



Installation Guide  
**MK II System**

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**DAY CAB**

July 16, 2025

# MirrorEye®

**PACCAR Trucks North America**

Peterbilt 579 & Kenworth T680

Provides all steps necessary for preparation, installation,  
system calibration and activation



# Table of Contents

## PACCAR Trucks North America

### Overview

Getting Started	3
Troubleshooting	4
Tool Checklist	5
MirrorEye® System Components	6
Pre-Installation Task Checklist	11
Pre-Installation Precautions	12
Pre-Installation Interior Cab Preparation	13

### Installation of MirrorEye® System Components

MirrorEye® Harness Connection	15
System Connections	17
Electronic Control Module (ECU) Installation	21
FleetArc Telematics Module (FA 470) Installation	23
Driver's Controller/Joystick	24
DVR Installation (Optional)	26
Passenger Side Monitor Installation	27
Driver Side Monitor Installation	29
Class V Monitor Installation	31
Passenger Side Arm/Camera Installation	32
Driver Side Arm/Camera Installation	37
A-Pillar Cover Installation	42
Final Installation Steps	43
Mirror Cover Installation	47

### System Alignment/Calibration

Alignment of Cameras	45
Calibration of Distance Lines	47
Entering Critical Values	52

### MirrorEye® Activation Process

How to Activate MirrorEye® (Required)	60
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# Getting Started

## (Required)

The following provides the steps necessary to activate the MirrorEye® system with Cloud Services for GPS and Video Feeds. If not already in hand, begin by downloading/reviewing the BASIC PROCESS PDF, which can be accessed at:

<https://www.stoneridge.app/en/help/how-to-cloud-activate-mirroreye-i-mk-ii>

**ALERT:** Before starting the activation process, make sure to have the following information available before submitting an activation form. It is imperative to for installers to take clear, decipherable photos of the serial numbers of the following components:

- The FleetArc FA470 Device ID #
- The VIN (or temporary VIN) of the Vehicle
- The Asset ID # or temporary internal ID # of the Vehicle
- The ECU # of any Monitor or Wing Camera (only one number needed)

### STEP 1.

Make sure the truck is turned on, with enough gas for any additional time it may take to activate your MirrorEye® system.

**NOTE:** Activation should take approximately 15 to 20 minutes, however in some cases, due to part failure or installation error, expect up to 4 hours for troubleshooting and communication with a developer or engineer.

### STEP 2.

Visit <https://www.stoneridge.app/activate>; enter truck information and device information and click "Submit." Any additional information you submit is optional and may improve the processing speed of your ticket.

### STEP 3.

#### Request Received

You should receive an email notification of your activation request, and the status of your ticket. If you have any questions or challenges, please reply to that email, or send a message to [incident@stoneridge.app](mailto:incident@stoneridge.app) or visit <https://www.stoneridge.app/tickets> to view the status of your tickets.

**NOTE:** If you do not have access to the portal to view tickets, you can request access here: <https://www.stoneridge.app/access>

### HOW TO CONTACT YOUR SERVICE TEAM

#### Email

[incident@stoneridge.app](mailto:incident@stoneridge.app)

#### Help Center Phone

888.624.4474

#### Help Center Hours

Monday - Friday  
8:00 a.m. - 8:00 p.m. EST

#### Visit Help Center

<https://www.stoneridge.app/help>

#### Reply to Emails

You can reply to any email you receive from the Service Team.

### STEP 4.

#### Request Processing

Your ticket will be submitted directly to a Stoneridge service agent who will review any details and contact you via email or phone to follow up with any questions or errors.

### STEP 5.

#### Certification Approved

Stoneridge software developers and engineers are on call to ensure a successful installation and activation. When installation is successful you will receive an email with details of the successful activation.

# Activation

## Frequently Asked Questions

### How do I register for the MirrorEye activation portal?

Activations are completed in My. Stoneridge app or MSA Portal. If you do not have access, request via Stoneridge MirrorEye technical support chat, email or call

### What happens if I do not complete the activation submission?

If you fail to submit an activation work order and complete the activation process, the MirrorEye system installed will not be able to send diagnostic alerts and will void the warranty of the MirrorEye system for your fleet customer.

### What do I do if I have questions during an installation?

If you have questions during an installation, please first refer to the MirrorEye installation guide, then reach out to MirrorEye Technical Support and a member of the team will promptly help answer your question.

