

Safety At Your Side





Seat Belts



SmartDock®



READYREACH®



Air Bags

IMMI 

Serving first responders for over **30** years



Truck



Off Highway



Power Sports

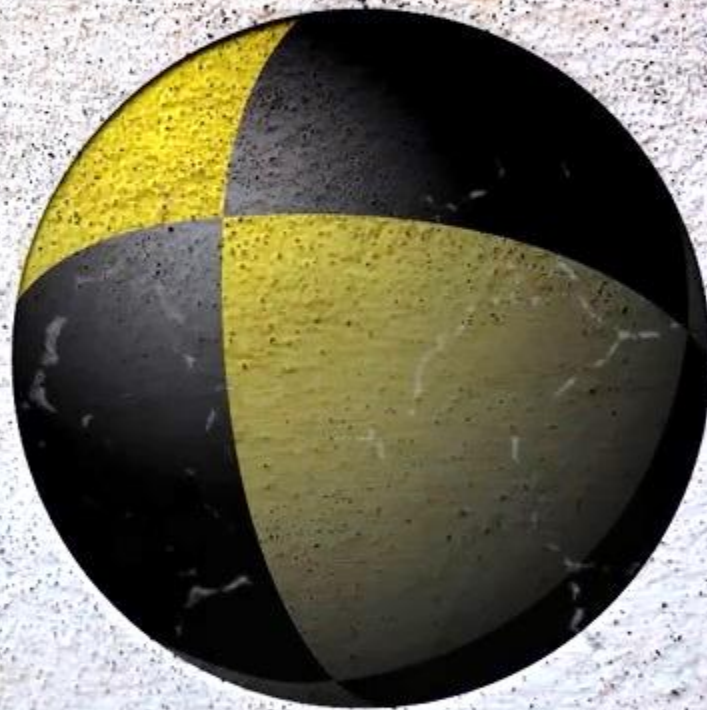


Child



Testing

CAPE[®]



capetesting.com

CAPE[®]



capetesting.com

VEHICLE CRASHES 3RD LEADING CAUSE OF DEATH

-USFA



SOURCE: https://www.usfa.fema.gov/downloads/pdf/publications/ff_fat17.pdf

Injury \$310,000

Death

\$4.8
MILLION

SOURCE: FMCSA, quoted from March 2001 publication, 1997 costs adjusted to 2012 dollars

Our Goal

crash



walk away event



2003

Fire Apparatus

2007

Heavy Truck

RollTEK ®



Rollover
protection
engineered
for fire
apparatus



90° ROLL



90° ROLL



360° ROLL
DOWN EMBANKMENT

Terms & Acronyms Used

AB10 Crash Sensor

Sensor that determines if the vehicle is rolling over or in a frontal collision. Also performs diagnostics and deploys.

4Front

IMMI's name for Frontal Impact Protection.

Belt & ADM

Seat belt and adjustable D loop mechanism. The ADM raises and lowers the D ring to position the torso portion of the belt relative to the neck of the occupant.

DAB

Driver Airbag. Installed in the steering wheel.

Terms & Acronyms Used

FIP

Frontal Impact Protection system will activate airbags, seat belt pretensioners and any Side Roll devices.

IBP

Integrated Belt Pretensioner. Tightens and removes seat belt slack in a crash event.

ICP

Inter Connecting Point. This part connects the seat to the S4S system. This part is installed directly to the seat by the seat supplier.

IGP

Integrated Gas Pretensioner. Similar to IBP, but smaller with different style mounting. Does the same function as IBP.

Terms & Acronyms Used

KAB

Knee Air Bag is part of the 4Front frontal collision system it is designed to work in conjunction with a 3 point seat.

RollTek

IMMI's brand name for side rollover protection.

Slave sensor

Receives trigger signal from AB10 master sensor and can deploy up to 8 additional safety devices.

Terms & Acronyms Used

SRA

Side Rollover Airbag. A side airbag that is mounted within a seat. Deploys next to the head to protect the occupant.

SRS

Supplemental Restraint System. This term reflects the entire system as a supplement to seat belts, including diagnostics, sensors, airbags and pretensioners.

S4S

Suspension Seat Safety System. A seat belt and seat pretensioner combined. Significantly more powerful than a buckle pretensioner. Pretensions the seat belt and pulls down suspension seats in a crash event.

