

MDVR Procurement & Commissioning Checklist

A step-by-step checklist for fleet operators and installers

Use this checklist when specifying, installing and commissioning an MDVR camera system. Tick each box as completed. Share with your installer and operations team.

Phase 1 — Procurement & Specification

RFP / Spec Requirements

- ☐ Channel count and max simultaneous HD streams confirmed
- ☐ Supported camera protocols specified (AHD / TVI / ONVIF / RTSP)
- ☐ Storage type and capacity defined (microSD class + SSD/HDD/eMMC)
- ☐ Voltage range and surge spec confirmed (typically 9–36V)
- ☐ Operating temperature range and IP rating checked
- ☐ Cellular modem band support and APN configurability verified
- ☐ CAN-bus compatibility and I/O line count confirmed
- ☐ Remote management API and firmware update method documented
- ☐ Warranty period and MTBF obtained from vendor
- ☐ Tamper detection and locked storage bay options confirmed

Decision Checklist (score 1 per Yes — 6+ recommends MDVR)

- ☐ Need 3+ camera angles per vehicle?
- ☐ Require forensic-grade chain-of-evidence?
- ☐ Investigate incidents monthly or more?
- ☐ Have operations resource to support firmware/maintenance?
- ☐ Willing to budget for cellular OPEX for remote retrieval?
- ☐ Vehicles high-risk (passenger, hazardous loads, school buses)?
- ☐ Require tamper detection / locked storage?
- ☐ Want on-vehicle AI but keep full footage locally?
- ☐ Cross-vehicle timestamp sync mandatory?
- ☐ Need ANPR or high-resolution plate capture?

Phase 2 — Site Survey & Planning

- ☐ Vehicle model and cabin/mounting locations confirmed
- ☐ Cable routes traced — avoid heat sources and moving parts
- ☐ ACC and BATT fuse slots identified for add-a-fuse install
- ☐ Network/cellular coverage verified at depot and on routes
- ☐ GPS antenna placement planned — clear sky view confirmed
- ☐ Number of cameras and cable run lengths measured
- ☐ Installer briefed on channel map and labelling convention

Phase 3 — Physical Installation

- ☐ MDVR mounted in protected, ventilated location with anti-vibration fasteners

- ☐ Inline fuse fitted near battery for BATT feed
- ☐ ACC wire routed to dedicated ignition fuse slot
- ☐ Camera cables run, both ends labelled with channel number and camera name
- ☐ Camera runs secured with clips — routed away from CAN harness and alternator
- ☐ GPS antenna installed at rooftop or high interior location
- ☐ External accelerometer connected and thresholds noted
- ☐ Storage / HDD bay secured and locked where required
- ☐ EMI suppression (ferrite beads) applied on long runs where needed

Common Installation Failure Modes — check before sign-off

Failure mode	Consequence	Check
Wrong ACC fuse slot chosen	No ignition gating — records continuously	Test ignition on/off cycle
Unlabelled cable ends	Channel mismatch at commissioning	Verify both ends before routing
GPS antenna under metal roof	Incorrect timestamps on all footage	Test lock time before closing
Camera runs alongside alternator	Noise / interference on video	Re-route or add ferrite beads

Phase 4 — Logical Commissioning (10-Step)

- ☐ 1. Power on device and confirm firmware version
- ☐ 2. Set device time via GPS; verify timestamps across all channels
- ☐ 3. Map each channel to human-readable label (e.g. Front-Road, Driver Cabin, Rear)
- ☐ 4. Enable pre/post buffers — starting point: 5s pre / 30s post
- ☐ 5. Configure per-channel recording modes (continuous / event-triggered)
- ☐ 6. Enter APN / operator settings; verify cellular connectivity and IP address
- ☐ 7. Create admin and operator accounts; enable 2FA on all logins
- ☐ 8. Test all triggers: simulate harsh brake, ignition off, door open
- ☐ 9. Perform evidence export test; verify metadata integrity and timestamp accuracy
- ☐ 10. Schedule heartbeat checks and set offline alert threshold (recommend: 4 hours)

Phase 5 — Ongoing Maintenance Schedule

Frequency	Task
Daily	Heartbeat check — alert if device offline > 4 hours
Monthly	Firmware review and SMART health checks for SSD/HDD
Monthly	Review data usage — alert if approaching SIM cap
Quarterly	Physical inspection of cables, mounts and connectors
Quarterly	Review and tune AI / ADAS alert thresholds
Annually	Full chain-of-custody export test and audit trail review
Annually	Review retention policy against legal/insurance requirements

Compliance Notes (UK / EU GDPR)

- ☐ Documented lawful basis for recording in place
- ☐ Staff notified of camera system (data subject notice issued)
- ☐ Purpose limitation documented — footage used only for stated purposes

- ☐ Data retention policy defined and enforced (circular overwrite + incident archive)
- ☐ Role-based access controls implemented; access log maintained
- ☐ DPIA completed where required (high-risk processing)
- ☐ Data residency confirmed — cloud storage in approved region
- ☐ Chain-of-custody export process documented and tested

Need help specifying or commissioning your MDVR system? Contact Backwatch at backwatch.co.uk/contact/technical-demo