### Does the order of the pictures I'm submitting matter?

NO, the improved activation process allows you to upload all install photos and then label for association. Required photos have been reduce to 2; FA470 Telematic Device and LTE Dongle if equipped.

### What do I do if the Get Inventory feature is not loading in the system components?

Verify the FA470 device is operating properly and is receiving connected status (6 or 7 blinks on the indicator led), View the device registered properly in the MSA portal and has firmware version greater than 12.0 Redirect to published knowledge base articles if needed on this topic.

### How to I reach MirrorEye Technical Support?

Live Chat on any of the Stoneridge Portal sites

Email: [Incident@stoneridge.app](mailto:Incident@stoneridge.app)

Call: M-F 8 – 8 EST 888-624-4474



Required Tool	Description	Quantity	Check-off
Drill Bit	3/8" Cobalt or Titanium Drill Bit	1	
Drill Bit	5/8" Cobalt or Titanium Drill Bit	1	
Drill Bit	1/4" Cobalt or Titanium Drill Bit	1	
Drill Bit	10mm Cobalt or Titanium Drill Bit	1	
Drill Bit	1/2" Cobalt or Titanium Drill Bit	1	
Step Bit	1-3/4" Step Bit	1	
Hole Saw	2-1/8" Hole Saw	1	
Hole Saw	1" Hole Saw	1	
Hole Saw	1-1/8" Hole Saw	1	
Hole Saw	1-1/4" Hole Saw	1	
Drill	Cordless 20v Drill	1	
Drill Battery	Extra 20v Drill Battery	1	
Rivet Nut Tool	Rivet Nut Securement Tool w/Impact Attachment	1	
Screwdriver	Phillips Head Screwdriver (size?)	1	
Screwdriver	Flathead Screwdriver (size?)	1	
Panel Removal Tool	Pry Tool for Removing Interior Panels	1	
Cutters	Flush Zip Tie Cutters	1	
Zip Ties	Zip Ties (6" to 12" in length)	30	
Pliers	Needle Nose Pliers	1	
Pliers	Groove Locking Pliers	1	
Electricians Torch		1	
Rotary Tool	Dremel® or Similar Cutting Tool	1	
Cutting Blades	Cutting Blades for use with Rotary Tool	2	
Torque Bit Set	Torque Bit Set T15 – T60	1 set	
Bit Driver	12v Torque Driver (Impact Driver)	1	
Bit Adapter	Hex Bit Adapter for Torque Driver	1	
Wrench		1	
Allen Wrench Set	Metric	1 set	
Allen Keys		1 of each	
Manual Wire Strippers	Wire Strippers w/Variou Wire Sizes	1	
Cones or Buckets	Used to Mark Distances Behind Truck	6	
Ladder	6' A-Frame Ladder	1	
Pin Removal Tool Set	Klein® Pin Extractor Set (or Equivalent)	1	
Terminal Crimpers	Klein® Terminal Crimpers (or Equivalent)	1	
Fuses	10 and 20 amp fuse (Required)	1	
Measurement Tool(s)	Measuring Tape, Measuring Wheel, Phone App. Capable of Measuring 80'	1	

Class V Monitor



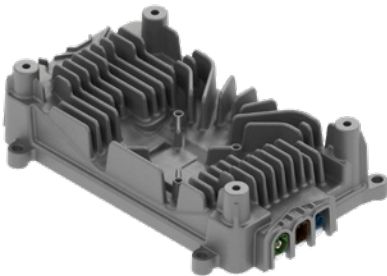
Driver Side Monitor (12")



Passenger Side Monitor (15")



Electronic Control Module (ECU)



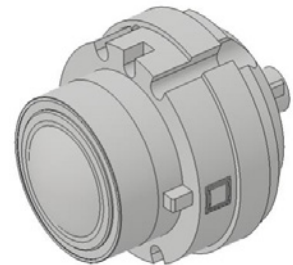
Driver Side Camera (Right)



Passenger Side Camera (Left)



Blind Shot Camera (Right)



