RioV360

Wheel Loader Camera System Fitment Guide

Find your loader, match the size class, and order the right RioV360 kit.

UNIVERSAL FIT

One RioV360 Kit for Wheel Loaders of Any Brand

RioV360 is a 4-camera AI pedestrian detection system that alerts the operator and people on foot before a collision. The same complete kit fits wheel loaders of any brand, from compact yard loaders to production loaders at the quarry face. It runs on 8 to 32 V DC, mounts on the cab, counterweight or rear frame, and needs no tags, software or subscription. One kit and one layout work across a mixed fleet.



4 AI Cameras
1080p, 130° view, infrared night vision, IP69K. Full 360° coverage.

Detects People
Standing, crouching, kneeling or partly hidden, 0 to 5 m, alert in under 400 ms.

7 Inch Monitor
Live view with red, yellow and green zones set per camera.

120 dB Beacon
External voice alert and light so people on foot know to move.

Onboard Recording
Continuous video, 256GB card included, about 30 hours.

Fast Install
Complete kit with harness and hardware. Most teams finish in under 2 hours.

How to Use This Guide

1. Find your brand and model in the table below. The model number sets the size class.
2. Match the size class to its power connection and accessories. RioV360 runs on 8 to 32 V DC, so 12 V and 24 V loaders connect directly.
3. Confirm the model and voltage on the machine data plate. Model ranges change by year and region.
4. Plan the camera positions. On articulated loaders, cameras mounted on the cab and rear frame keep cables off the center hinge.
5. Order the complete kit, plus any accessories listed for your size class.

Power: 12 V, 24 V and Electric Loaders

- **Diesel loaders:** almost all run 24 V. Connect to a fused, key-switched 24 V circuit and the constant 24 V line, as the user manual shows. No converter needed.
- **Compact loaders:** some run 12 V, some 24 V. Both connect directly. Check the battery or data plate.
- **Battery-electric loaders:** never connect RioV360 to the traction battery. Tap the key-switched 12 or 24 V accessory circuit that runs the lights and dash.
- **No low-voltage circuit:** add the RV360-DCC isolated DC-DC converter. Battery packs are isolated from the frame, so the converter must be isolated too.

RioV360 User Manual

Installation, settings and troubleshooting: **Download the RioV360 User Manual (PDF, v4.4)**.

Fitment by Size Class

Size class	Operating weight	Power	Power / RioV360 connection	RioV360 Accessories	Notes
Compact	Under about 20,000 lb	12 or 24 V (check the machine)	Direct: key-switched circuit and constant power line	EXT, 512, MAG	Low cab and short runs. Standard cables reach all four cameras.
Small / Utility	About 20,000 to 35,000 lb	24 V	Direct: 24 V key-switched circuit	EXT, 512, MAG	Yards, snow, ag and utility work. Rear camera on the counterweight or rear grille guard.
Medium	About 35,000 to 60,000 lb	24 V	Direct: 24 V key-switched circuit	EXT, CBX, 512	Quarries, aggregates and waste. Add RV360-CBX for the longer rear camera run.
Large / Production	About 60,000 to 130,000 lb	24 V	Direct: 24 V key-switched circuit	EXT, CBX, 512	Truck loading at the face. Mount cameras high on the cab and counterweight.
Mining	Over about 130,000 lb	24 V	Direct: 24 V key-switched circuit	EXT, CBX, 512	Very long machines: confirm cable lengths with us before install. Detection covers 0 to 5 m from each camera.
Battery-Electric Compact	Under about 12,000 lb	High-voltage battery	Key-switched 12/24 V accessory circuit, or RV360-DCC	EXT, 512, DCC if needed	Never connect RioV360 to the traction battery.

Codes shortened from RV360-EXT, -CBX, -512, -MAG and -DCC. Details on page 3.

Wheel Loader Models by Brand and Size Class

Brand	Compact	Small / Utility	Medium	Large / Production	Mining
Cat	903, 906, 907, 908, 910, 914	920, 926, 930	938, 950, 950 GC, 962, 966, 966 GC, 972	980, 982, 986, 988, 988 GC	990, 992, 994, 995
Volvo	L20, L25, L30, L35, L45H, L50H	L60H, L70H, L90H	L110H, L120H, L150H, L180H	L220H, L260H, L350H	Not listed
Komatsu	WA70M-8, WA100M-8	WA200-8, WA270-8	WA320-8, WA380-8, WA475-10, WA480-8, WA485-11	WA500-8, WA600-8	WA700-8, WA800-8, WA900-8, WA1200-6
John Deere	184, 204, 244, 304, 324, 326, 344	444, 524, 544, 624	644, 724, 744	824, 844, 904, 944	Not listed
Case	321G, 421G	521G, 621G, 651G	721G, 821G, 921G, 1021G	1121G	Not listed
JCB	403, 407, 409	411, 413S, 417, 419S, 427	437, 457	Not listed	Not listed
Liebherr	L 504, L 506, L 507, L 509 Tele, L 514, L 518	L 526, L 538, L 546	L 550, L 556, L 566	L 580, L 586	Not listed
Hyundai	Not listed	HL935, HL940	HL955, HL960, HL965, HL970	HL975, HL980	Not listed

