



TECHNICAL SERVICE BULLETIN

Classification: DA23-004	Reference: NTB23-076	Date: November 3, 2023
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INTELLIGENT AROUND VIEW MONITOR CAMERA CALIBRATION

APPLIED VEHICLES: 2023 ARIYA (FE0)
APPLIED SYSTEMS: Intelligent Around View Monitor with ProPILOT Park

SERVICE INFORMATION

If any Around View Monitor (AVM) camera (front, sides, or rear) and/or the AVM Control Module is replaced, camera calibration is required.

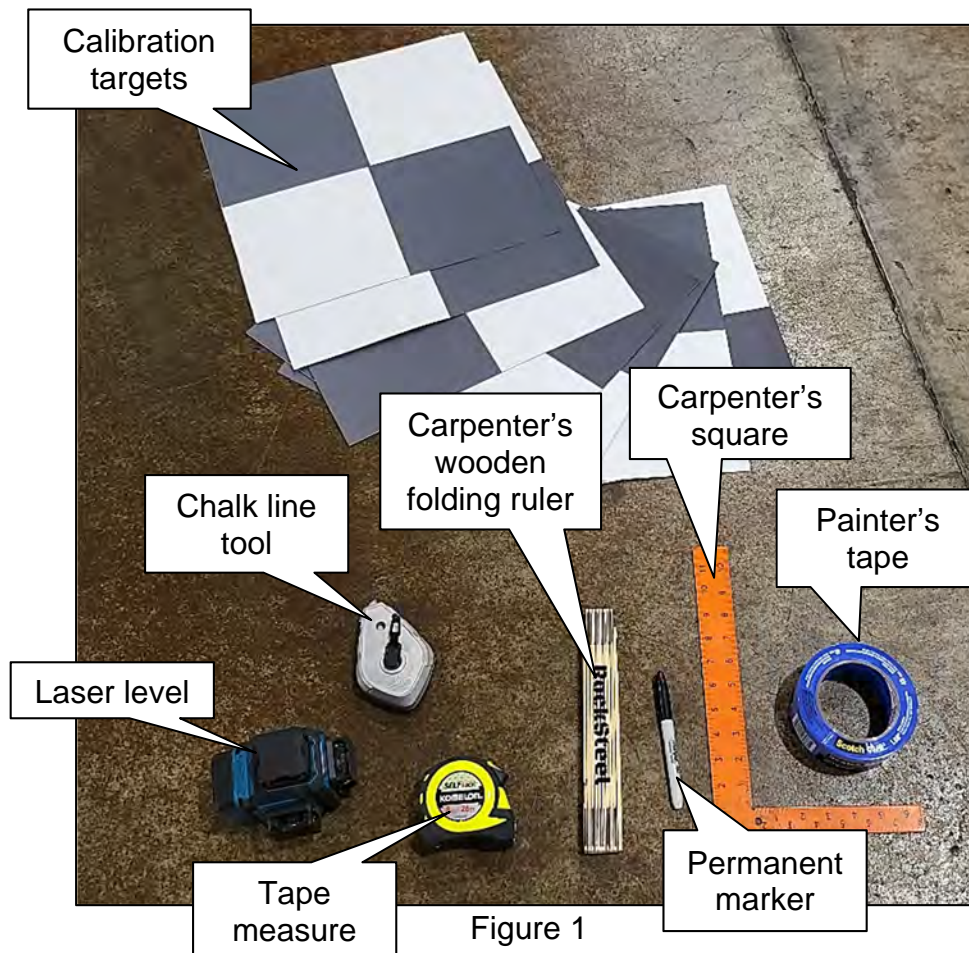
The **SERVICE PROCEDURE** in this bulletin can be used in conjunction with the ESM and CONSULT 4 procedures for additional clarification when performing AVM camera calibration.

- Refer to the ESM: **DRIVER INFORMATION & MULTIMEDIA > AUDIO, VISUAL & NAVIGATION SYSTEM > INTELLIGENT AROUND VIEW MONITOR > BASIC INSPECTION > CALIBRATING CAMERA IMAGE (INTELLIGENT AROUND VIEW MONITOR) > WITH ProPILOT PARK**

Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. **NOTE:** If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

REQUIRED TOOLS

- Laser level
 - The laser level used in the **SERVICE PROCEDURE** was a WOKELINE 3D Laser Level purchased from an online retailer. Any equivalent can be used.
- Carpenter's wooden folding ruler (must have metric markings)
- Carpenter's square (minimum 12 in. long leg)
- Painter's tape [minimum width 1 7/8 in. (48 mm)]
- Permanent marker
- Chalk line tool
- Seven (7) Calibration Targets
 - Refer to the ESM for calibration target construction details: **DRIVER INFORMATION & MULTIMEDIA > AUDIO, VISUAL & NAVIGATION SYSTEM > INTELLIGENT AROUND VIEW MONITOR > BASIC INSPECTION > CALIBRATING CAMERA IMAGE (INTELLIGENT AROUND VIEW MONITOR) > WITH ProPILOT PARK**
 - Tech•Mate part NI-51179 may also be used, if available, from Tech•Mate online: www.techmatetools.com, or by phone: 1-833-397-3493.
- Tape measure (must have metric markings)



SERVICE PROCEDURE

IMPORTANT:

- A large area, free from obstructions, is needed to calibrate each camera.
- **HINT:** The shop floor area requirements are shown in Figure 2 (only one camera will be calibrated at a time so the vehicle can be repositioned for each camera as needed).
- A strong Wi-Fi or mobile hotspot is required.
- The floor should be as level as possible (drains are not allowed).
- The floor needs to be clean and dry, otherwise the tape will not stick and markings will not be clear.
- The hood must remain closed.
- The 12V battery must be in good condition.
- The main battery must have a high state of charge, over 75%, due to length of time required.
- All measurements must be done in millimeters (mm).
- Fans should be avoided for target stability and laser level.

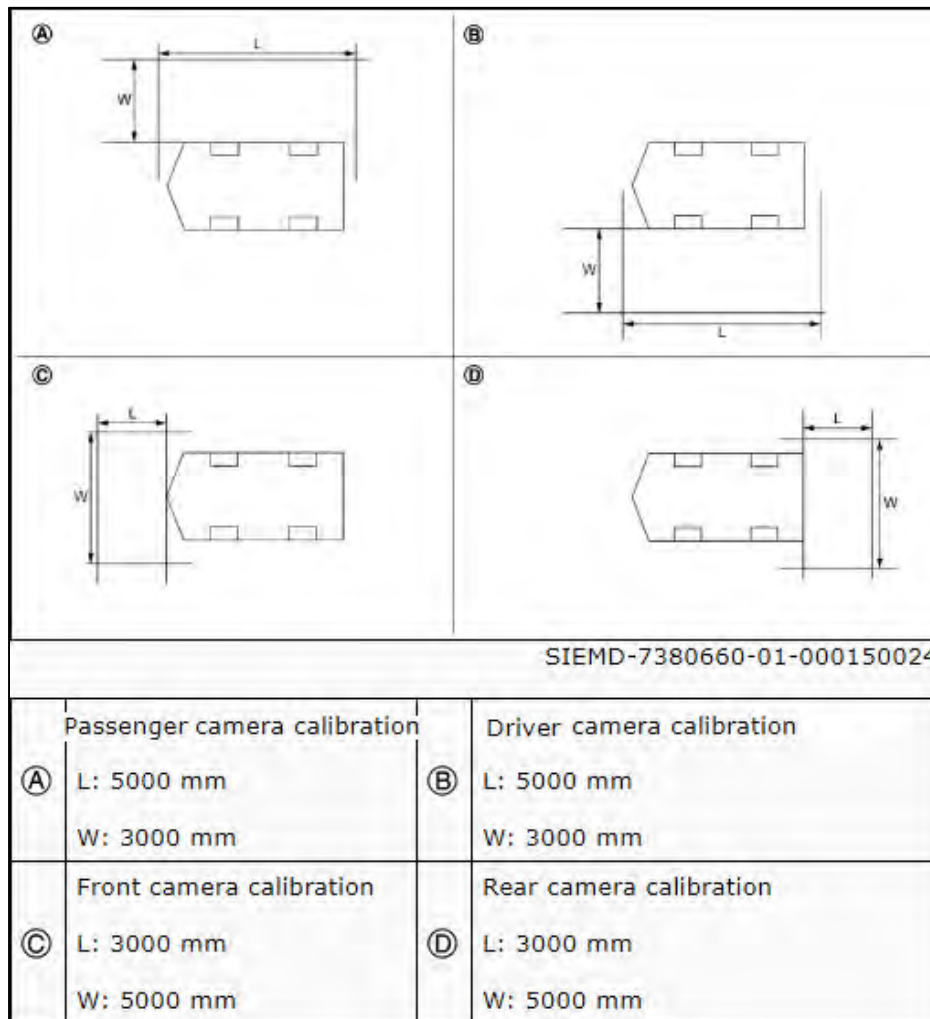


Figure 2

IMPORTANT: Before starting, make sure ASIST on the CONSULT PC has been synchronized (updated) to the current date.

1. Put the vehicle in READY mode.
2. Confirm that the CONSULT PC is connected to Wi-Fi.
3. Connect the Vehicle Interface (VI) to the vehicle.
4. Start CONSULT 4 on the CONSULT PC.
5. If prompted, select **USA/CANADA Dealers** from the drop-down menu, and then select **OK**.

6. Login using your NNAnet credentials.

IMPORTANT: If not prompted to enter your username and password, the CONSULT PC may not be connected to Wi-Fi. Close CONSULT 4, confirm the CONSULT PC is connected to Wi-Fi, and then reopen CONSULT 4.

7. Wait for the VI to be recognized.
8. Clear any DTC(s).
 - If any DTC(s) remain after attempting to clear the DTC(s), turn the ignition OFF, remove the key, close the doors, and walk away from the vehicle for a minimum of 10 minutes.
9. Select **AVM**.

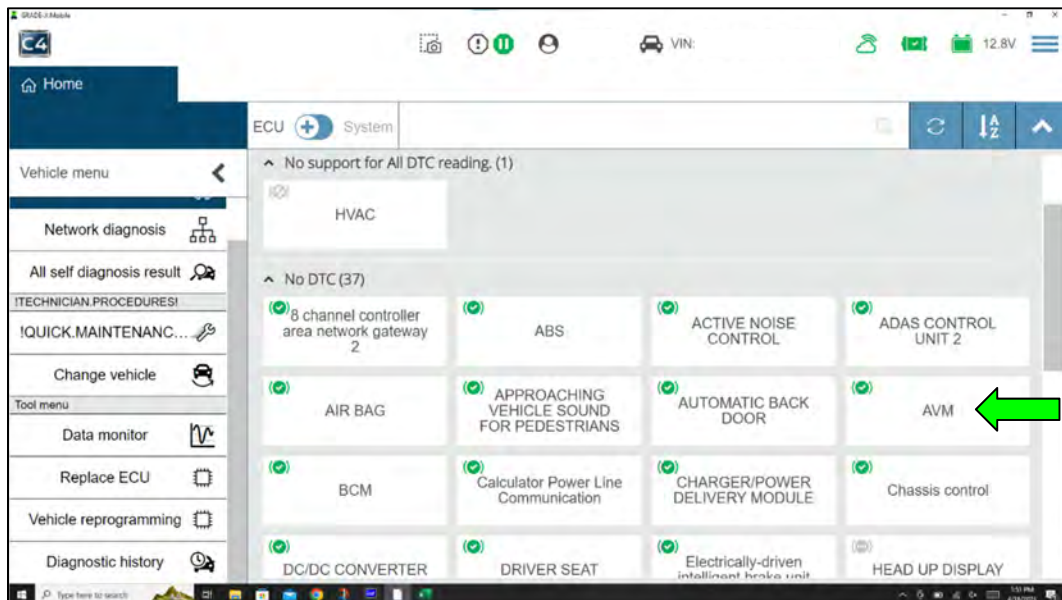


Figure 3

10. Select **Work supports**.

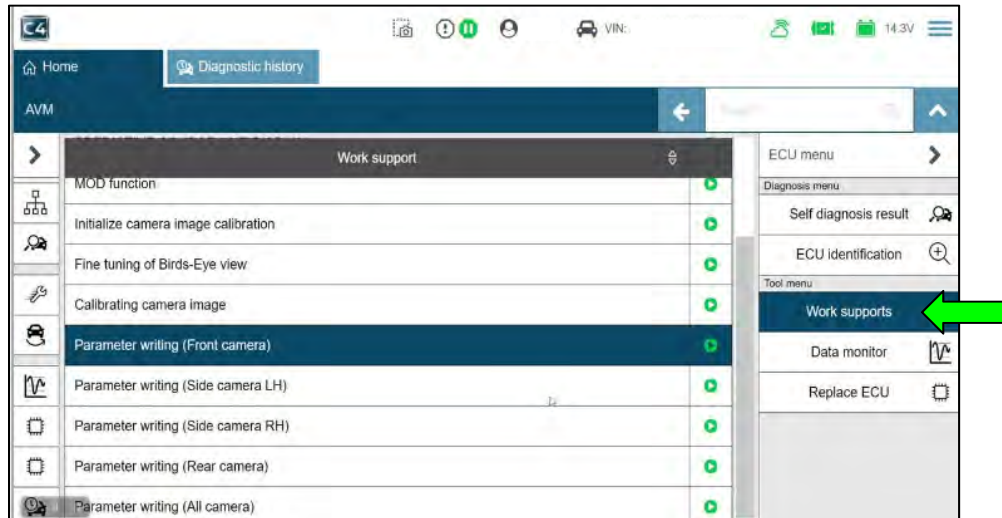


Figure 4

11. If one or more cameras were replaced, select the parameter writing for the camera that was replaced, and then select the green Play icon next to the selected camera.

IMPORTANT: If the AVM was replaced, and a camera was not, skip to step 12 on page 6.

HINT:

- It may take up to 5 minutes before the screen in Figure 6 on page 6 to display once the green Play icon is selected.
- Parameter writing needs to be performed for each of the camera(s) that were replaced.

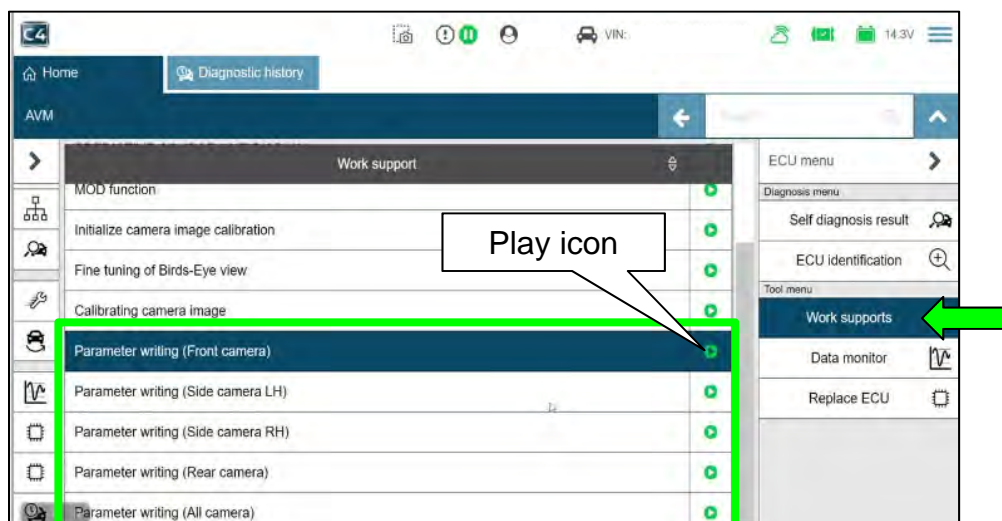


Figure 5

- If the **Parameter writing** is successful (Figure 6), select **END** and then continue to step 12.
- If the **Parameter writing** was not successful (Figure 7):

HINT: The CONSULT PC can remain connected to the vehicle during this process.

- Turn the vehicle OFF.
- Close and lock all the doors.
- Move the keys away from the vehicle a minimum of 30 ft.
- Wait 10 minutes.
- Put the vehicle in READY mode.
- Select **Retry**.
- Once the **Parameter writing** is successful, continue to step 12.

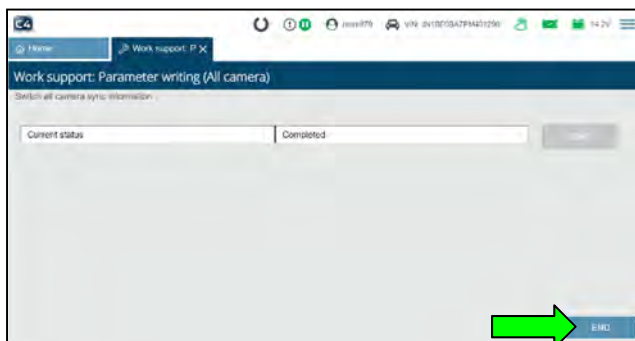


Figure 6

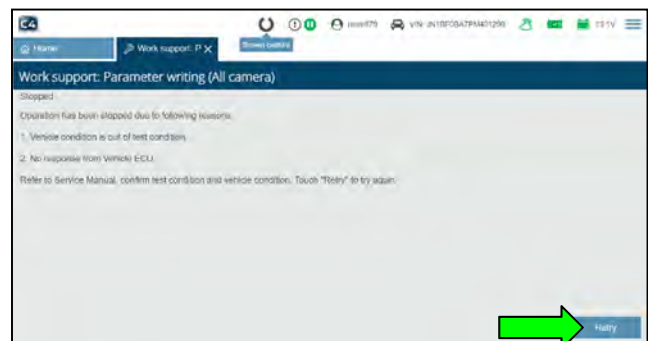


Figure 7

12. Select **Parameter writing (All camera)**, and then select the green Play icon.

HINT: It may take up to 5 minutes before the screen in Figure 9 on page 7 to display once the green Play icon is selected.

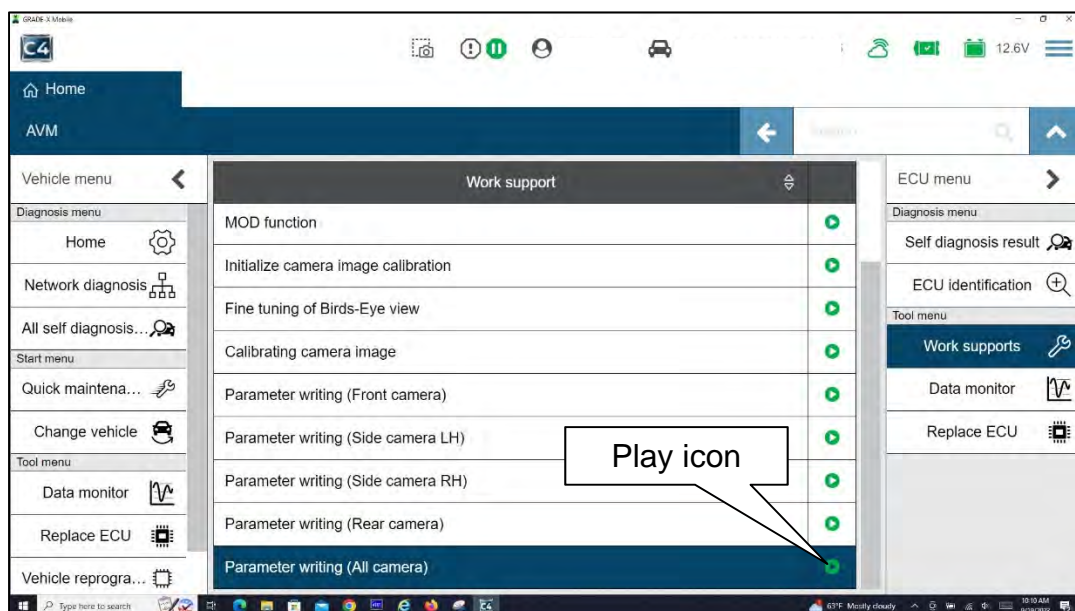


Figure 8

- If the **Parameter writing** is successful (Figure 9), select **END** and then continue to step 13.
- If the **Parameter writing** was not successful (Figure 10):

HINT: The CONSULT PC can remain connected to the vehicle during this process.

- Turn the vehicle OFF.
- Close and lock all the doors.
- Move the keys away from the vehicle a minimum of 30 ft.
- Wait 10 minutes.
- Put the vehicle in READY mode.
- Select **Retry**.
- Once the **Parameter writing** is successful, continue to step 13.

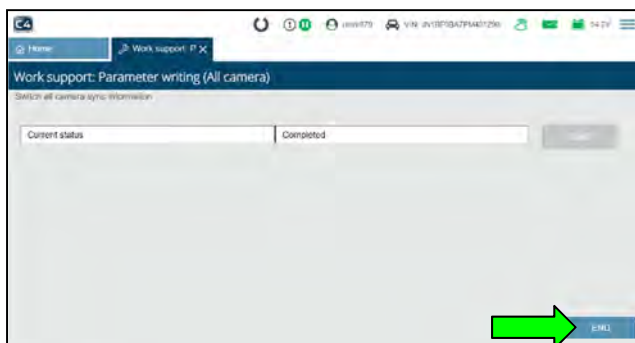


Figure 9

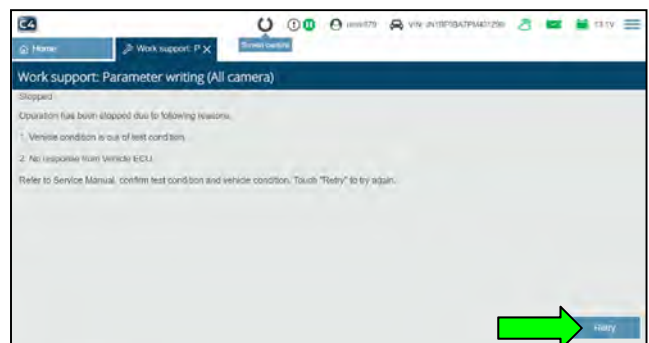


Figure 10

13. Check for any camera(s) that requires calibration.

HINT:

- Any camera(s) that have a red boxed X will require calibration, proceed to step 14 on page 8 to start marking the center point for each wheel and tire assembly.

HINT: All four (4) cameras in Figure 11 require calibration.

- If there are no red boxed X's on the screen, the image on the screen appears OK, and any DTCs present are PAST, camera calibration is not required, skip to step 96 on page 65.

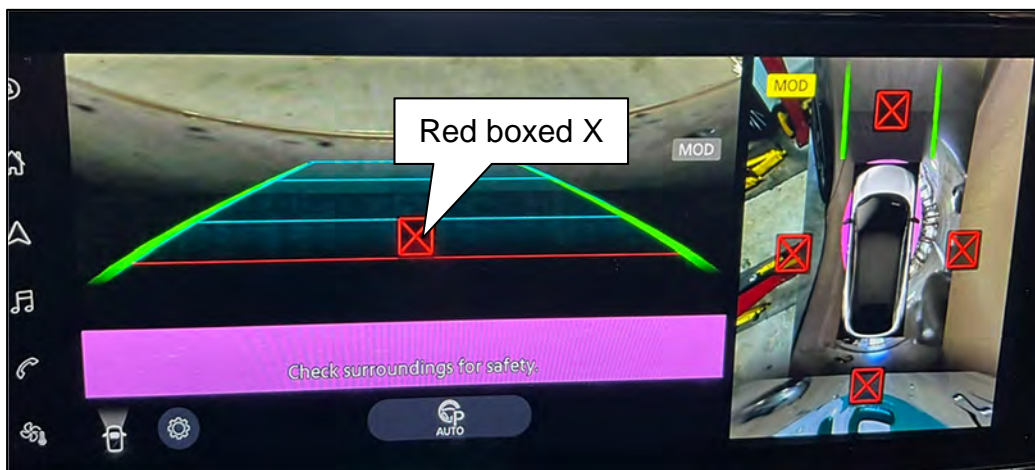


Figure 11

Marking the Center Point of the Wheel and Tire Assemblies

14. Place the laser level approximately 800 mm (31.5 in.) from the wheel and tire assembly.

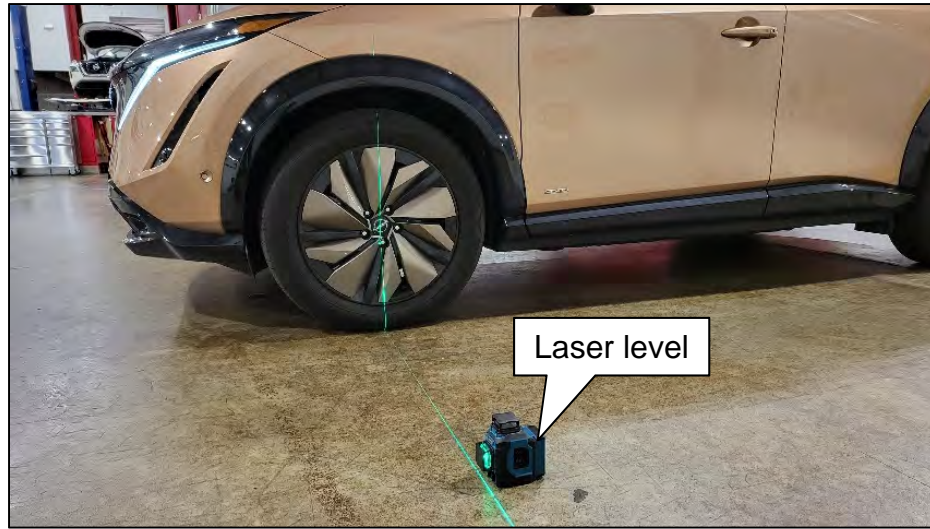


Figure 12

15. Align the vertical laser line to the wheel axle centerline (wheel center cap).



Figure 13

16. Mark the wheel arch and the floor near the tire.

HINT: The use of painter's tape helps capture the markings on the vehicle and floor.

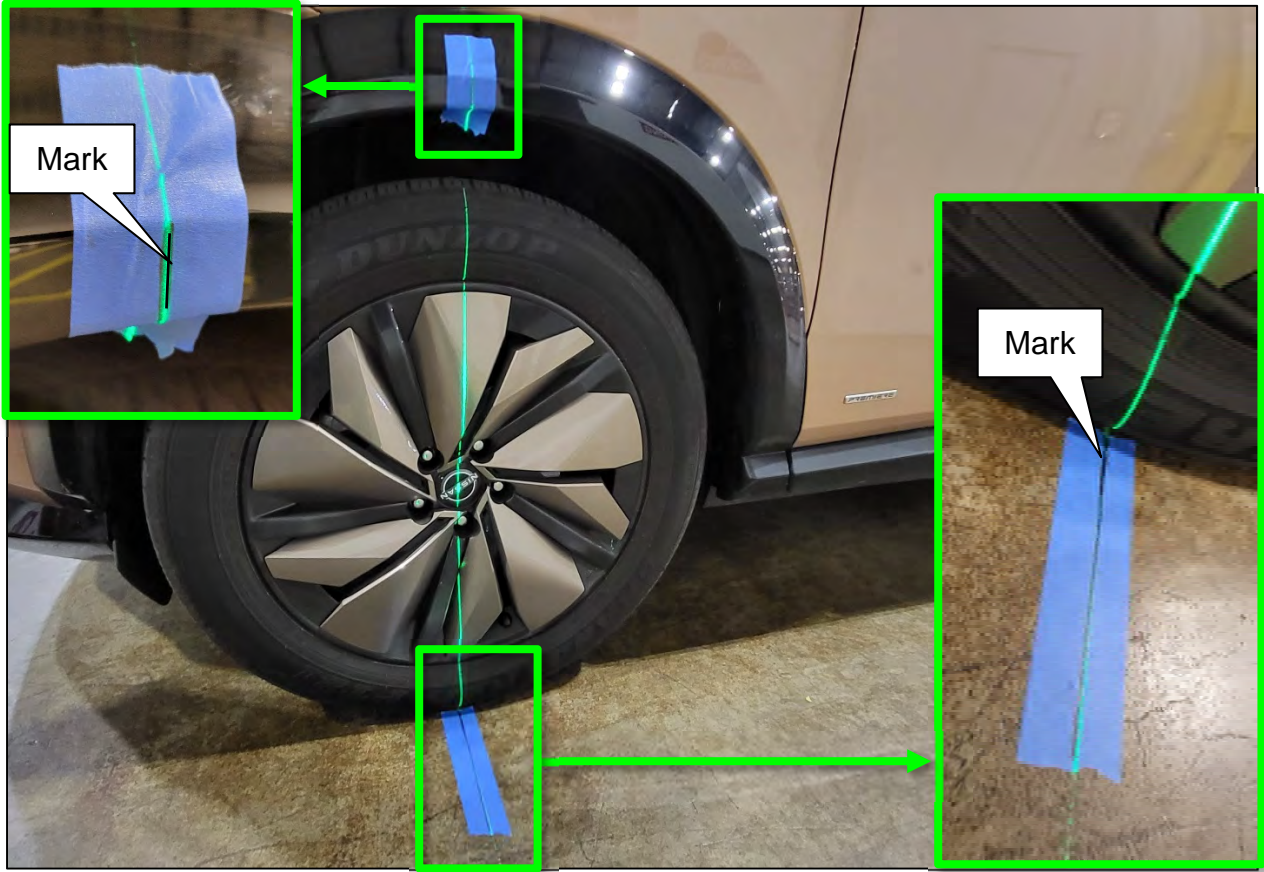


Figure 14

17. Move the laser so it is about 45° and approximately 800 mm (31.5 in.) from the wheel axle centerline.

HINT: The laser level can be either to the left or right of the wheel and tire assembly.

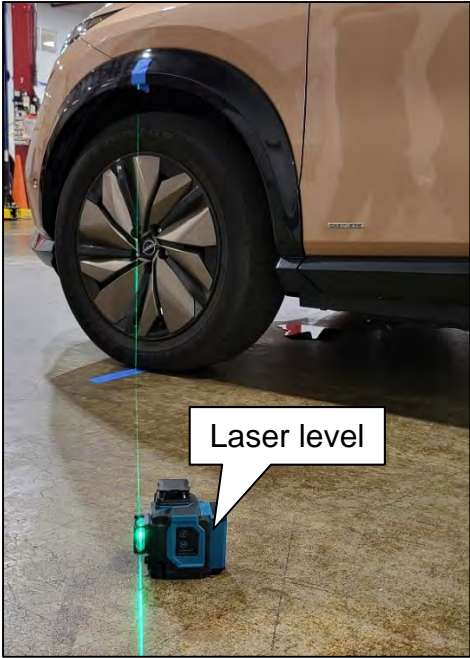


Figure 15

18. Line up the vertical laser line to the mark on the wheel arch (Figure 16), and then mark the floor with a cross-mark. This is the center point of the wheel and tire assembly (Figure 17).

HINT:

- The vertical laser line must line up with the line on the wheel arch, not the wheel center cap (Figure 16).
- To ensure the wheel center mark is not covered up by the bulge in the tire, ensure the vehicle is parked on a completely level area and the tires are properly inflated.