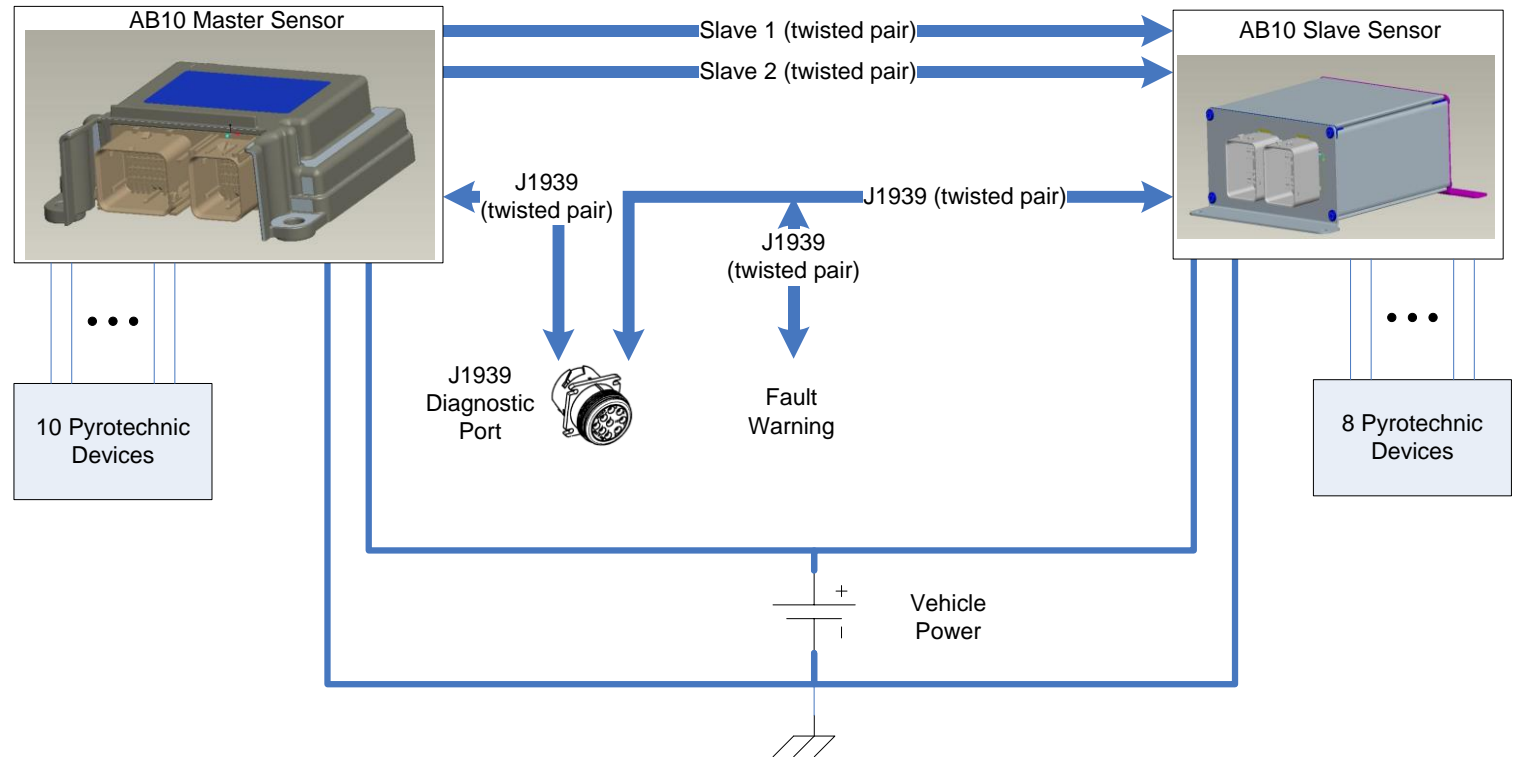
RollTEK[®]

Side Roll Protection by IMMI



4Front System or RollTek

- Three Basic Parts
 - Master / Slave Sensors.
 - Pyrotechnic Devices.
 - Harness (OEM Supplied).



