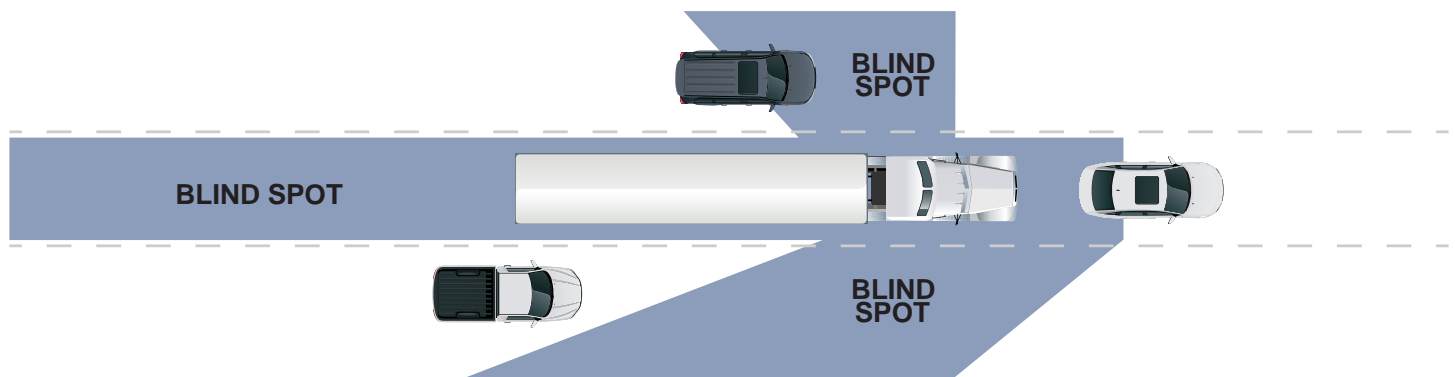


# MIRROR CHECK STATION GUIDE



# MIRROR USE - THE EYES HAVE IT!

Blind spots are one of the key factors that increase the risk of a truck crash. In the diagram below, you can see some of the potential blind spots in the front, rear, and sides of a tractor-trailer. Similar blind spots are present with straight trucks, cargo vans, and other company vehicles. Managing the space around the truck is challenging for drivers, even in heavy traffic, but it is often doable with proper equipment that is adjusted properly, effective training, and good decision-making.



The purpose of a mirror check station is to assist drivers so they can properly adjust all mirrors before leaving on a trip. This will help improve the driver's ability to perceive hazards and better manage the space around the truck while driving. In addition, if mirrors should fall out of alignment while driving, due to vibration or other causes, drivers can recall the proper alignment from their time in the mirror check station and make adjustments.

## RETURN ON INVESTMENT (ROI)

Mirrors remain a tried and true method to help drivers with space management. In addition to the flat and convex mirrors mounted on the doors that come standard with power units, fender- or hood-mounted mirrors increase the driver's field of vision around the truck. This low-cost piece of equipment is easy to install and promises a quick return on investment. For example, shopping around the internet, one can purchase fender-mounted mirrors for under \$300 per truck. Now, consider the fact that even the smallest claims involving a large truck typically cost tens of thousands of dollars. If just one collision can be prevented because the driver used fender-mounted mirrors, the ROI is easy to justify.

## HOW TO USE THIS GUIDE

In the pages that follow are sample set-up instructions to create a low-cost mirror check station at your facility. After completion, consider using the lesson plan included to train drivers on how to properly align their mirrors before every leg of their trips.

