

Lesson 4

4

OBJECTIVES for LESSON Four

- The teen will learn how to be mentally ahead of the vehicle by at least 15 seconds and how to control the four-second danger zone. If drivers involved in crashes had 1 additional second prior to the crash, 80% of the crashes could have been reduced in severity or avoided altogether.
- During this lesson we are giving the teen training on how to have 4 seconds to avoid risky situations. The last opportunity to control a situation, to avoid being victimized by it, occurs during the final 4 seconds before approaching it.
- The teen's performance can only be as good as your expectations from her. Demand that she controls the 4-second danger zone. In order to control the 4-second danger zone, the teen must **FIND** a problem and **SOLVE** it while 15 seconds away. In order to **FIND** a problem the teen needs to know where to search and what to search for, and do it on a habitual level. And, that is what this lesson is all about.
- The teen should be able to recognize zone changes that affect her Line-Of-Sight and/or Path-Of-Travel. She should also be able to classify a zone as **open or closed**. This lesson gives an opportunity to apply the three steps of the Zone Control System.

THE DRIVING SETTING

Use residential roadways, rural two and four lanes, urban areas, and state highways with two to six lanes of traffic. As always, begin in the least complex roadway and traffic situations. As performance becomes consistently acceptable, increase the complexity of roadways.

Key Behavioral Pattern Applications

Identifying LOS-POT in front zone

- Be able to FIND LOS-POT Blockages that create closed front zones in the Target Area, or 15 seconds ahead.
- SOLVE it in the 15 second range.
- CONTROL it at the four-second Danger Zone.

Identifying LOS-POT in left/right zone

Be able to FIND and SOLVE LOS-POT Blockages that create closed left-front or closed right-front zones at least 15 seconds ahead. And, CONTROL them at the four-second Danger Zone

Know & apply ABCs of Zone Control

Use the steps that are listed in Guide 14 until they become habitually performed.

Know & apply five speed control options

Consider the five choices for various situations.

Know & apply five lane positions

Make deliberate choices for where to position the vehicle in the lane. One of the five lane positions is usually the best, and one of the positions is usually most dangerous. Select the best choice consciously until sensitivity to lane placement becomes habit.

Be able to judge distance in seconds

1. Take A Guess for 15 seconds ahead - note marker
2. Count Off By Seconds until you reach the marker
3. See How Accurate Your Guess Was
4. Redo At Different Speeds

Use Three Searching Ranges

• FIND LOS-POT in Target Area

The first searching range is to the target area to get an overall view of the condition of your "destination" — the target area.

• SOLVE LOS-POT in 15 Second Range

The second range is 15 seconds ahead of your car to give you an opportunity to make the best space management decisions.

• CONTROL 4 Second Danger Zone

The third range is the 4 second immediate path the car is ready to occupy. This is the 4-second Danger Zone.

Evaluate targetting path: open/closed

A closed front zone exists when any of the following three conditions are present:

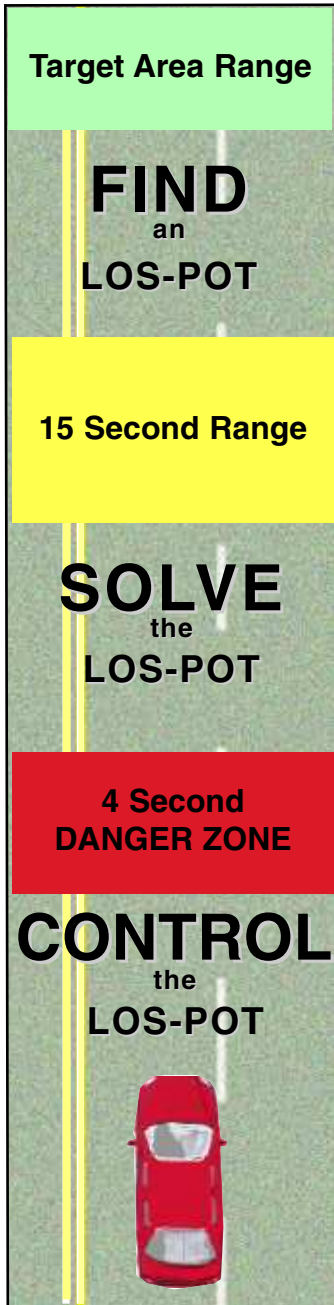
- You cannot see at least 15 seconds ahead (Closed LOS).
- You do not have at least 15 seconds of available path-of-travel (Closed POT).
- You do not have at least 4 seconds of following time when traveling behind another vehicle (Closed LOS-POT).

