

## MULTI-VIEW VEHICLE SCREENING SYSTEM

# Z PORTAL

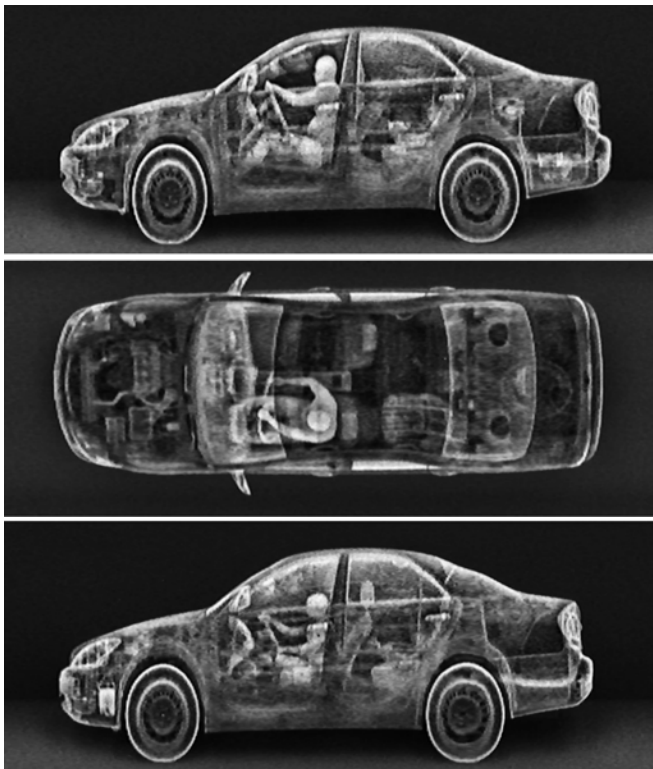
**The Z Portal X-ray Screening System** is the only multi-view, drive-through vehicle screening system capable of scanning cars, vans, and their cargo for concealed threats and contraband.

The Z Portal produces photo-like images, and highlights organic contraband, such as explosives, drugs, and stowaways. The Z Portal is safe for drivers and passengers to remain in the vehicle during the screening process.



**Provides safe, comprehensive threat detection:** Better detects threats and contraband hidden in a vehicle with proprietary and safe Z Backscatter imaging technology, which allows drivers and passengers to remain in the vehicle during the screening process.

**Reduces Traveler's Inconvenience:** Reduces intrusive and time consuming manual searches from potentially hours to minutes by providing the operator with a clear image of the vehicle for easy identification of hidden threats and contraband.



**Safety Assured:** Z Portal's low radiation dosage is safe for operators, drivers and the environment and falls well within standards set by The National Council on Radiation Protection (NCRP), Nuclear Regulatory Commission (NRC), and the State of California.

For a comparison, one scan of the Z Portal is equivalent to flying about 1 minute at altitude (approximately 30,000 ft) on an airplane.

**Privacy Assured:** The Z Portal's primary purpose is to image vehicles and their contents. For persons present in the vehicle, the system creates only a silhouette with no facial or body detail. The system cannot be used to identify an individual, or the race, sex or age of the person.

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### Some Everyday Comparisons

Dose from....	Dose (MicroRem)	Relative to Z Portal Scan
One Z Portal Scan	Less than 5 microRem	1 X
Additional background radiation from one day in Denver	70 microRem	14X
One hour on an airplane	300 microRem	60 X
Background radiation per day	1000 microRem	200 X
Trans-continental flight	1500 microRem	300 X
Chest X-Ray	5,000 – 10,000 microRem	1000 -2000 X
Average radiation dose per year from natural and man-made sources	360,000 microRem	72,000 X
CAT scan (Head and Body)	1,000,000 microRem	200,000 X

### Applicable Radiation Standards

Government Institute	General Public (including children and pregnant woman)
Nuclear Regulatory Commission (NRC)	100,000 microRem (0.1rem) per year
National Council on Radiation Protection (NCRP)	100,000 microRem (0.1rem) per year
State of California	100,000 microRem (0.1rem) per year

### Frequently Asked Questions

***Does the driver need to exit the vehicle for a scan?***

No, the Z Portal is a safe drive-through system. Drivers and passengers can stay in their vehicles while driving through the system.

***Is Z Portal safe for everyday use? What about exposure levels for individuals who cross the border daily or for employees in companies or high security facilities who have to be screened each day?***

Yes, the Z Portal system is safe for everyday use — the National Council on Radiation Protection recommends that the radiation dose for the general public not exceed 100,000 microRem per year (from all man-made non-medical sources). At less than 5 microRem per scan, even 20,000 Z Portal scans in one year would not exceed this recommended limit (equivalent to 54 scans per day to be within the dose limits).

***Is Z Portal safe for children and pregnant women?***

The dose limits set by the Nuclear Regulatory Commission (NRC) take into consideration the most sensitive members of the population, including pregnant and potentially pregnant women, children, infants, persons receiving radiation treatment for medical conditions, and others. The effective dose from the Z Portal system is less than 5 microRem per scan, which falls well within the NRC standard.