# MIRROR CHECK STATION SET-UP GUIDE

## TRACTOR-TRAILERS

### REQUIRED MATERIALS

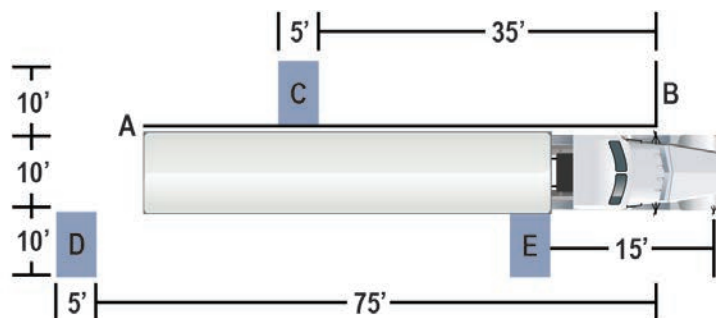
- Flat area outdoors or indoors that is at least 30 feet wide and 80 feet long.
  - Select an area that is close to the facility's exit. Drivers are more likely to use the mirror check station if it is easily accessible.
- One measuring tape.
- For creating a permanent station:
  - The surface should be asphalt or concrete.
  - Use a paint color (white or yellow) that stands out from the color of the asphalt or concrete.
- For creating a temporary station:
  - Regardless of surface type, use 15 orange traffic cones.

### SETUP INSTRUCTIONS

Refer to Diagram 1 below before starting setup.

1. **Line A** - Measure a straight line 60 feet long.
  - a. Permanent stations: Paint Line A (60 feet long by 6 inches wide).
  - b. Temporary stations: Set one orange cone at both ends of Line A.
2. **Line B** - Measure a straight line 10 feet long at a 90-degree angle from the top edge of Line A.
  - a. Permanent stations: Paint Line B (10 feet long by 6 inches wide). Line B should connect to Line A.
  - b. Temporary stations: Set one orange cone at the opposite end of Line B.
3. **Box C** - Measure 35 feet from the top of Line A.
  - a. Permanent stations: Paint Box C (5 feet x 8 feet). Fill in the center of Box C so drivers can easily gauge the depth of the box.
  - b. Temporary stations: Set one orange cone in each corner of Box C.
4. **Box D** - On the passenger side of the tractor, measure 75 feet from the top of Line B (parallel to the door mirrors) to the back of the trailer.
  - a. Permanent stations: Paint Box D (5 feet x 8 feet). Fill in the center of Box D so drivers can easily gauge the depth of the box.
  - b. Temporary stations: Set one orange cone in each corner of Box D.
5. **Box E** - Measure 15 feet from the front of the tractor on the passenger side.
  - a. Permanent stations: Paint Box E (3 feet x 10 feet). Fill in the center of Box E so drivers can easily gauge the depth of the box.
  - b. Temporary stations: Set one orange cone in each corner of Box E.

DIAGRAM 1



# MIRROR CHECK STATION SET-UP GUIDE

## STRAIGHT TRUCKS AND LARGE VANS (OPTIONAL)

### REQUIRED MATERIALS

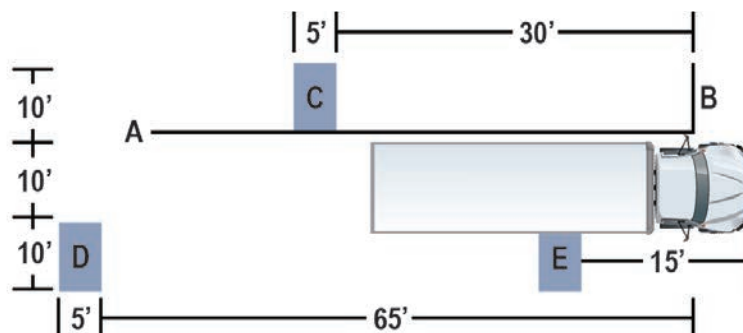
- Flat area outdoors or indoors that is at least 30 feet wide and 70 feet long.
  - Select an area that is close to the facility's exit. Drivers are more likely to use the mirror check station if it is easily accessible.
- One measuring tape.
- For creating a permanent station:
  - The surface should be asphalt or concrete.
  - Use a paint color (white or yellow) that stands out from the color of the asphalt or concrete.
- For creating a temporary station:
  - Regardless of surface type, use 15 orange traffic cones.

### SETUP INSTRUCTIONS

Refer to Diagram 2 below before starting setup.