Know & apply Key steps to Angle Parking

- Side position for angle parking
- Forward position for angle parking
- Target usage for angle parking
- Searching while backing out of space
- Steering while backing out of space

Rating: √ = Okay, X = More Practice Needed

Three Searching Ranges of Zone Control



NOTES

12: Searching Target Area to T.Area

1. Search To Target Area

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- Tell What Target Is
- Describe Target Area
- LOS-POTs In Target Area
- Target Area Open or Closed
- Identify Targeting Path
- Respond To Zone Changes

2. Search 15-Second Range

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- Identify LOS-POTs
- Respond to LOS-POTs

3. Know 4-Second Danger Zone

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- Use Central Vision
- Use Fringe Vision

4. Judge Distance In Seconds

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- Take A Guess
- Count Off By Seconds
- Accuracy Of Guess
- Different Speeds

14: Introduction To Zone Control

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1. Identify LOS-POT Change

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- 2. Respond To Front Zone Change**
- Check Rear Zone

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- Apply Speed Control Option
- Keep Same Speed
- Decelerate
- Off-Gas, Cover Brake
- Off-Gas, Apply Brake
- Increase Speed

3. Respond To Lt/Rt-Front Change

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- Check Opposite Zones
- Apply Speed Control Option
- Apply Lane Position

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4. Improve Position From ZC

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5. Attempt To Keep Zones Open

13: Recognition Of LOS-POT

1. Identify LOS-POT Front Zone

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- See to Target Area
- See 15-Second Range
- See Within Danger Zone

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2. Identify LOS-POT Left-front

- FIND in Target Area
- SOLVE 15-Second Range
- CONTROL 4-sec Danger Zone

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3. Identify Closed Zones:

- Closed Front Zone LOS-POT
- Closed Side Zone LOS-POT

15: Forward & Angle Parking

1. Before Parking

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- Check Rear Zone
- Check Parking Space

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- 2. Side Position
- 3. Forward Position
- 4. Creep - Turn Wheel Fast
- 5. Line Up With Target
- 6. Straighten Car and Tires
- 7. Stop At Front Reference

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- 8. To "Unpark"**
- Back Slowly
- Check Traffic
- Check All Corners
- Clear Fender - Turn Wheel
- Straighten Car
- Tires Straight
- Shift To Drive

Key Behavioral Patterns

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- **FIND** LOS-POT in Target Area
- See Path as OPEN or CLOSED
- **SOLVE** LOS-POT at 15 seconds
- **CONTROL** 4 sec. danger zone
- Judge distance in seconds

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- Apply ABCs Zone Control
- Apply Speed Control Options
- Apply Lane Position Options
- Use Angle Parking Behaviors

Lesson 4: Student-Centered In-Car Activities

Guide 12 Searching Target Area to Target Area: Help the teen to visualize the space the car will occupy en route to the target area. Have him become aware of conditions in the target area, then control the space the vehicle is going to occupy at least 15 seconds ahead. It is also important that the teen not lose account of the 4-second Danger Zone the car will be occupying. However, first have him visualize the conditions in the target area, then determine what problems will affect his travel to the target area.

Common Error: Eye fixations within the four-second Danger Zone are likely to occur, which will prevent the teen from seeing ahead to the 15-second range or to the target area. Or, eye fixations in the target area will limit his awareness of the 4-second Danger Zone. Help him to search all three ranges and to develop effective use of central and fringe vision.

12: Searching Target Area to Target Area

Activity 1: Ask the student what LOS-POT is in the Target Area. And, then state whether the front zone is open or closed.

Activity 2: Ask the student to identify an LOS-POT blockage within the target area.

Activity 3: Ask the student to FIND an LOS-POT that is in the 15-Second Range. Then, have him tell you when that LOS-POT is in the 4-Second Danger Zone. This will develop his understanding and use of the three searching ranges.

