

MDVR HGV Installation & Commissioning Checklist

Step-by-step preflight, wiring, camera fit, antenna placement, config & sign-off

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Use this checklist for every MDVR installation in an HGV. Complete phases in order. Estimated time: 90–180 minutes (single technician).

■ Phase 1 — Preflight Checks

Vehicle

- ☐ Battery bank(s) located; earth point(s) identified
- ☐ Secondary batteries / APU noted
- ☐ Roof access and internal routing paths confirmed
- ☐ Reusable holes / grommets identified

MDVR & System

- ☐ Firmware version verified; device voltage range confirmed (12–36V typical)
- ☐ Camera channel count and resolutions confirmed
- ☐ HDD/SSD SMART health checked (if reusing drive)

Network & SIM

- ☐ SIM activated with APN details; tested in phone for data
- ☐ Mobile coverage confirmed for operating routes

Admin

- ☐ Fleet sign-off obtained; downtime scheduled
- ☐ VIN and vehicle registration logged in job sheet
- ☐ Warranty/insurance check completed before drilling

■ Phase 2 — Wiring (Power, Fuse & Earth)

■ Isolate battery bank(s) per vehicle manual. Confirm 0 V at wiring point with multimeter before touching cables.

- ☐ Battery isolated; wheels chocked; PPE on
- ☐ Power feed type chosen: direct battery (recommended) or fused fuse-box ACC
- ☐ Inline fuse fitted within 300 mm of battery positive terminal

Fuse sizing: Device max current $A \times 1.25 =$ _____ A $\rightarrow$ nearest standard fuse: _____ A

- ☐ Earth: ring terminal to clean bare metal chassis; torqued to spec
- ☐ Permanent (B+) and ignition-sense (ACC) feeds run for parking mode
- ☐ Manual isolation switch fitted on permanent feed (optional, for layovers)
- ☐ Transient voltage suppressor / DC-DC converter fitted if required
- ☐ All cables in split conduit; grommets at bulkheads; labels at both ends

■ Phase 3 — Camera Mounting & Routing

Channel mapping

CH	Location	Mount / route notes	Cable labelled	Image OK
CH1	Front windscreen	Behind mirror; route along headliner, A-pillar	■	■
CH2	Driver face (cab)	A-pillar or dash; avoid airbags; check IR angle	■	■
CH3	Nearside (kerb)	Cable inside door cavity or chassis conduit; mount high	■	■
CH4	Rear	Rubber grommet through tailgate; waterproof connectors	■	■

- ☐ All camera connectors protected with heat-shrink and dielectric grease
- ☐ Connectors secured inside cab away from water entry
- ☐ Split conduit used for side and rear runs; no routing near exhaust
- ☐ Field-of-view checked on each camera before final fix

■ Phase 4 — Antenna Placement (GPS & 4G)

■ Test antenna signal BEFORE final sealing. Repositioning after sealing wastes time.

GPS antenna

- ☐ Mounted with clear sky view (metal roofs require external bonded mount)
- ☐ Not mounted under other antennas or metal enclosures

4G/LTE antenna

- ☐ Mounted at highest point; clear of obstructions and other antennas
- ☐ GPS and LTE antennas separated by ≥ 30 cm
- ☐ Low-loss coax used for long runs; certified cable lengths
- ☐ Ground plane check: bonding plate fitted if required by antenna spec

Signal test (before final seal)

- ☐ GPS lock confirmed; satellites reported: _____
- ☐ LTE RSRP: _____ dBm (acceptable: ≥ -95 dBm; reposition if < -110 dBm)
- ☐ Antenna entries sealed with silicone after signal confirmed

■ Phase 5 — MDVR Mounting & Storage Install

- ☐ MDVR location chosen: secure, ventilated, accessible, out of casual reach
- ☐ Anti-vibration brackets and tamper-resistant screws fitted
- ☐ SSD or HDD installed in static-safe environment
- ☐ Storage serial number logged: _____
- ☐ Drive secured with brackets; SATA/power connected
- ☐ Unit powered on; drive detected and formatted via OSD

Storage recommendation: SSD for high-vibration / long-haul fleets; HDD only if shock-mounted on low-vibration depot vehicles.

■ Phase 6 — Channel Connections & Configuration

- ☐ Unit powered (no cameras) — boot and HDD init confirmed
- ☐ Each camera connected to correct CH port; cables labelled
- ☐ Ignition (ACC) and reverse trigger wires connected
- ☐ Monitor connected via HDMI/AV and connector secured
- ☐ All channel LEDs and live feeds verified on OSD

Configuration

- ☐ Date/time set; GPS time sync enabled
- ☐ Storage formatted; loop recording and pre/post buffer set (e.g. 10s pre / 30s post)
- ☐ G-sensor sensitivity set; event trigger thresholds configured
- ☐ SIM inserted; APN, username/password entered; mobile data tested
- ☐ Default admin password changed; unused services disabled (FTP/Telnet)
- ☐ Heartbeat and data quotas configured; VPN/secure tunnel set up

■ Phase 7 — Commissioning Tests (must-pass)

Test	Expected result	Pass	Fail	Notes
Power & boot	Unit boots; HDD detected; LEDs normal	■	■	
CH1 front feed	Live feed; correct orientation	■	■	
CH2 driver feed	Live feed; mirror/flip correct	■	■	
CH3 nearside feed	Live feed; field of view OK	■	■	
CH4 rear feed	Rear feed; reverse trigger fires	■	■	
GPS lock	GPS locked; coordinates accurate	■	■	
4G / LTE	LTE connected; RSRP acceptable	■	■	
Event / G-sensor	Bump triggers event; pre/post recorded	■	■	
Parking mode	Records with ignition off (if required)	■	■	
Remote access	Live view & download via CMS	■	■	
HDD/SSD health	No errors; SMART OK	■	■	
Final mechanical	Cables secure; no loose fasteners	■	■	

■ Sign-Off

Installer declaration: I confirm the above tests were completed and the installation meets manufacturer guidelines.

Installer name:		Date:	
Company:		Vehicle reg:	
VIN:		MDVR serial:	

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