

Forward Monitoring System



Forward Monitoring System

Contributes to accident prevention by reducing human errors, supporting safe operations amid aging drivers and workloads

Obstruction

Warning Indicator

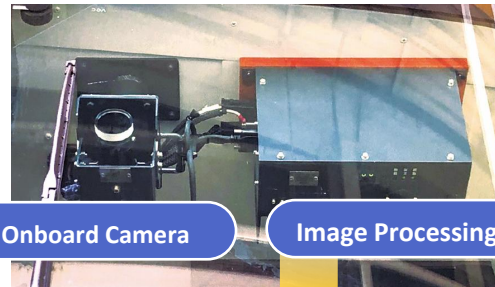


Departure Signal



Prevention
of Oversight

Onboard devices



Onboard Camera

Image Processing Unit



Speaker

Attention
Ahead

Forward Monitoring System



Detects flashing obstacle warning indicator from a distance
and trigger audio alerts to assist drivers.

Onboard Camera

Image
Processing Unit



Crew Cabin

Onboard Image
Processing Unit

Equipment
4K Camera

Speaker



Running



2

Captures and analyzes
images over 600m
ahead to detect
flashing indicator.

1

flashing
indicator



Detection Distance
Over 600 m

Speaker



3

Alert

Option



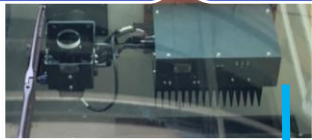
Rotating-type obstruction indicator can
also be used with by modifying the lights
so that they all flash simultaneously.

Forward Monitoring System

Prevent false departures caused by oversight departure signals and ensure safety.

Onboard Camera

Image
Processing Unit



Crew Cabin

Onboard Equipment
Image Processing Unit 4K Camera

Speaker

speaker



Capture Front View and Analyze image

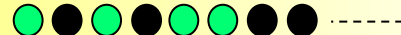
Decode Blinking Pattern to ID + Signal Aspect Information

Flashing the LED light at high speed

Encoded ID + Signal Aspect Information to Blinking Pattern

1

Visible Light Communication



Detection Distance

Over 200 m

Departure
Signal

Stopped at
the Station

3 Alert

Transmit signal aspect information as Digital Data
⇒ Ensure Accurate Detection of signal aspect

Please check out the demo and videos.

miniature demo

Obstruction warning
indicator detection

Signal aspect
detection

visible light
communication

movie



Alarm sound