Figure 16

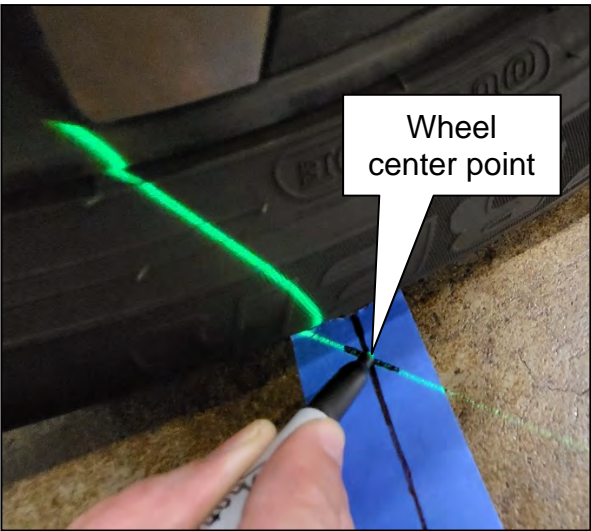


Figure 17

19. Repeat steps 14 - 18 starting on page 8, to mark the center point's at all four (4) wheel and tire assemblies.

Placing Calibration Targets for the Driver (LH) and/or Passenger (RH) Side Cameras

IMPORTANT: Steps 20 - 32 and the related figures show the driver (LH) side of the vehicle. The passenger (RH) side is similar. If the AVM Control Module was replaced, steps 20 - 32 must be performed for both the driver and passenger side cameras.

20. Place the laser level approximately 1500 mm (59 in.) behind the rear wheel (Figure 18), and then align the laser level so that the laser line is perfectly centered through the center points of both wheel and tire assemblies marked in step 18 on page 10.



Figure 18

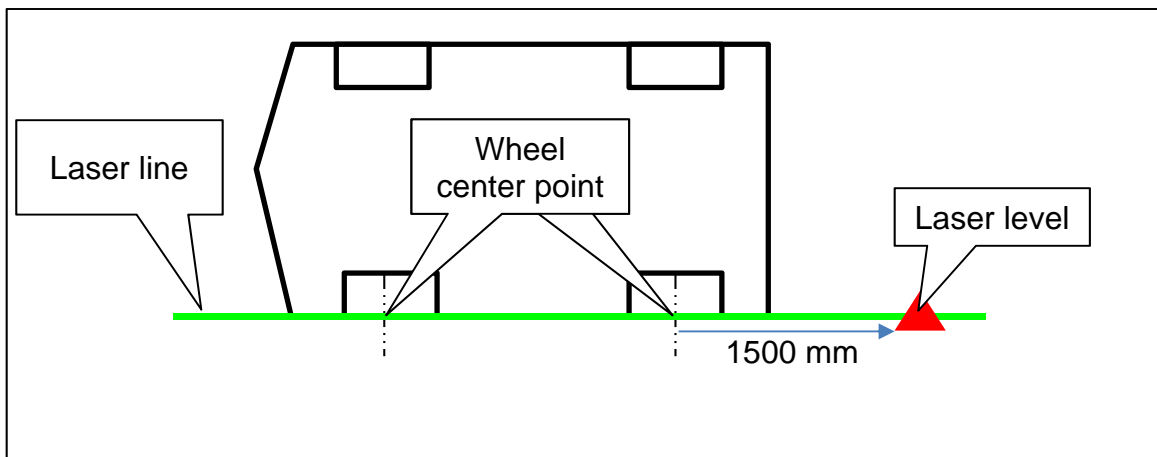


Figure 19

21. Activate a second vertical laser line (90° to the original laser line), and then mark a line at 500 mm and 2500 mm from the original laser line, as shown in Figure 20 and Figure 21.

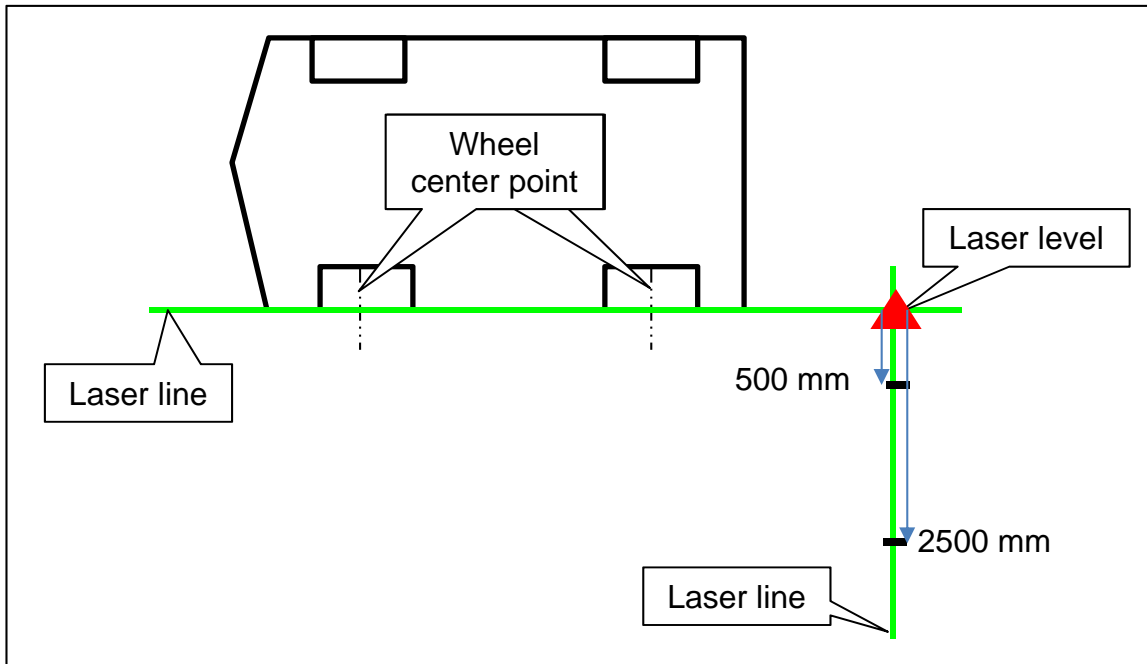


Figure 20

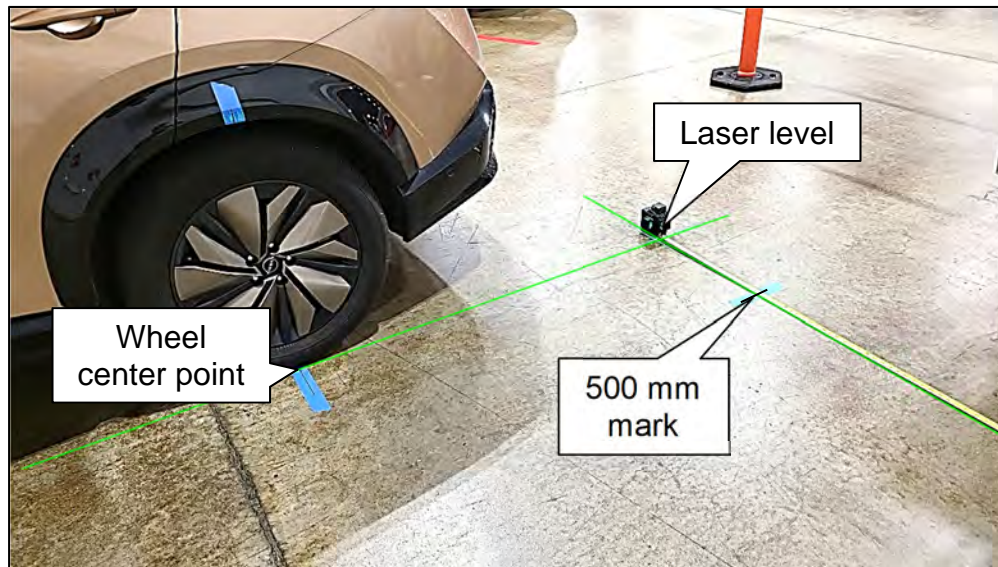


Figure 21

22. Repeat steps 20 - 21 starting on page 11, for the front of the vehicle.

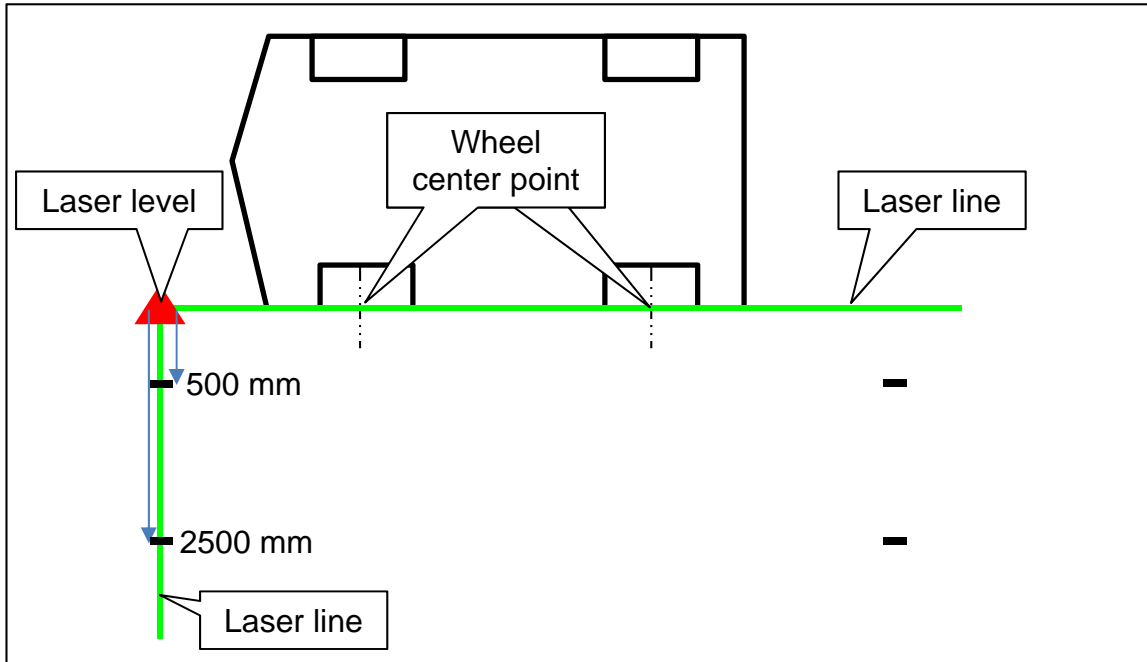


Figure 22

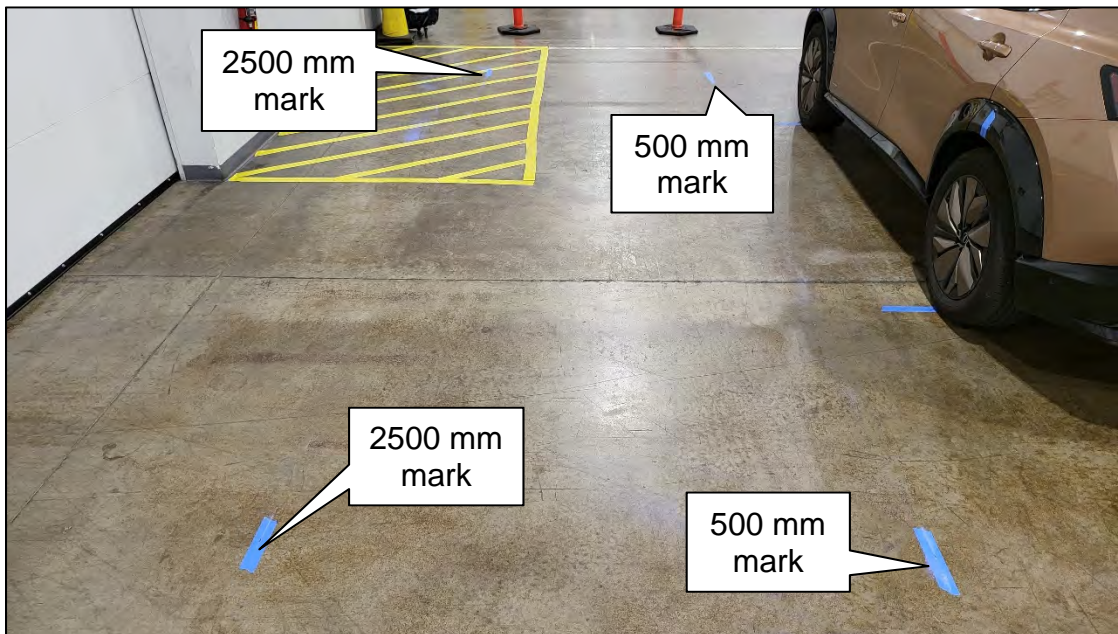


Figure 23

23. Use a chalk line tool to make a line between the 500 mm and 2500 mm marks, as shown in Figure 24 and Figure 25.

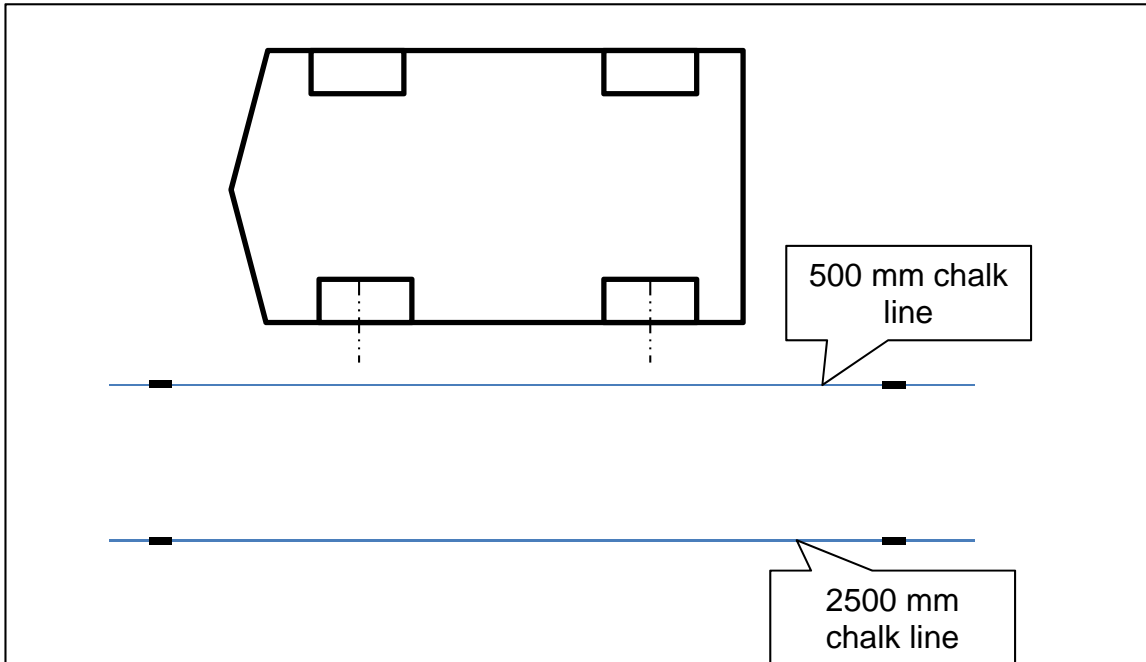


Figure 24

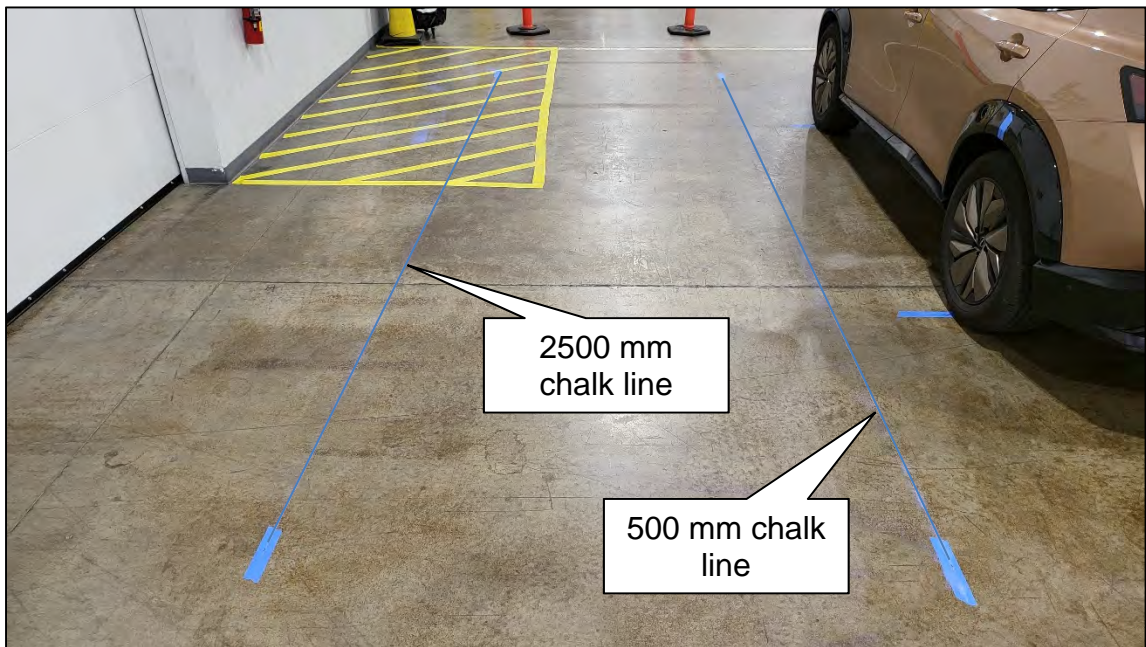


Figure 25

24. Place the laser level with both vertical lines activated, and align one laser line with the 500 mm chalk line and align the other laser line to the center point on the front driver (LH) side wheel, as shown in Figure 26 and Figure 27.

IMPORTANT: The laser line must be perfectly aligned with the 500 mm chalk line.

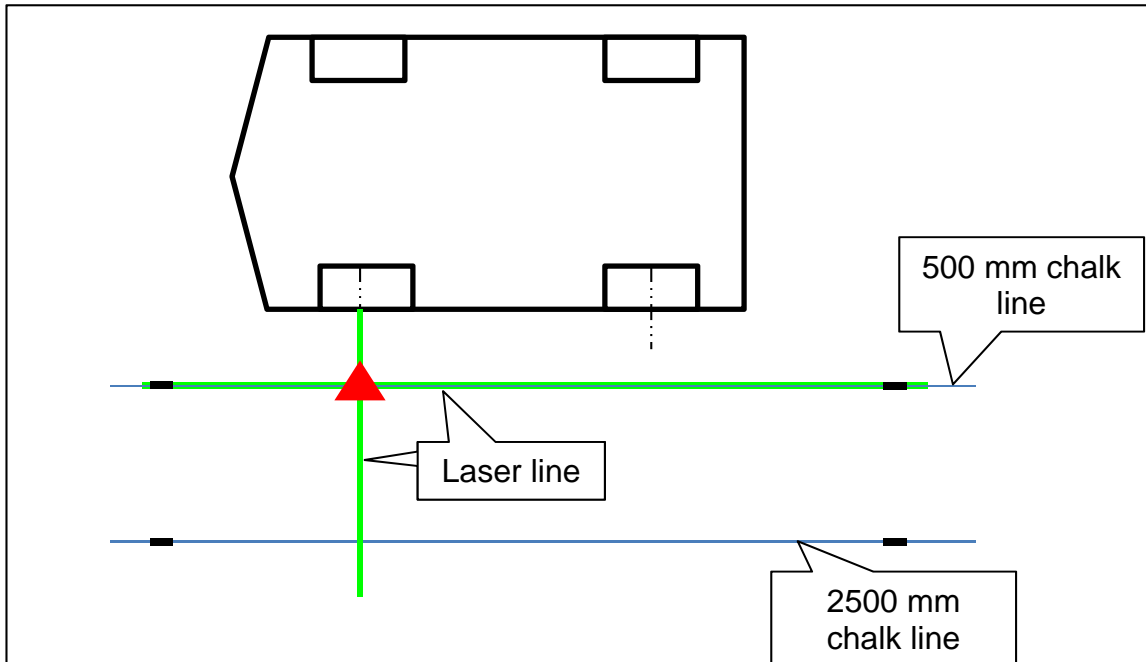


Figure 26

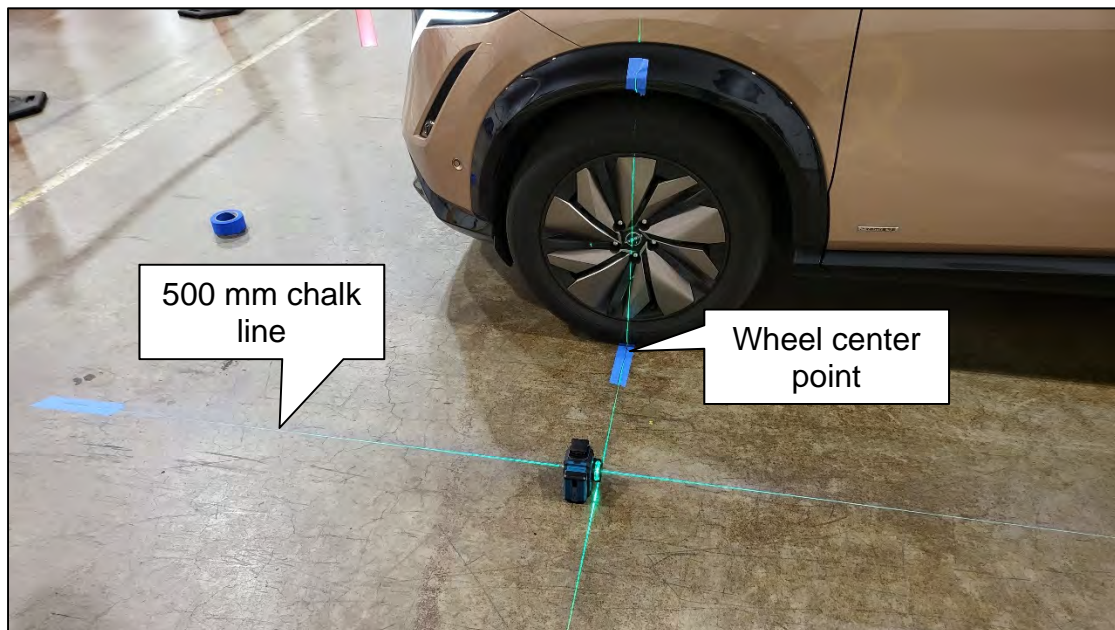


Figure 27

25. Place a mark on the floor below the laser line (Figure 29).

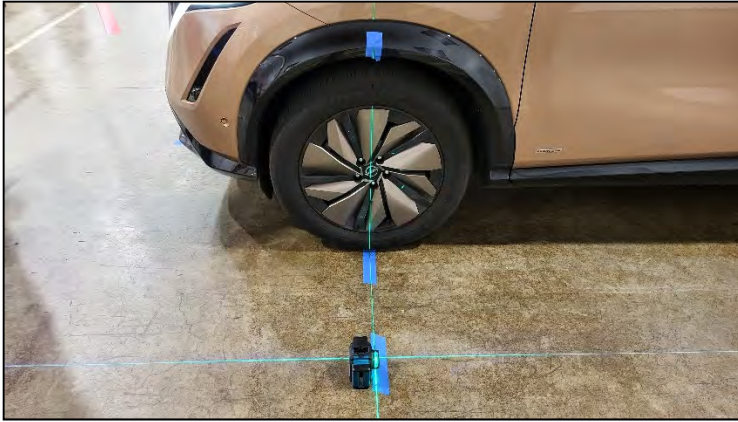


Figure 28

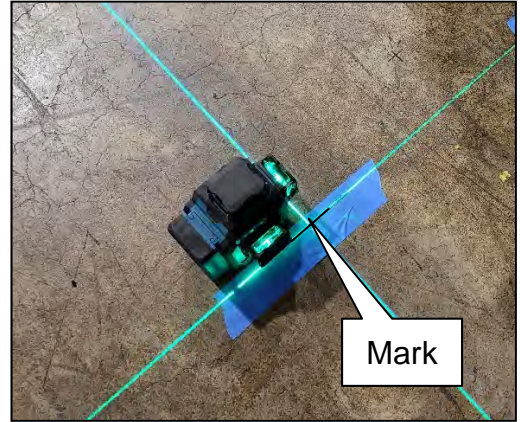


Figure 29

26. Measure and mark 1000 mm increments, as shown in Figure 30 and Figure 31.

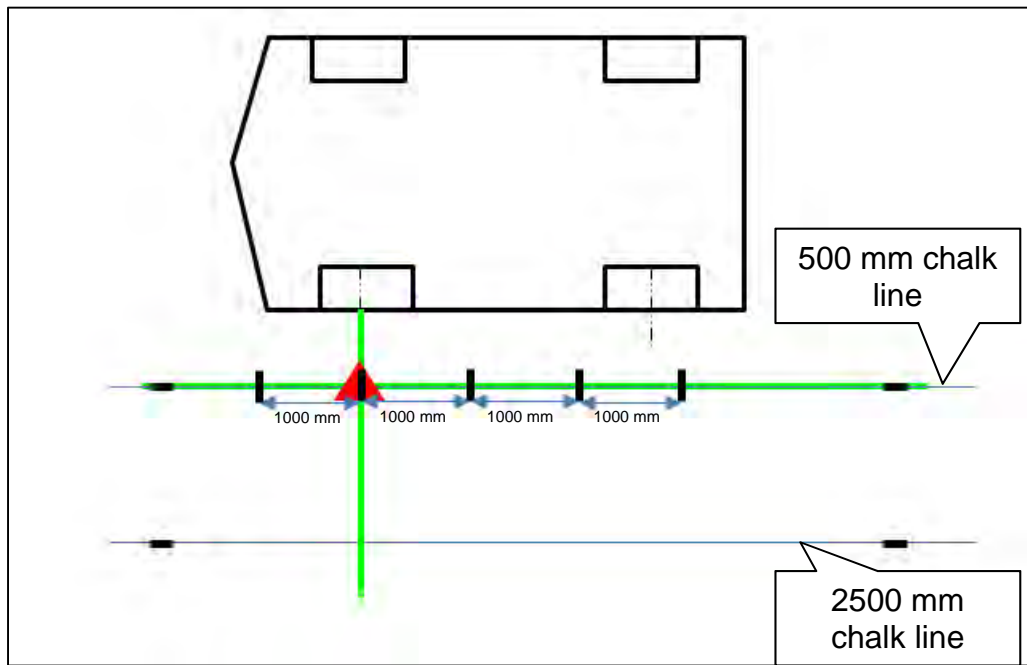


Figure 30

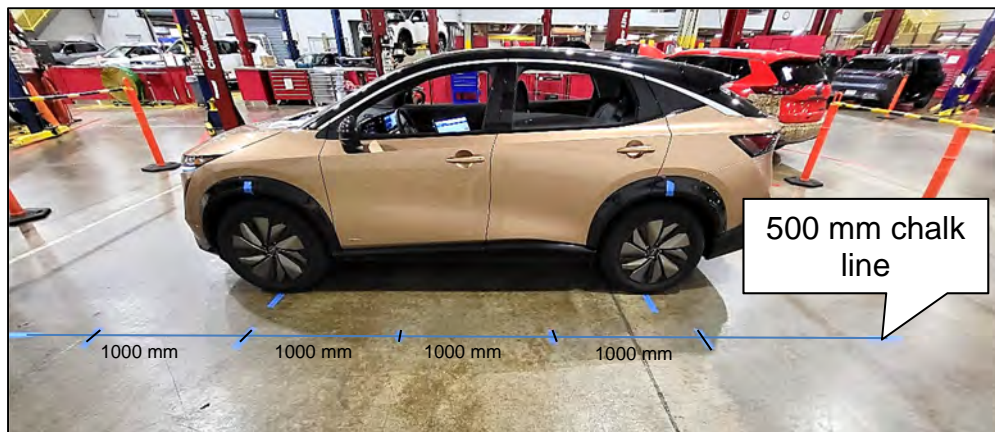


Figure 31

27. Move the laser level to the position shown in Figure 32, and then make a mark on the 2500 mm chalk line.

IMPORTANT: The laser line must be perfectly aligned with the 500 mm chalk line.

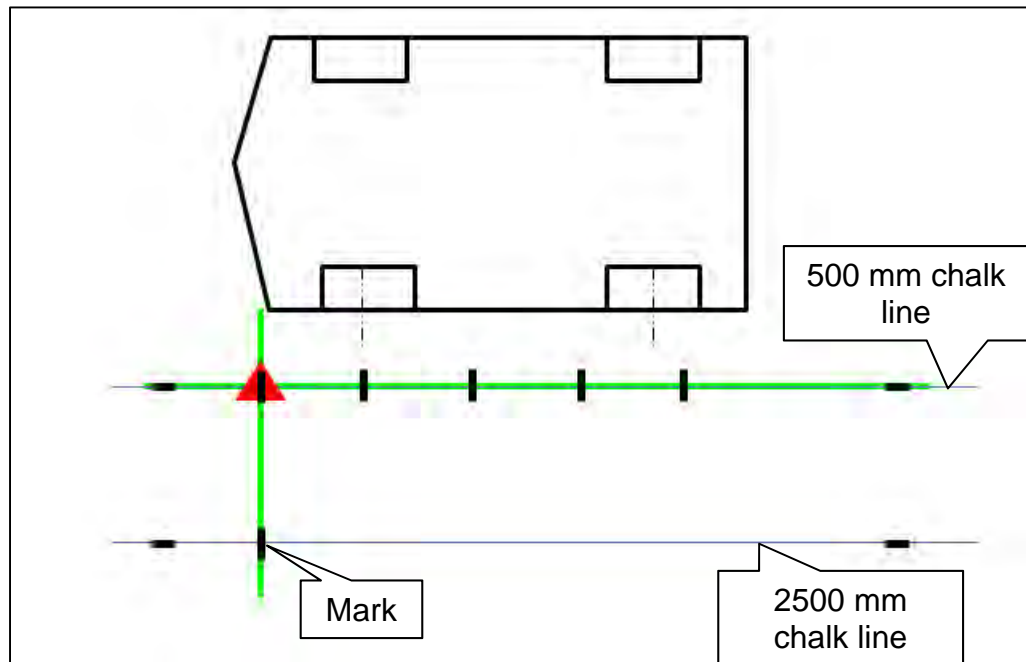


Figure 32

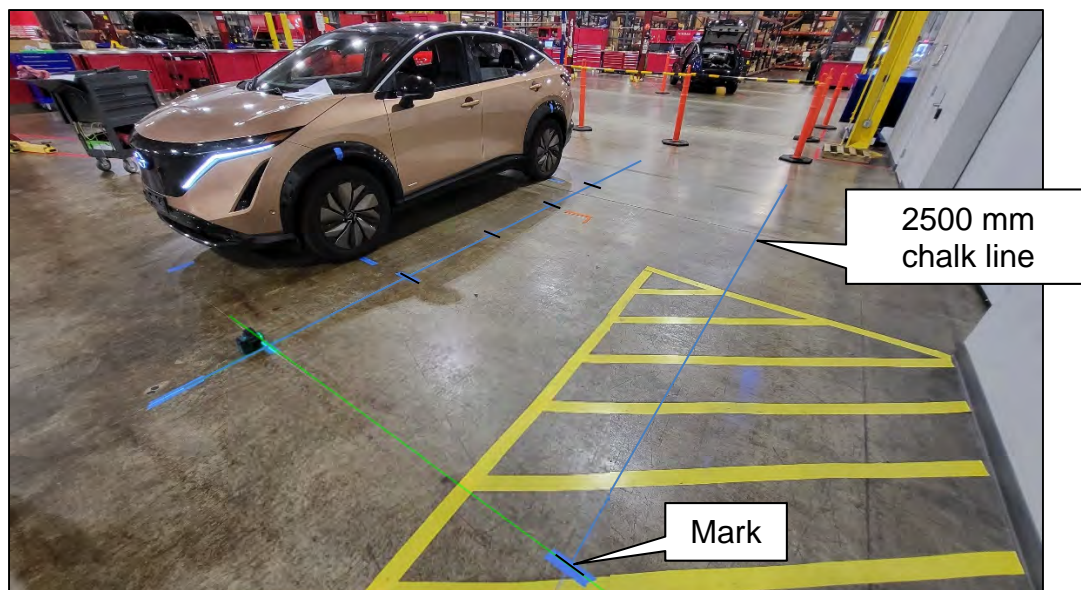


Figure 33

28. Move the laser level to the position shown in Figure 34, and then make a mark on the 2500 mm chalk line.

IMPORTANT: The laser line must be perfectly aligned with the 500 mm chalk line.