Activity 4: Have the student pick out a marker (a tree, road sign etc.) and take a guess at its distance. Then count off until the car reaches the marker that was selected. Provide the teen with positive feedback when he guesses correctly. Perform this activity periodically while driving in various driving environments until accuracy is within two seconds.

Activity 4: Periodically ask the student to tell you when he is using his central or fringe vision. You may ask him to identify an LOS-POT and which vision was used to detect it (central) and which vision to monitor it (fringe). This will help the teen to avoid fixating on the LOS-POT after it has been identified.

Guide 13 Recognition of LOS-POT Zone Changes: Have the teen verbalize the LOS-POT condition of each zone. Ask him to tell you what the condition of the front zone is in the target area. Ask him to identify and state the Zone Conditions in the 15-second range and in the 4-second Danger Zone. The student should demonstrate the ability to search to the target area, and to evaluate the 15-second range and the 4-second Danger Zone for closed zone conditions. **Common Error:** The teen will have a difficult time evaluating all three searching ranges. Help him to search ahead to the target area, get a mental picture of what zone changes exist within the 15-second range, and then evaluate the 4-second Danger Zone. It will be helpful if you verbalize the conditions as a model of what the teen should be able to do. For example: "The front zone is closed by the stop sign, right zone is closed by parked car." After several situations, you can ask him questions, such as: "How is your front zone?"

13: Recognition of LOS-POT Zone Changes

Activity 1: Have the student FIND one LOS-POT zone change and report it to you. Give him positive feedback as each LOS-POT is found. Place emphasis on referring to the various conditions as LOS-POTs, which will allow the teen to generalize a solution as the system continues to be used.

Activity 2: Have the student verbalize LOS-POT changes. Play "The Zone Game" to help him identify LOS-POT zone changes. The game requires you to give part of the information by detecting LOS-POTs. The teen is to add information to confirm it. For example, you may say "I FIND an LOS change in the left front zone" to cue the student to know what to search for. His response may be "I see the truck in my left front zone". Provide positive feedback for the correct response. You may vary this game by switching roles or simply saying "Front zone POT". The student would then search his zones and answer with the correct response, such as "I see the red traffic light". You can also say "red traffic light" whereby the student would respond "POT closed front zone".

Guide 14 Zone Control System Introduction: This Guide presents an opportunity for the teen to experience the three steps of the Zone Control System. It is important that one zone change at a time is seen and processed through the three steps. Do not have the student talk about everything. Take one zone change consciously. Give the student positive feedback for use of each of the three steps of Zone Control. **Common Error:** The student will take too much time to respond to situations, or not respond at all when a response is required. During the learning process the conscious level of performance is taking place, which requires more time to translate a decision into action than if it occurred by habit. Use cues to get a proper response. If you say, "red light, closed", the student should begin braking and checking the rear zone.

14: Zone Control System Introduction

Activity 1: After the student has become proficient with the "The Zone Game" he will be able to advance to this level, which is to add the other zone to be checked. For example, the student might say, "Front zone closed by red light, rear zone has a car approaching." This is an important step to problem solving, which gathers more information before the decisions are made for an appropriate solution. (In lesson five we will classify rear zone conditions as "open", "closed", or "unstable". For this lesson getting the repetitions of checking the rear zone is a necessary building block).

Activity 2: Continue to play "The Zone Game", which is an effective way to begin using a practice commentary. As in any skill development, the more conscious awareness that occurs the better the quality of repetitions will be. The students need many repetitions to develop the process into long-term memory.

Activity 3: You will have the student describe zones that are closed and then state which other zones are to be checked. The most common zone to place emphasis on during this stage is the front zone. Have the student state when there is a closed front zone in the 15-second range, and state what is the cause of the closure and what is the status of the other zone. The student should say something like this, "the front zone is closed by the stop sign, my rear zone is open."

Student-Centered In-Car Activities: Lesson 4

14: Zone Control System Introduction

Activity 4: After the student has become proficient with the B step of zone control, “Checking Other Zones”, continue The Zone Game. Now, add the “C” step of Zone Control. For example, you might say, “Red light, closed zone” and the student says, “rear zone closed, tapping the brake pedal to alert the driver behind.” If the student doesn’t give you an update on the rear zone you can cue him by saying, “how is your rear zone?”