What happens in a rollover

Unbelted
Firefighters



Inside a truck during a rollover



Seat pulled down & seat belt tightened

S4S
suspension
seat





RollTEK[®]

Side Roll Protection by IMMI

Rollover Protection System



- Secures firefighters
- Increases survivable space
- Protects head & neck



4FRONT ®

Frontal Collision Protection by IMMI





**Airbag
protection
engineered
for fire
apparatus**

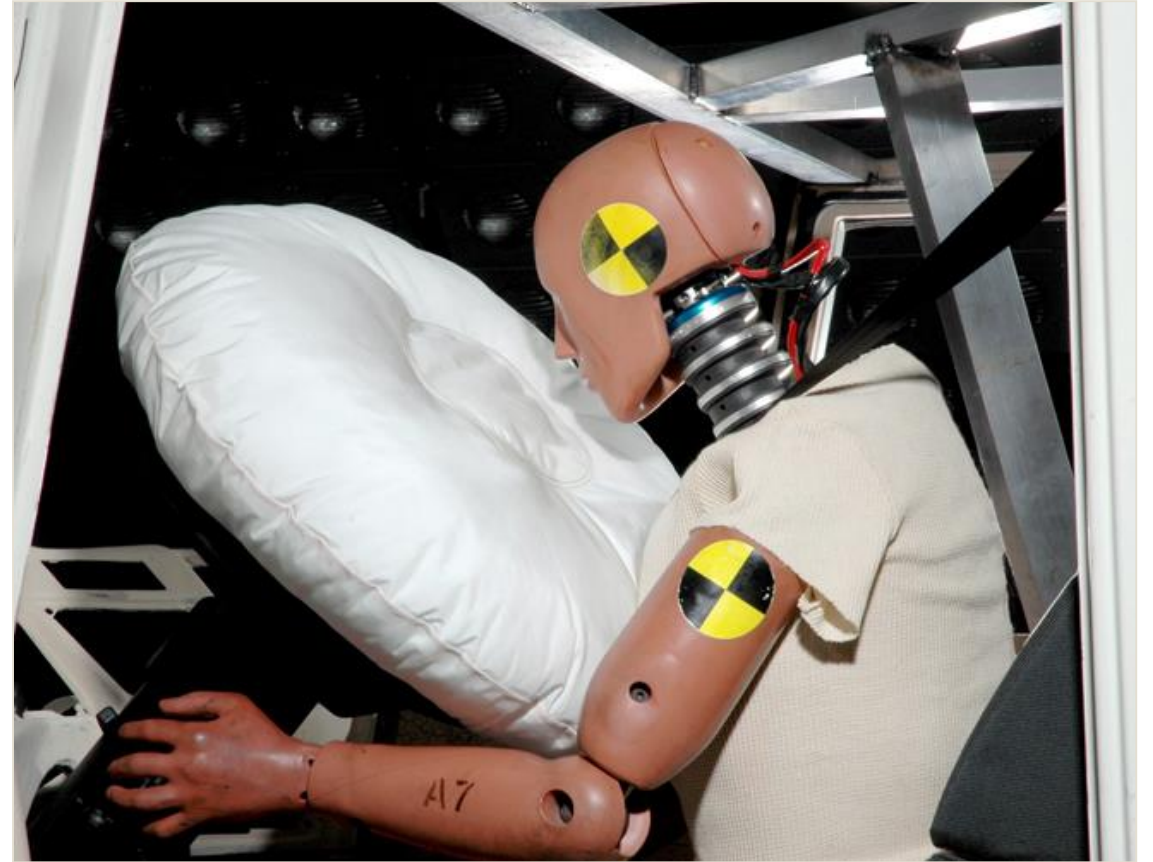
How 4Front Works

- | | |
|------------------|--|
| SENSOR | Sensor detects a frontal crash |
| TIGHTEN | Seat belt tightens around body |
| PULL DOWN | Suspension seats are pulled to the floor
creating maximum survivable space in the cab |
| INFLATE | Frontal airbag inflates from steering wheel
Knee airbags inflate from center column/below glove box |

RESULT

Protects head and neck of the driver
Reducing the risk of death and injury

Driver's Airbag (DAB)



Frontal Airbag



Seat pulled down
Seat belt tightened

Knee Airbags

Frontal Airbag

FRONTAL
SENSOR



4FRONT

IMMIO[®]

Driver and Officer Knee Airbag (KAB)



Knee Airbag (KAB)

