RioV360

Excavator Camera Fitment Guide

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

UNIVERSAL FIT

One RioV360 Kit for Excavators 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 excavators on construction, utility, demolition, quarry and mining sites, from 1-ton minis to large mining machines. It runs on 8 to 32 V DC, so it connects directly to 12 V minis and 24 V full-size machines. Cameras mount on the upper structure and swing with the operator. No tags, software or subscription.



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 excavators install in a day.

How to Use This Guide

1. Find your brand and model in the table below. The number in the model name usually sets the size class.
2. Match the size class to its power connection and accessories. Minis run 12 V, full-size machines run 24 V. RioV360 runs on both.
3. Confirm the model and voltage on the machine data plate. Model ranges change by year and region.
4. Plan the layout on the upper structure: counterweight, right rail and left rear corner, plus the monitor in the cab.
5. Order the complete kit plus any accessories listed for your class.

Power: 12 V, 24 V and Electric Excavators

- **Mini and most midi excavators:** 12 V system. Connect to a fused, key-switched 12 V circuit and the constant 12 V line, as the user manual shows.
- **Medium, large and mining excavators:** 24 V system, two 12 V batteries in series. RioV360 connects directly, with no converter.
- **Wheeled excavators:** 24 V system, same connection as crawler machines of the same size.
- **Battery-electric excavators:** connect to the key-switched 12 V accessory circuit. If there is none, add the RV360-DCC isolated DC-DC converter. Never connect to the drive battery.

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
Mini	Under about 6 t (13,000 lb)	12 V	Direct: 12 V key-switched circuit	EXT, 512, MAG	Canopy: mount on the ROPS. Zero-tail-swing: rear camera on top of the counterweight.
Midi	About 6 to 10 t	12 V on most, some 24 V	Direct: 12 V or 24 V key-switched circuit	EXT, 512, MAG	Check the voltage on the battery or data plate. RioV360 runs on either.
Medium	About 10 to 30 t	24 V	Direct: 24 V key-switched circuit	EXT, CBX, 512	Most common contractor size. Right side is the biggest blind spot.
Large	About 30 to 50 t	24 V	Direct: 24 V key-switched circuit	EXT, CBX, 512	CBX cables reach the counterweight and right rail.
Mass / Mining	Over about 50 t	24 V	Direct: 24 V key-switched circuit	EXT, CBX, 512	Confirm cable lengths with us. Mount cameras low enough to see 0 to 5 m.
Wheeled	About 14 to 25 t	24 V	Direct: 24 V key-switched circuit	EXT, CBX, 512	Cat M314 to M320, Volvo EW160E to EW220E, Develon DX140W to DX210W.
Battery Electric	Mostly minis	Low-voltage accessory circuit	Key-switched 12 V accessory circuit, or RV360-DCC	EXT, 512, DCC if needed	Volvo EC18 Electric, Bobcat E10e, Takeuchi TB20e. Never connect to the drive battery.

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

Models by Brand and Size Class

Brand	Mini	Midi	Medium	Large	Mass / Mining
Cat	301.5, 301.7, 302, 302.7, 303, 303.5, 304, 305 CR	306, 308, 309, 310	313, 315, 317, 320, 323, 326	330, 335, 336, 340	352, 374, 395
John Deere	17, 26, 30, 35, 50, 60 P-Tier	75, 85	130, 160, 210, 245, 250, 300	345, 350, 380, 470	510, 670, 870
Komatsu	PC30MR to PC55MR	PC78US, PC88MR	PC130LC to PC290LC	PC360LC, PC390LC, PC490LC	PC2000 and larger
Volvo	EC18 Electric, ECR18 to ECR58	EC60, ECR88	EC140 to EC230, ECR145, ECR235	EC370, EC400	EC500, EC750
Hitachi	ZX17U to ZX60USB	ZX75US, ZX85USB	ZX130 to ZX300LC	ZX345USLC, ZX350LC, ZX490LC	ZX690LC, ZX890LC
Kubota	K008, U10 to U55, KX030 to KX057	KX080	Not listed	Not listed	Not listed
Bobcat	E10 to E55	E60, E88	E145, E165, E220	Not listed	Not listed
Takeuchi	TB210R to TB250-2, TB20e	TB260, TB370, TB280FR, TB290	TB2150	Not listed	Not listed
Case	CX17C to CX57C	CX60C, CX80C	CX140E to CX300E	CX380E	CX750D
Develon	DX17Z to DX55R	DX62R, DX63, DX89R	DX140LC to DX300LC	DX350LC	DX800LC, DX1000LC