Display Controller



MirrorEye® Cloth and Sticker



FleetArc Telematics Box Contents w/FA 470 Module



**Driver Side Bracket with Monitor Base and Screw Kit**



**Passenger Side Bracket with Monitor Base and Screw Kit**



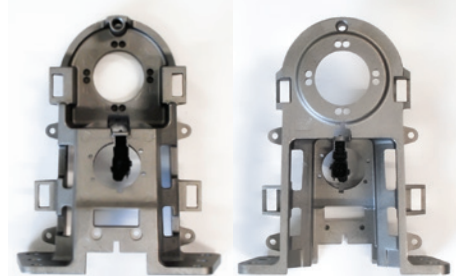
**Class V Monitor Bracket (Right)**



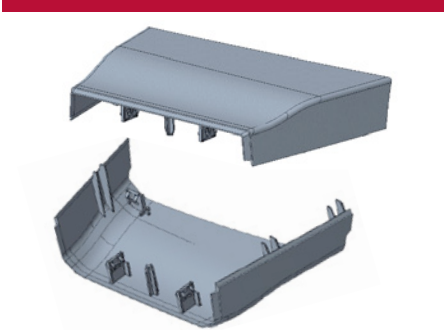
**Ram Kit for Class V Monitor (Central)**



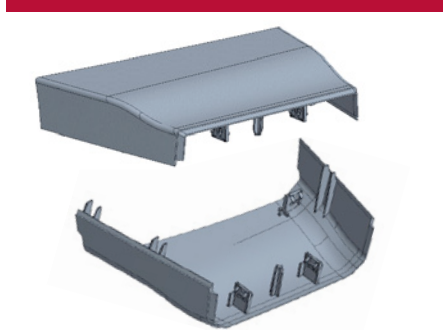
**Main Brackets**



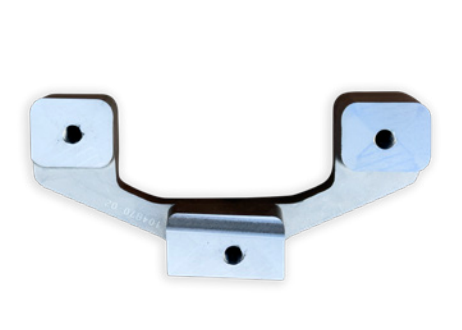
**Top/Bottom Cover Extensions (Driver Side)**



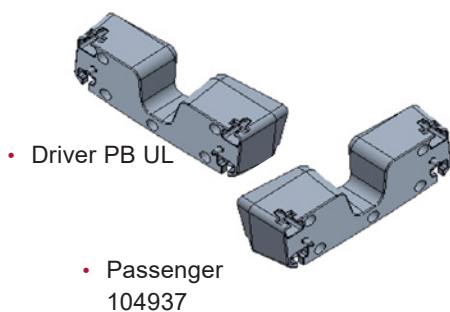
**Top/Bottom Cover Extensions (Passenger Side)**