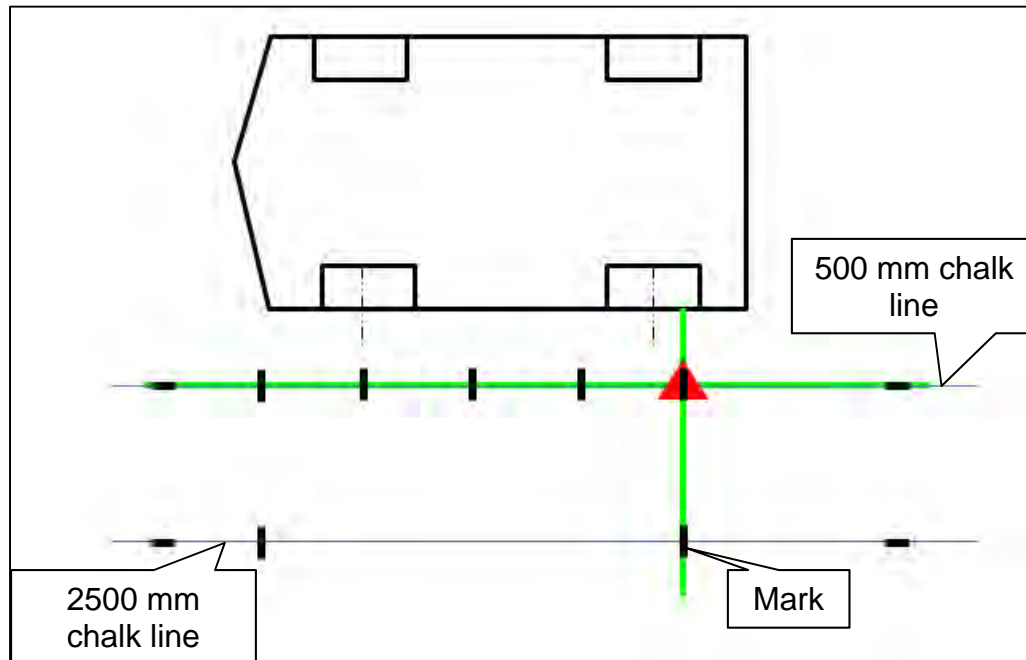


Figure 34

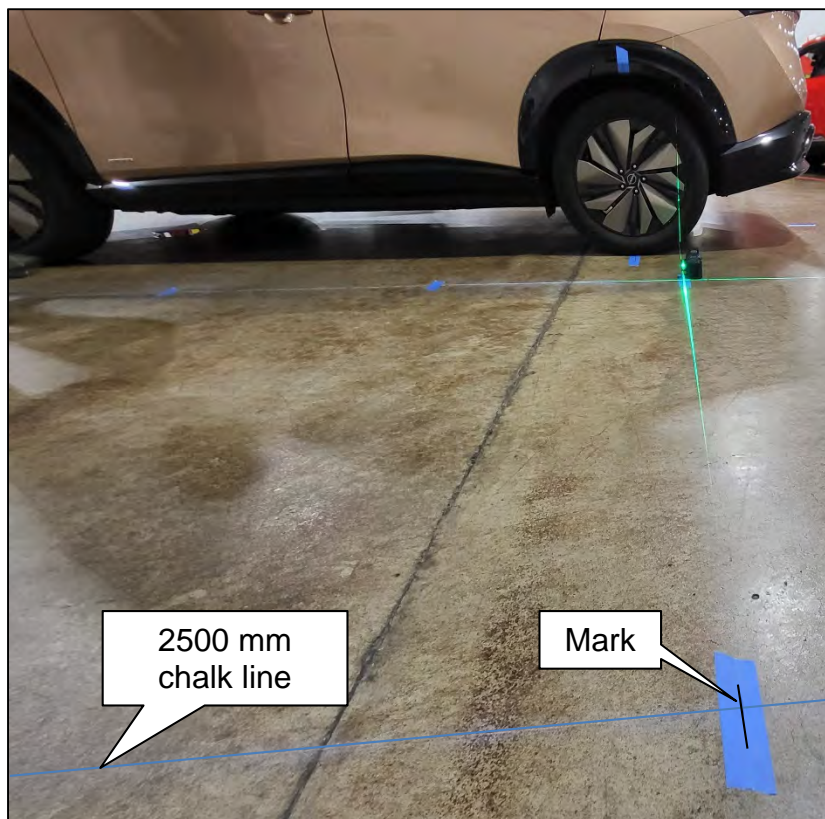


Figure 35

29. Using a carpenters square, squared to the chalk line, extend each of the seven (7) marks 12 in. from the chalk line.

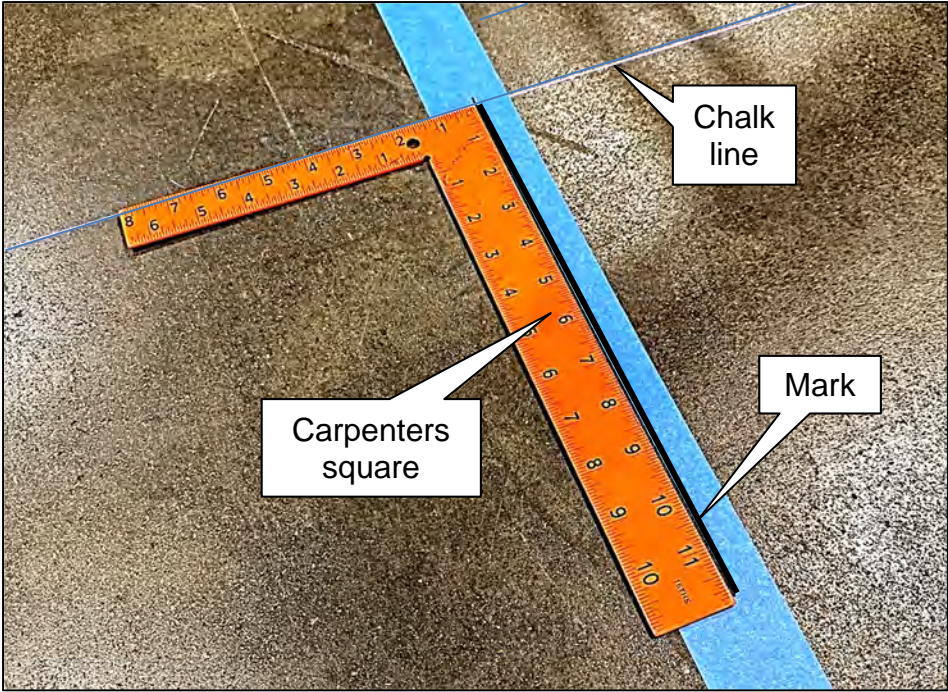


Figure 36

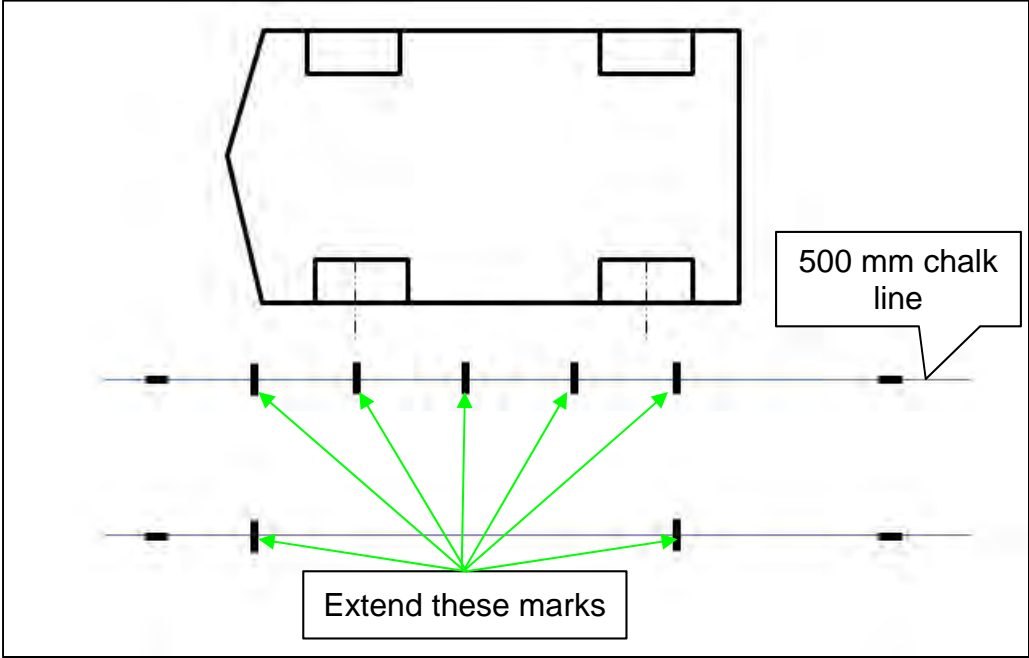


Figure 37

30. Place five (5) targets on the marks along the 500 mm chalk line.

IMPORTANT: Orient and align the targets, as shown in Figure 38, Figure 39 and Figure 40. The targets must be aligned with the 500 mm chalk line and the marks made in step 29 on page 19.

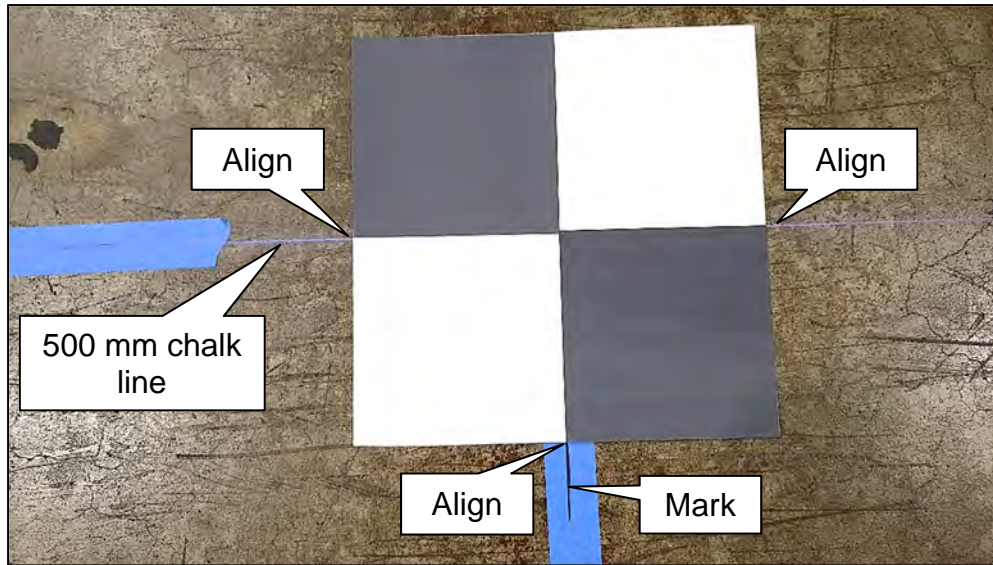


Figure 38

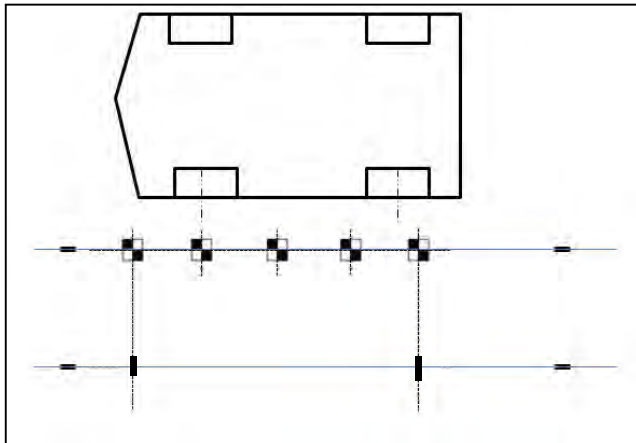


Figure 39



Figure 40

31. Place one (1) target on the forward most mark on the 2500 mm chalk line.

IMPORTANT: Orient and align the target, as shown in Figure 41, Figure 42 and Figure 43. The target must be aligned with the 2500 mm chalk line and the mark made in step 29 on page 19.

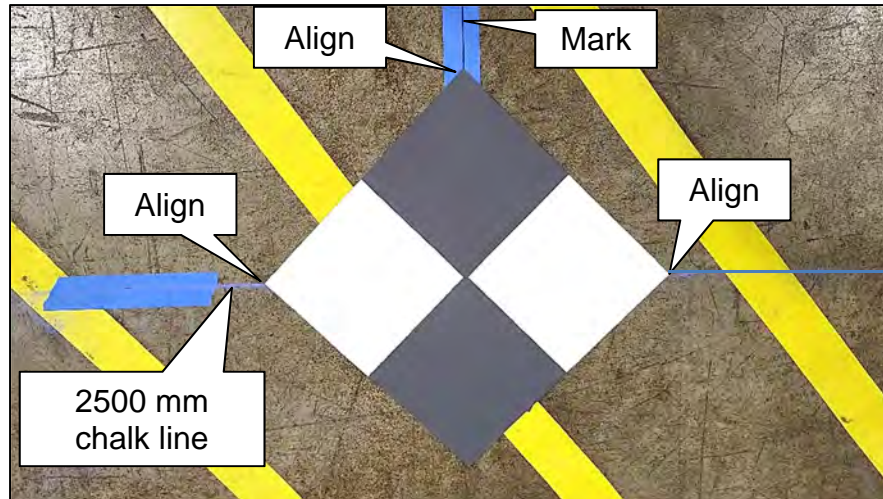


Figure 41

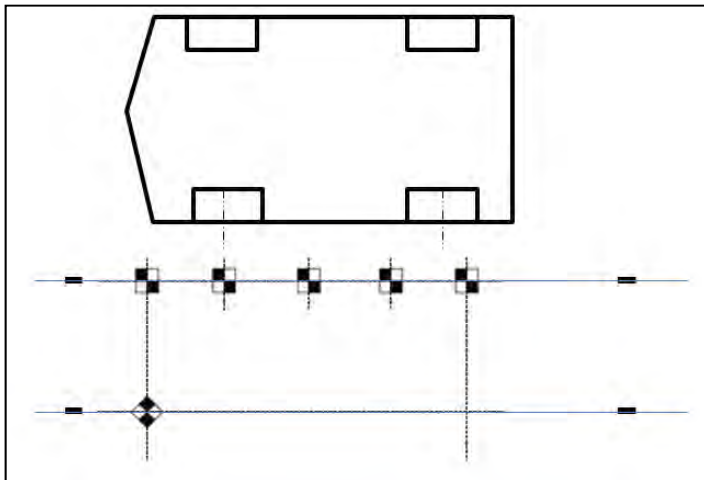


Figure 42



Figure 43

32. Place one (1) target on the rearward most mark on the 2500 mm chalk line.

IMPORTANT: Orient and align the target, as shown in Figure 44, Figure 45 and Figure 46. The target must be aligned with the 2500 mm chalk line and the mark made in step 29 on page 19.

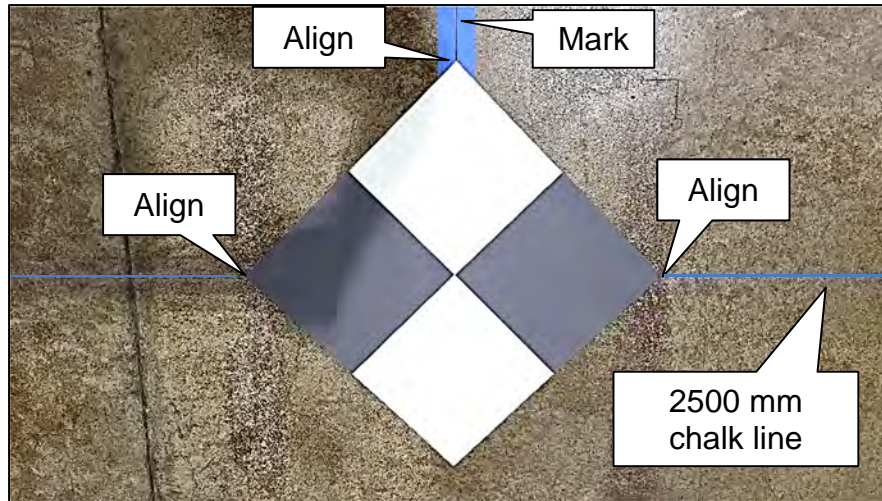


Figure 44

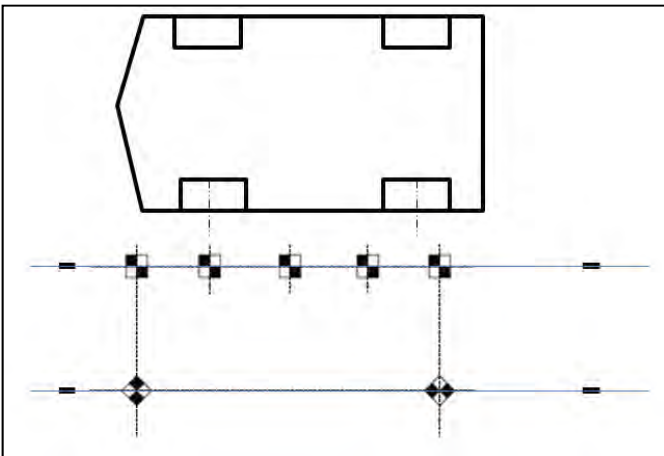


Figure 45



Figure 46

33. If the passenger (RH) side camera was replaced, repeat steps 20 - 32 starting on page 11, to place the calibration targets for the passenger (RH) side camera.

Driver (LH) Side Camera Calibration Measurements

34. Measure the distance between the wheel center point and the center of the calibration targets T1, T6, T7, and T5, as shown in Figure 47 below.

IMPORTANT: All measurements must be in millimeters (mm). Refer to the illustrations in Figure 47 to ensure the correct measurement is documented in the correct order and for each calibration target.

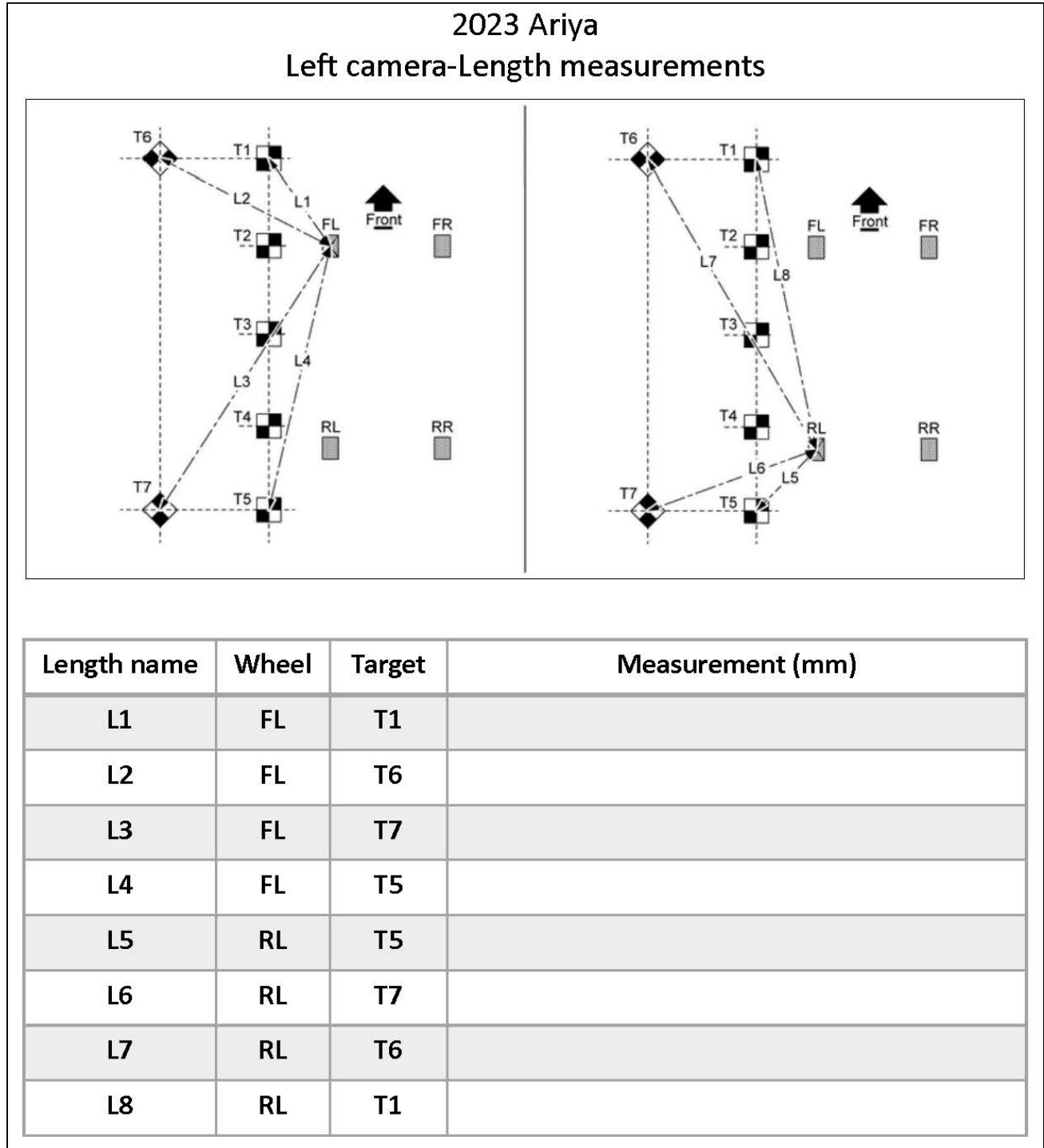


Figure 47

35. Place the laser level on a clean cloth, and then on the roof of the vehicle.

IMPORTANT:

- Place the laser level in the middle of the vehicle's roof.
- The laser level must be still (no fans should be blowing).



Figure 48

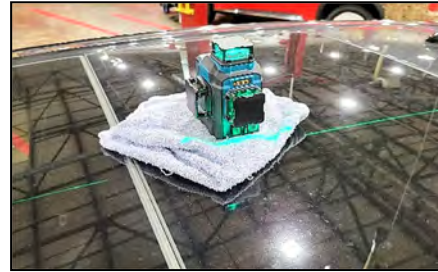


Figure 49

IMPORTANT: For steps 36 and 37:

- When holding the carpenter's wooden folding ruler (carpenter's ruler), ensure the ruler is completely upright and does not bend.
- All measurements must be in millimeters (mm).
- Refer to the illustrations in Figure 52 on page 25 to ensure the correct measurement is documented in the correct order and for each calibration target.

36. Using a folding carpenter's ruler, measure the height from the center of each calibration target, and then record the measurements H1-H7 in the table in Figure 52 on page 25.

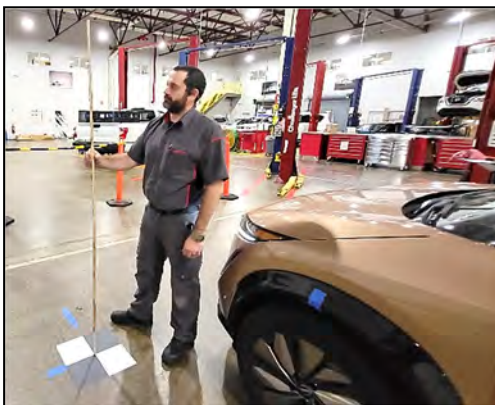


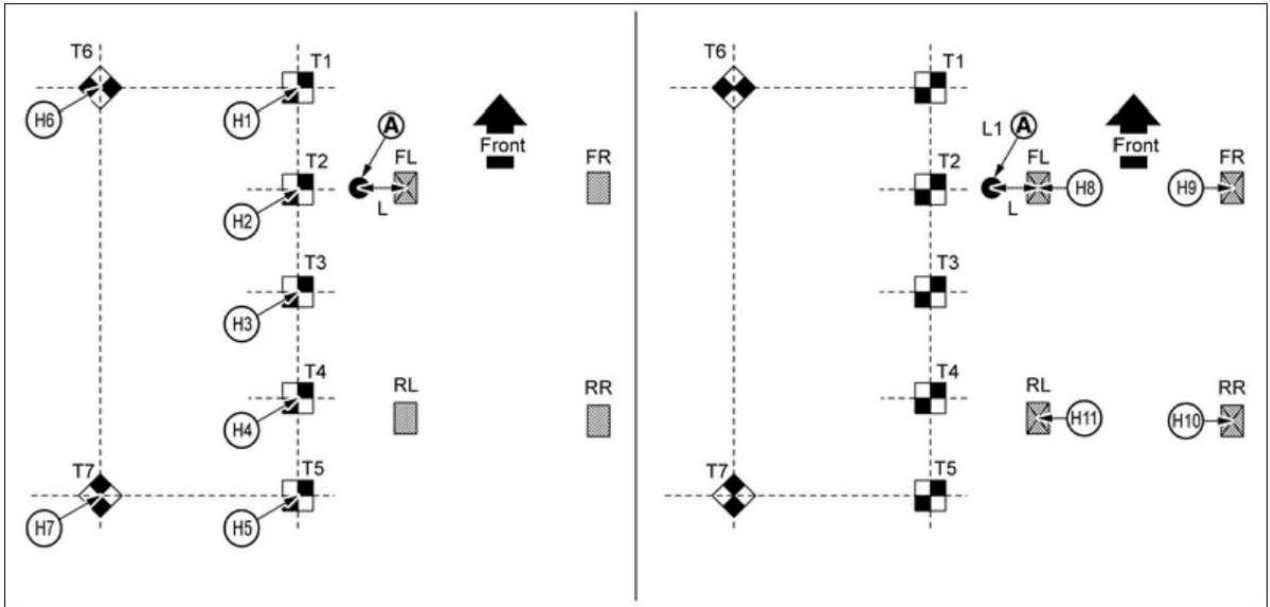
Figure 50



Figure 51

37. Using a folding carpenter's ruler, measure the height from the wheel center point, and then record the measurements H8-H11 in the table in Figure 52 on page 25.

Left camera-Height measurements



Height name	Wheel	Target	Measurement (mm)
H1	-	T1	
H2	-	T2	
H3	-	T3	
H4	-	T4	
H5	-	T5	
H6	-	T6	
H7	-	T7	
H8	FL	-	
H9	FR	-	
H10	RR	-	
H11	RL	-	

Figure 52

Passenger (RH) Side Camera Calibration Measurements

38. Measure the distance between the wheel center point and the center of the calibration targets T1, T6, T7, and T5, as shown in Figure 53 below.

IMPORTANT: All measurements must be in millimeters (mm). Refer to the illustrations in Figure 53 to ensure the correct measurement is documented in the correct order and for each calibration target.

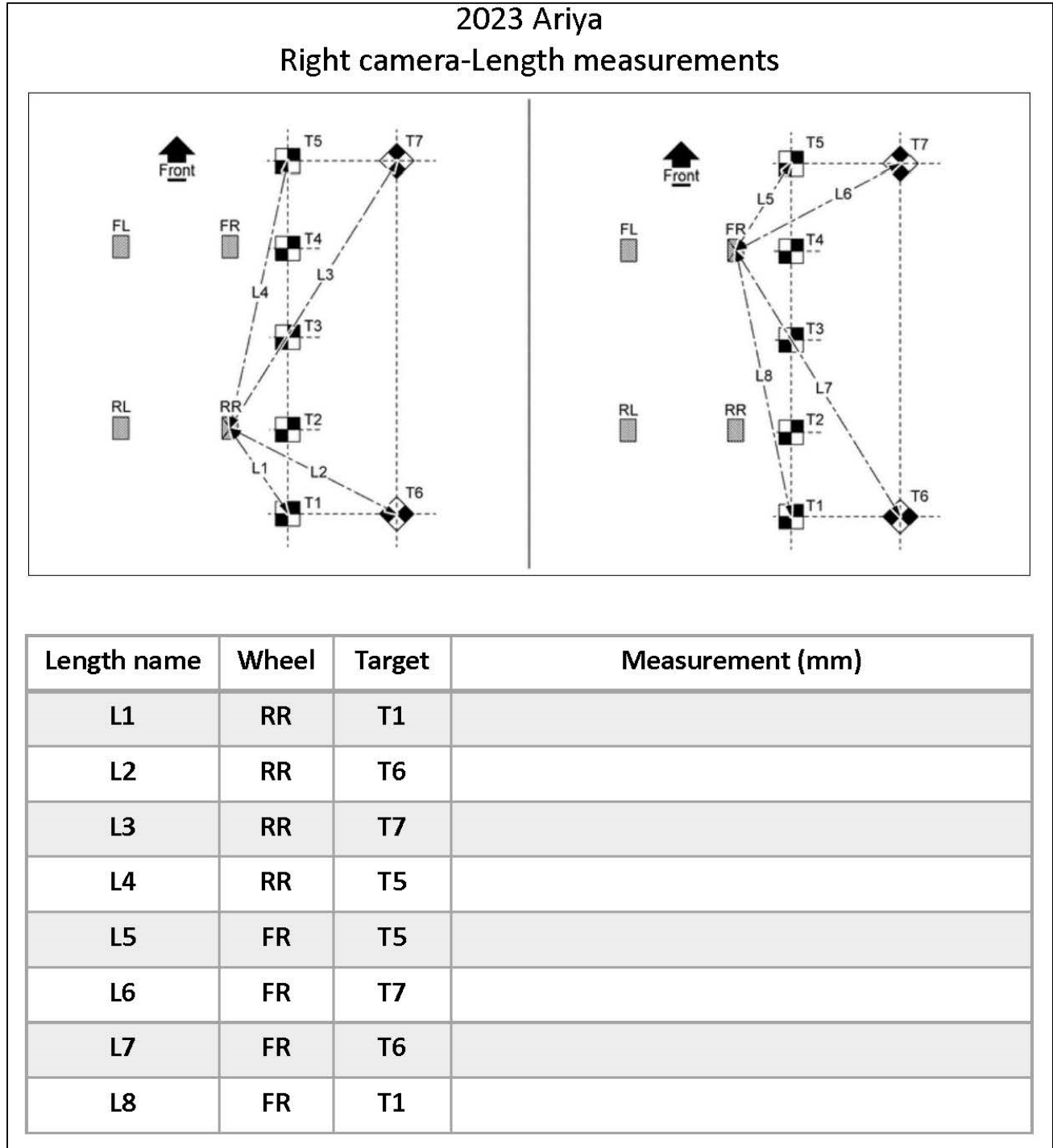


Figure 53

39. Refer to steps 35 - 37 on page 24 to set up the laser level to measure the height of the passenger (RH) side camera, and then document the measurements in Figure 54.