1. **Line A** - Measure a straight line 60 feet long.
  - a. Permanent stations: Paint Line A (60 feet long by 6 inches wide).
  - b. Temporary stations: Set one orange cone at both ends of Line A.
2. **Line B** - Measure a straight line 10 feet long at a 90-degree angle from the top edge of Line A.
  - a. Permanent stations: Paint Line B (10 feet long by 6 inches wide). Line B should connect to Line A.
  - b. Temporary stations: Set one orange cone at the opposite end of Line B.
3. **Box C** - Measure 30 feet from the top of Line A.
  - a. Permanent stations: Paint Box C (5 feet x 8 feet). Fill in the center of Box C so drivers can easily gauge the depth of the box.
  - b. Temporary stations: Set one orange cone in each corner of Box C.
4. **Box D** - On the passenger side of the truck, measure 65 feet from the top of Line B (parallel to the door mirrors) to the back of the truck.
  - a. Permanent stations: Paint Box D (5 feet x 8 feet). Fill in the center of Box D so drivers can easily gauge the depth of the box.
  - b. Temporary stations: Set one orange cone in each corner of Box D.
5. **Box E** - Measure 15 feet from the front of the tractor on the passenger side.
  - a. Permanent stations: Paint Box E (3 feet x 10 feet). Fill in the center of Box E so drivers can easily gauge the depth of the box.
  - b. Temporary stations: Set one orange cone in each corner of Box E.

DIAGRAM 2

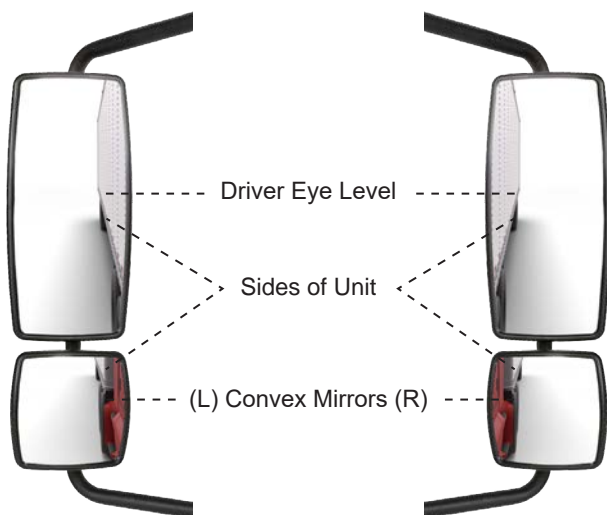


# HOW A MIRROR CHECK STATION WORKS

1. Enter the mirror check station and align the left side of the truck as close as possible to Line A.
2. Stop the truck with the driver-side, door-mounted mirror aligned with Line B. The driver should be able to look out the driver-side window and look down directly over Line B.
3. Place the vehicle in 'Park,' and set the tractor and trailer parking brakes.
4. Adjust the driver's seat.
  - Raise or lower the seat so the driver's legs are parallel to the floor. His or her feet should be flat on the floor.
  - Lift the steering wheel out of the way, then move the seat forward or back so that the left foot can press the clutch or brake pedal to the floor without the driver coming out the seat.
  - Lower the steering wheel. Place your hands on the wheel at the nine o'clock and three o'clock positions. The elbows should be slightly bent and shoulders relaxed. For comfort, arms should not be locked.
5. Ensure the driver-side and passenger-side windows are clean and unobstructed.
6. Rotate the driver-side flat and convex mirrors horizontally (left and right) until the side of the trailer is flush on the inside edge of both mirrors. (See Diagram 3.)
7. Tilt the driver-side flat mirror vertically (up and down) until the front of Box C (the edge closest to the front of the truck) is visible in the bottom edge of the flat mirror. (See Diagram 3.)
8. Tilt the driver-side convex mirror vertically (up and down) until the rear of Box C is visible in the top edge of the convex mirror. (See Diagram 3.)
9. Rotate the passenger-side flat and convex mirrors horizontally (left and right) until the side of the trailer is flush on the inside edges of both mirrors. (See Diagram 3.)
10. Tilt the passenger-side flat mirror vertically (up and down) until the front of Box D is visible in the bottom edge of the passenger-side flat mirror. (See Diagram 3.)
11. Tilt passenger-side convex mirror vertically (up and down) until the rear of Box D is visible in the top edge of the convex mirror. (See Diagram 3.)
12. For tractor-trailers, adjust both fender/hood-mounted convex mirrors so the side of the tractor is flush with the inside edge of each mirror. The trailer's rear tandems should be visible in the upper portion of the mirror. (See Diagram 4.)