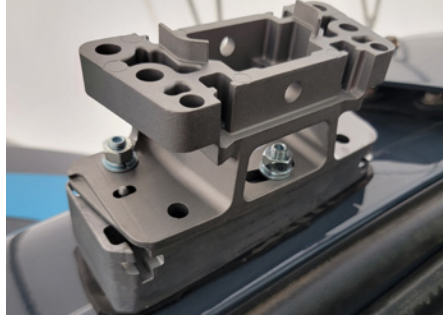
**Backplate Bracket**



**Interface Brackets**

- Driver PB UL
  - Passenger 104937
- 

**Extension Brackets**

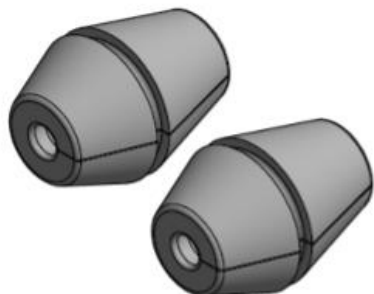


**Vehicle Interface Fastener Set**





**Set Grommet MK II Harness**



**Driver Coax Cable**



**Passenger Coax Cable**



**Blind Spot Camera Coax**



**Controller Kit (Right)**



**Outside Air Temperature Sensor  
(OAT - Driver Side)**



**Screws Kit for Monitor Interface  
(Driver Side)**



**Screws Kit for Monitor Interface  
(Passenger Side)**



**Wire Harness OAT Sensor**





**Set Fasteners Camera Arm**



**Set Fasteners Camera Bracket**



**Set Fasteners Monitor Interface Class V**



**Hardware for ball mount for monitors**



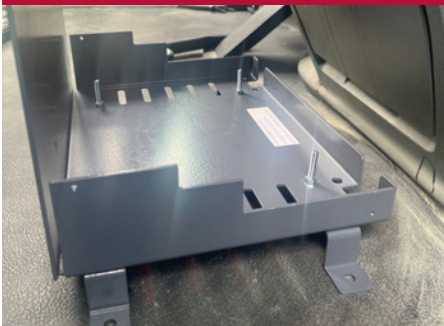
**FA470 Cable**



**Main Harness**



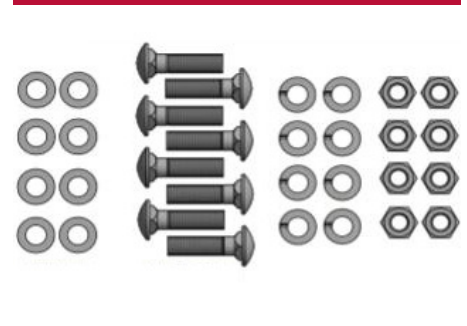
**ECU - Mounting box**



**ECU - Bracket Fastener Set**



**Set Fasteners Hood Cover**



**Set Fasteners Door Mirror Removal**



**Set Fasteners DVR Bracket**



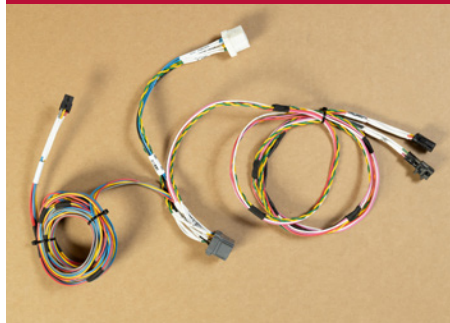
**Ethernet Cable**



**USB**



**DVR Harness**



**DVR**



**Connectivity Dongle (Optional)**



**DVR Trigger Cable**



MirrorEye® Install Task List		Check-off
1	Unpack and examine all materials in the MirrorEye Shipping box.	
2	Match Screw Kits with their stated components.	
3	Record the VIN and Serial #'s of the vehicle and the FA470 for the MirrorEye activation process. (page 65)	
4	Remove the relevant dash panels, a-pillar covers and headliner portions to prepare for the installation of the MirrorEye Components.	
5	Begin installation of the main MirrorEye ECU harness to the vehicle's accessory power source and CAN buss via the truck's Vehicle Power Distribution Module (VPDM).	
6	Install the MirrorEye Electronic Control Module (ECU) in the headliner and connect the main MirrorEye ECU harness.	
7	Install the FA 470 according to the instruction in the box and connect it to the main ECU harness.	
8	Install the MirrorEye display controller on the dash panel within reach of the driver's seat.	
9	Connect the MirrorEye display controller to the ECU Harness.	
10	Confirm proper power connection via green light on controller and ensure connection to the VPDM.	
11	Disconnect Power Source until installation has been completed.	
12	Carefully thread the main MirrorEye harness driver and passenger camera wing connectors behind the headliner and down the driver's and passenger's side A-pillars. (Be careful not to kink the wires during the threading process)	
13	Connect the driver's and passenger's camera/monitor harnesses to the ECU.	
14	Install the driver's and passenger's monitor interface brackets to the A-pillars.	
15	Install the Class V monitor.	
16	Install the driver's and passenger's exterior MirrorEye bracket wings above the doorframes.	
17	Position the passenger side Class V camera into the MirrorEye exterior bracket.	
18	Thread the Class V cable across the headliner to the MirrorEye ECU. (Be careful not to kink the cable during the threading process)	
19	Install the upper cover of the passenger side exterior arm and attach the passenger side MirrorEye Camera wing. Carefully thread the cables from the ECU harness through the bracket and connect to the appropriate camera/monitor harness. (Be careful not to kink the cable during the threading process)	
20	Using the location and size of the A-pillar interface bracket for reference cut out a section of the a-pillar cover to accommodate the bracket.	
21	With the passenger side monitor (15") in hand connect it to the camera/monitor harness at the a-pillar and mount the monitor to the interface bracket. (Be careful not to kink the wires/cable during the threading process)	
22	Install the upper cover of the driver side exterior arm and attach the driver side MirrorEye Camera wing. Carefully thread the cables from the ECU harness through the bracket and connect to the appropriate camera/monitor harness. (Be careful not to kink the cable during the threading process)	
23	Using the location and size of the A-pillar interface bracket for reference cut out a section of the a-pillar cover to accommodate the bracket.	
24	With the driver side monitor (12") in hand connect it to the camera/monitor harness at the a-pillar and mount the monitor to the interface bracket.	
25	Re-connect the vehicle power source and confirm that the system powers up properly and that all monitors are showing the correct feed for their respective cameras.	
26	Properly seat the harness and camera cables in the A-pillar and headliner locations and reinstall the dash panels, A-pillar covers and headliner to their original configuration. (Be careful not to kink the wires/cable during this process)	
27	Begin system calibration and monitor adjustment. (page 48)	
28	<b>Complete activation. (page 65)</b>	