IMPORTANT: All measurements must be in millimeters (mm). Refer to the illustrations in Figure 54 to ensure the correct measurement is documented in the correct order and for each calibration target.

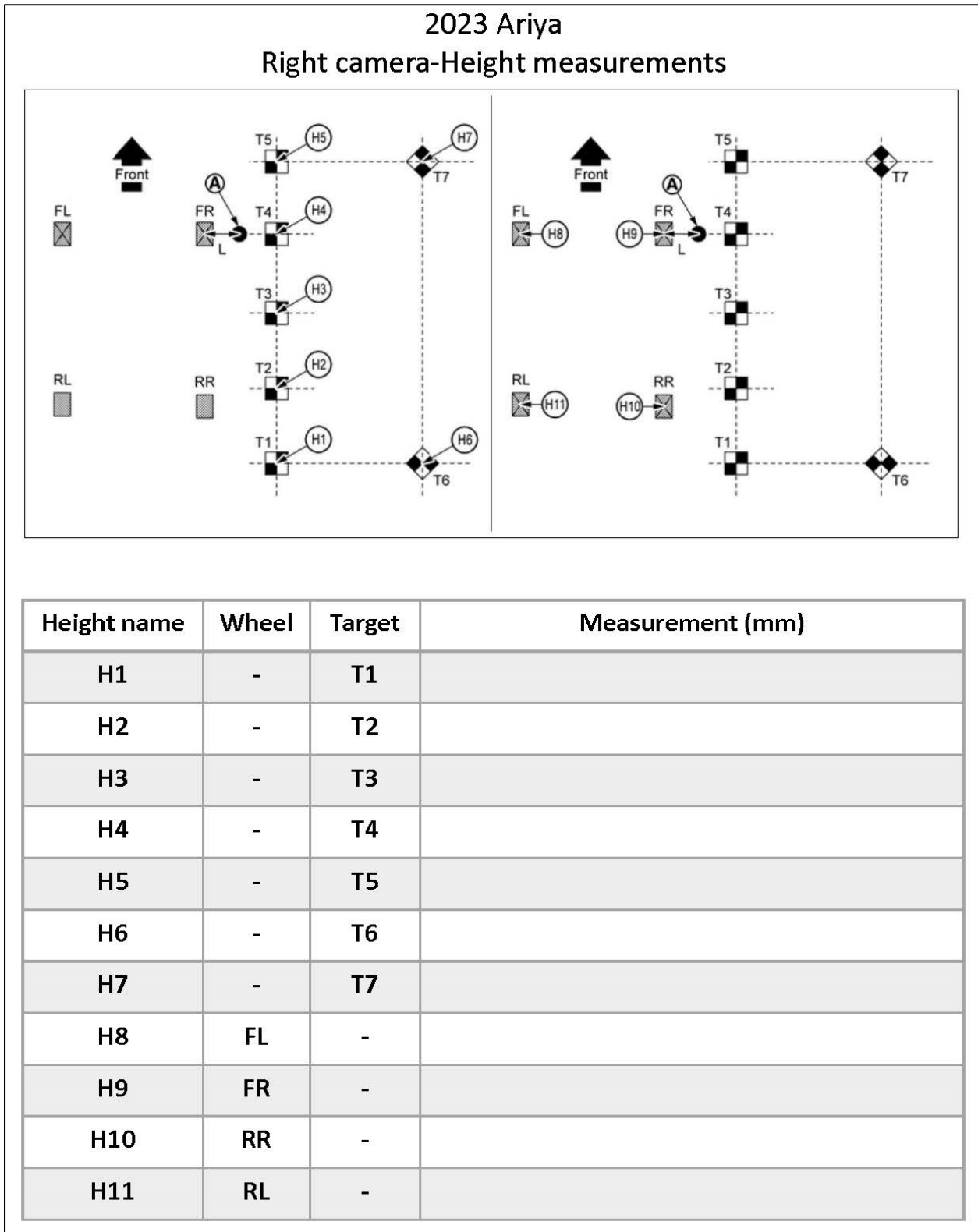


Figure 54

Marking the Center Point for the Front of the Vehicle

40. Place the laser level approximately 800 mm (31.5 in.) from the front of the vehicle and align the laser with the front camera, as shown in Figure 56.

IMPORTANT: Be sure to center the laser line with the front camera and not the “NISSAN” brand name on the emblem.

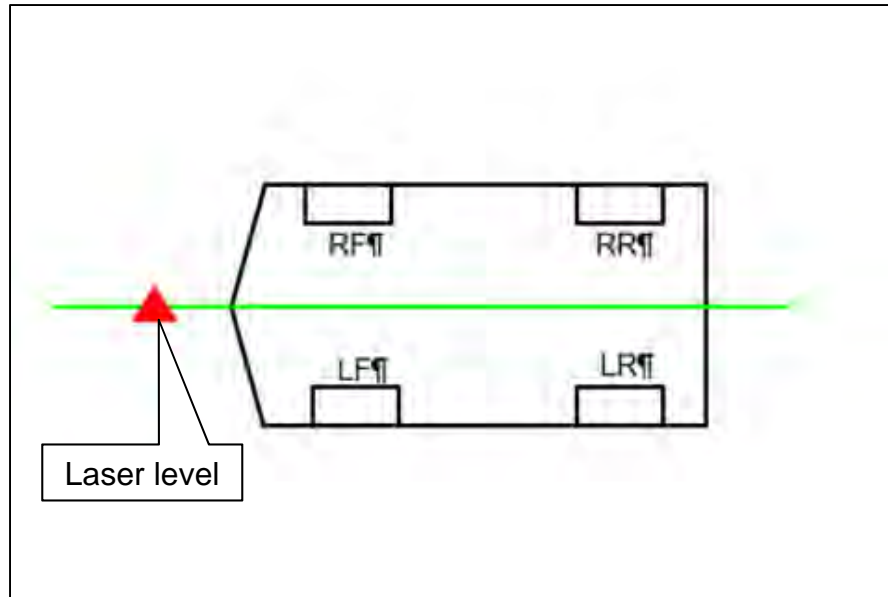


Figure 55

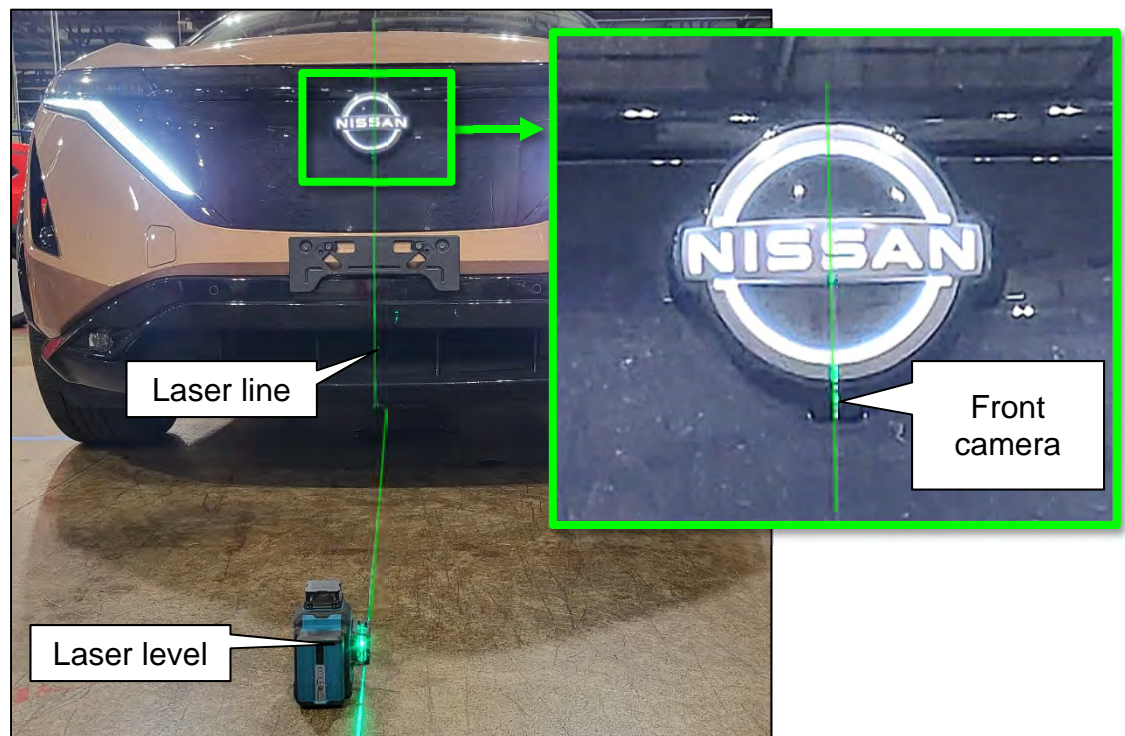


Figure 56

41. Mark the NISSAN emblem and the floor near the front fascia.



Figure 57

42. Move the laser so it is about 45° and approximately 800 mm (31.5 in.) from the front of the vehicle, and then line up the vertical laser line to the mark on the NISSAN emblem.

HINT: The laser level can be either to the left or right of the front of the vehicle.

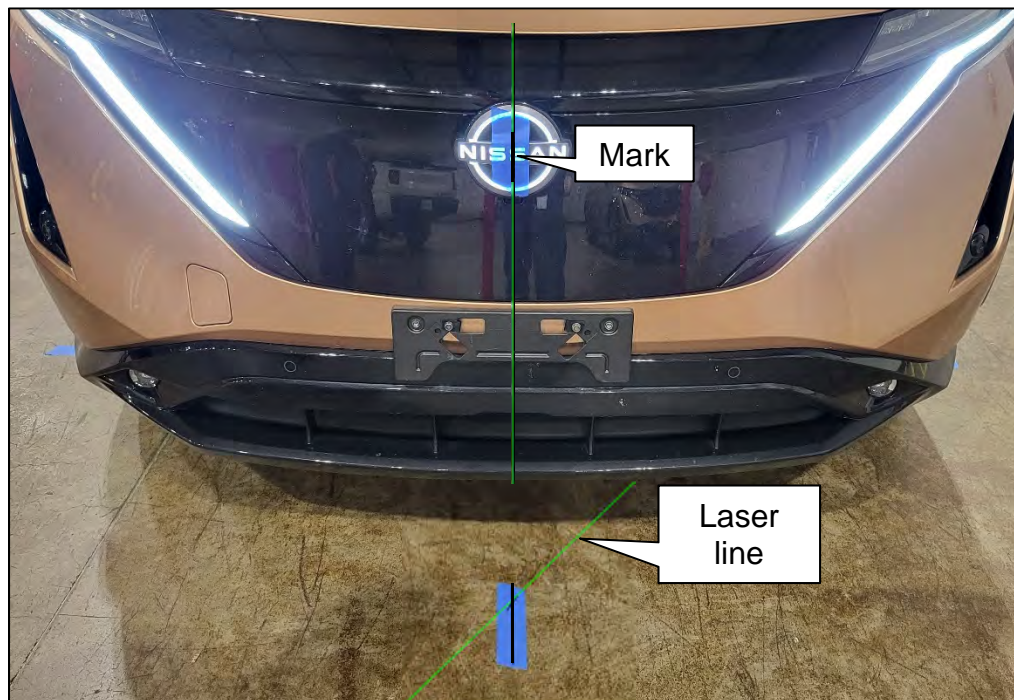


Figure 58

43. Mark the floor with a cross-mark, denoting the center point of the front of the vehicle.

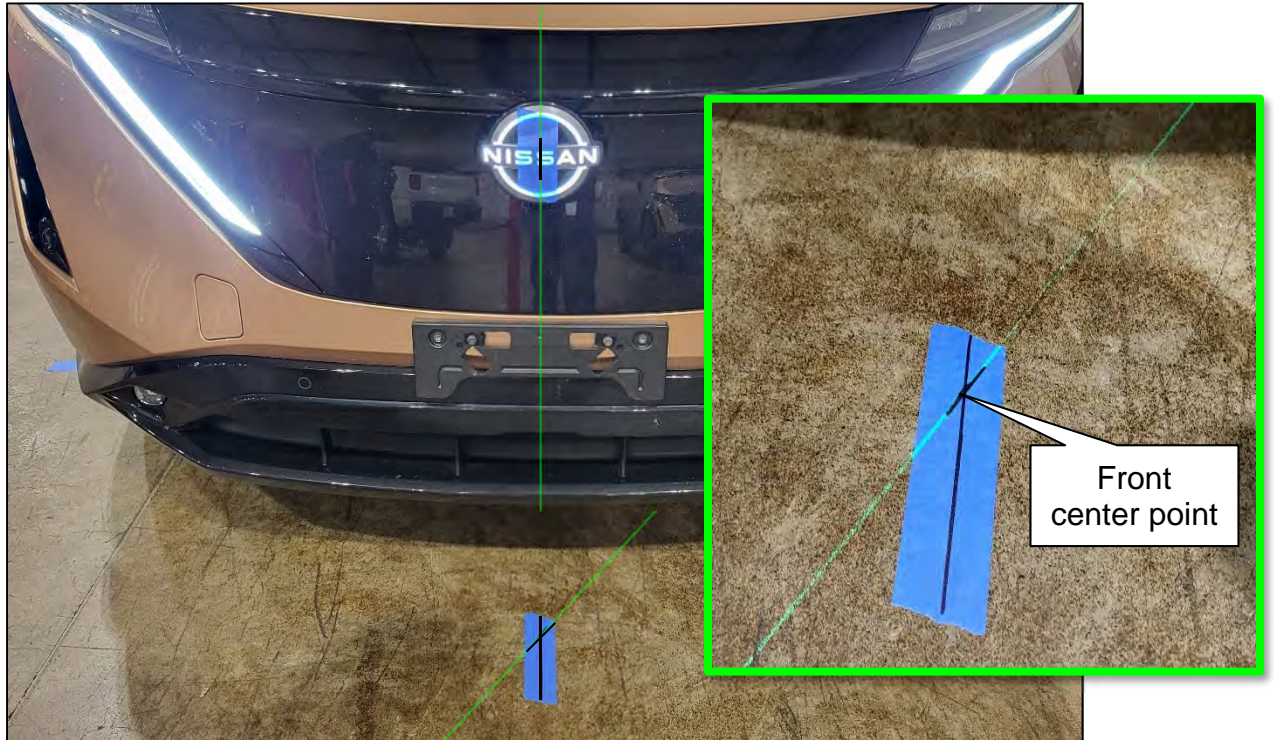


Figure 59

Marking the Center Point for the Rear of the Vehicle

44. Place the laser level approximately 800 mm (31.5 in.) from the rear of the vehicle and align the laser with the center mark at the front of the vehicle and the circle in between the S's in NISSAN, as shown in Figure 61.

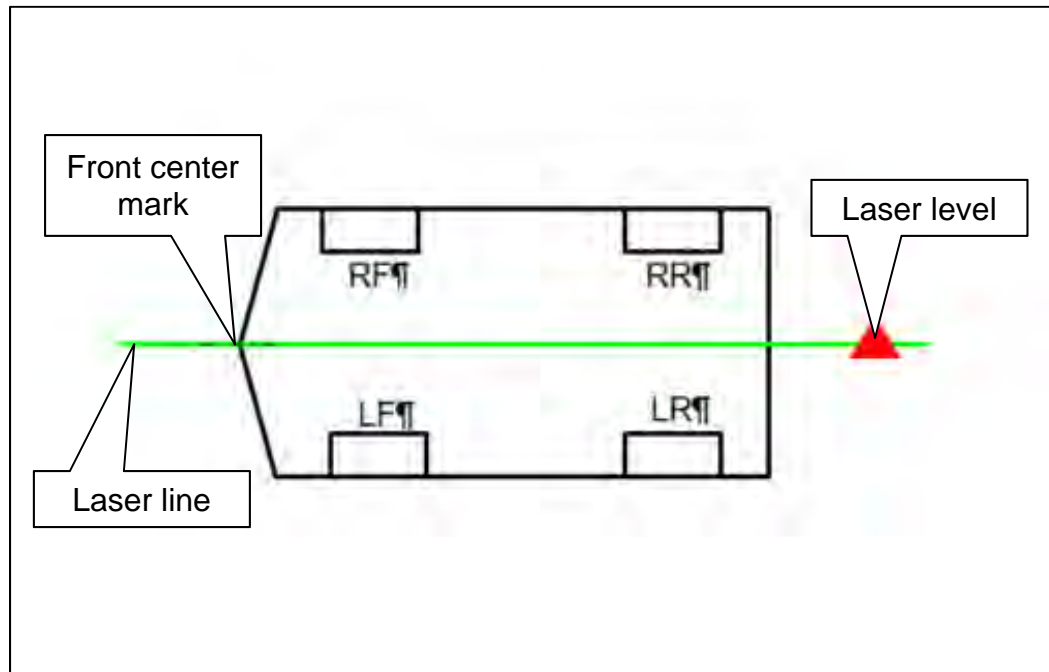


Figure 60

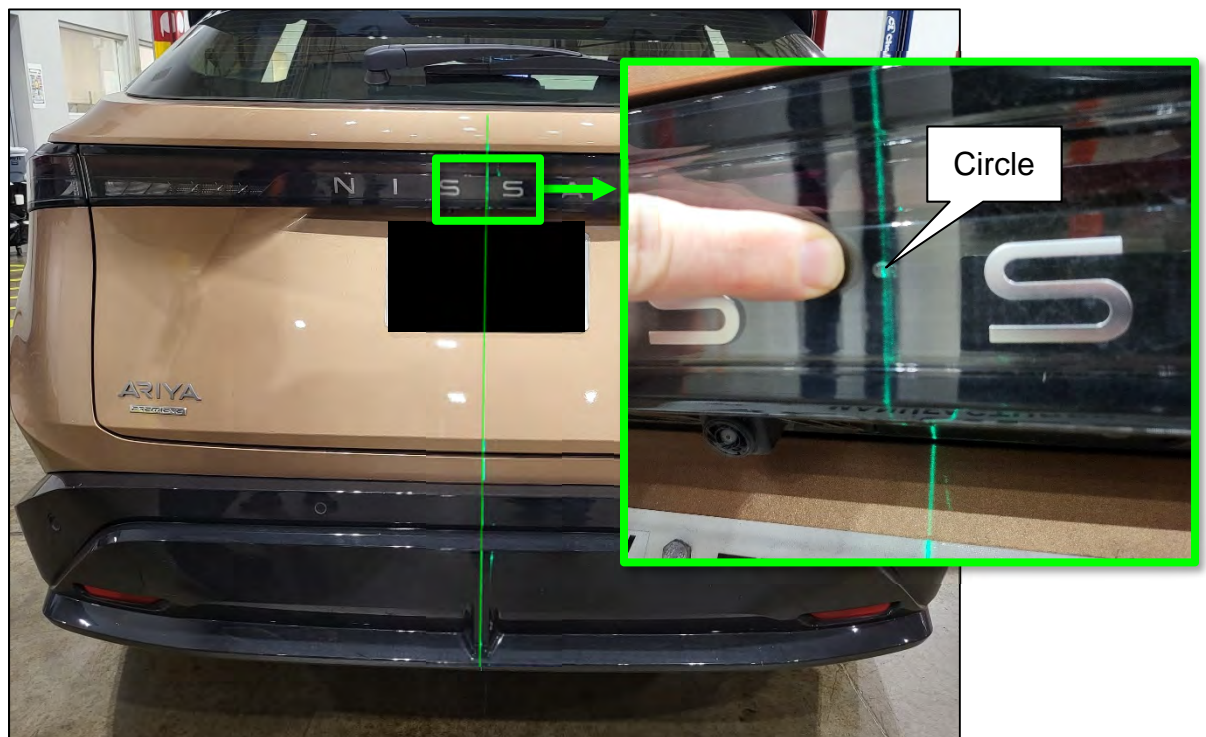


Figure 61

45. Mark the rear fascia, where shown in Figure 62, and the floor near the rear fascia.

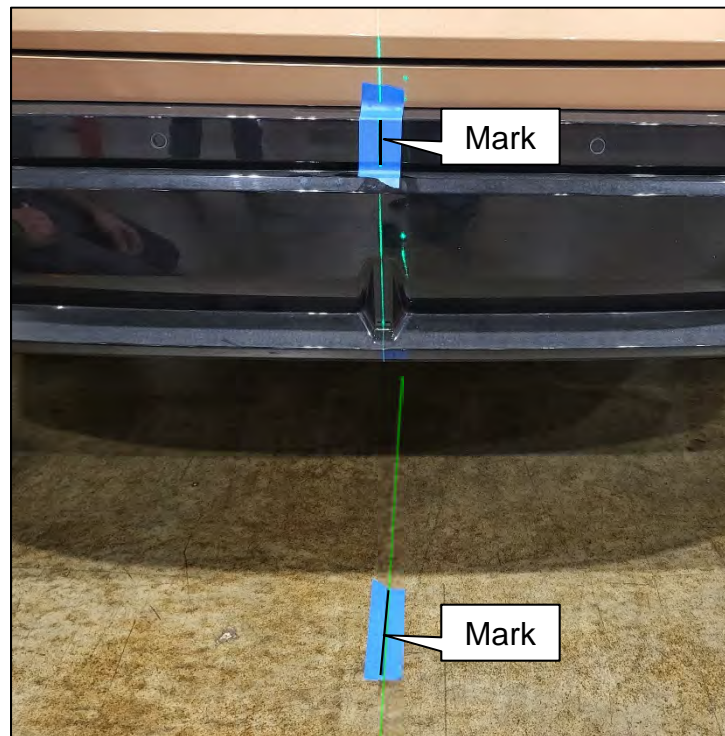


Figure 62

46. Move the laser so it is about 45° and approximately 800 mm (31.5 in.) from the rear of the vehicle, and then line up the vertical laser line to the mark on the rear fascia.

HINT: The laser level can be either to the left or right of the front of the vehicle.

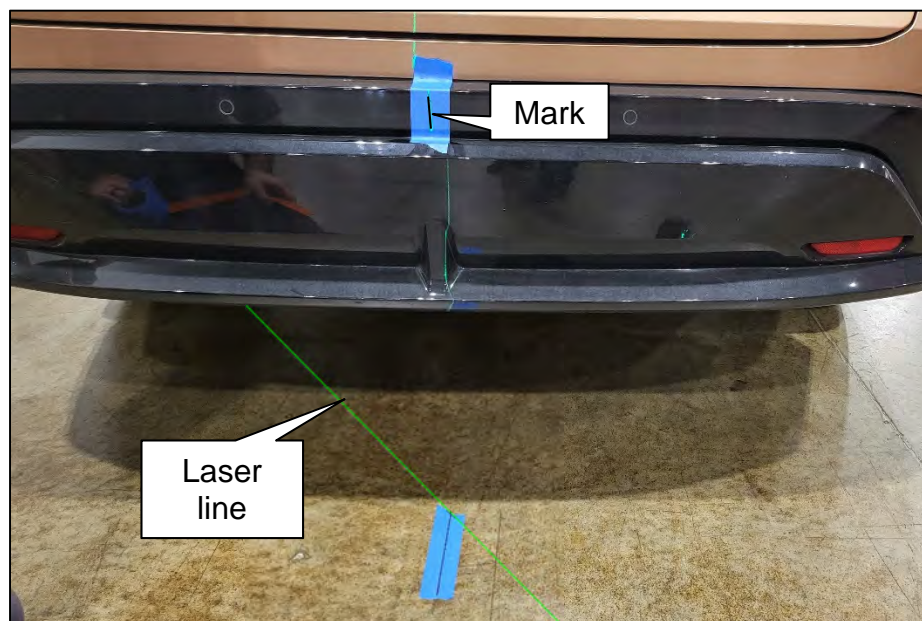


Figure 63

47. Mark the floor with a cross-mark, denoting the center point of the rear of the vehicle.

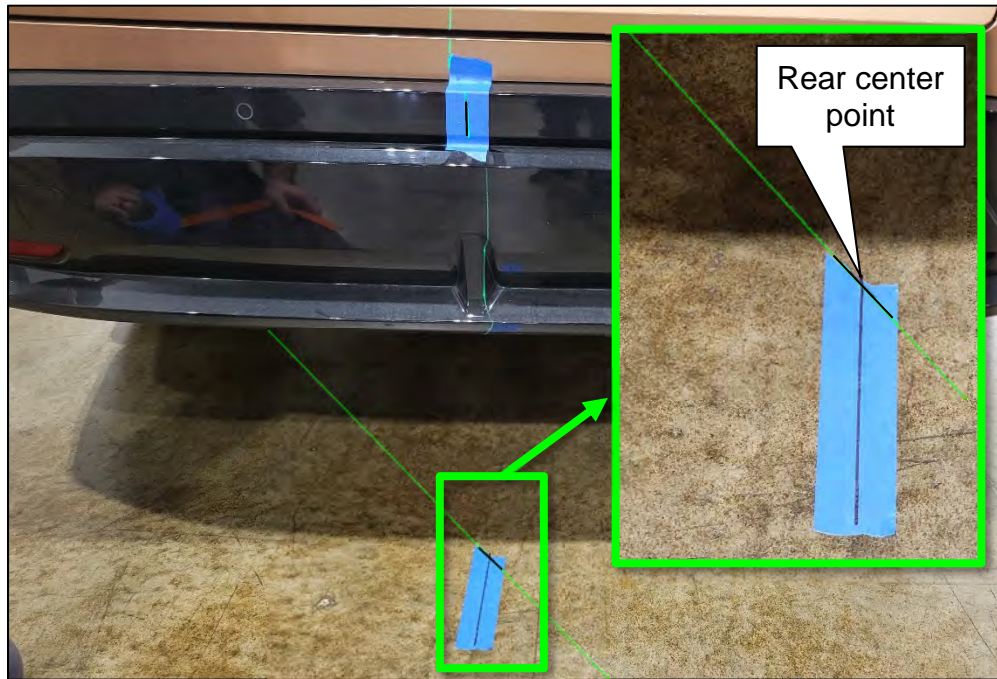


Figure 64

Placing Calibration Targets for the Front and/or Rear Cameras

IMPORTANT: Steps 48 - 62 and the related figures show the rear of the vehicle. The front is similar. If the AVM Control Module was replaced, steps 48 - 62 must be performed for both the front and rear cameras.

48. Place the laser level 2500 mm from the rear center point of the vehicle, and then align the laser line with both the front and rear center points, as shown in Figure 65 and Figure 66.