Activity 5: Some students find talking and driving difficult. The more you help him focus on LOS-POTs that need attending to, the more you are helping him deal with establishing priority as to where to place concentration. By all means, during this lesson avoid talking about something that has already happened, that would create distraction and lack of success for upcoming situations. In a later lesson, we will talk about things that had previously happened as a test for how well he will be able to multi-task (deal with distractions and manage LOS-POT blockages). For now, place your emphasis on helping him make correct decisions for the space that needs to be managed.

Activity 6: Give the student help by coaching him when it is necessary for a change in speed or position to gain the best space management. Explain to him why one lane position is better than others or why a change in speed was needed. When he makes good choices on his own, give him positive and specific feedback. For example: “It is good that you saw the closed front zone caused by the red light and that you checked your mirror and applied the brake.”

Activity 7: Give the student feedback about the speed choices he is making by using specific behaviors. Say, “cover brake,” “apply brake,” “decelerate,” “keep same speed.” or “increase speed” rather than saying “slow down” which is not specific enough.

Activity 8: To evaluate side zones, begin by placing emphasis on FINDing LOS-POT blockages in the right-front zone. Have the student check the other zones, which on a two-lane roadway will be the left-front zone and the rear zone. Coach him to SOLVE the zone condition by evaluating what is the best speed choice and the best lane position.

Activity 9: While 15 seconds away from an LOS-POT blockage that closes the right-front zone, ask what will be the best lane position based on the condition of the left-front zone. Have the teen make a choice of lane positioning, and when it is the correct choice, have him move into that position. When is not the best lane position, tell him which one is and why it is the best.

Activity 10: When the student needs to perform a speed control behavior, cue him by saying “what speed control option are you using right now?”

Activity 11: Talk about the speed selections by name as each is used, or needs to be used. There are five choices, one is always the best, and one is always the most dangerous. Give the teen positive feedback when a correct speed choice is made. Such as, “great that you **covered the brake** as we passed the closed right-front zone.”

Activity 12: When there is a need for a speed selection and the teen is not responding, cue him to use one of the five speed selections. For example, “apply brakes for the stopped bus.”

14: Zone Control System Introduction

Activity 13: When the teen is given a command to “apply the brake”, such as in the previous example, it becomes a very conscious moment for that action to take place. And, it becomes a moment when other actions are occurring on an unconscious level by habit. If the student in this situation does check the rear view mirror when braking, it would be a very positive behavior towards the development of habit. You should give positive feedback. “Good that you checked the rear, is it open?”

Activity 14: When a cue is needed, give it in a timely manner so that the student is able to take the correct action. For example, when you say, “**apply brake** for the closed front zone.” This will also give you an opportunity to see if he checks the rear view mirror as his foot goes onto the brake pedal.

Activity 15: At this time, you may want to reevaluate the teen’s ability to judge space in seconds. Ask him how far away the different LOS-POTs are. He should state a number of seconds and then count the seconds it takes to reach the object. You should select LOS-POTs that are in the Target Area, in the 15- second range, and in the four-second danger zone. For LOS-POTs that are in the four-second danger zone, guide the student to achieve an okay speed, lane positioning and communication.

Guide 15 Forward and Angle Parking: Have the teen consciously demonstrate the correct side position, then the correct forward position reference points before continuing with the other steps. The objective is not to park the car, it is to give him an opportunity to learn the key behavioral pattern steps. **Common Error:** The teen will sometimes “park” the car without knowing what steps were taken. Although the car is parked successfully, he didn’t learn the sequence that can be repeated into proper habit. When not successful, he will get more confused with each failure. Use this Guide for step-by-step performance of correct behavioral patterns.

15: Forward and Angle Parking

Activity 1: State one of the behaviors from Guide 15 for the teen to demonstrate. For example say: “show me the side position for angle parking.” The student should drive the car into the correct position. If it is correct then ask, “What reference point did you use to get this position?”

Activity 2: When the “Side Position” is correctly achieved by the student have him get out of the car to see how the vehicle is positioned to the other parked cars. You can then do the same thing for the “Forward Position”.

Activity 3: Emphasize that the most dangerous phase of angle parking is getting out of the parking space. Speed control should be no faster than a creeping pace. And, when LOS blockages are present, the teen may need to inch the car to a point where he can see and be seen by others.