1

### Photo Documentation is Essential

- 1 Prior to installation: take “before” pictures of the interior cab area(s) and exterior area above the door frame(s) – this helps ensure the truck is returned to its original condition
- 2 Make sure to take pictures noting any existing modifications or damage to the truck prior to beginning the install
- 3 At the end of the installation process, make sure to take pictures documenting the completed installation

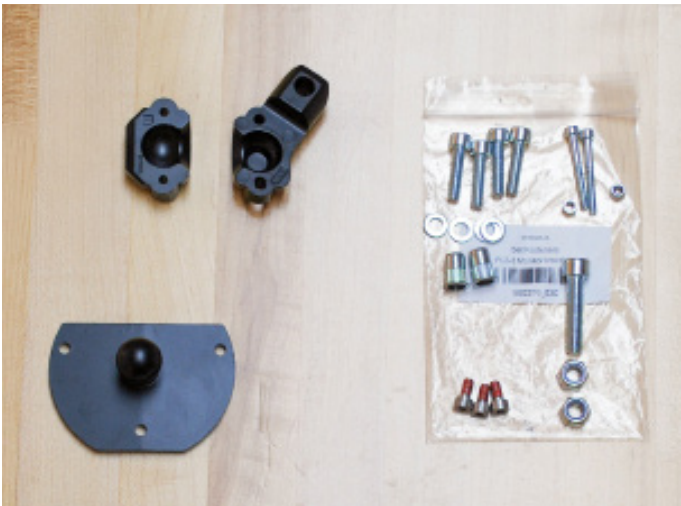
2

### Order of Installation

The task list (previous page) is ordered for the efficient installation of MirrorEye® components – however, installers should determine up front what order of installation works best for them.

For example, some installers choose to begin the process by conducting vehicle modifications first (e.g., measurements/drilling for varying brackets), followed by installation of components.

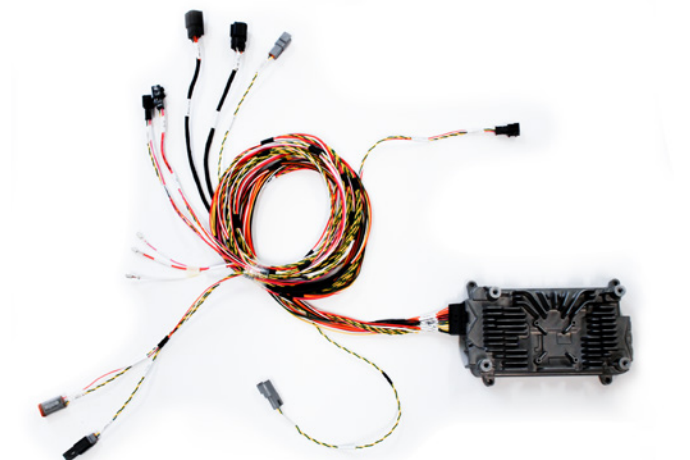
3



Before beginning installation, it is recommended that components are matched with their corresponding screw(s) kit. This will avoid the incorrect installation of screws, which can lead to permanent monitor damage.

**NOTE:** Red Loctite® is present on all monitor screws

4



Please take every measure to avoid kinking of wires when working with/handling the main MirrorEye® ECU wiring harness (Y-harness). Kinked lines can lead to communications interruptions between components and the system network.



1



Prior to the installation of MirrorEye® system components, the A-pillar covers (1) center dash panel (2) should be removed and the headliner (3) should be adjusted to allow for access at the center windshield (4) XXX blind spot indicator removal XXXX.