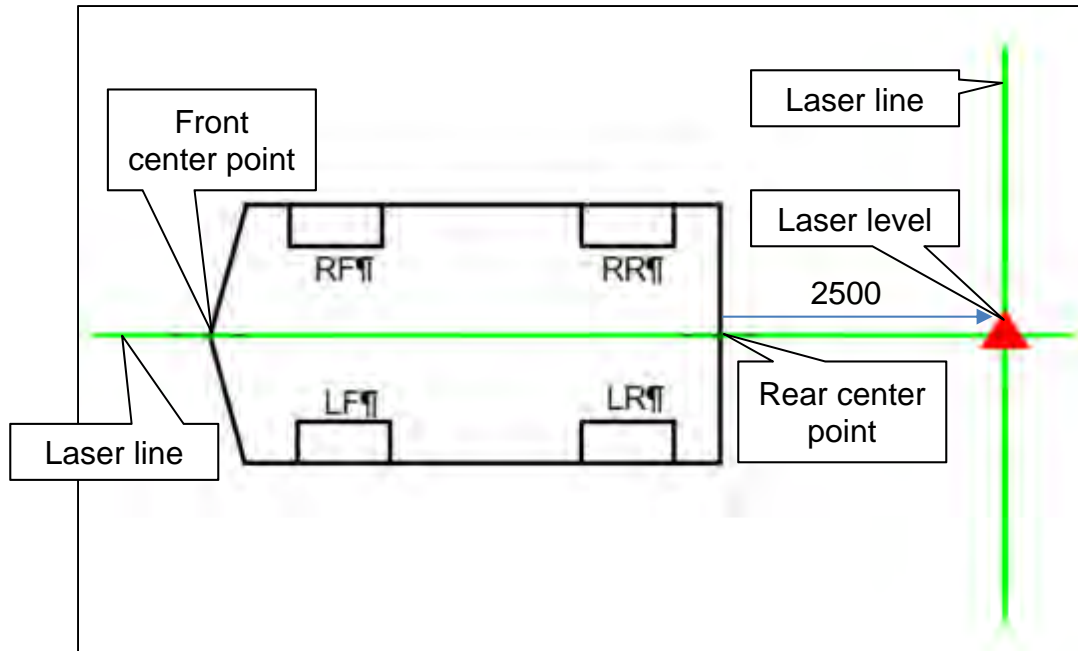


Figure 65

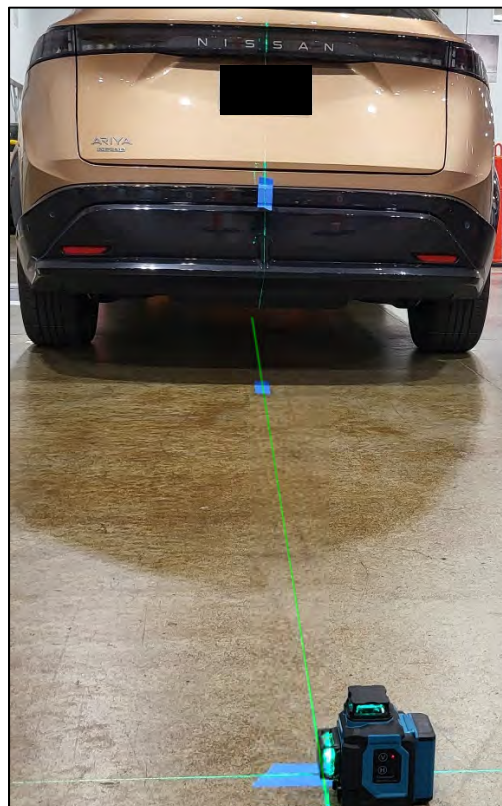


Figure 66

49. Place a cross-mark on the floor below the laser line (Figure 29).

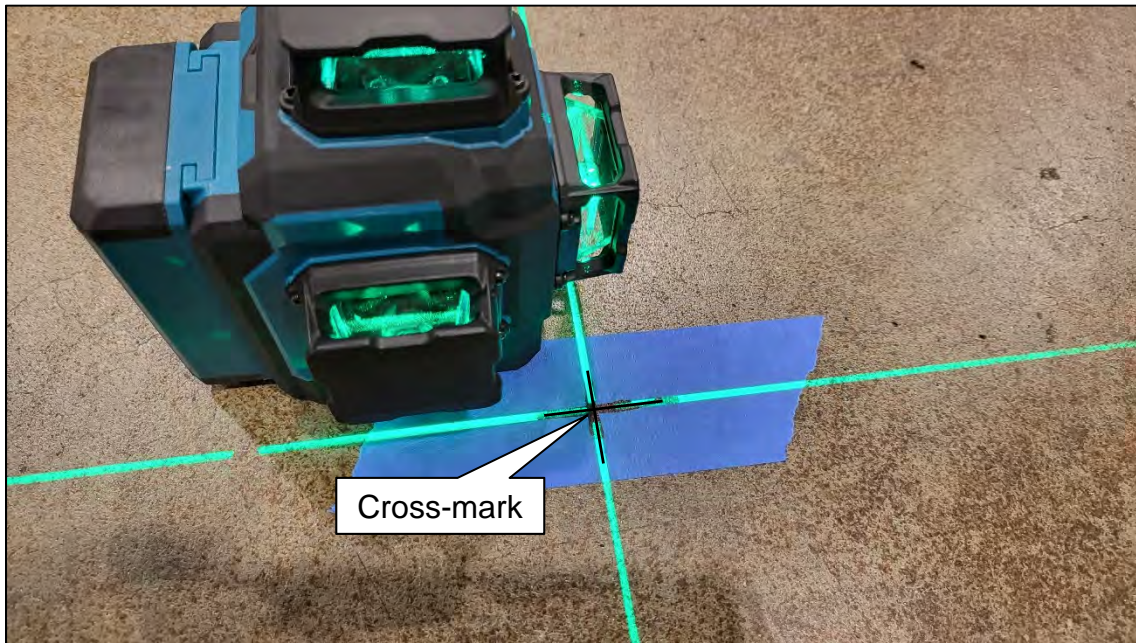


Figure 67

50. Measure and place a mark 500 mm from the rear center point.

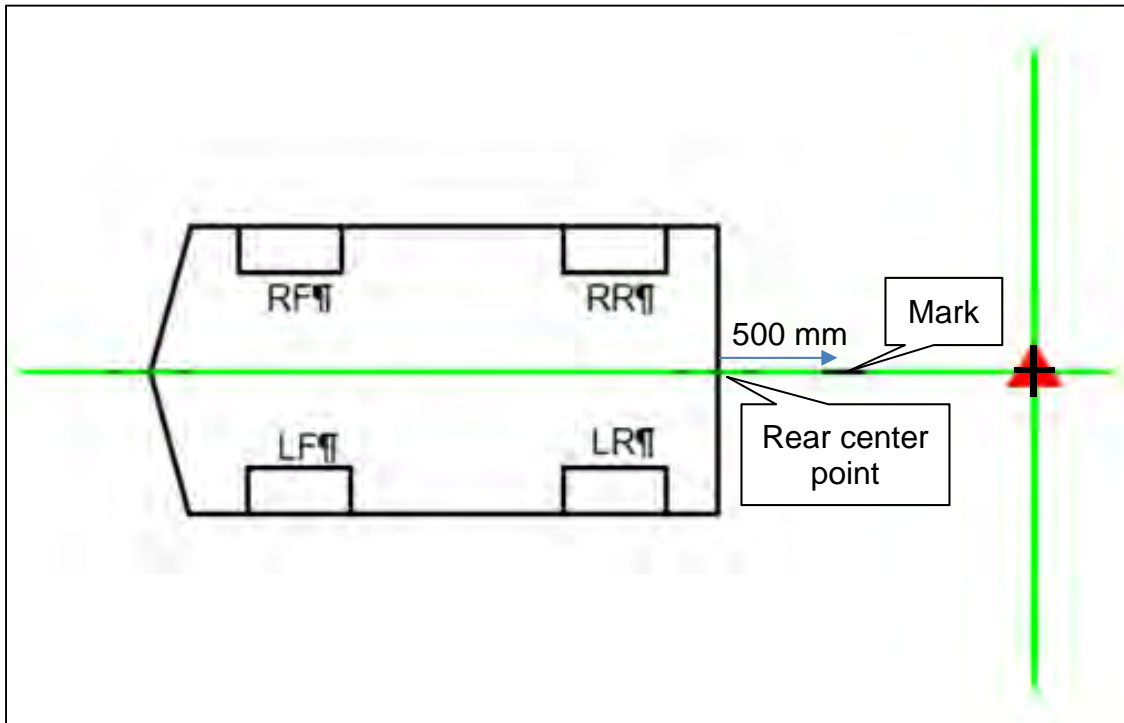


Figure 68

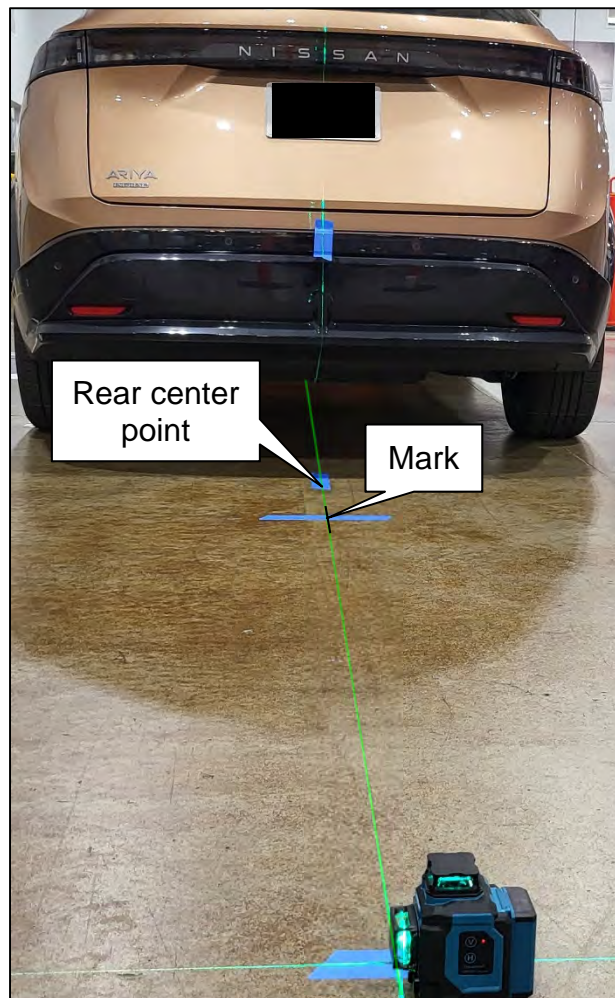


Figure 69

51. Measure and place a mark 2500 mm to the left and to the right of the laser level, as shown in Figure 70.

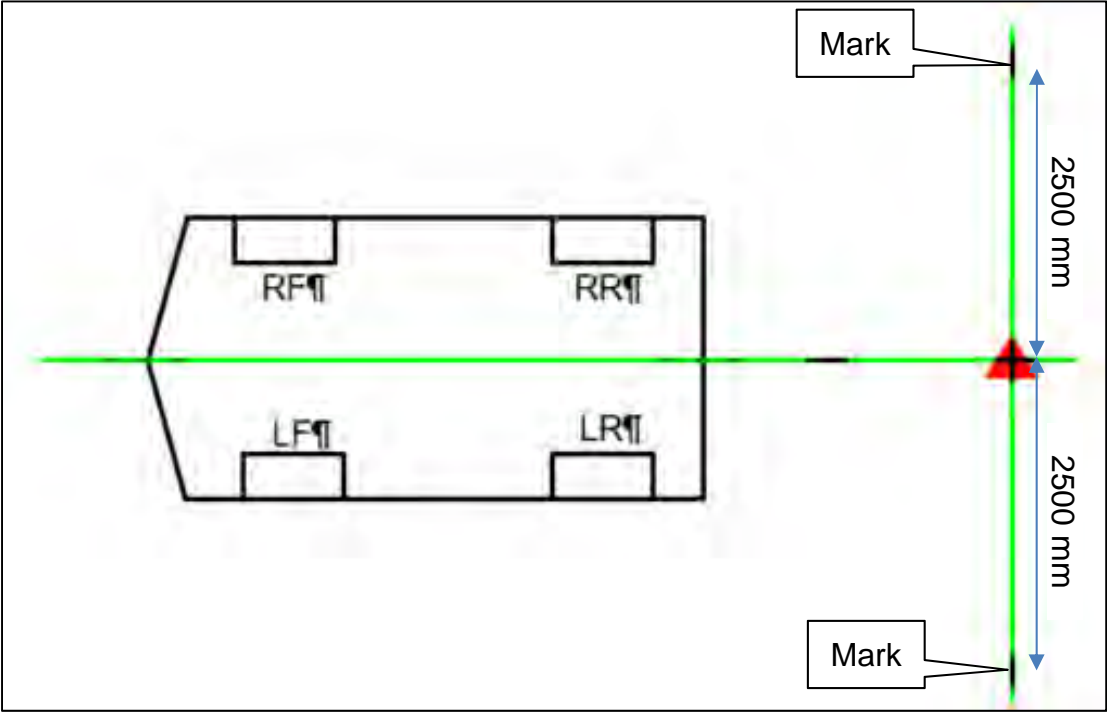


Figure 70

52. Move the laser to the 500 mm mark, and then measure and place a mark 2500 mm to the left and to the right of the laser level, as shown in Figure 71 and Figure 72.

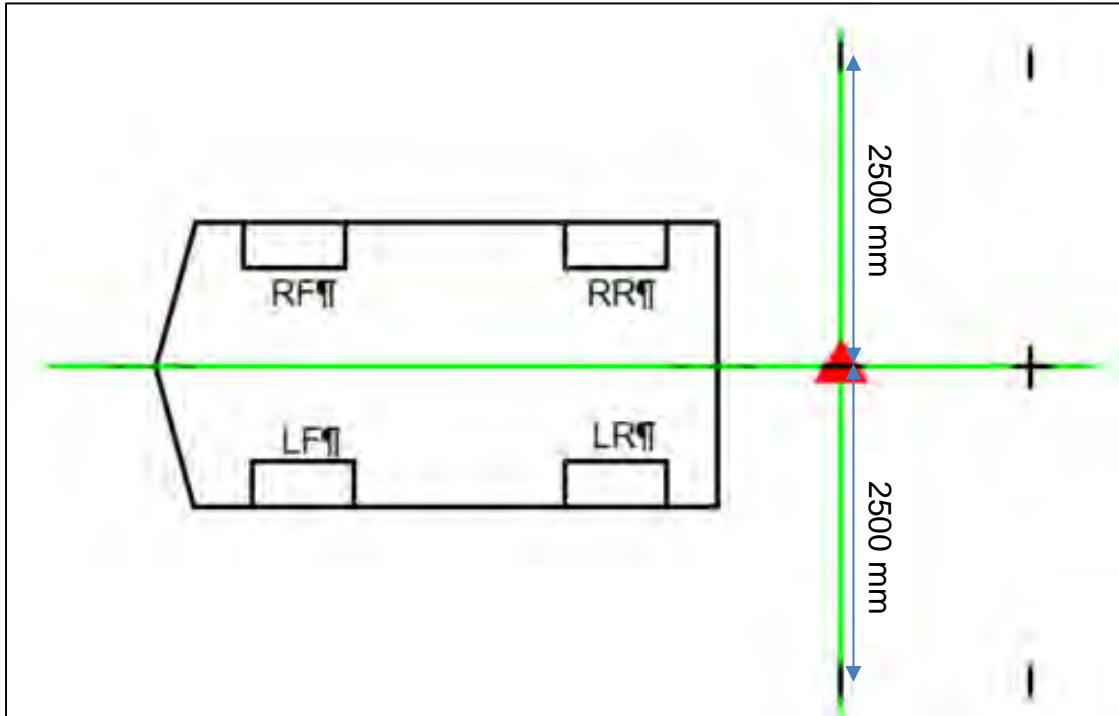


Figure 71

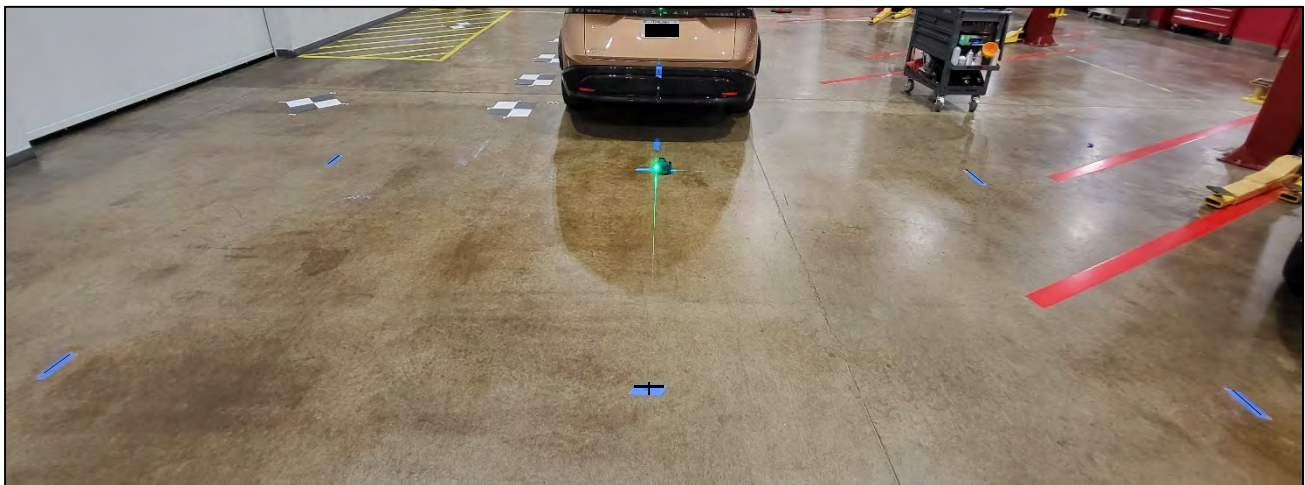


Figure 72

53. Use a chalk line tool to make a line between the 500 mm and 2500 mm marks, as shown in Figure 73 and Figure 74.

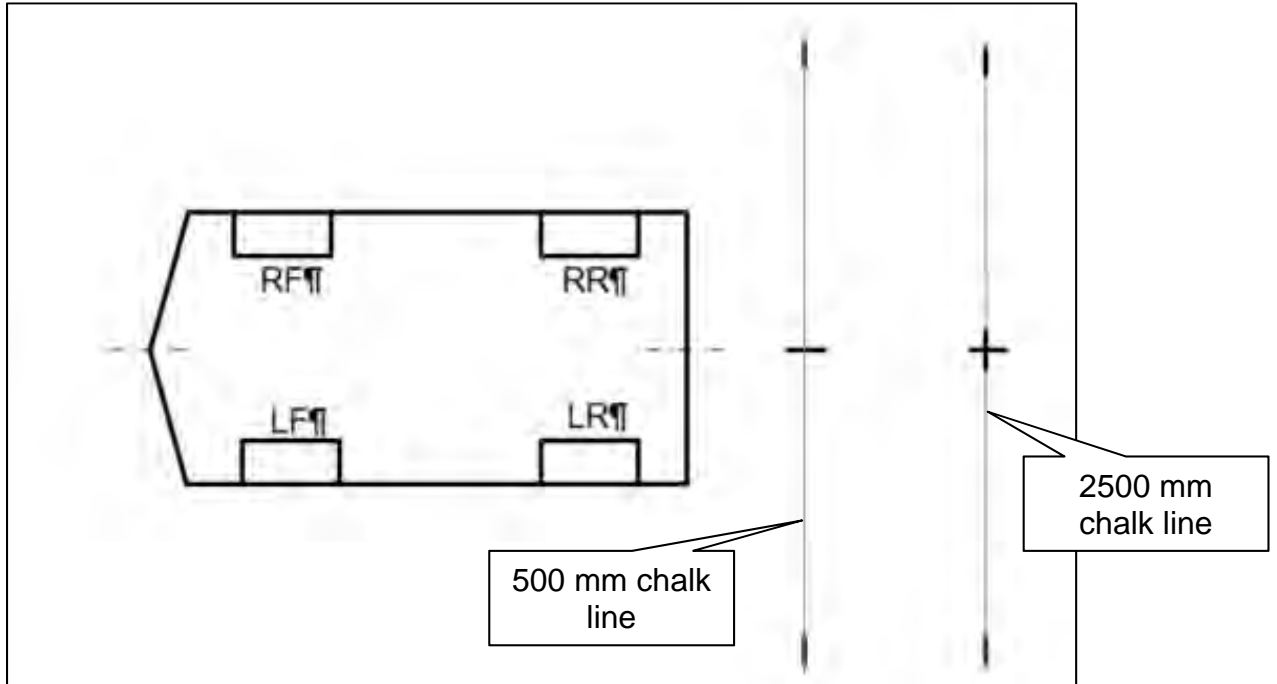


Figure 73

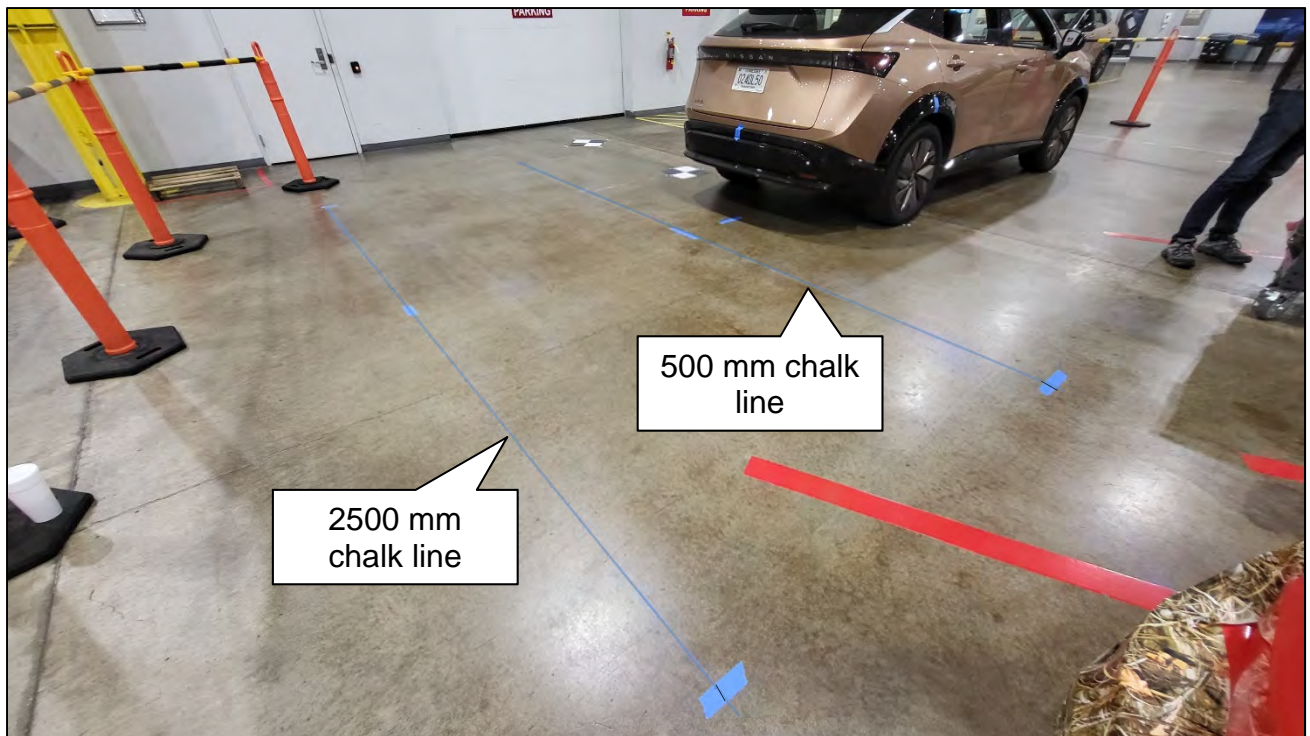


Figure 74

54. Place the laser level with both vertical lines activated, and align one laser line with the 500 mm chalk line and align the other laser line to the front and rear center point of the vehicle, as shown in Figure 75.

IMPORTANT: The laser line must be perfectly aligned with the 500 mm chalk line and the front and rear center points.

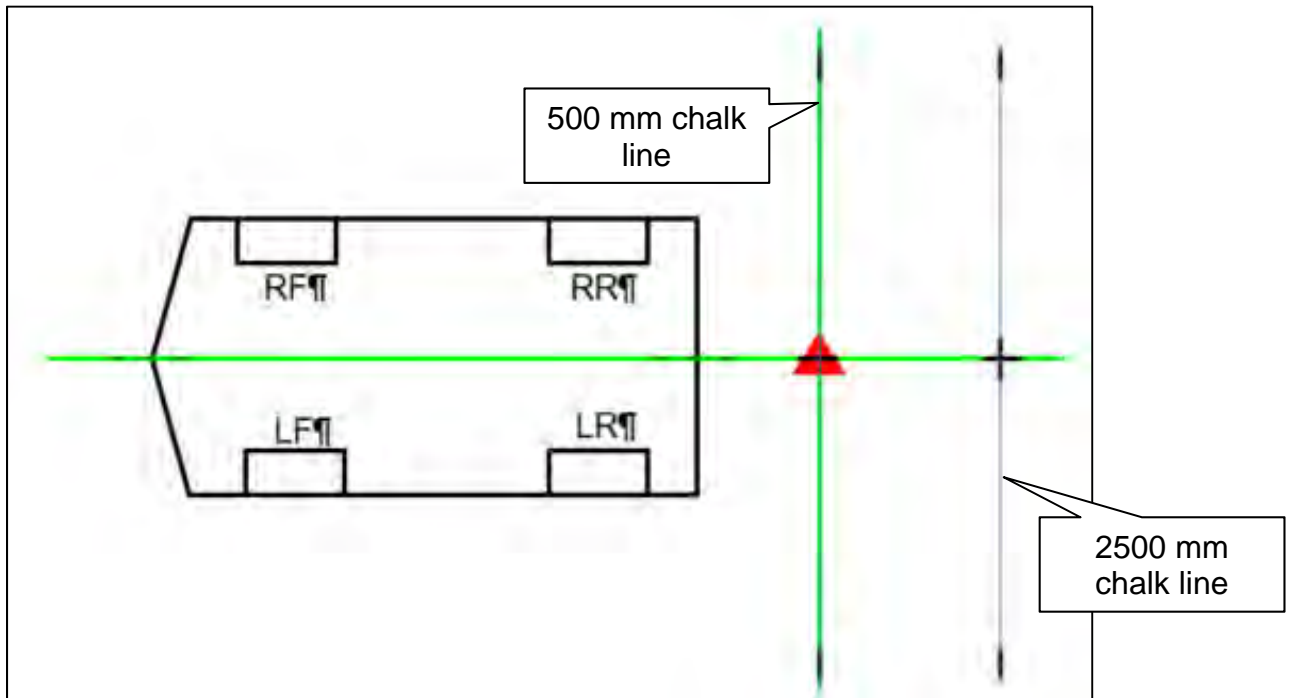


Figure 75

55. Place a cross-mark on the floor below the laser line (Figure 76).

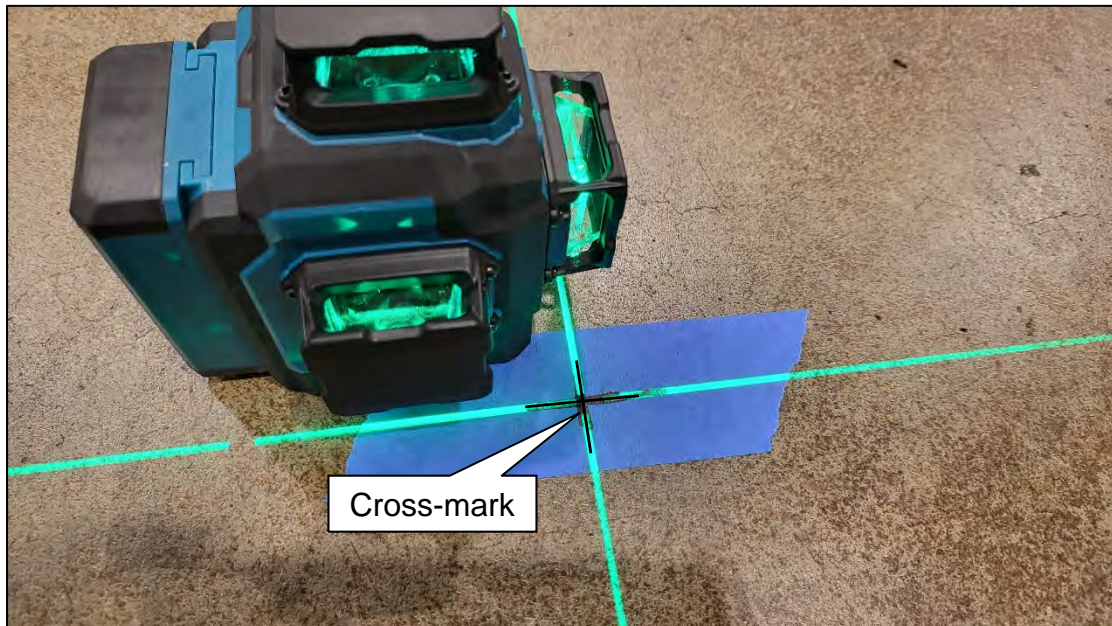


Figure 76

56. Measure and mark 1000 mm increments, as shown in Figure 77 and Figure 78.

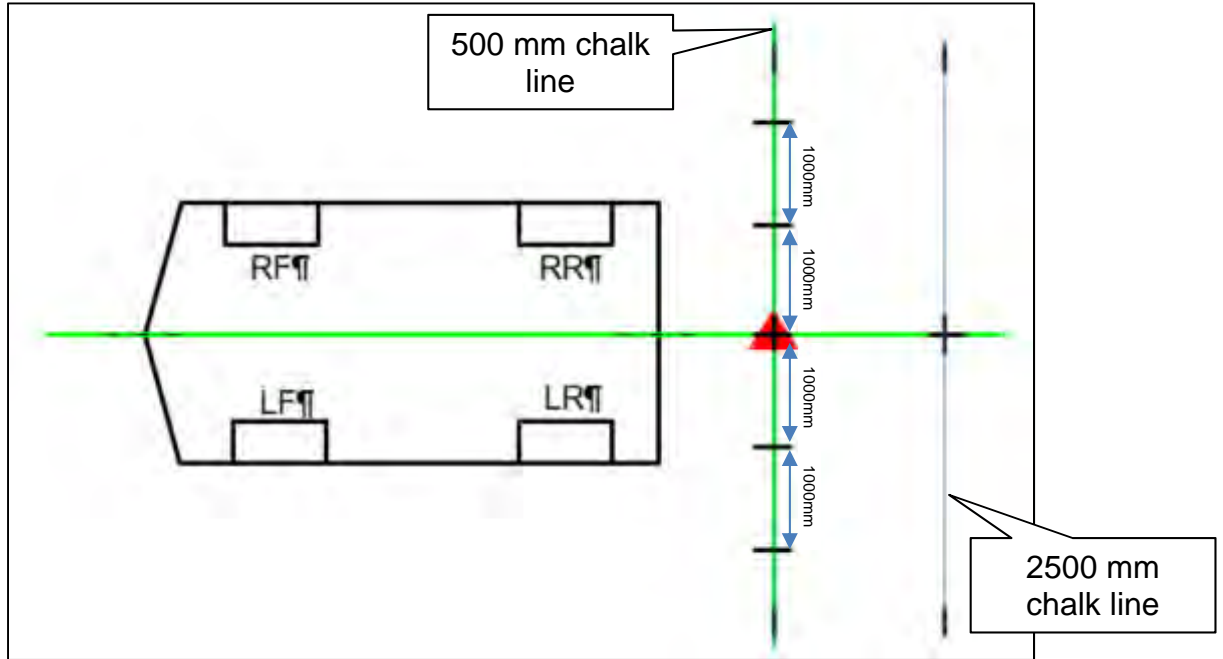


Figure 77

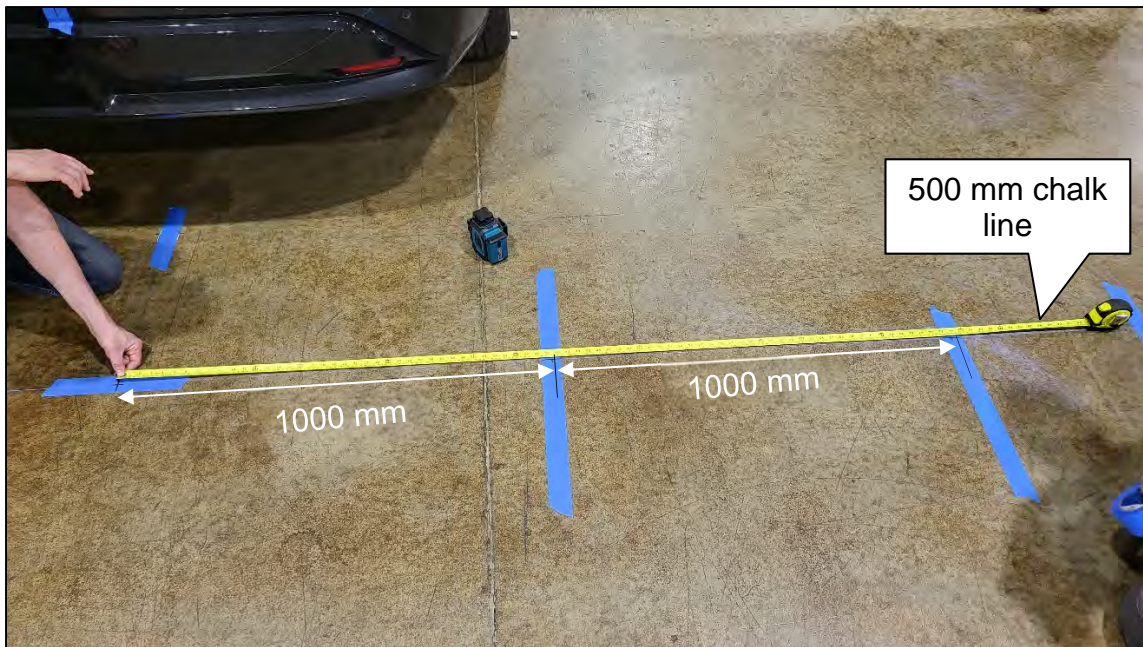


Figure 78

57. Move the laser level to the position shown in Figure 79, and then make a mark on the 2500 mm chalk line, as shown in Figure 79 and Figure 80.

IMPORTANT: The laser line must be perfectly aligned with the 500 mm chalk line.