*Note: Ask for assistance, if available (i.e., mechanic or other driver). While seated in the proper position, roll down the window and give the assistant instructions on how to adjust the fender mirrors to your specifications. If an assistant is not available, exit the vehicle and make adjustments as needed. Use three points of contact when entering and exiting the vehicle.*

**DIAGRAM 3**  
(L) West Coast Mirror (R)



**DIAGRAM 4**  
(L) Fender-Mounted Mirrors (R)



# LESSON PLAN

## MIRROR ALIGNMENT

### OVERVIEW FOR TRAINERS

Managing the space around the truck starts before a driver begins each trip and does not end until the vehicle is safely parked. From conducting a thorough pre-trip vehicle inspection and properly aligning the mirrors to constantly monitoring vehicles around the truck and making good decisions behind the wheel while driving, a driver's space management skills are essential to preventing vehicle crashes and hitting stationary objects. The goal of this training course is to tell the audience how to use a mirror check station to properly align the truck's mirrors, show them how to align the truck's mirrors, and then have each trainee complete this task by demonstrating how to adjust the mirrors properly.

### DELIVERY MODE

This is a classroom-based lesson that incorporates group discussion, video, and hands-on demonstration.

### TIME ALLOCATION

45 minutes or more depending on class size

### REQUIRED MATERIALS

1. Mirror check station on the property
2. One tractor-trailer with door-mounted mirrors on the driver and passenger sides as well as fender-mounted mirrors on both sides
3. Training room with seats and tables for all trainees
4. Sign-in sheet
5. Flipchart or whiteboard
6. Handouts (pgs. 9-10 in this booklet) – one copy per trainee

### SETUP INSTRUCTIONS (DAY OF TRAINING)

1. Park the tractor-trailer in the mirror check station.
2. Misalign the truck's fender-mounted and side mirrors.
3. Draw the layout of your mirror check station on the classroom's flipchart or whiteboard.
4. Distribute one handout per trainee.



# CLASSROOM DELIVERY INSTRUCTIONS

## MIRROR ALIGNMENT

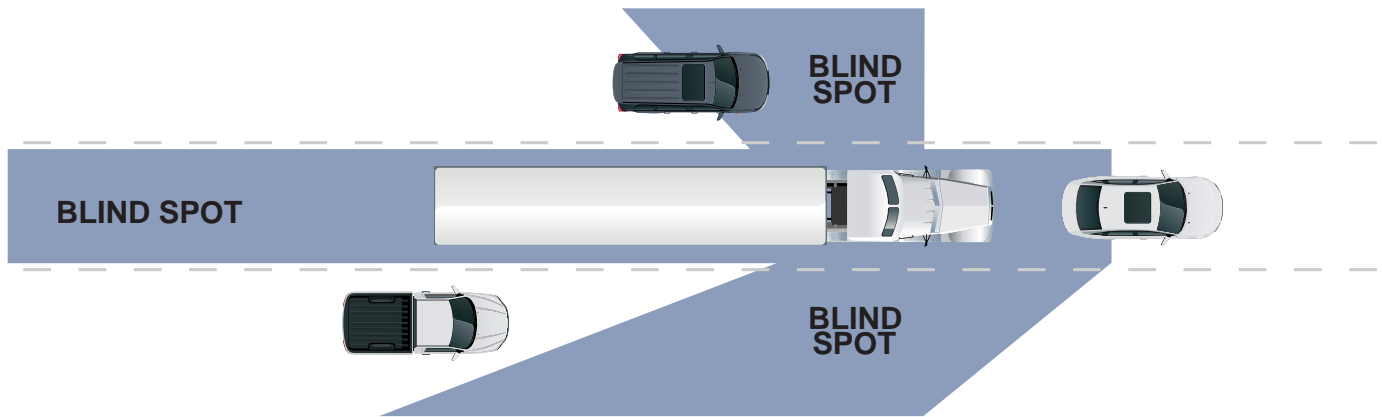
ACTIVITY	INSTRUCTIONS
<p><b>ACTIVITY 1</b> 10 minutes</p>	<p><b>WELCOME</b></p> <ol style="list-style-type: none"> <li>1. Provide hardcopies of the training aids and writing utensils to each attendee.</li> <li>2. Have all attendees sign in.</li> <li>3. Introduce yourself.</li> <li>4. Ask attendees introduce themselves and answer the following questions:</li> </ol> <p><b>QUESTION TO AUDIENCE:</b> How long have you been driving?</p> <p><b>QUESTION TO AUDIENCE:</b> What are some hazards that affect your ability to see around the truck when driving?</p> <p><u>Possible answers:</u> Blind spots, misaligned mirrors, dirty windows, seat not adjusted to correct height, mirrors damaged or missing, not conducting a pre-trip inspection, etc.</p> <p><b>LEARNING OBJECTIVES</b> At the end of this this training class, each trainee should be able to demonstrate how to properly align the truck's mirrors with or without the aid of a mirror check station.</p>
<p><b>ACTIVITY 2</b> 7 minutes</p>	<p><b>MIRROR CHECK STATION USE</b> Walk the audience through steps 1-12 below on how to use the mirror check station. Refer to the mirror check station drawing on the whiteboard/flipchart and the handout.</p> <ol style="list-style-type: none"> <li>1. Enter the mirror check station and align the left side of the truck as close as possible to Line A.</li> <li>2. Stop the truck with the driver-side, door-mounted mirror aligned with Line B. The driver should be able to look out the driver-side window and look down directly over Line B.</li> <li>3. Place the vehicle in 'Park,' and set the tractor and trailer parking brakes.</li> <li>4. Adjust the driver's seat. <ul style="list-style-type: none"> <li>• Raise or lower the seat so the driver's legs are parallel to the floor. His or her feet should be flat on the floor.</li> <li>• Lift the steering wheel out of the way then move the seat forward or back so that the left foot can press the clutch or brake pedal to the floor without the driver coming out the seat.</li> <li>• Lower the steering wheel. Place your hands on the wheel at the nine o'clock and three o'clock positions. The elbows should be slightly bent, and shoulders relaxed. For comfort, arms should not be locked.</li> </ul> </li> <li>5. Ensure the driver-side and passenger-side windows are clean and unobstructed.</li> <li>6. Rotate the driver-side flat and convex mirrors horizontally (left and right) until the side of the trailer is flush on the inside edge of both mirrors. Refer to Diagram 3 in the handout.</li> </ol>