Older Excavators

Brand	Older series	How to match
Cat	B, C, D, E and F series, early Next Gen	A 320E or 320D fits like the current 320
John Deere	C, D and G series	A 210G LC fits like the current 210
Komatsu	Dash 7 through Dash 10	A PC210LC-10 fits like the PC210LC-11
Volvo	B, C, D and E series	An EC220E fits like the EC220
Hitachi	Dash 3, 5 and 6	A ZX210LC-6 fits like the ZX210LC-7
Develon	Doosan and Daewoo DX and Solar models	A Doosan DX225LC-5 fits like the DX225LC-7

Older excavators fit by operating weight. The number sets the size and the letter or dash number sets the generation, so an older generation fits like the current model with the same number. Not listed? Send the make and model and we will confirm the kit within one business day.

Camera / Beacon Layout

- **Rear:** on the counterweight, aimed down at the swing radius. On zero-tail-swing machines, mount on top of the counterweight.
- **Right side:** on the right upper deck rail, aimed down along the track. The right side is the operator's biggest blind spot.
- **Left side:** on the rear-left upper corner, aimed forward along the track and the swing path.
- **Front (optional fourth):** on the cab roof front edge, looking at the bucket work zone and travel path.
- **Monitor:** on the front-right cab pillar with the RV360-EXT kit, clear of the window wiper and joystick reach.
- **Beacon:** on the counterweight or the cab roof rear, where ground crews can see and hear it.

Mounting on the upper structure means the cameras swing with the operator, so the monitor view always matches where the operator is facing. On canopy minis, mount the cameras on the ROPS canopy frame. 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 upper decks.
- **RV360-512:** Upgraded Storage: 512GB card for about 60 hours of continuous video.
- **RV360-MAG:** Magnetic Camera Mounts: no-drill mounting on the steel cab and counterweight, ideal for trial positions (US shipments).
- **RV360-DCC:** Isolated DC-DC Converter: for battery-electric excavators with no low-voltage circuit. Priced on quote.

Common Questions

Does RioV360 fit mini excavators? Yes. Minis run a 12 V system and RioV360 runs on 8 to 32 V, so it connects directly. On canopy machines the cameras mount on the ROPS canopy.

Where do the cameras go on an excavator that swings? On the upper structure: counterweight, right deck rail and rear-left corner, with an optional front camera. They swing with the operator, so the monitor always shows what is around the cab.

Does RioV360 work on electric excavators? Yes. Connect to the key-switched 12 V accessory circuit. If the machine has none, add the RV360-DCC isolated converter.

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 Excavator Before You Commit

$500 off

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

Put RioV360 on the excavator with the most people around it and let your operators, foremen and EHS team see it work on your own site. No long trial agreements and no software to set up. Install it, run it, and decide.

1. **Pick the excavator**
   Choose the machine with the most people working inside the swing radius.
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**
   Follow the user manual and the layout in this guide.
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-MAG
Magnetic Camera Mounting Kit
No-drill camera mounts to trial positions on the cab and counterweight.

RV360-CBX
Extension Cables
Camera and monitor extensions for medium and larger excavators.

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

Size classes, weights and model lists are approximate and vary by year, region and configuration. 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.