2



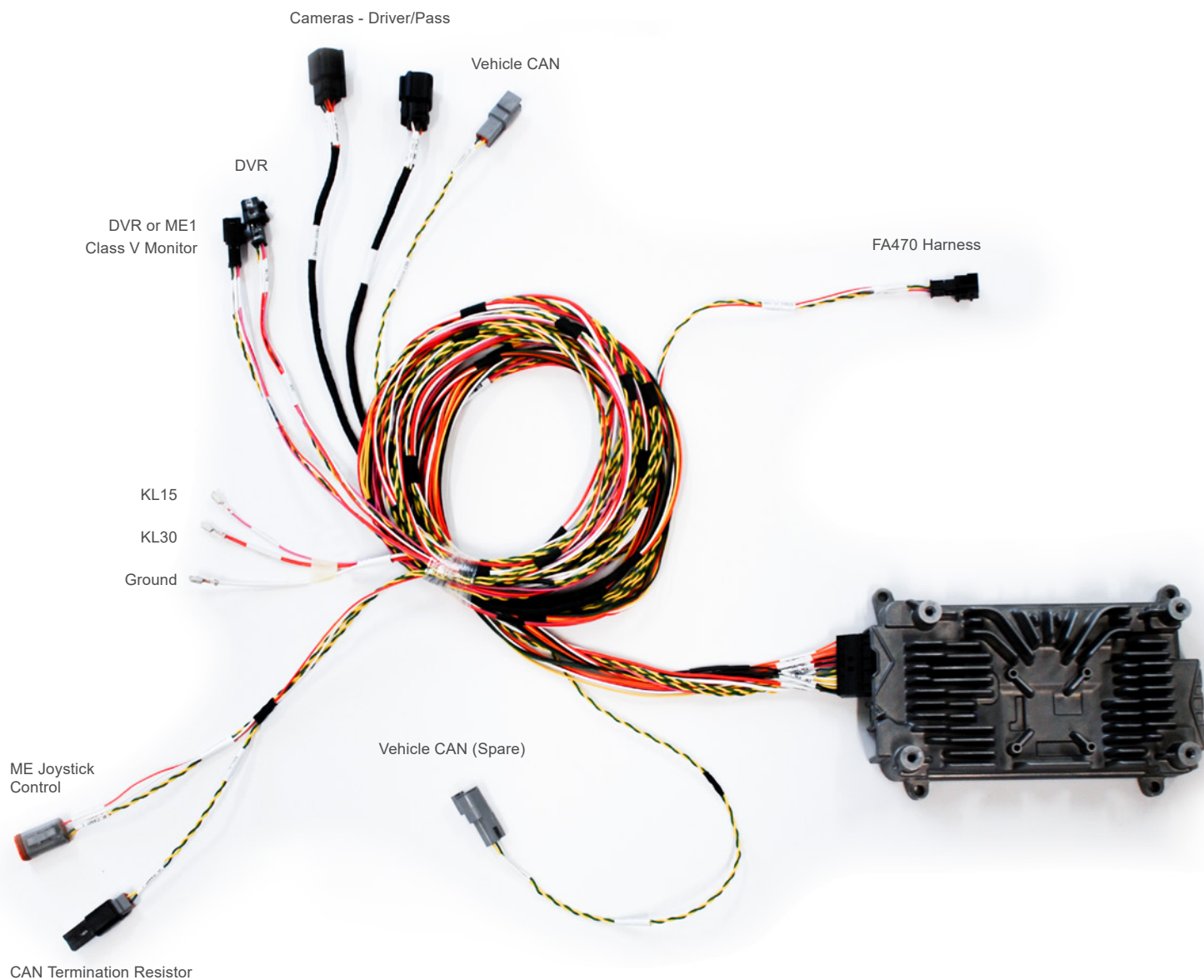
**NOTE:** On A-pillars, begin with removal of grab handles

# Installation



Begin installation of the main harness to a vehicle accessory power source and CAN Buss