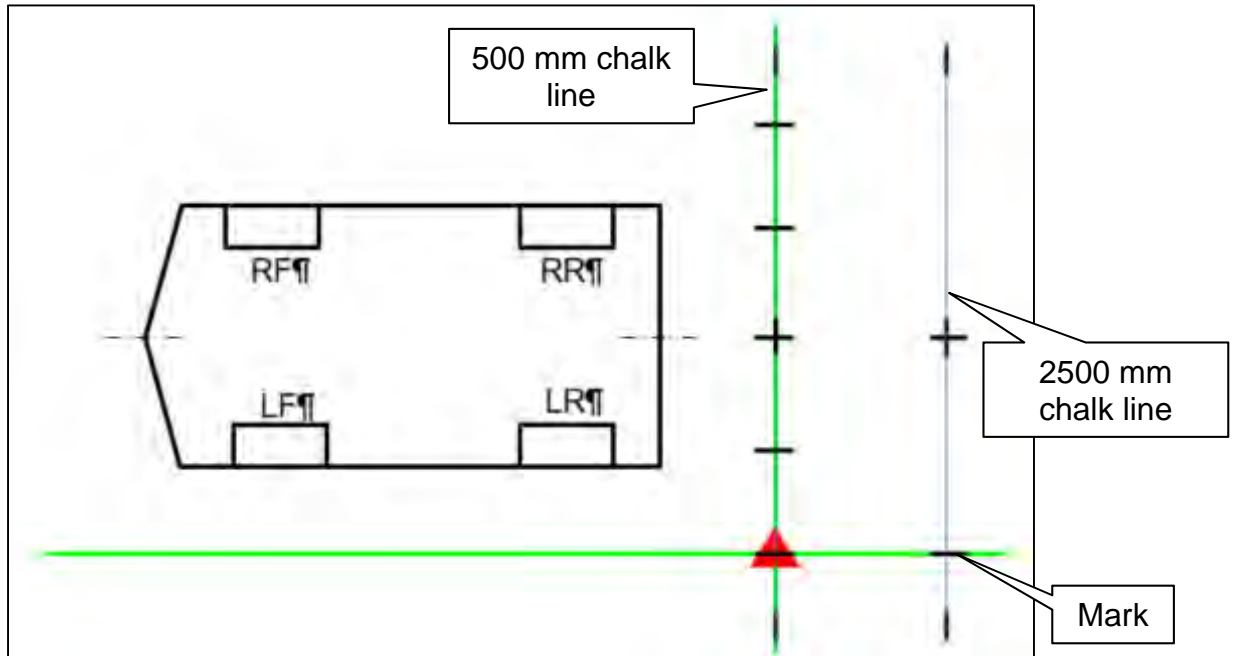


Figure 79

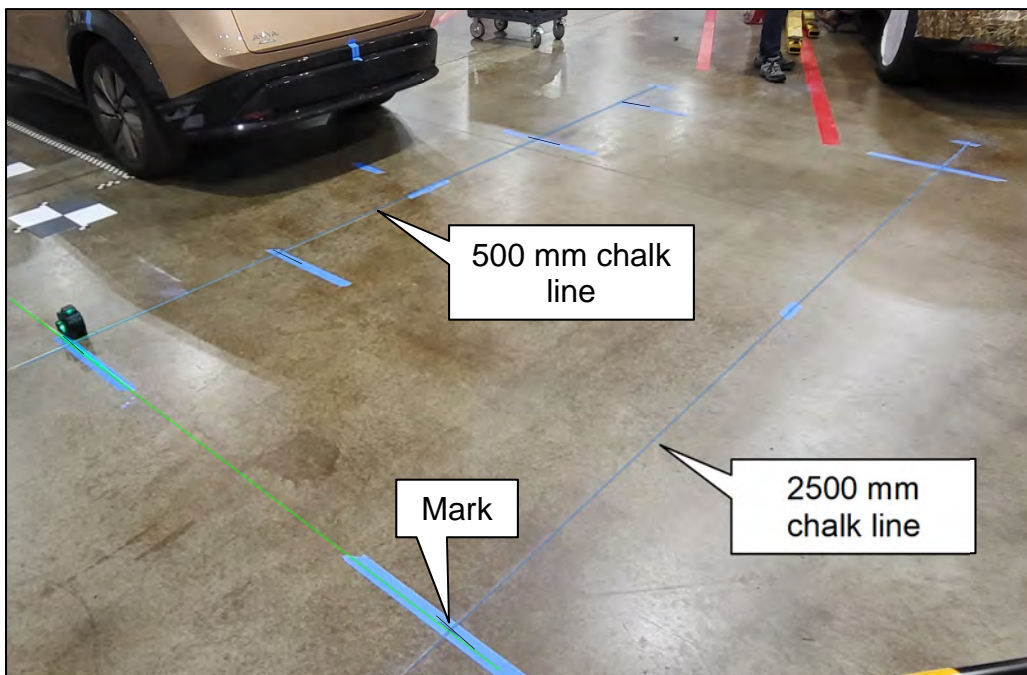


Figure 80

58. Move the laser level to the position shown in Figure 81, and then make a mark on the 2500 mm chalk line, as shown in Figure 81 and Figure 82.

IMPORTANT: The laser line must be perfectly aligned with the 500 mm chalk line.

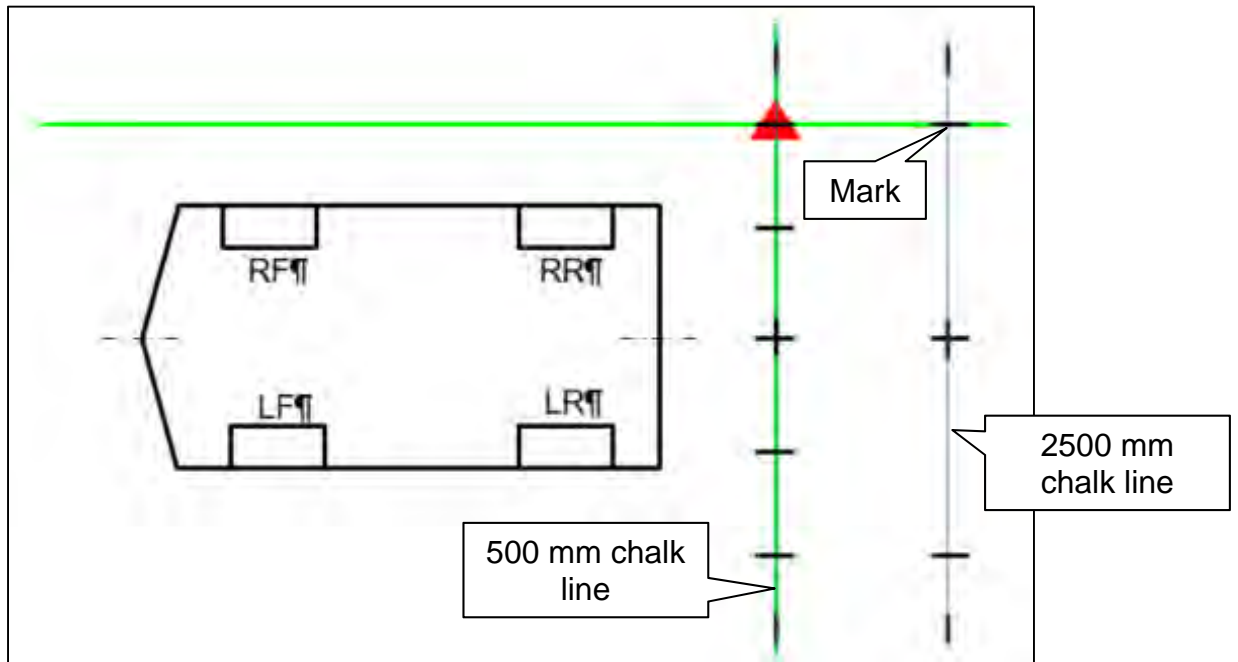


Figure 81

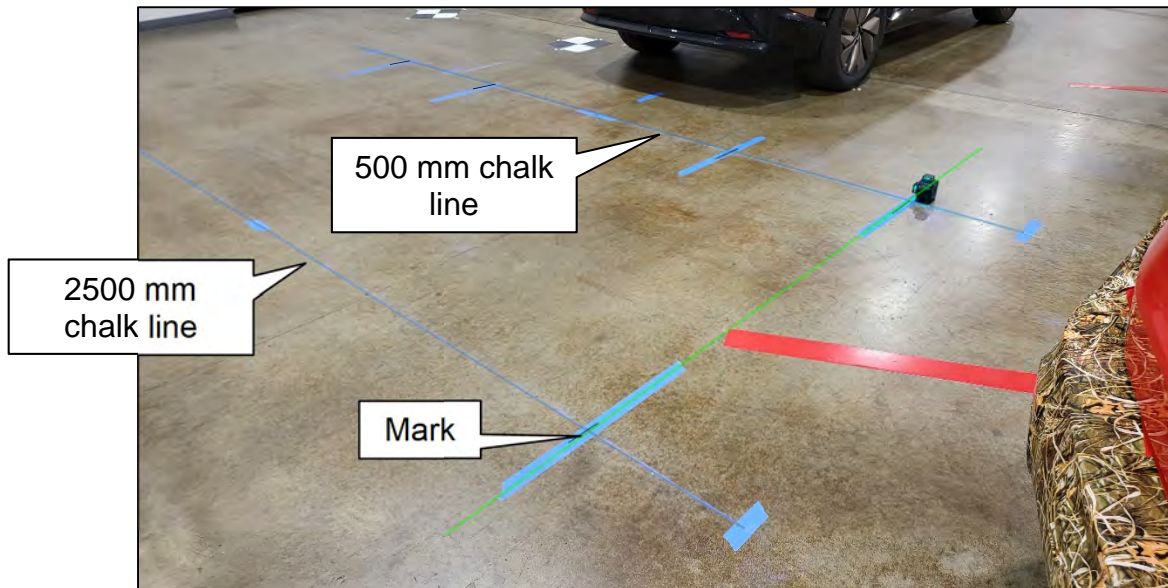


Figure 82

59. Using a carpenter's square, squared to the chalk line, extend each of the seven (7) marks 12 in. from the chalk line.

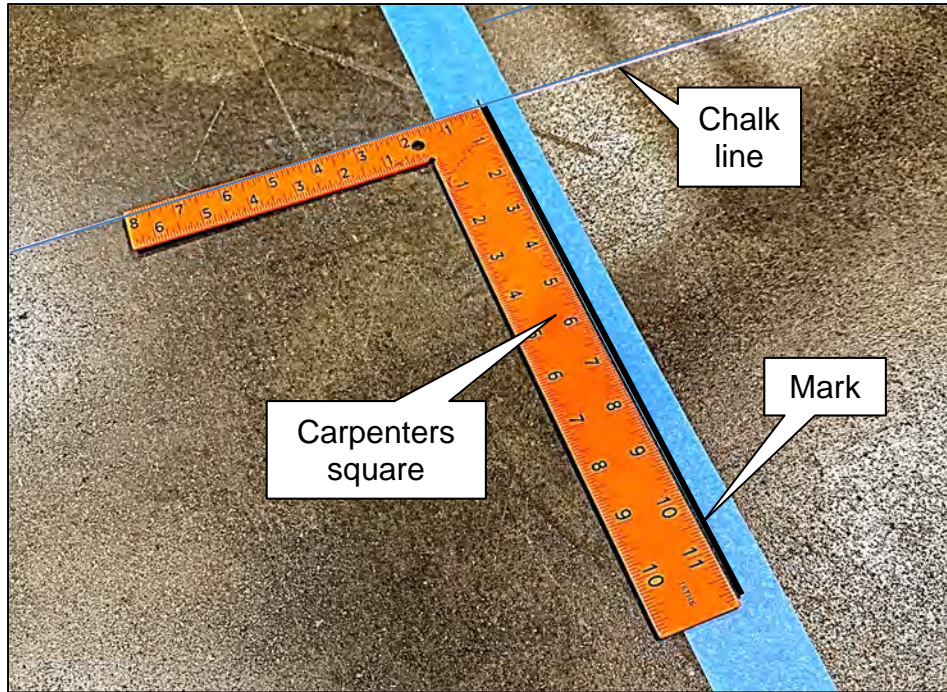


Figure 83

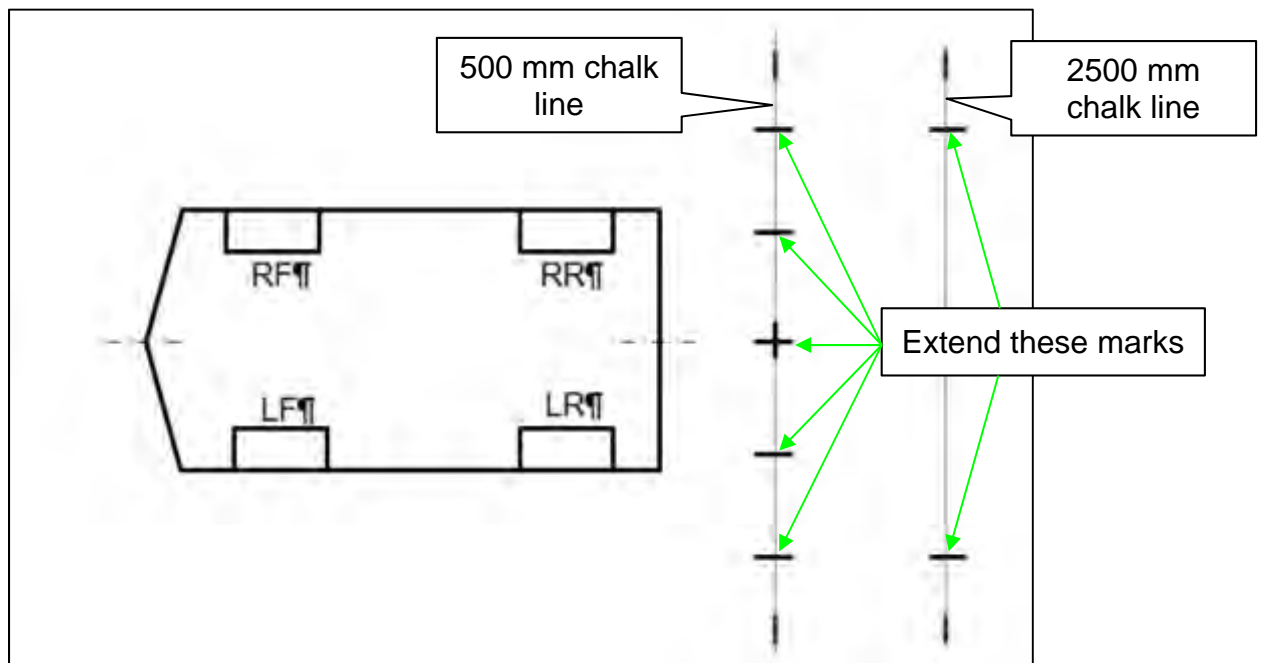


Figure 84

60. Place five (5) targets on the marks along the 500 mm chalk line.

IMPORTANT: Orient and align the targets, as shown in Figure 85, Figure 86, and Figure 87. The targets must be aligned with the 500 mm chalk line and the marks made in step 59 on page 44.

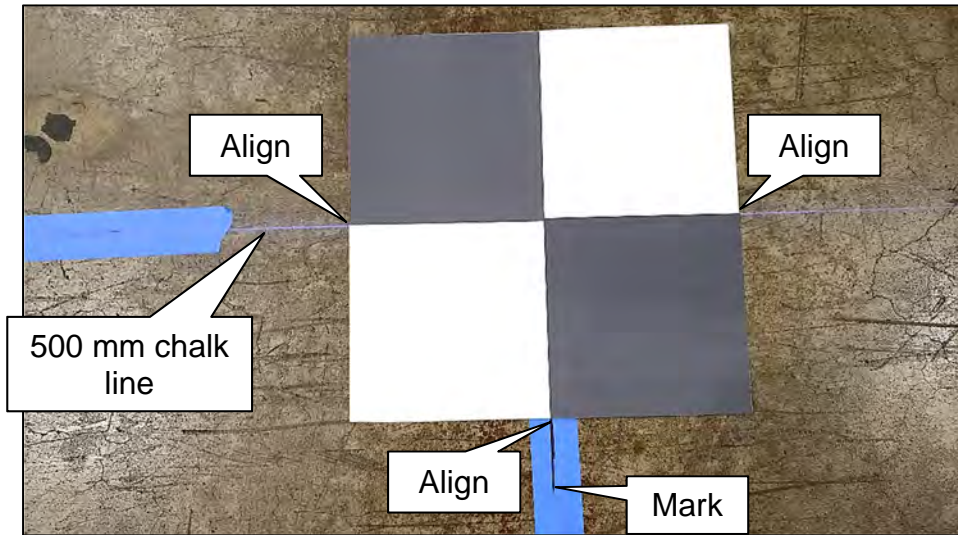


Figure 85

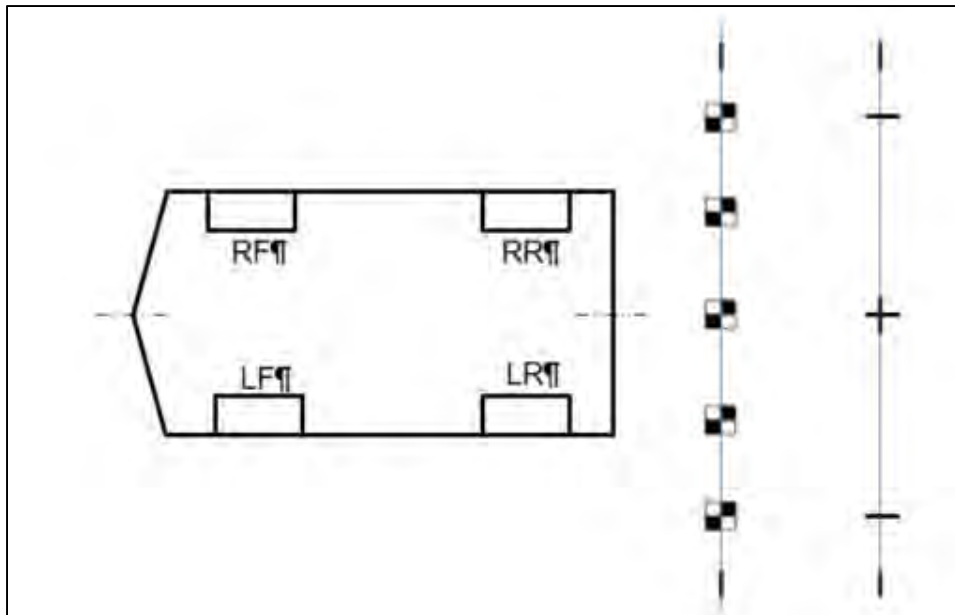


Figure 86

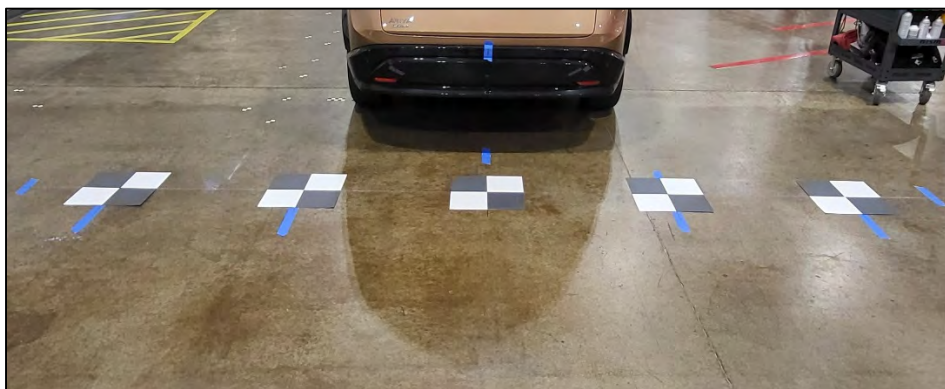


Figure 87

61. Place one (1) target on the driver (LH) side mark on the 2500 mm chalk line.

IMPORTANT: Orient and align the target, as shown in Figure 88, Figure 89, and Figure 90. The target must be aligned with the 2500 mm chalk line and the marks made in step 59 on page 44.

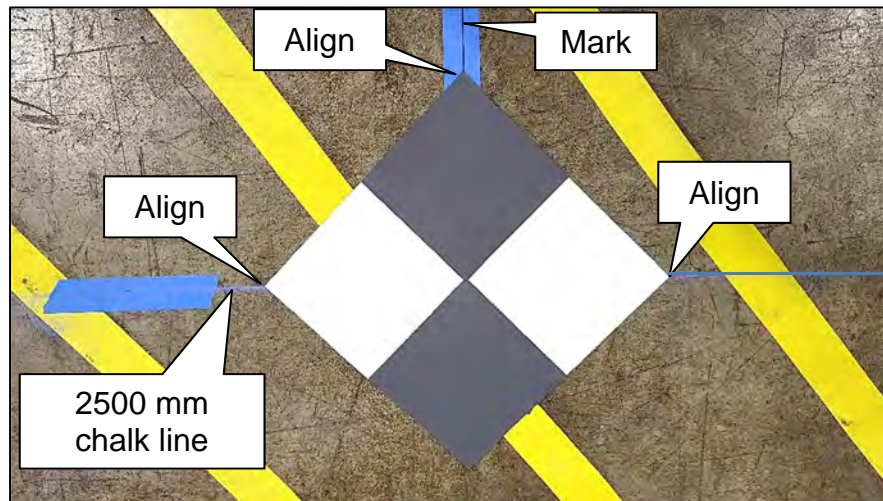


Figure 88

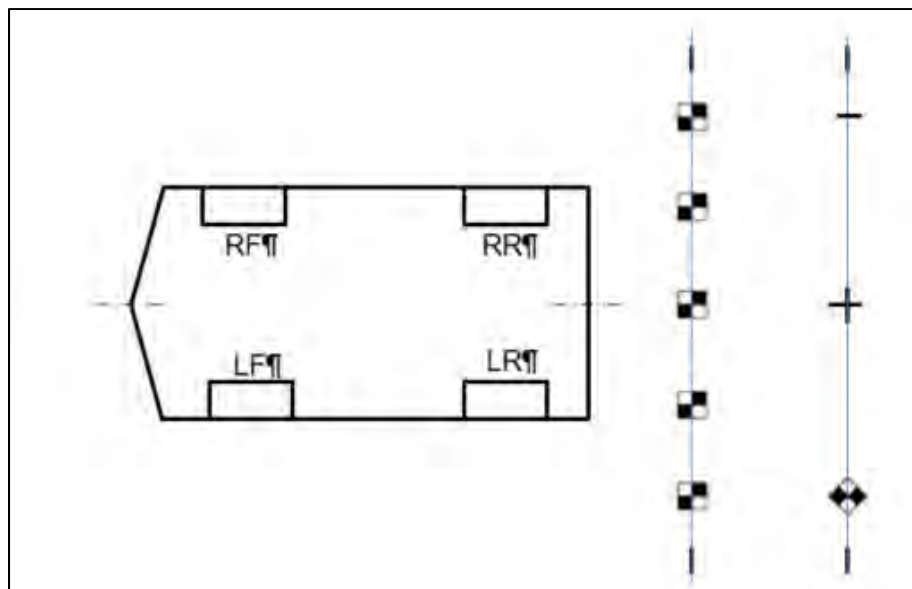


Figure 89

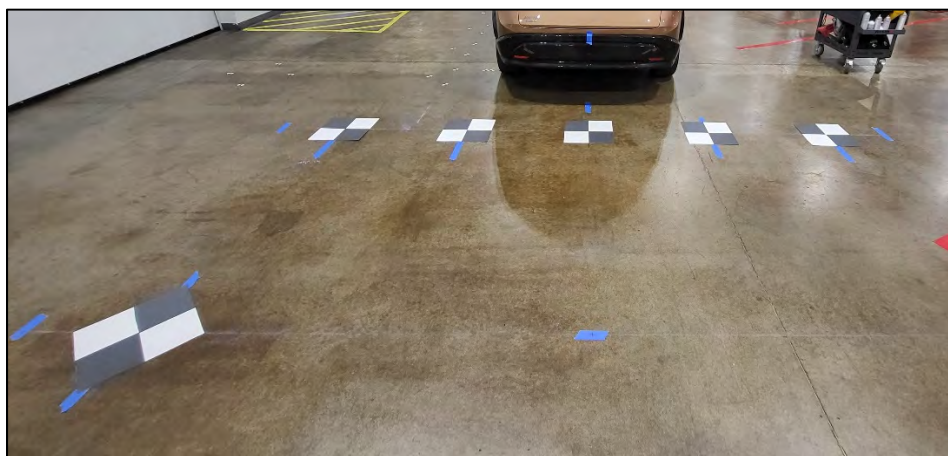


Figure 90

62. Place one (1) target on the passenger (RH) side mark on the 2500 mm chalk line.

IMPORTANT: Orient and align the target, as shown in Figure 91, Figure 92, and Figure 93. The target must be aligned with the 2500 mm chalk line and the marks made in step 59 on page 44.

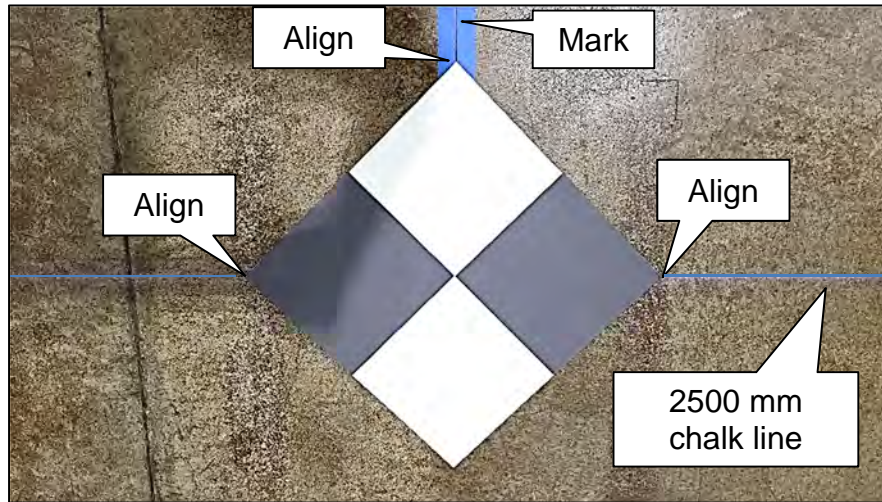


Figure 91

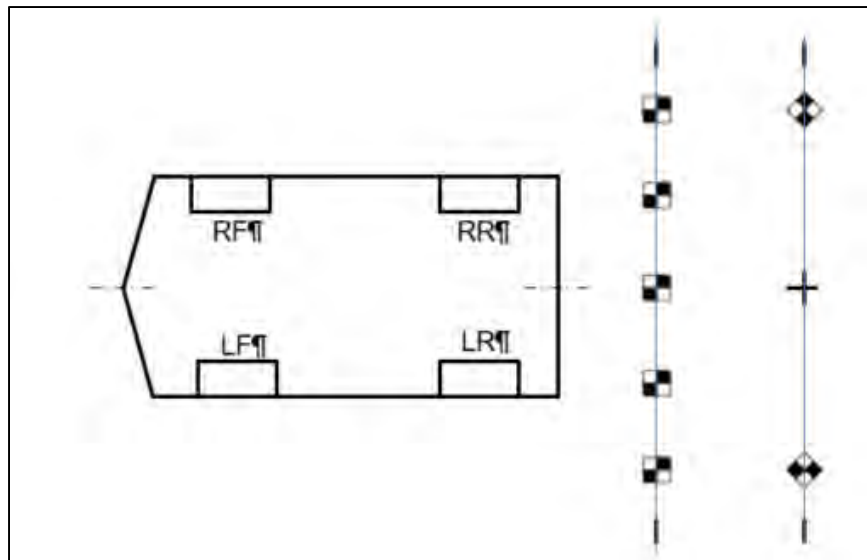


Figure 92

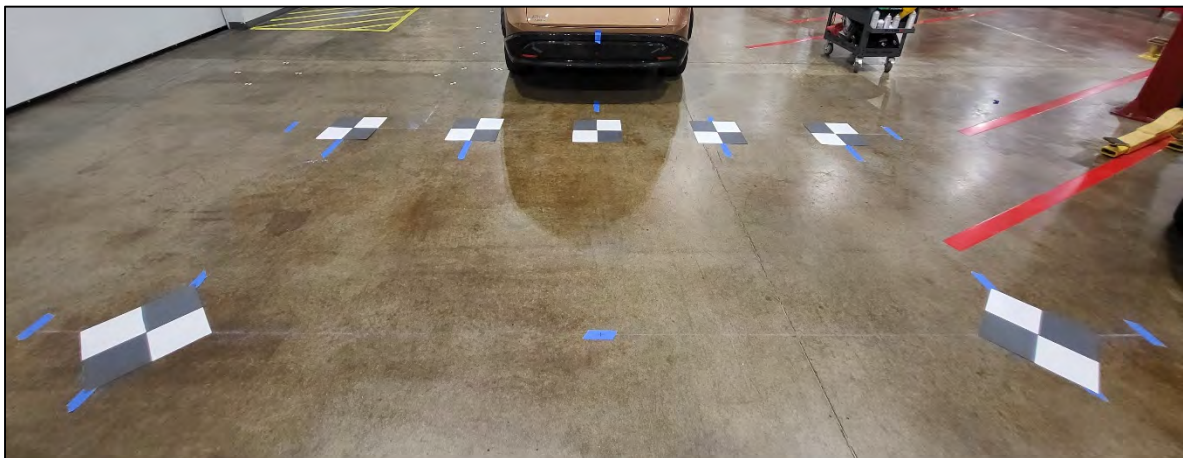


Figure 93

63. If the front camera was replaced, repeat steps 48 - 62 starting on page 34, to place the calibration targets for the front camera.
64. Measure 200 mm and 283 mm from the center point of the driver (LH) side rear wheel, and then make a mark at each measurement, as shown in Figure 94.

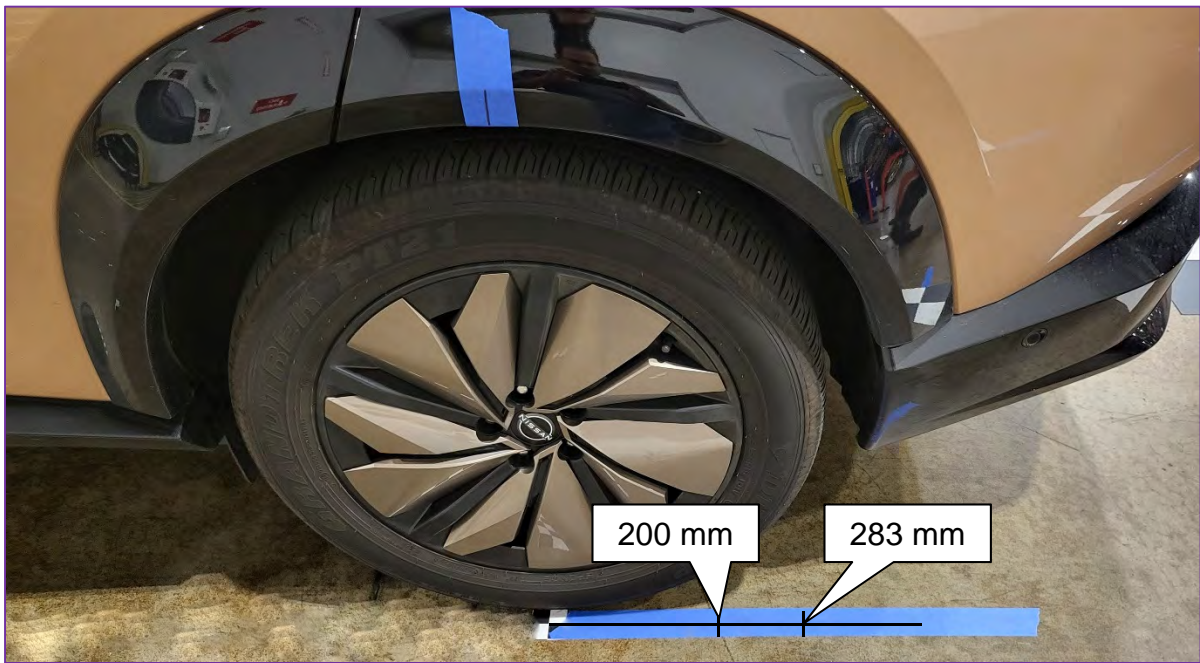


Figure 94

65. Measure 200 mm and 283 mm from the center point of the passenger (RH) side rear wheel, and then make a mark at each measurement, as shown in Figure 95.