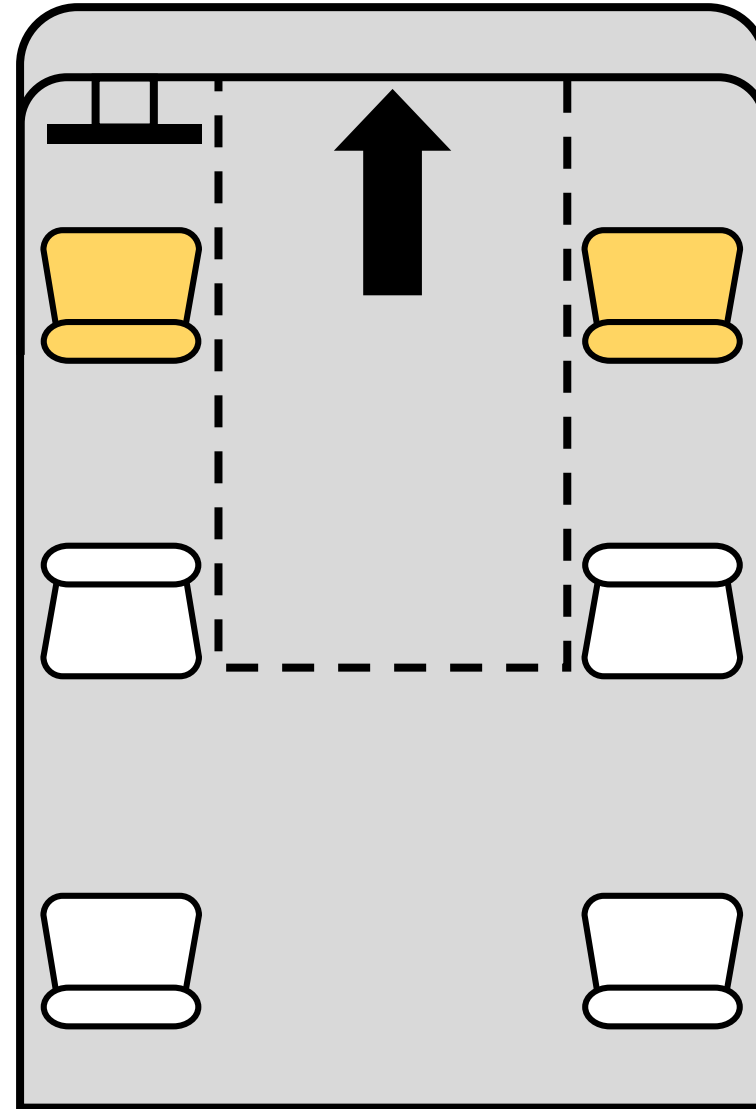
Located below the glove box.



Availability

Driver & Officer

- 4Front
 - Frontal Airbag
 - Knee Airbag
 - ICP or IBP
- RollTek
 - Side Airbag (SRA)



Side Roll Airbag (SRA)

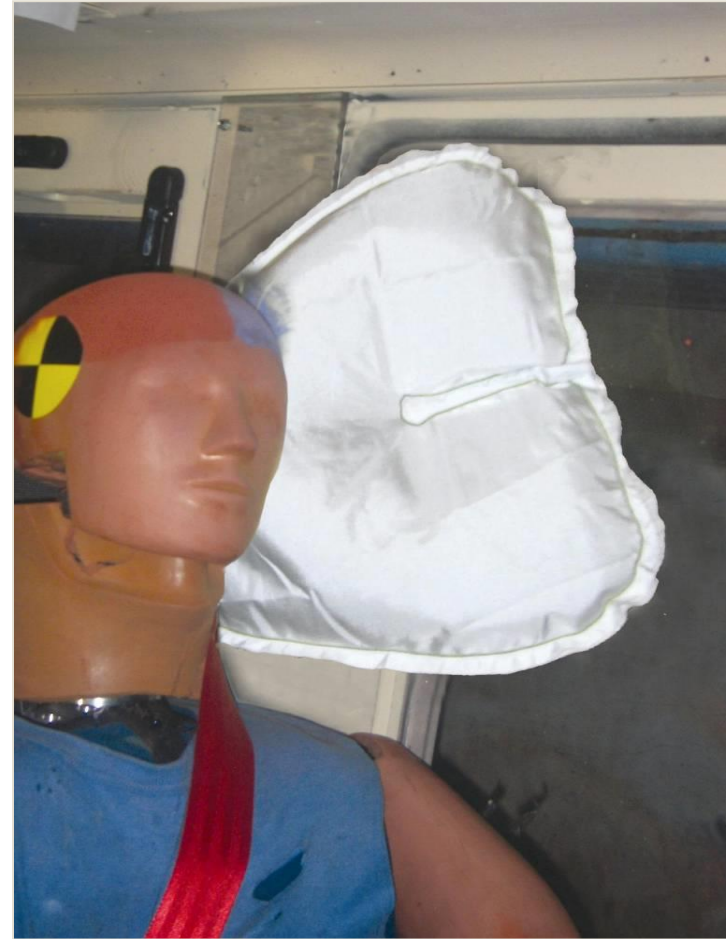
- Side Airbag.
- Not integrated into the cab trim.
- Only supported on one end.
- Mounting integrated into the seat.
- Airbag is always positioned relative to head.