ACTIVITY	INSTRUCTIONS
<b>ACTIVITY 2 CONT.</b> 7 minutes	<ol style="list-style-type: none"> <li>7. Tilt the driver-side flat mirror vertically (up and down) until the front of Box C (the edge closest to the front of the truck) is visible in the bottom edge of the flat mirror. Refer to Diagram 3 in the handout.</li> <li>8. Tilt the driver-side convex mirror vertically (up and down) until the rear of Box C is visible in the top edge of the convex mirror. Refer to Diagram 3 in the handout.</li> <li>9. Rotate the passenger-side flat and convex mirrors horizontally (left and right) until the side of the trailer is flush on the inside edge of both mirrors. Refer to Diagram 3 in the handout.</li> <li>10. Tilt the passenger-side flat mirror vertically (up and down) until the front of Box D is visible in the bottom edge of the passenger-side flat mirror. Refer to Diagram 3 in the handout.</li> <li>11. Tilt passenger-side convex mirror vertically (up and down) until the rear of Box D is visible in the top edge of the convex mirror. Refer to Diagram 3 in the handout.</li> <li>12. For tractor-trailers, adjust both fender/hood-mounted convex mirrors so the side of the tractor is flush with the inside edge of each mirror. The trailer's rear tandems should be visible in the upper portion of the mirror. Refer to Diagram 4 in the handout.</li> </ol> <p><i>Note: Ask for assistance, if available (i.e., mechanic or other driver). While seated in the proper position, roll down the window and give the assistant instructions on how to adjust the fender mirrors to your specifications. If an assistant is not available, exit the vehicle and make adjustments as needed. Use three points of contact when entering and exiting the vehicle.</i></p>
<b>ACTIVITY 3</b> 10 minutes	<p><b>DEMONSTRATION</b></p> <ol style="list-style-type: none"> <li>1. Ask attendees if they have any other questions before moving to the demonstration portion of the class.</li> <li>2. Take the class outside to the mirror check station.</li> <li>3. Walk the class around the truck, explain the layout, and reinforce the steps covered in Activity 2.</li> </ol> <p><b>QUESTION:</b> For each mirror, ask the trainees what they should expect to see when the mirrors are properly aligned.</p> <ol style="list-style-type: none"> <li>4. Have each driver back the truck out of the mirror check station (using a spotter), and demonstrate how to park the truck properly in the mirror check station.</li> <li>5. Have each driver demonstrate how to properly adjust the seat.</li> <li>6. Have each driver demonstrate how to properly align the mirrors.</li> <li>7. Verify the seat and mirrors are properly adjusted. Repeat Steps 4-6 for each driver.</li> </ol>
<b>ACTIVITY 4</b> 10 minutes	<p><b>CONCLUSION</b></p> <p>Answer any questions about the training topic covered. Solicit trainee feedback on how the training course can be improved. What did they like/dislike? When finished, thank the attendees for participating and end the class.</p>