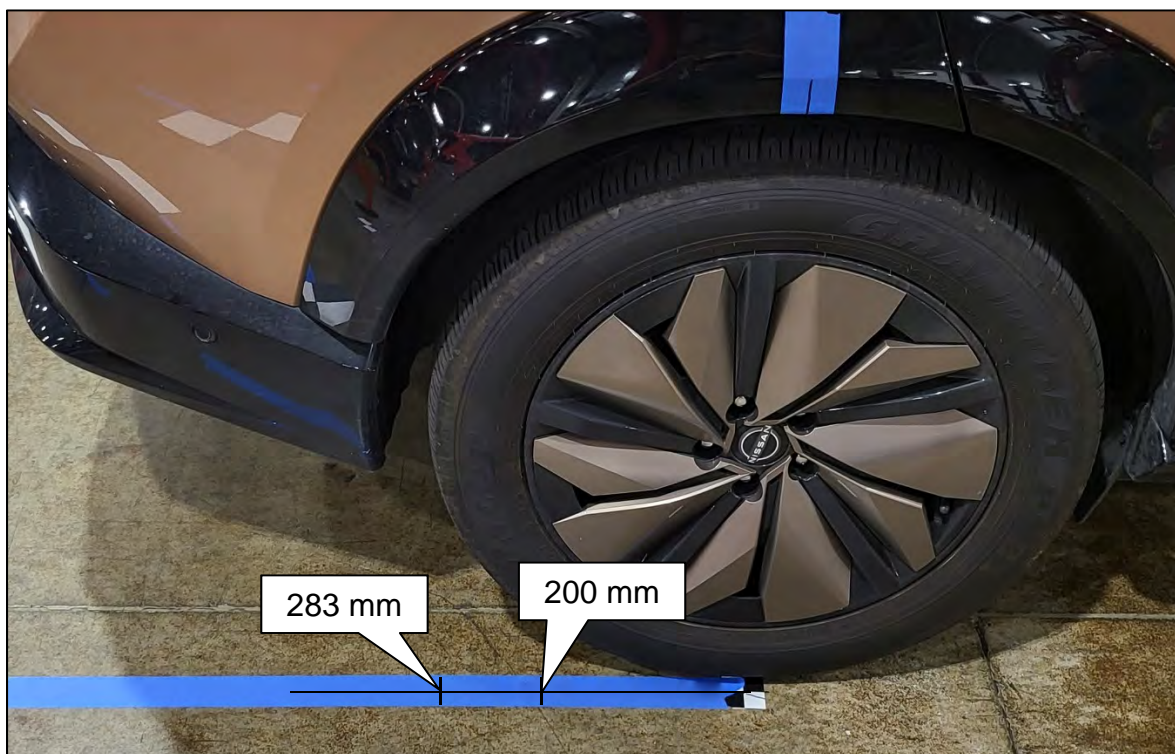


Figure 95

Rear Camera Calibration Measurements

IMPORTANT: All measurements must be in millimeters (mm). Refer to the illustrations in Figure 100 on page 52 to ensure the correct measurement is documented in the correct order and for each calibration target.

66. Measure the distance between the center point of the driver (LH) side rear wheel to the center of the calibration target T1, and then document that distance as L1 in Figure 100 and page 52.

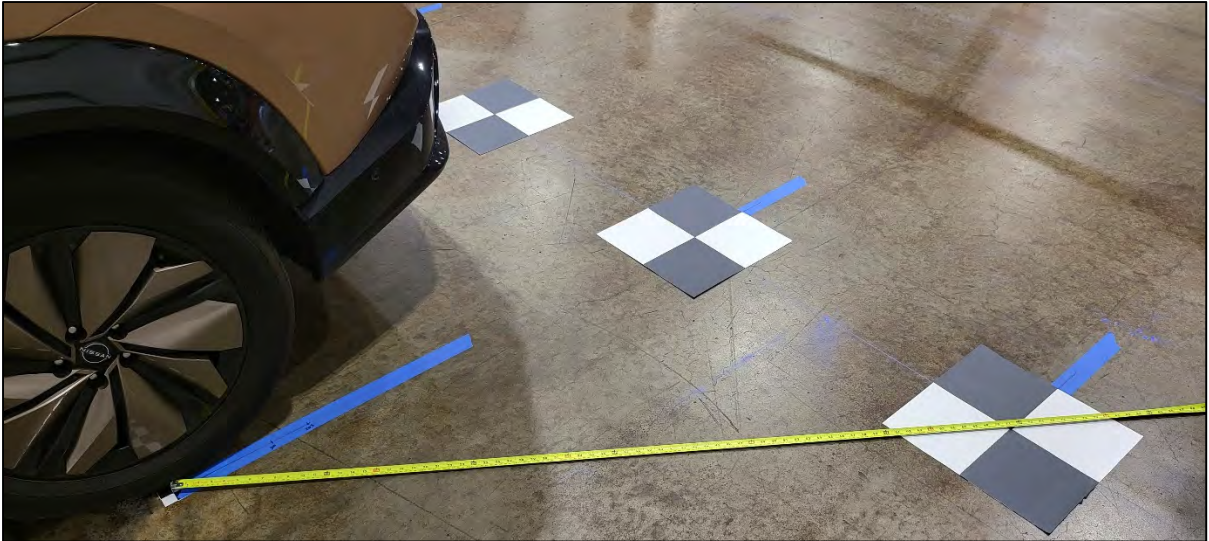


Figure 96

67. Measure the distance between the center point of the driver (LH) side rear wheel to the center of the calibration target T6, and then document that distance as L2 in Figure 100 and page 52.

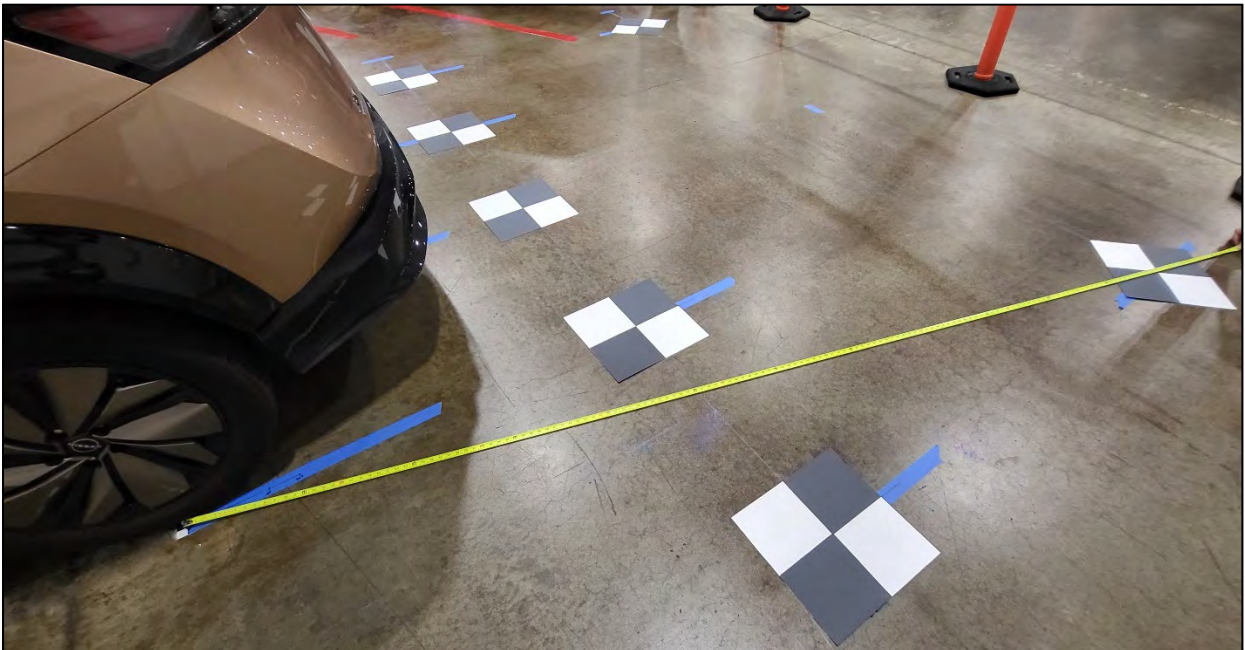


Figure 97

68. Measure the distance between the 283 mm mark of the driver (LH) side rear wheel to the most rearward point of the calibration target T7, and then document that distance as L3 in Figure 100 and page 52.

IMPORTANT: Do not measure to the center point of the target. Measure to the point shown in Figure 98.

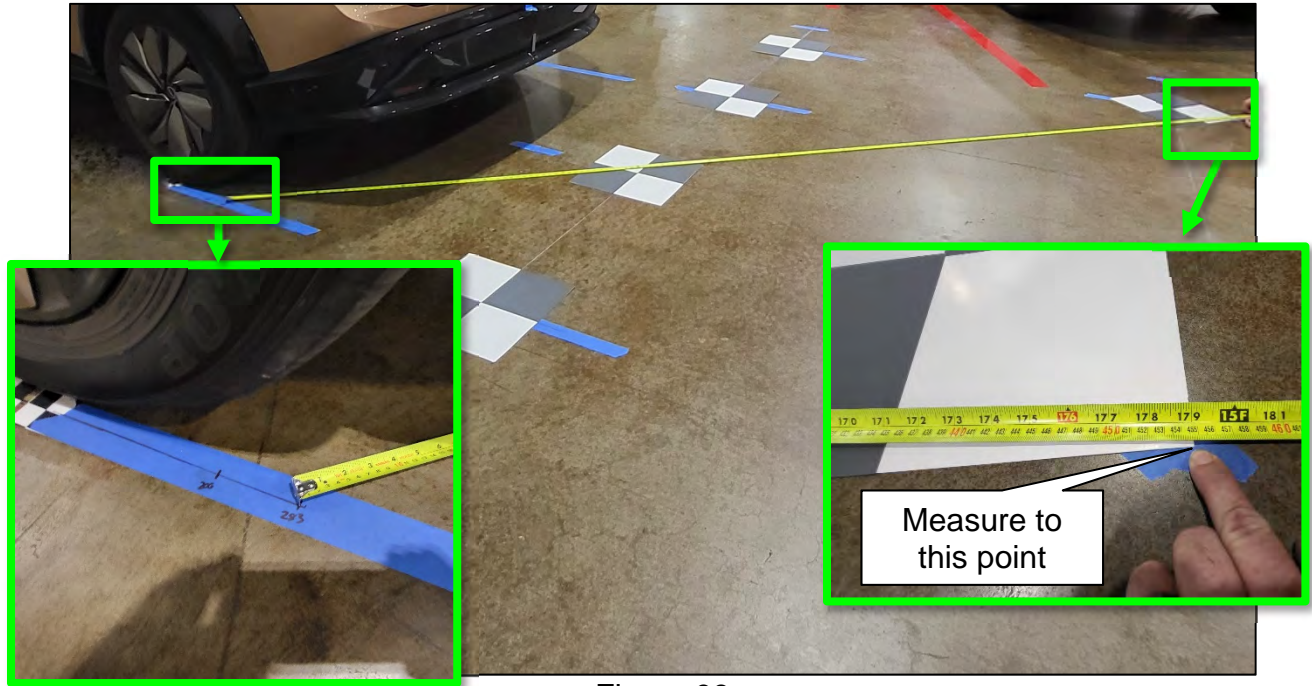


Figure 98

69. Measure the distance between the 200 mm mark of the driver (LH) side rear wheel to the most rearward point of the calibration target T5, and then document that distance as L4 in Figure 100 and page 52.

IMPORTANT: Do not measure to the center point of the target. Measure to the point shown in Figure 99.

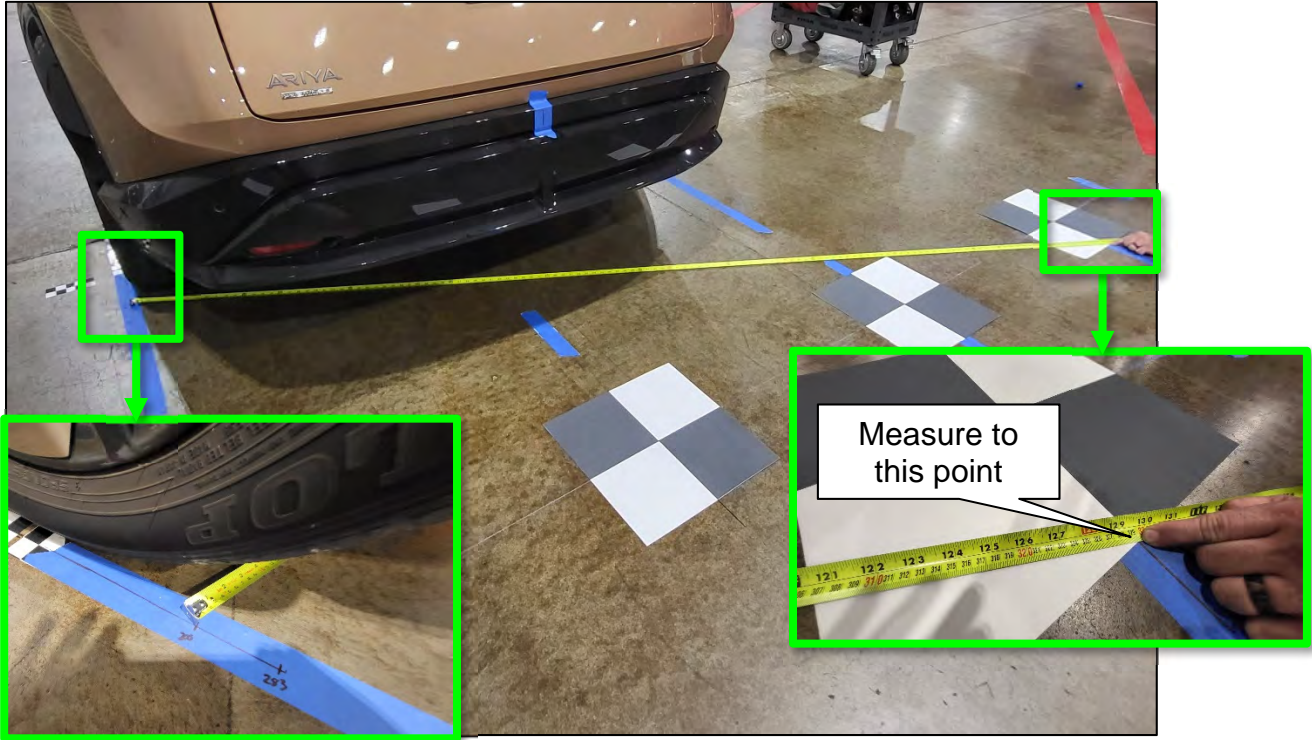


Figure 99

70. Perform steps 66 - 69 starting on page 49 for the passenger (RH) side rear wheel measurements L5-L8, and then document the distances in Figure 100.

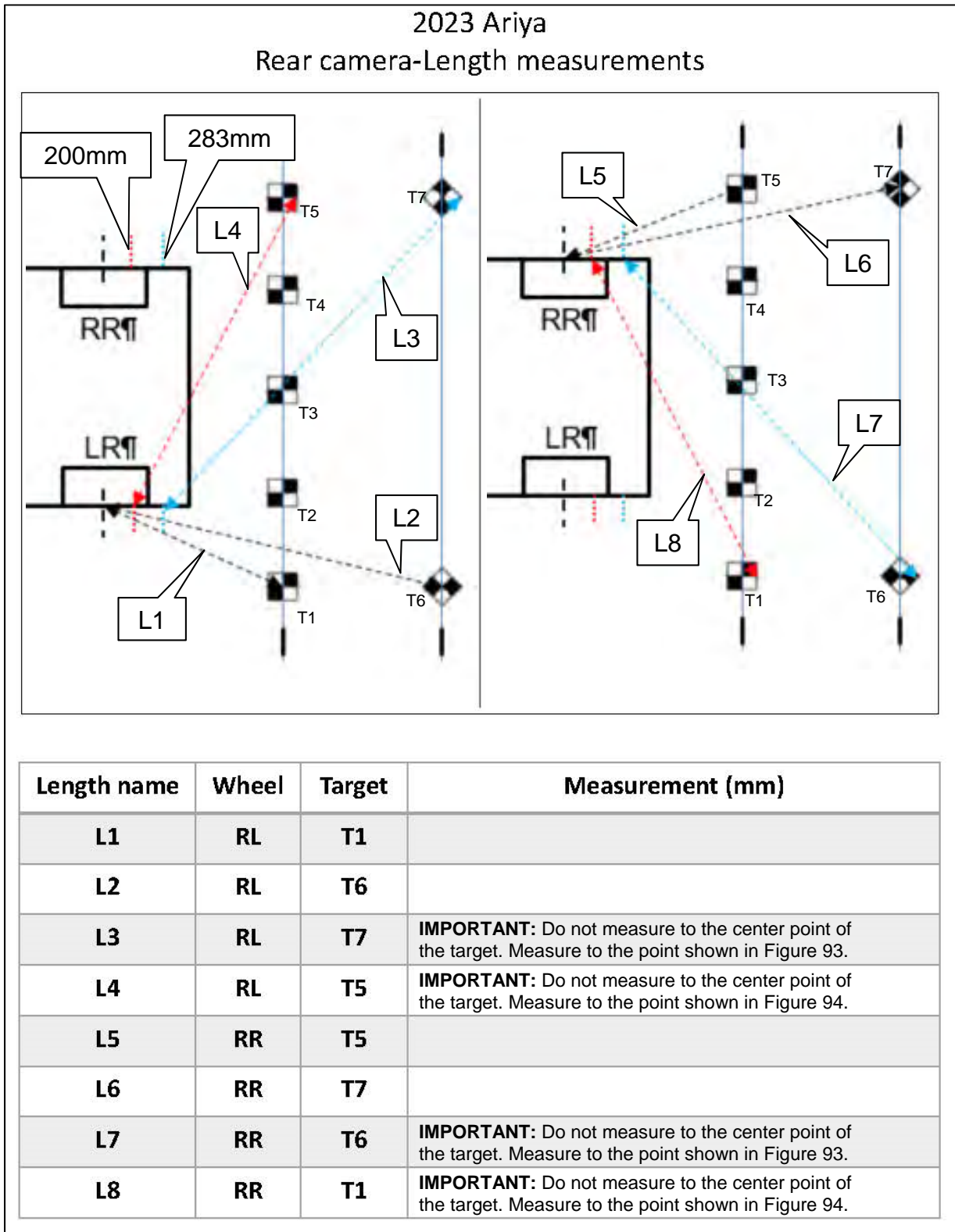


Figure 100

71. Place the laser level on a clean cloth, and then on the roof of the vehicle.

IMPORTANT:

- Place the laser level in the middle of the vehicle's roof.
- The laser level must be still (no fans should be blowing).



Figure 101

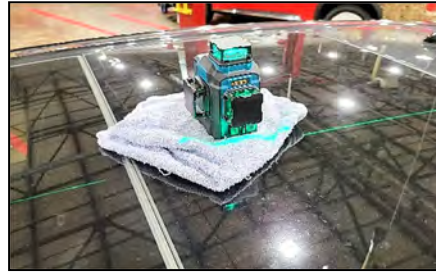


Figure 102

IMPORTANT: For steps 72 and 73:

- When holding the carpenter's ruler, ensure the ruler is completely upright and does not bend.
- All measurements must be in millimeters (mm).
- Refer to the illustrations in Figure 105 on page 54 to ensure the correct measurement is documented in the correct order and for each calibration target.

72. Using a folding carpenter's ruler, measure the height from the center of each calibration target, and then record the measurements H1-H7 in the table in Figure 105 on page 54.



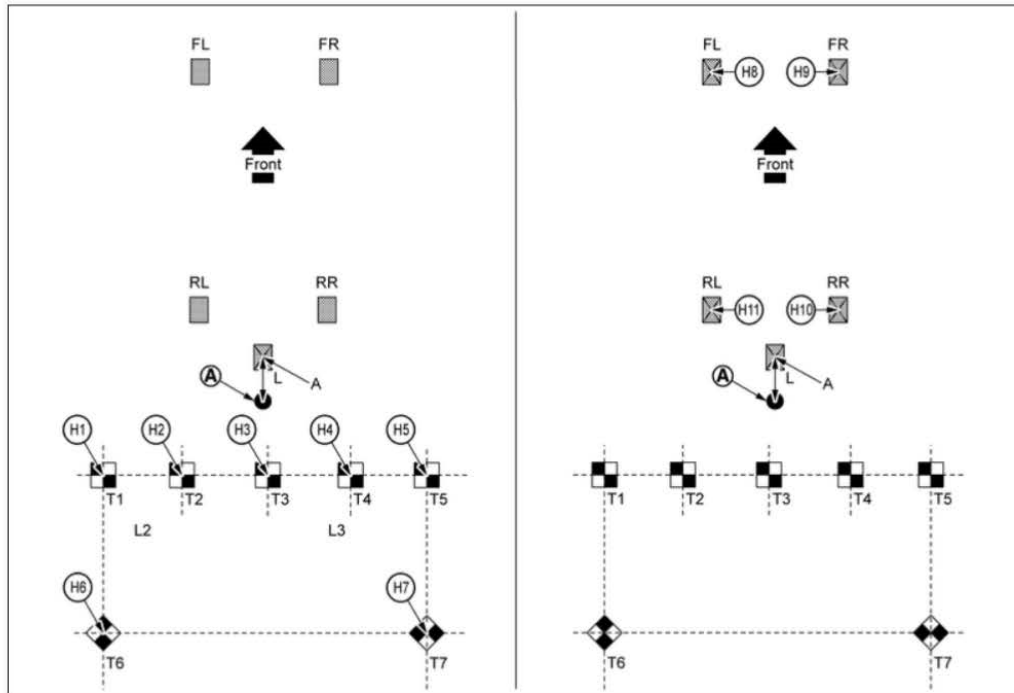
Figure 103



Figure 104

73. Using a folding carpenter's ruler, measure the height from the wheel center point, and then record the measurements H8-H11 in the table in Figure 105 on page 54.

2023 Ariya
Rear camera-Height measurements



Height name	Wheel	Target	Measurement (mm)
H1	-	T1	
H2	-	T2	
H3	-	T3	
H4	-	T4	
H5	-	T5	
H6	-	T6	
H7	-	T7	
H8	FL	-	
H9	FR	-	
H10	RR	-	
H11	RL	-	

Figure 105

Front Camera Calibration Measurements

IMPORTANT: All measurements must be in millimeters (mm). Refer to the illustrations in Figure 106 and Figure 107 to ensure the correct measurement is documented in the correct order and for each calibration target.

74. Perform steps 64 - 70 starting on page 48 for the front camera.

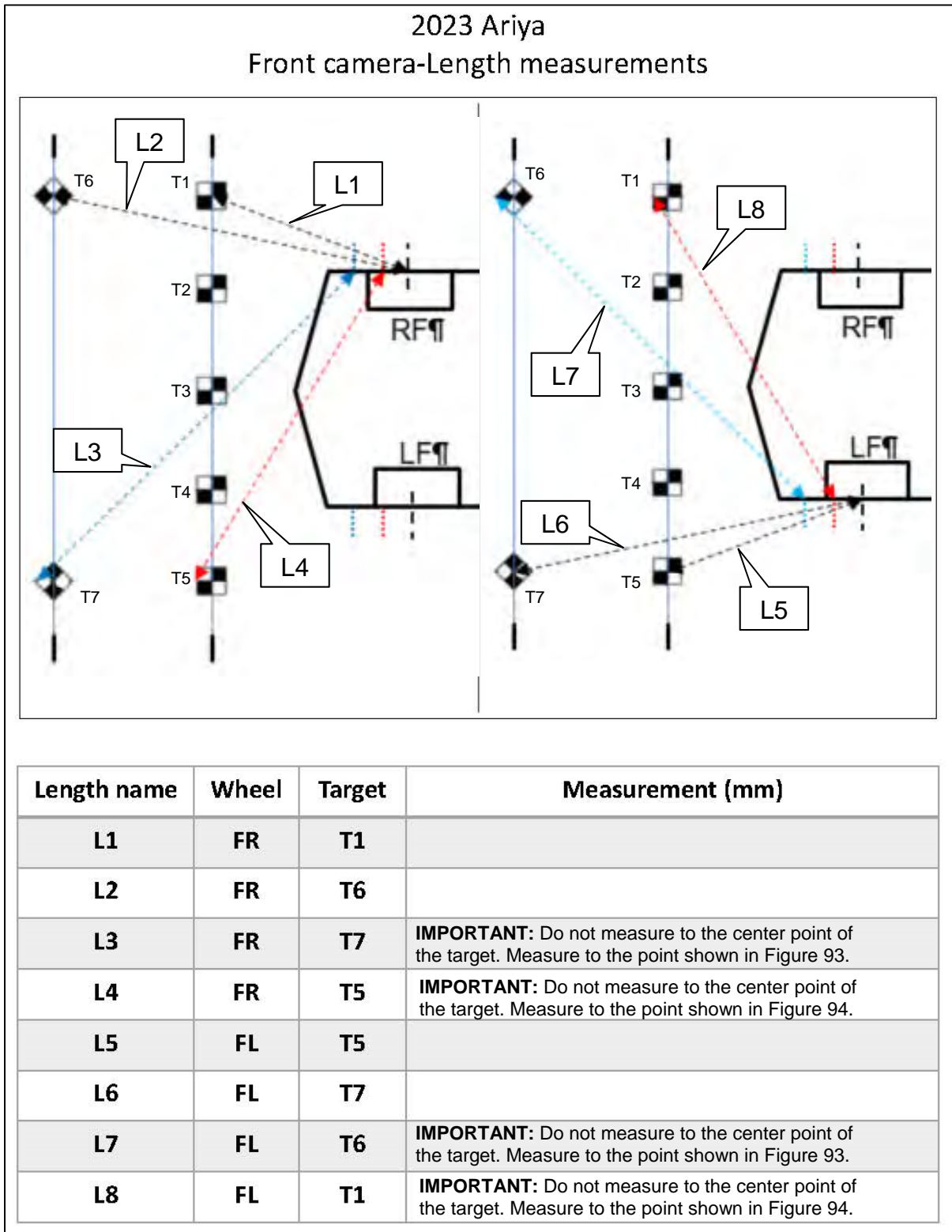


Figure 106

75. Refer to steps 71 - 73 on page 53 to set up the laser level to measure the height of the front camera, and then document the measurements in Figure 107.

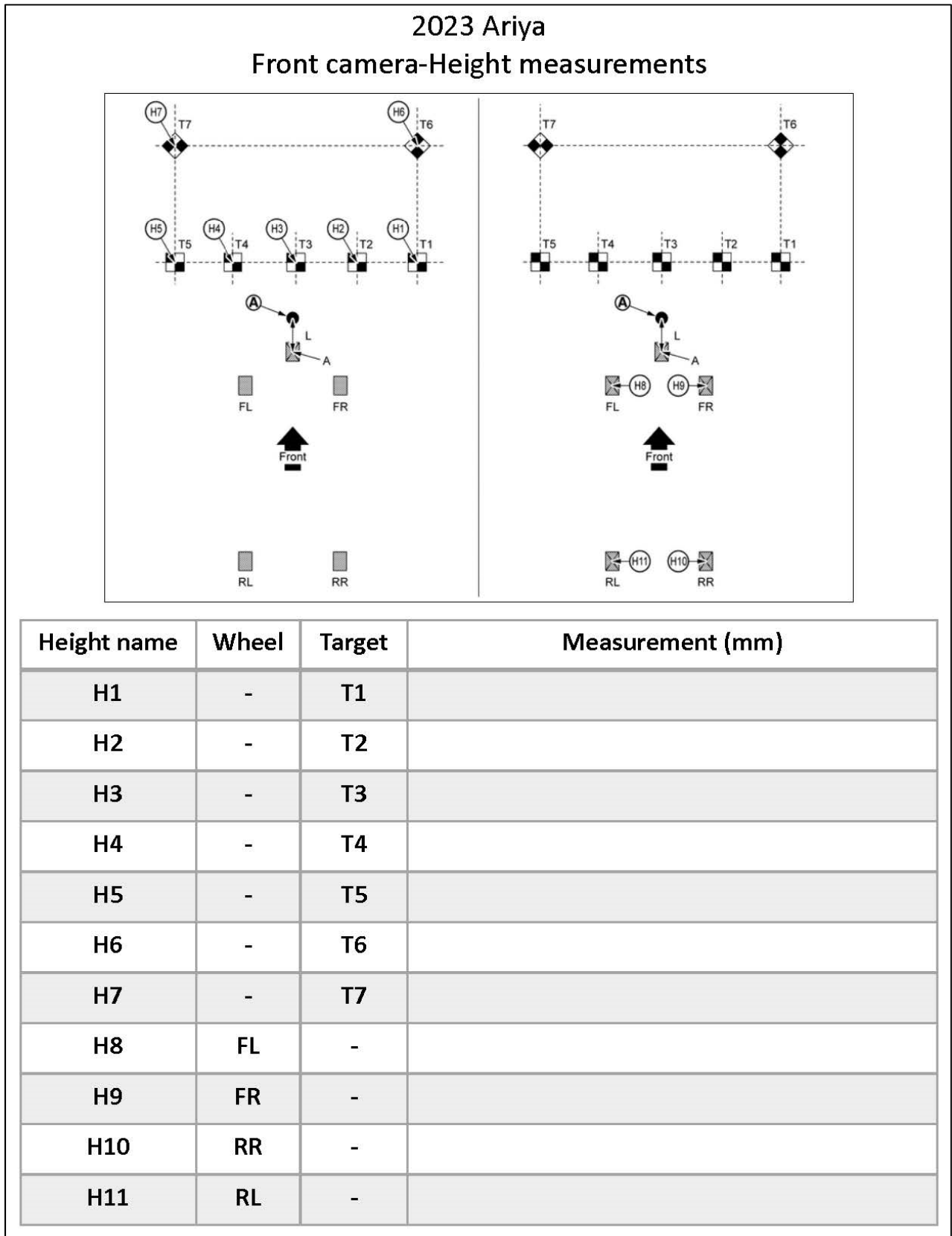


Figure 107

Input the Calibration Target Measurements in CONSULT 4

76. Select **Calibrating camera image**, and then select the green Play icon.

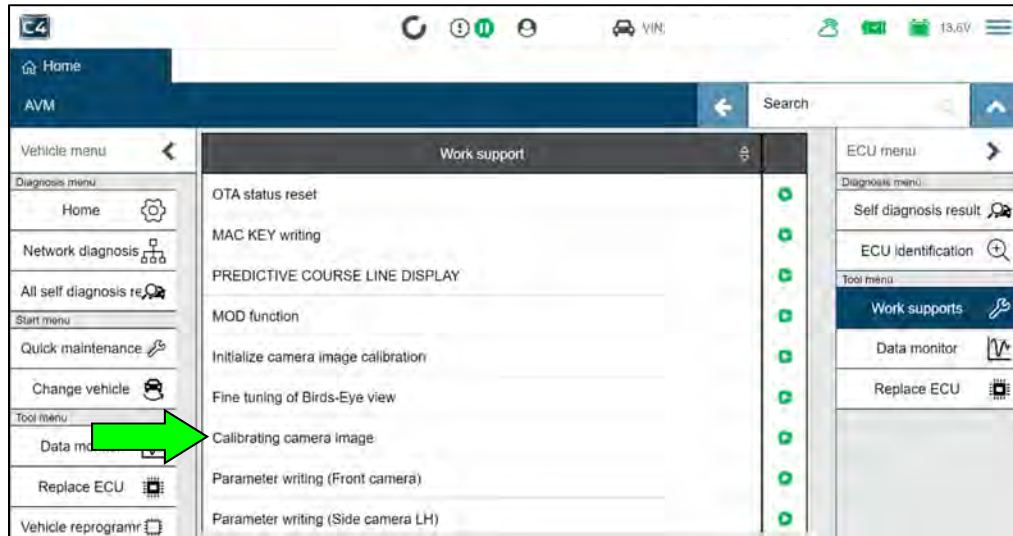


Figure 108

77. Select the camera that needs to be calibrated.

HINT: "No calibration data" displays next to the camera that needs to be calibrated.