SRA

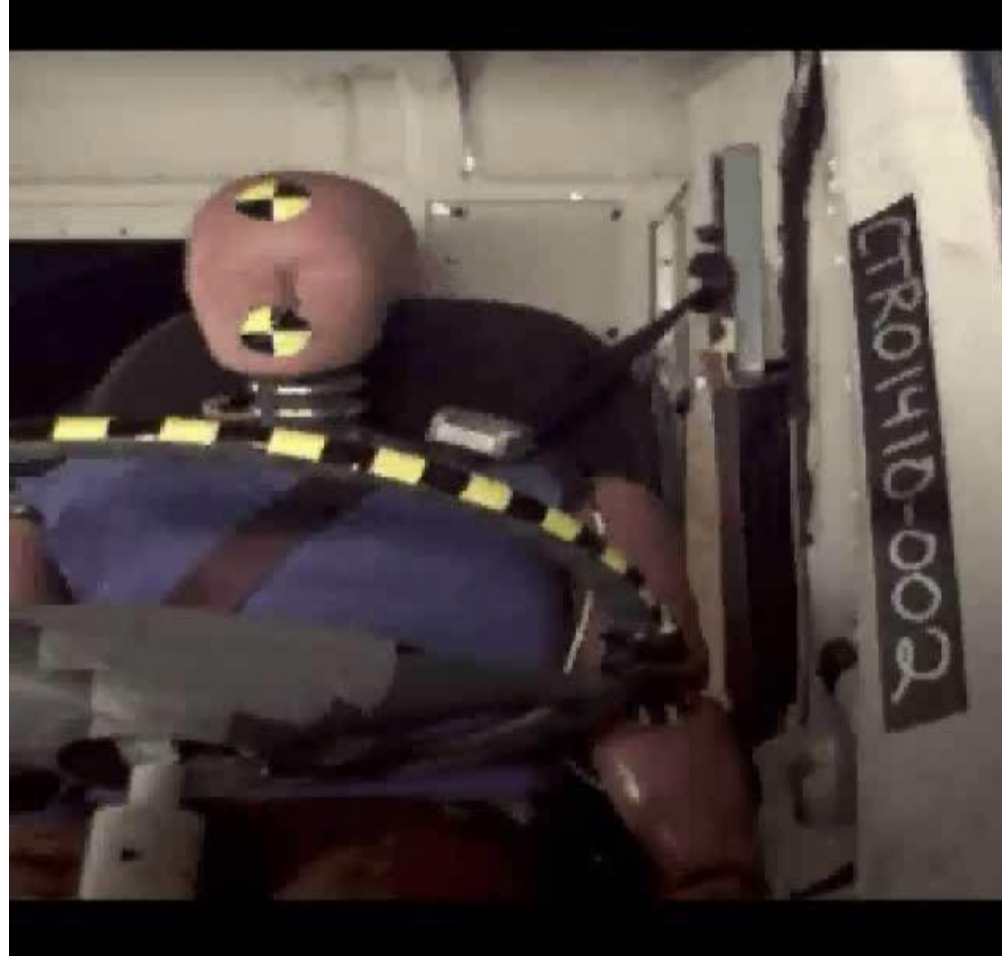


Serial Number

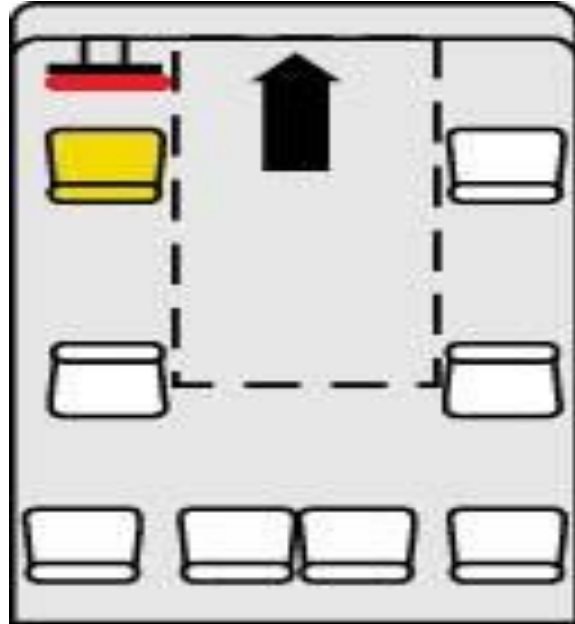
SRA



SRA



4Front / RollTek



Driver (air ride seat)

Lap-shoulder seat belt

IBP or ICP buckle pretensioner

SRA

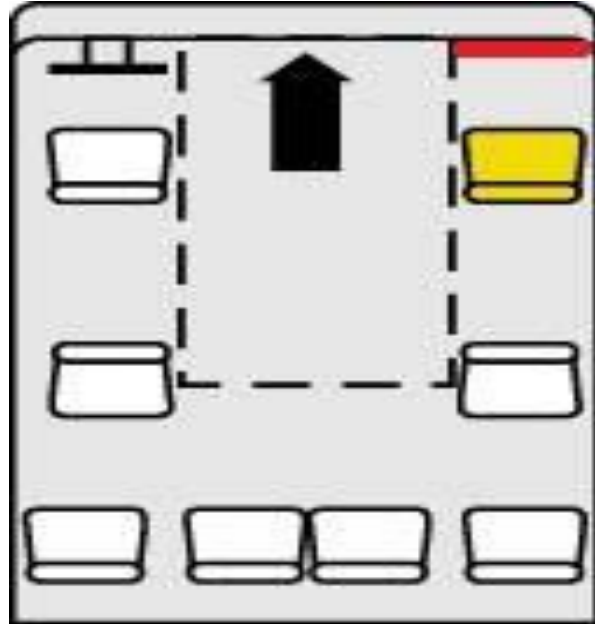
S4S(Suspension Seat)

If 4Front is Available:

DAB (Driver Airbag)

KAB (Knee Airbag)

4Front / RollTek



Officer (Static Seat)

Lap-shoulder seat belt