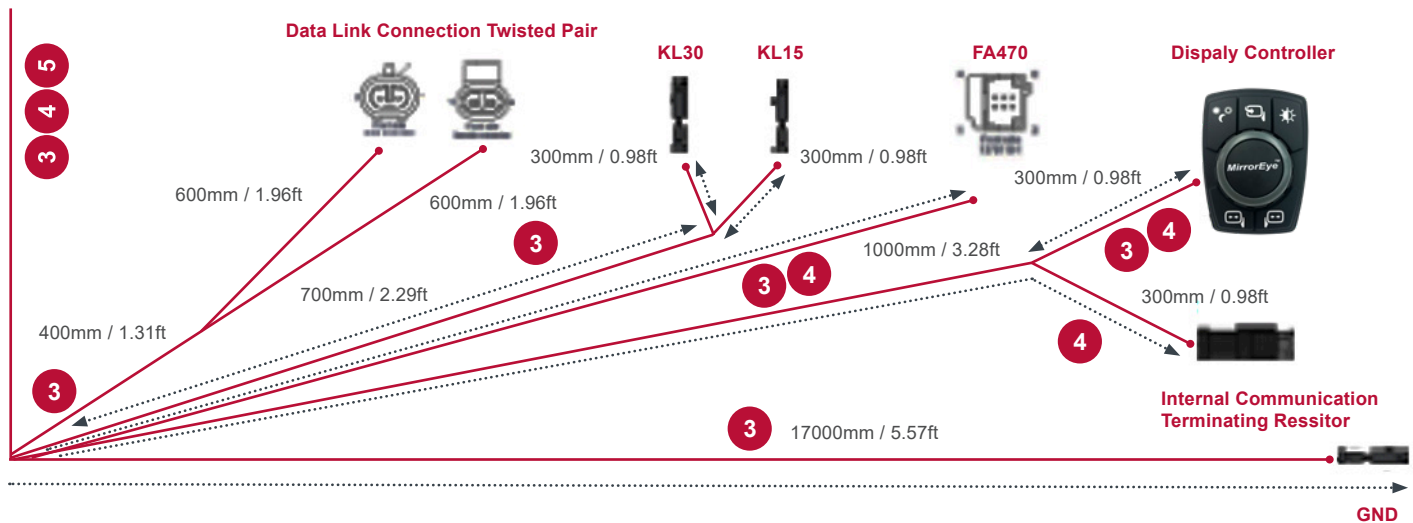
1



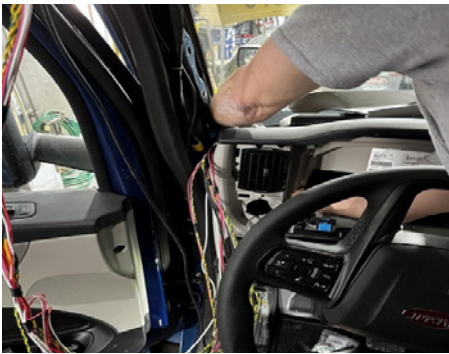
Become familiar with the main MirrorEye® ECU harness, it's orientation and any portion of the connection points

**NOTE:** Be sure to take every precaution to avoid kinking the main cable harness. Kinked lines can lead to communications interruptions between components and the system network.

2

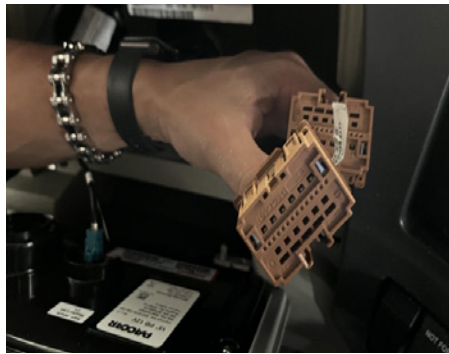


3



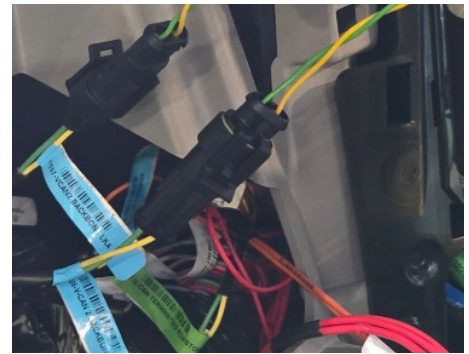
Main harness is routed through A-Pillar. Power ground and ignition are connected through factory ports. CAN-Connection is also connected behind cluster.

4



Power and ignition inputs are located behind driver cluster in dashboard. KL15 (orange) , KL30 (red) and Ground (white) are all terminated at the OEM splice packs located in dash, typically to the right of the steering wheel behind the radio.