Activity 4: Practice this parking and “unparking” several times during this lesson and then randomly during other lessons. Each time the car is parked, have the teen state the key steps that are being performed until they become automatic. The key steps are: rear zone check, side position, forward position, line up with target.

Zone Control EXPERT Driving System

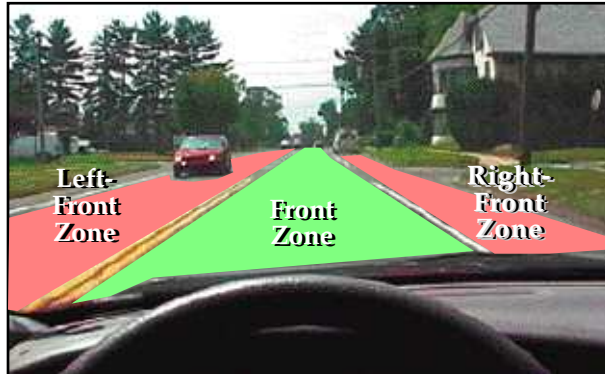
The Zone Control Driving System

Zone Control organizes the vehicle's space requirements into six zones and three information-processing, decision-making steps. Using these three steps helps the driver to see and respond to changes in the traffic environment at a time when the best control can be achieved. This systematic process is continually repeated to develop behavioral patterns into habits. The habit of having a mental picture of what space the vehicle will occupy more than 15 seconds ahead allows the driver to identify and solve small problems before they become huge, high-risk, stressful situations.



Zone Locations

The roadway is divided into six zones. All three frontal zones, as illustrated here, extend from our vehicle to the target area. The front zone is the lane we are traveling in. The left-front zone is a lane width to our left. The right-front zone is a lane width to our right.



Zones are either Open, Closed, or Changed

- 1. OPEN ZONE:** There is space to operate without a blockage to the LOS-POT.
- 2. CLOSED ZONE:** The zone is not available for your POT, and/or there is a LOS blockage.
- 3. CHANGED ZONE:** A worsened zone condition. It is an open zone changed to a closed LOS-POT, or a zone that was already closed and has an additional change.

Three Searching Ranges for Zone Control

A. Target Area - **FIND**

- Use step A of Zone Control
- Evaluate Targeting Path
- Find LOS-POT Blockages

BC. 15 Second - **SOLVE**

- Use steps B and C of Zone Control
- Check other zones for available lanes
- Get the best: Speed Control, Lane Positioning, Comm.

BC. 4-Sec Danger Zone - **CONTROL**

- Re-evaluate steps B and C of Zone Control
- Be Certain your solution still works
- Reach the **Point Of No Return (PONR) under your control**

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Lesson

Parent-Teen Practice Guides

Student Name _____

Parent/Mentor Name _____

Rating: ✓ = Okay, X = More Practice Needed

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| | | | 1. FIND LOS-POT Blockages in the Target Area |
| | | | 2. See if intended Path Of Travel is OPEN or CLOSED |
| | | | 3. With Closed Front Zone, Check Rear Zone |
| | | | 4. Practice Five Speed Selections: 1. Keep the Same Speed, 2. Decelerate, 3. Off Gas-Cover Brake, 4. Off Gas-Apply Brake, 5. Increase Speed (if zone is open) |
| | | | 5. Practice Lane Positions: LP1 Center, LP2 Left side, LP3 Right side |
| | | | 6. Practice Three Searching Ranges: Target Area, 15-Second Range 4-Second Danger Zone |
| | | | 7. FIND at Target Area, SOLVE 15-Second, CONTROL 4-Second Danger Zone |
| | | | 8. Use ABCs of Zone Control: A. FIND LOS-POT, B. Check Other Zones C. Get Best Speed Control, Lane Position, Communication |
| | | | 9. FIND LOS-POT in Left-Front, Right-Front zones. Check Other Zones |
| | | | 10. Practice Forward & Angle Parking, use Guide 15, page 13. |

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Driving Environment: Use residential roadways, rural two and four lanes, urban areas, and State highways with two to six lanes of traffic. As always, begin in the least complex roadway and traffic situations. As performance becomes consistently acceptable, increase the complexity of roadways.

NOTES

1st Date _____ 2nd Date _____ 3rd Date _____

Signed _____ Signed _____ Signed _____