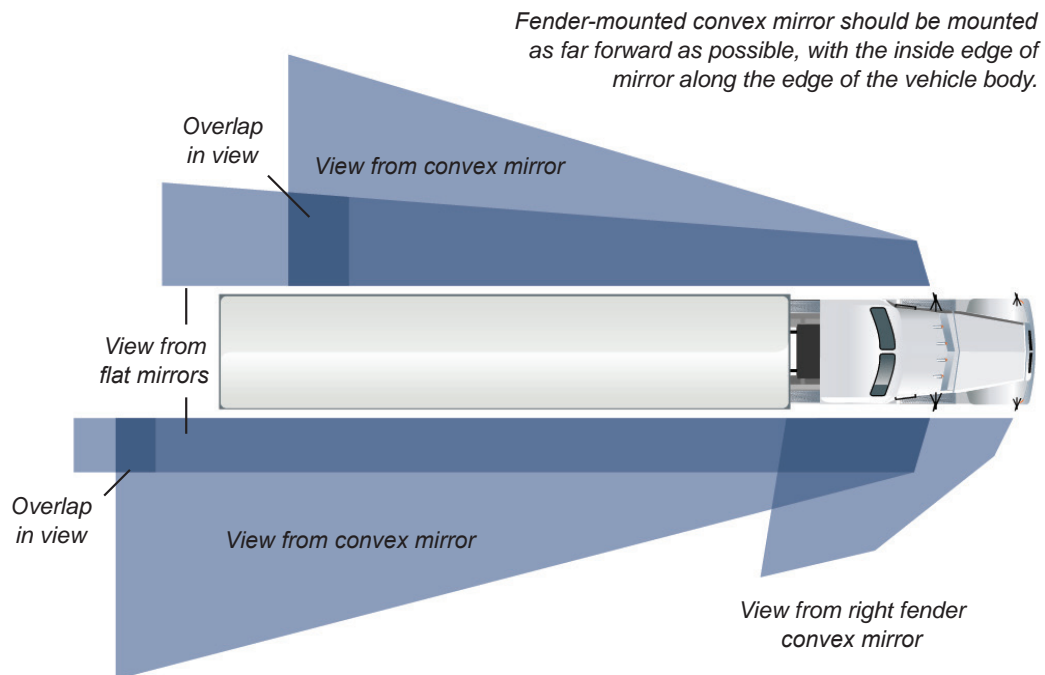


# DRIVER HANDOUT

## BLIND SPOTS AROUND THE TRUCK (DIAGRAM 1)



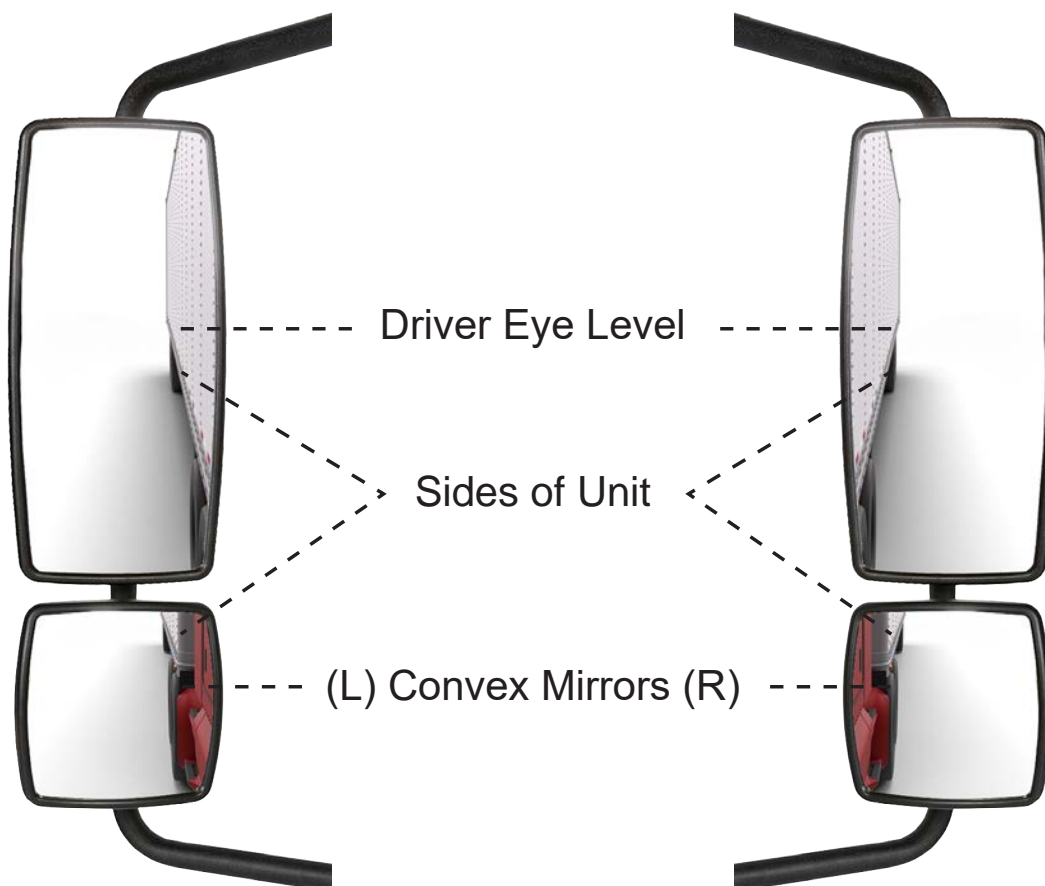
## VIEW AROUND A TRUCK USING PROPERLY ADJUSTED MIRRORS (DIAGRAM 2)



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# DRIVER HANDOUT

## PROPERLY ALIGNED DOOR-MOUNTED MIRRORS (DIAGRAM 3)



## PROPERLY ALIGNED FENDER-MOUNTED MIRRORS (DIAGRAM 4)



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# ACCESS ONLINE RESOURCES

To help aid your safety training efforts, additional resources are available through Old Republic Canada's Online Learning Library as well as on their website. Please refer to the instructions below on how to access these resources.

## ONLINE LEARNING LIBRARY

The Online Learning Library contains over 350 safety videos, which can be accessed 24/7 using an internet-ready device, such as a PC, laptop, tablet, or smartphone. Insureds are encouraged to share their Online Learning Library user names and passwords with employees. Employees can only watch videos; they cannot make edits or view the company's sensitive policy information while logged into the Online Learning Library.

### LOGIN INSTRUCTIONS

1. Open your internet browser and go to <https://orican.infinit-i.net>.
2. At the Learning Library home page, enter your User Name and Password to log in.
  - **User Name** - Enter your primary Old Republic Canada policy number (Ex. b123456)
  - **Password** - First-time users enter the temporary password: **oldrepublic**

Note: As soon as you log in, you will be prompted to change your temporary password. Make the new password easy for all employees to remember.

3. On the Classroom page, click the '+' sign to the left of the module name to expand the selection. Click the video link to start watching.

### NEED HELP?

If you have problems logging in to the Online Learning Library, please contact Vertical Alliance Group at 877.792.3866 x300, Monday - Friday, 8:00 AM to 5:00 PM CST.

## WEB RESOURCES

To go to the Trucking Resources page of Old Republic Canada's website, visit:  
<https://www.orican.com/trucking-insurance/resources>

This web page includes copies of recent newsletters, safety brochures, posters, and other informational and safety-related materials. Visitors can download or print materials from this page at any time.





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