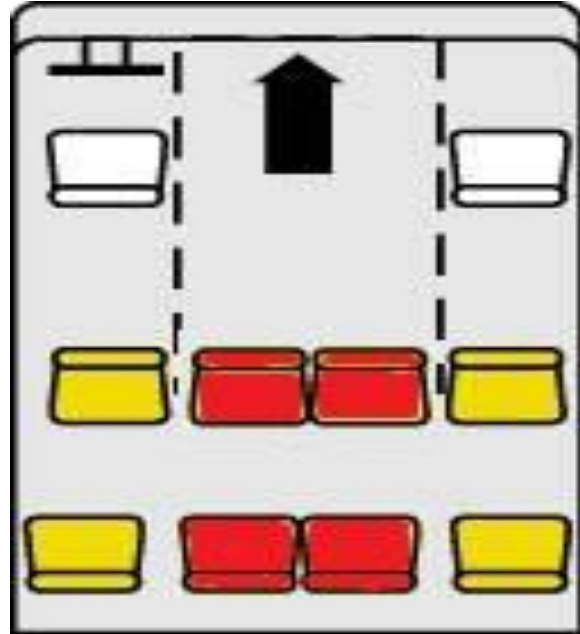
SRA

IBP Buckle Pretensioner

If 4Front is Available:

KAB (Knee Airbag)

4Front / RollTek



Crew (Static Seat)

Lap-shoulder seat belt
SRA

IBP Buckle Pretensioner

If Seat locations Available:

Lap-shoulder seat belt

IBP Buckle Pretensioner



**They deserve the same protection
as the people they rescue.**



Steve Ward
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Thank You