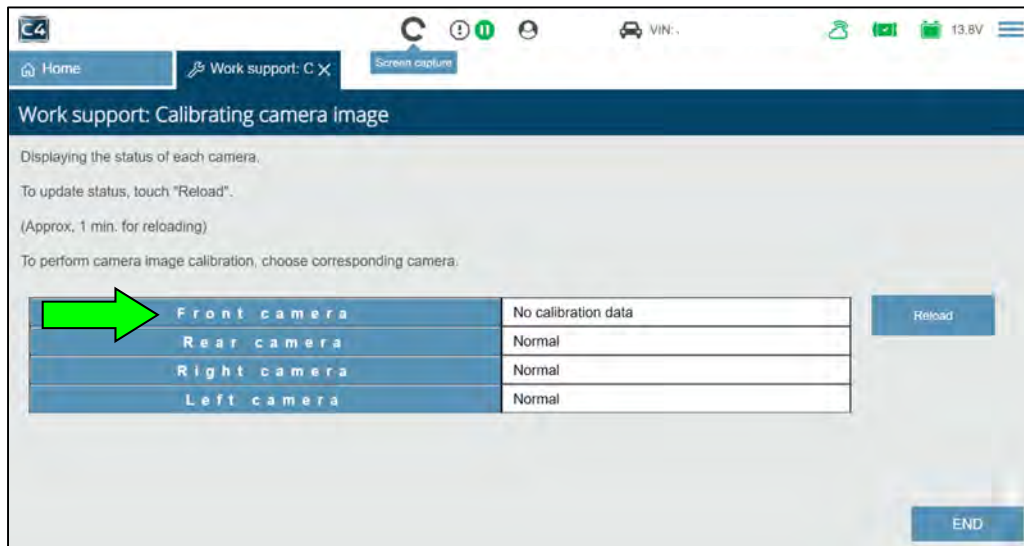


Figure 109

78. Select **Next**.

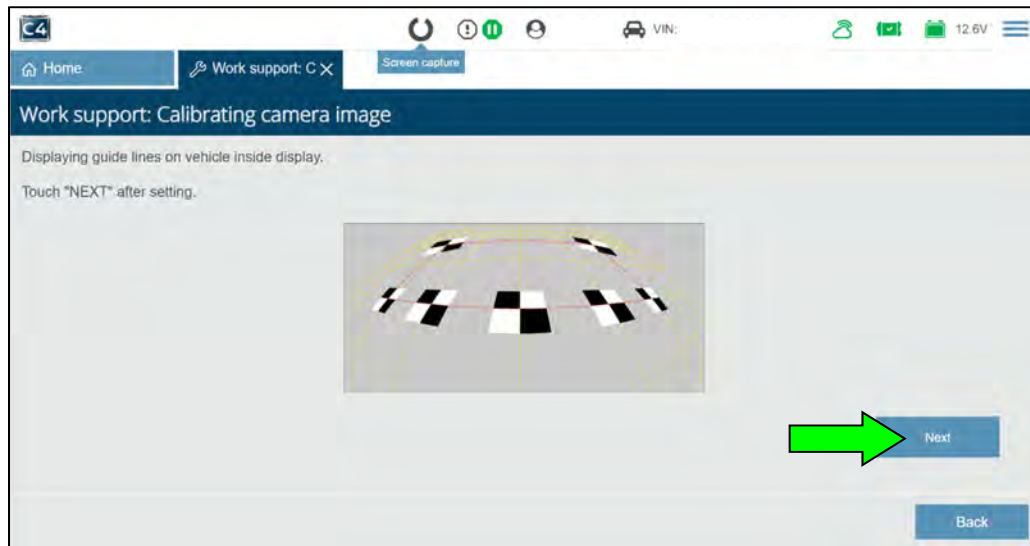


Figure 110

IMPORTANT: Steps 79 - 89 must be done at once. Do not stop in the middle of performing these steps as the CONSULT 4 will time out and all progress will be lost.

79. Select **1**.



Figure 111

80. Move the center of the red crosshair to the center of the calibration target.

HINT: The TENTIMESUP, TENTIMESDOWN, TENTIMESRIGHT, and TENTIMESLEFT boxes will make large adjustments. The arrows will make small adjustments.

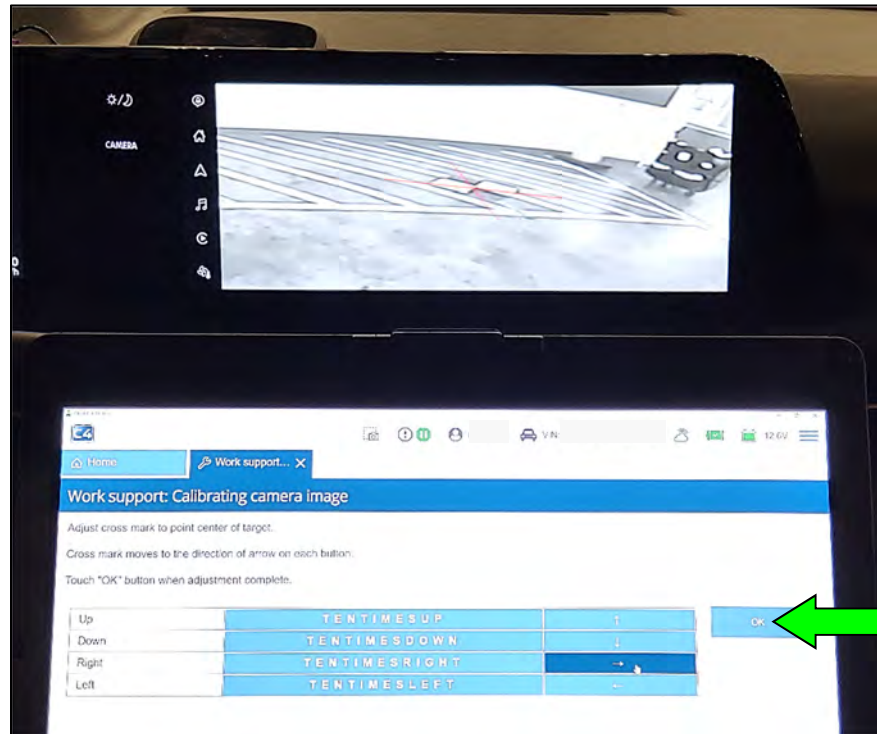


Figure 112

81. When the center of the red crosshair is in the center of the calibration target, select **OK** (Figure 112).

82. Repeat steps 79 - 81 starting on page 58, for all seven (7) targets, and then select **mm**.

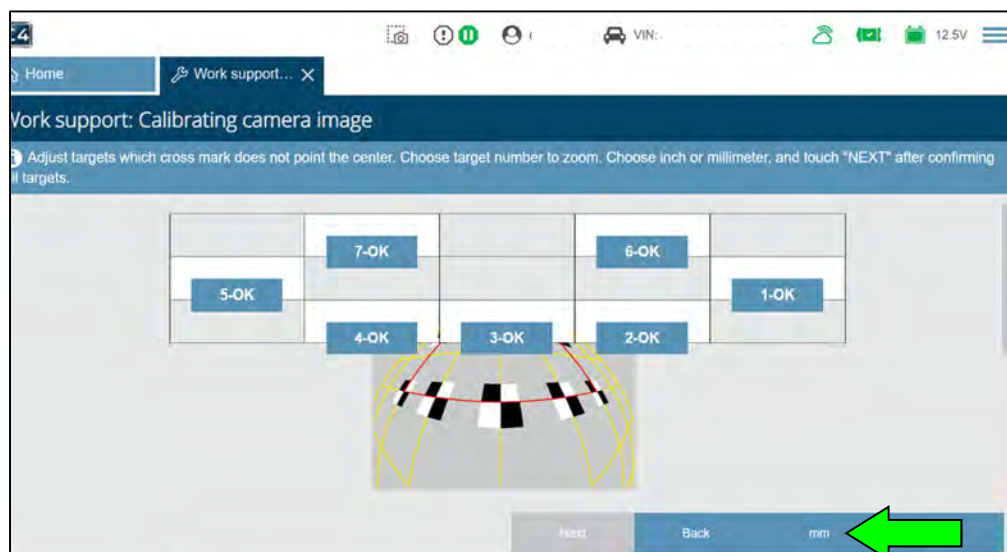


Figure 113

83. Select **Next**.

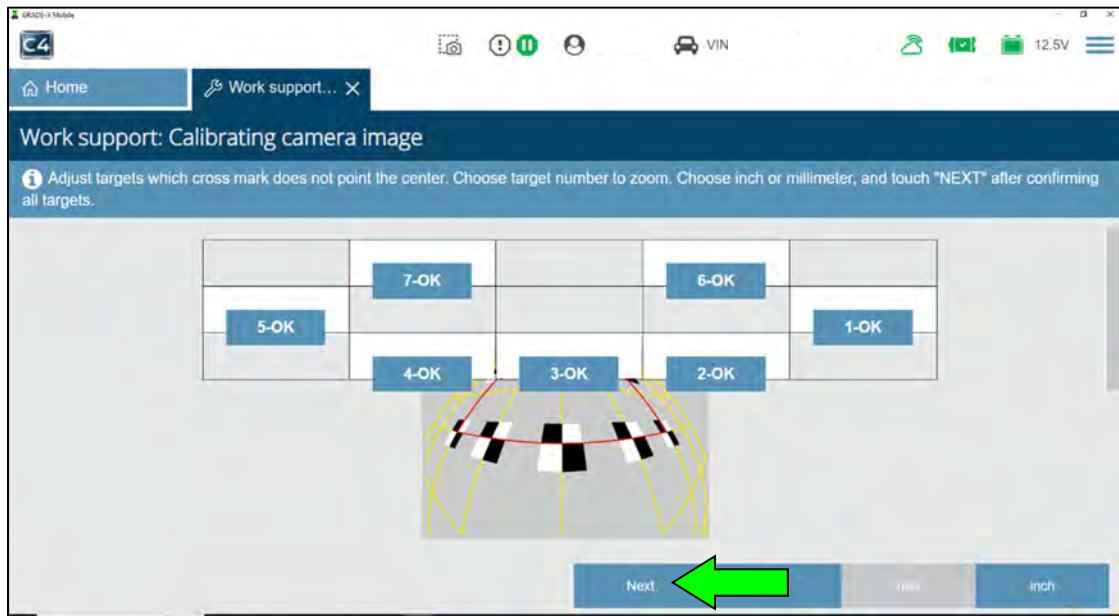


Figure 114

84. Input the length measurements L1-L4 documented for the camera being calibrated, and then select **Next**.

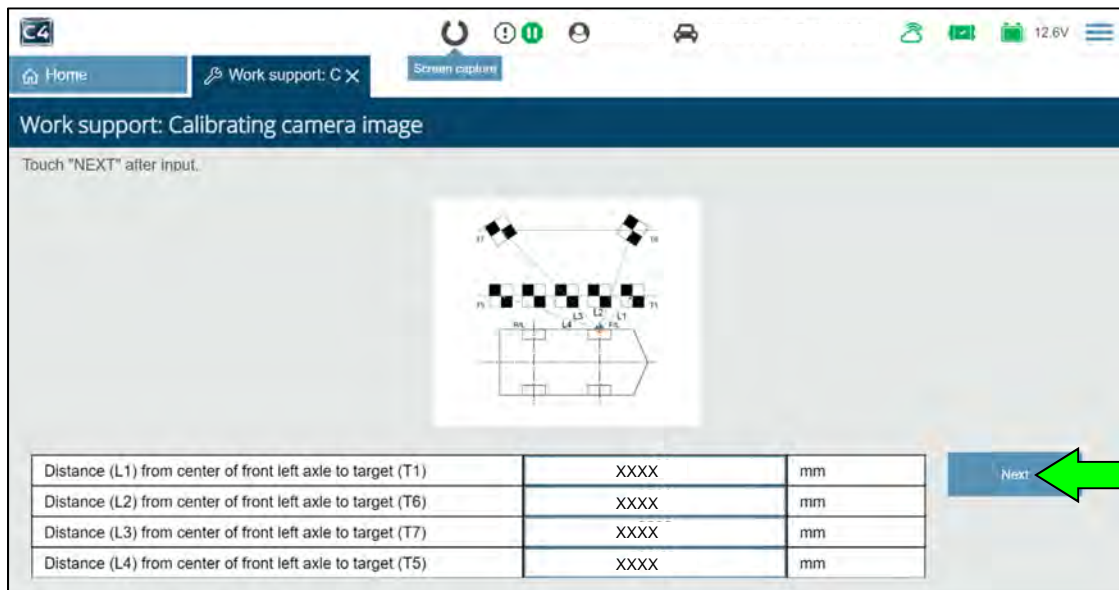


Figure 115

85. Input the length measurements L5-L8 documented for the camera being calibrated, and then select **Next**.

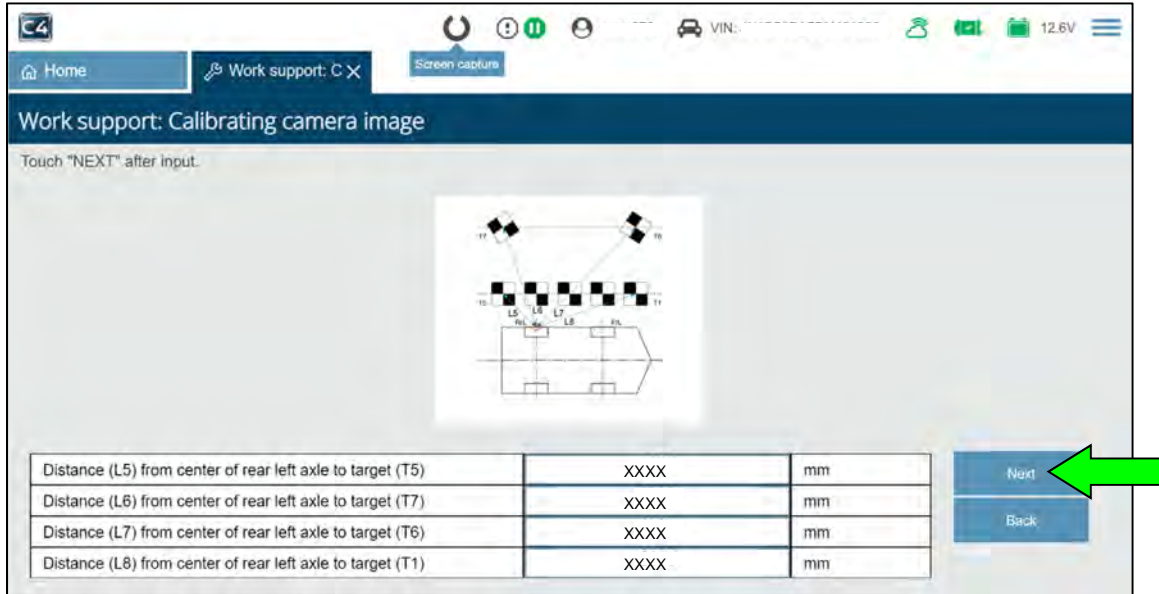


Figure 116

86. Input the height measurements H1-H4 documented for the camera being calibrated, and then select **Next**.

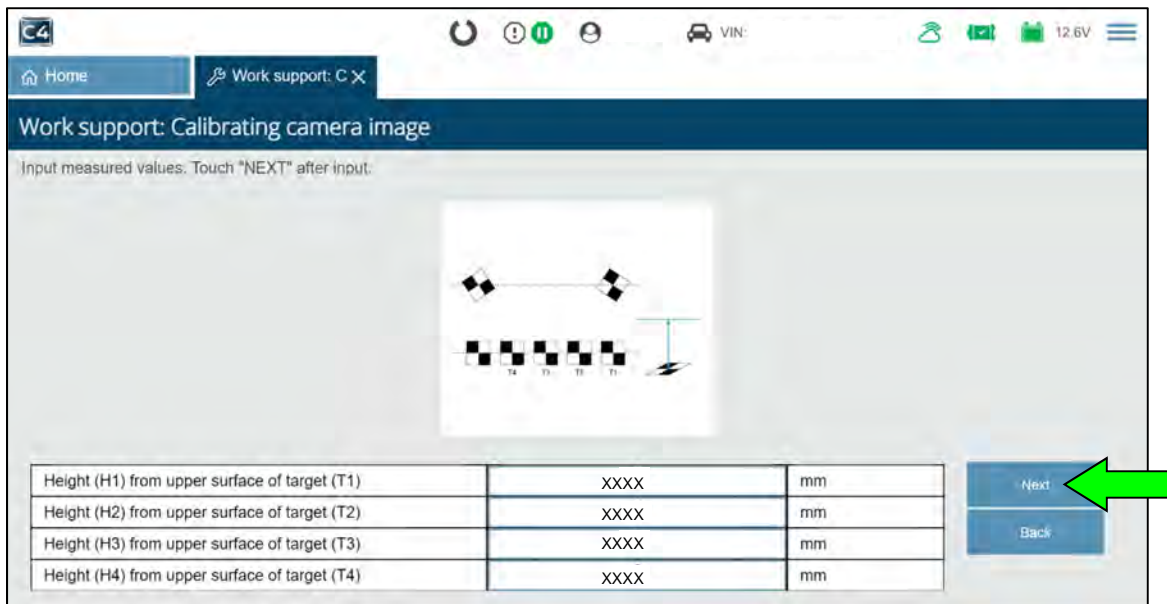


Figure 117

87. Input the height measurements H5-H7 documented for the camera being calibrated, and then select **Next**.

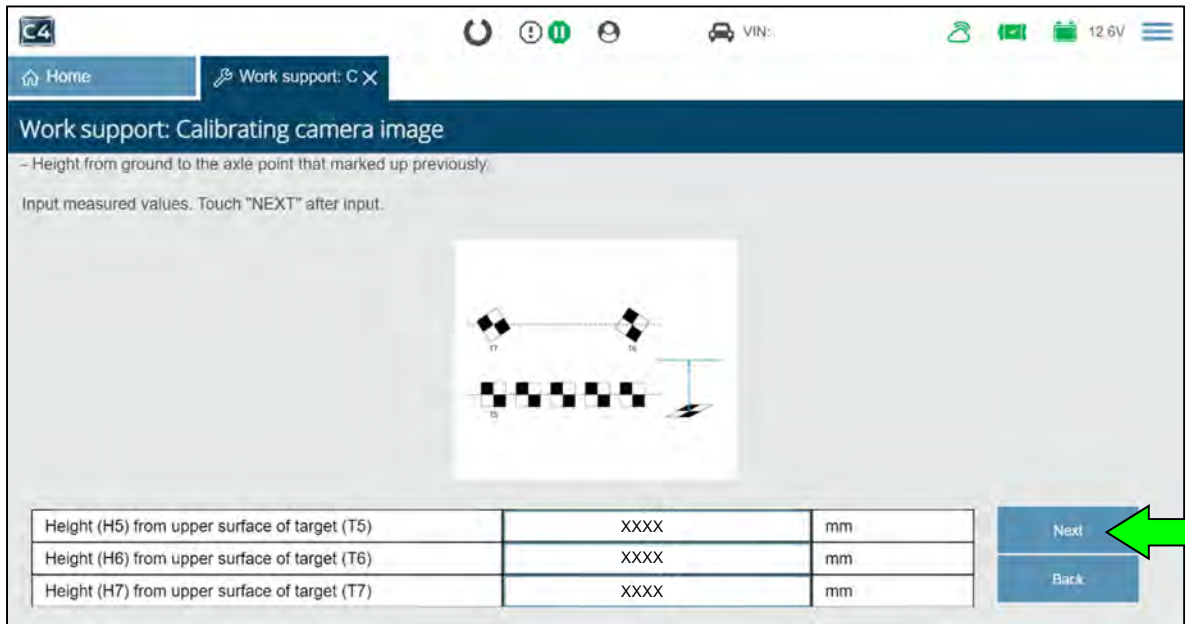


Figure 118

88. Input the height measurements H8-H11 documented for the camera being calibrated, and then select **Next**.

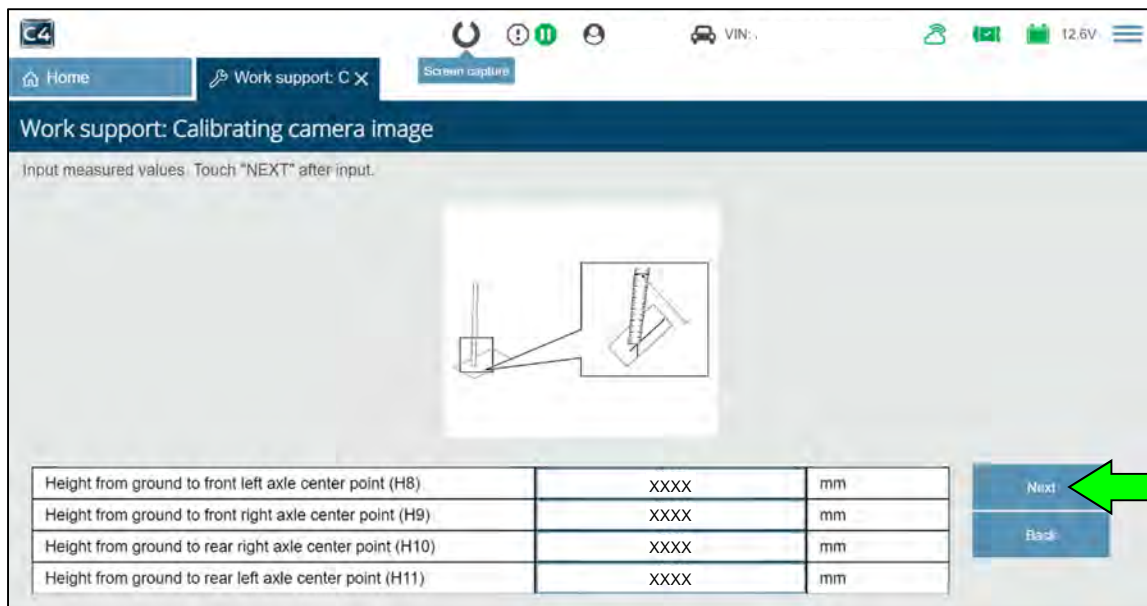


Figure 119

89. Select **OK**.

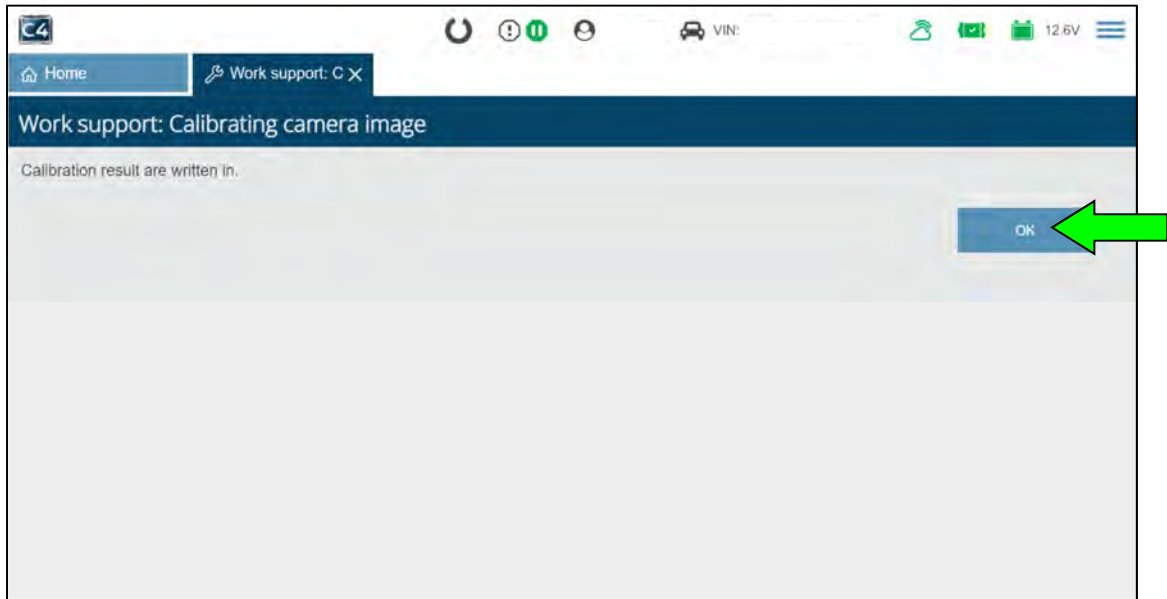


Figure 120

90. Select **Reload**.

HINT: The camera will show “No calibration data” until the **Reload** box is selected.

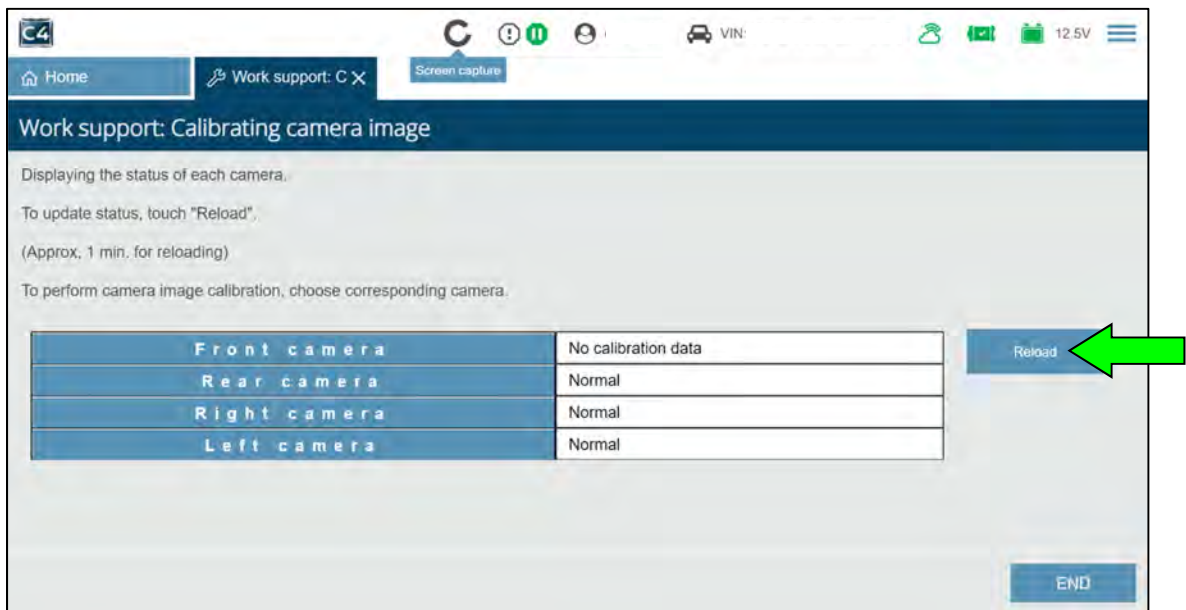


Figure 121

91. Perform steps 77 - 90 starting on page 57, for all cameras that required calibration.

92. Select **END**.

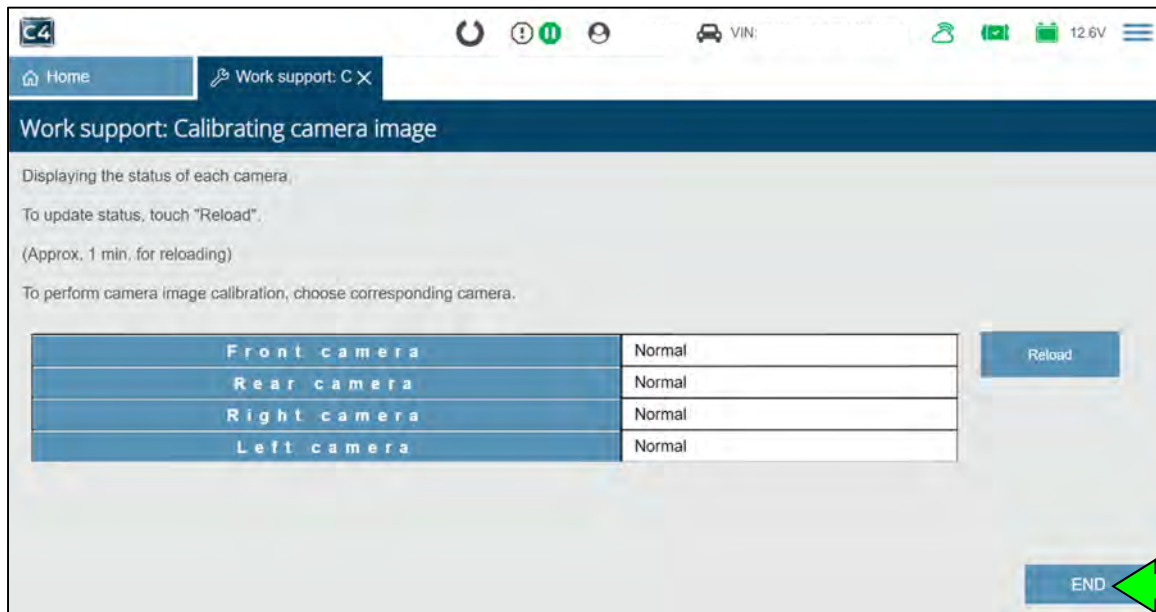


Figure 122

93. Clear all DTCs.

94. Remove the laser level from the top of the vehicle.

95. Remove all tape and markings from the vehicle.

96. Verify the ProPILOT Park function operates correctly.

- If the ProPILOT Park function operates correctly, when compared to a known good vehicle, the **SERVICE PROCEDURE** is complete.
- If the ProPILOT Park function does not operate correctly, when compared to a known good vehicle:
 - If DTCs are present, refer to the ESM for further diagnostic information.
 - If DTCs are not present and there is not a blue arrow and a blue circle with a P on the screen, as shown in Figure 123:
 - a. Disconnect both of the 12V battery cables, negative cable first.
 - Follow all ESM instructions and precautions when disconnecting the battery cables.
 - Refer to the ESM: **ELECTRICAL & POWER CONTROL > POWER SUPPLY, GROUND & CIRCUIT ELEMENTS > PRECAUTION > PRECAUTIONS FOR REMOVING BATTERY TERMINAL**
 - b. Wait 30 seconds, and then touch the cables together.
 - c. Wait 10 minutes.
 - d. Reconnect the battery cables, positive cable first.
 - e. Retry the ProPILOT Park function.



Figure 123

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
November 3, 2023	NTB23-076	Original bulletin published