your data. At any time you may request a full export of your tenant's data in CSV/JSON format by emailing support@zedcarhire.com. The platform delivers the export within five business days.

13.6 Smart Invoice data

Customer TPINs and NRCs sent to ZRA are transmitted over HTTPS to ZRA's VSDC endpoint. The platform logs every submission for audit purposes for a minimum of seven years, in line with ZRA record-keeping requirements.

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14 Troubleshooting

14.1 Common issues

Symptom	Likely cause	Fix
"Vehicle limit reached"	Plan cap reached.	Upgrade plan via Subscriptions.
"Token balance too low"	Insufficient tokens.	Top up via Token Account.
Smart Invoice skipped	Flag off or device missing.	Check System Settings and Device Init.
VSDC resultCd 894	Invalid TPIN.	Verify TPIN matches ZRA record.
VSDC resultCd 992	Branch ID does not exist.	Use ZRA-issued branch id (usually 000).
NRC upload fails	File too large or format.	Max 5 MB, JPG/PNG/PDF.
Email reminders missing	Wrong email or spam.	Check Profile email and spam folder.

14.2 Reset workflows

- **Forgotten password:** click "Forgot password" on sign-in; reset link emailed.
- **Stuck PWA:** close app, clear site data, reopen — service worker re-installs.
- **Stale standard codes:** Smart Invoice ? Standard Codes ? "Refresh from ZRA".

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15 Support & Contacts

If you cannot resolve an issue using this manual, reach the ZedCarHire team through any of the channels below. Premium subscribers have access to a dedicated WhatsApp support group with 24/7 coverage.

Channel	Address	Response SLA
Email support	support@zedcarhire.com	4 hours (business hours)
Sales / account	sales@zedcarhire.com	1 business day
Smart Invoice / tax	tax@zedcarhire.com	1 business day
Emergency (Premium only)	WhatsApp group (provided)	30 minutes, 24/7

Companion documents

- **Token Account User Guide** — /docs/user-guide.html (deep-dive on the token model).
- **Product Warranty Statement** — /docs/warranty-statement.html (formal warranty terms).
- **Privacy Policy** — /admin/privacy-policy.php (data handling and rights).
- **Terms & Conditions** — /admin/terms-and-conditions.php (subscriber agreement).

Acknowledgements
This manual is published as part of the supporting documentation for ZedCarHire's certification as an approved Smart Invoice service provider by the Zambia Revenue Authority. It is read together with the Product Warranty Statement (ZCH-WS-2.1).