Older Wheel Loaders

Brand	Older series	How to match
Cat	H, K and M series	950H, 966K and 980M fit like the 950, 966 and 980
Volvo	E, F and G series	L90F and L120G fit like the L90H and L120H
Komatsu	Dash-5, Dash-6 and Dash-7	WA380-6 fits like the WA380-8
John Deere	J, K and L series	644K and 744L fit like the 644 and 744
Case	E and F series	621F and 821F fit like the 621G and 821G
Hyundai	9 and 9A series	HL760-9A fits in the Medium class

The model number sets the size class. The series letter or dash number is the generation, so an older loader fits like the current model with the same number. Not listed? Send the make and model and we will confirm the kit.

Camera / Beacon Layout

- **Rear:** on the counterweight or rear grille guard, aimed at the reverse path. Most loader incidents happen in reverse.
- **Sides:** on the rear frame or cab corners, aimed along the turning arc.
- **Front:** on the front edge of the cab roof, looking past the bucket in carry position. Mounting on the cab keeps the cable off the articulation joint.
- **Monitor:** on the cab post or dash with the RV360-EXT kit.
- **Beacon:** high on the rear of the cab roof, where ground crews can see and hear it.

If a camera goes on the front frame or loader tower, route the cable through the center hinge with a service loop and split loom so it flexes with steering. No tags for workers to wear: the AI cameras detect any person in the zone.

RioV360 Accessories

- **RV360-EXT:** Monitor Extension and Mounting Kit: rail clamp, round base, cab-frame bracket or T-attachment.
- **RV360-CBX:** Extension Cables: two 3 m and two 5 m camera cables plus a 5 m monitor cable for long machines.
- **RV360-512:** Upgraded Storage: 512GB card for about 60 hours of continuous video.
- **RV360-MAG:** Magnetic Camera Mounts: no-drill mounting on steel surfaces, ideal for trial positions (US shipments).
- **RV360-DCC:** Isolated DC-DC Converter: for battery-electric loaders with no low-voltage circuit. Priced on quote.

Common Questions

Does RioV360 fit Cat wheel loaders? Yes. From the compact 906 to the 994, Cat loaders run on 12 or 24 V, which RioV360 uses directly. Find the model in the brand table to get the size class and accessories.

Does RioV360 work on 24 V wheel loaders? Yes. RioV360 runs on 8 to 32 V DC, so 24 V loaders connect directly to the key-switched circuit with no converter.

My loader is an older model. Will it fit? Yes. Match it by model number. The series letter or dash number is the generation, so a Cat 950H fits like a 950 and a Komatsu WA380-6 fits like a WA380-8.

Where should the front camera go on an articulated loader? On the front edge of the cab roof. It looks past the bucket in carry position and keeps the cable off the articulation joint.

Do workers need to wear tags? No. RioV360 uses AI cameras to detect any person in the zone, with nothing to wear or charge.

PILOT UNIT PROGRAM

Prove It on Your Loader Before You Commit

$500 off

PILOT discount applies to all RioV360 units through December 31, 2026

Put RioV360 on your highest-risk wheel loader and let your operators, supervisors and EHS team see it work in your own operation. No long trial agreements and no software to set up. Install it, run it, and decide.

1. **Pick the loader**
   Choose the machine with the most foot traffic or the worst rear blind spot.
2. **Order**
   Send the make, model and serial number. Pay by credit card.
3. **Ships fast**
   In-stock units ship from Arizona in 2 business days.
4. **Install**
   Most teams finish in under 2 hours with the user manual.
5. **Roll out**
   Use the same kit and layout across the rest of the fleet.

Included with the PILOT unit: 4 AI cameras, 7 inch monitor, 120 dB voice beacon, 256GB card, wiring harness, mounting hardware, user manual and 18-month warranty. Phone, email or Teams support for your installer.

Recommended PILOT Unit Accessories

RV360-512
Upgraded Storage
512GB high endurance card for about 60 hours of continuous video.

RV360-EXT
Monitor Extension and Mounting Kit
Rail clamp, round base, cab-frame bracket or T-attachment.

RV360-CBX
Extension Cables
Longer camera and monitor runs for medium and large loaders.

RV360-PWR
Bench Test AC Power Adapter
Run the system from a wall outlet and learn it on a table before install.

Order a PILOT unit: **+1 (520) 501-0602** | **info@riodatos.com**

Size classes, weights and model lists are approximate and vary by year and region. Brand and model names are trademarks of their owners. RioDatos is not affiliated with or endorsed by any manufacturer listed. Model names are used only to identify compatible machines.