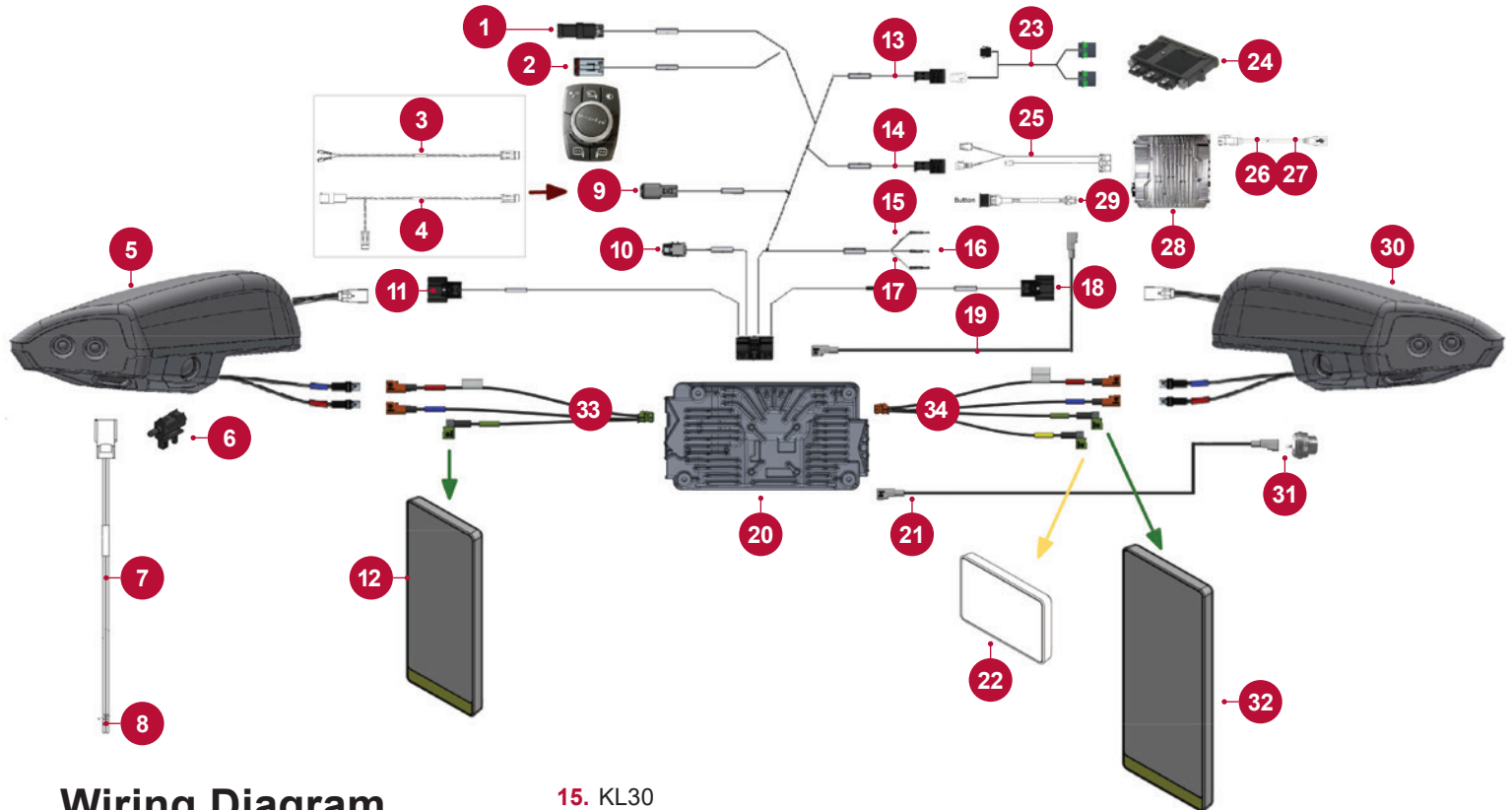
5



CAN termination connector is located behind the driver cluster in the dashboard. Locate the harness connector labeled VCAN 2 Backbone open the connector and connect in the MirrorEye main harness CAN connectors.



1



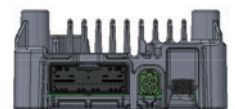
## Wiring Diagram

1. CAN Termination Resistor
2. Controller
3. CAN Splicepack
4. CAN Breakout
5. Camera Wing (Driver Side)
6. OAT Sensor GE-1923C
7. OAT Sensor Wire Harness
8. OAT Sensor Termination
9. Vehicle CAN
10. DVR or Class V Monitor
11. Camera Wing (Driver Side)
12. Driver Side Monitor (Left Side 12.3" Monitor)
13. FA470
14. To DVR Harness

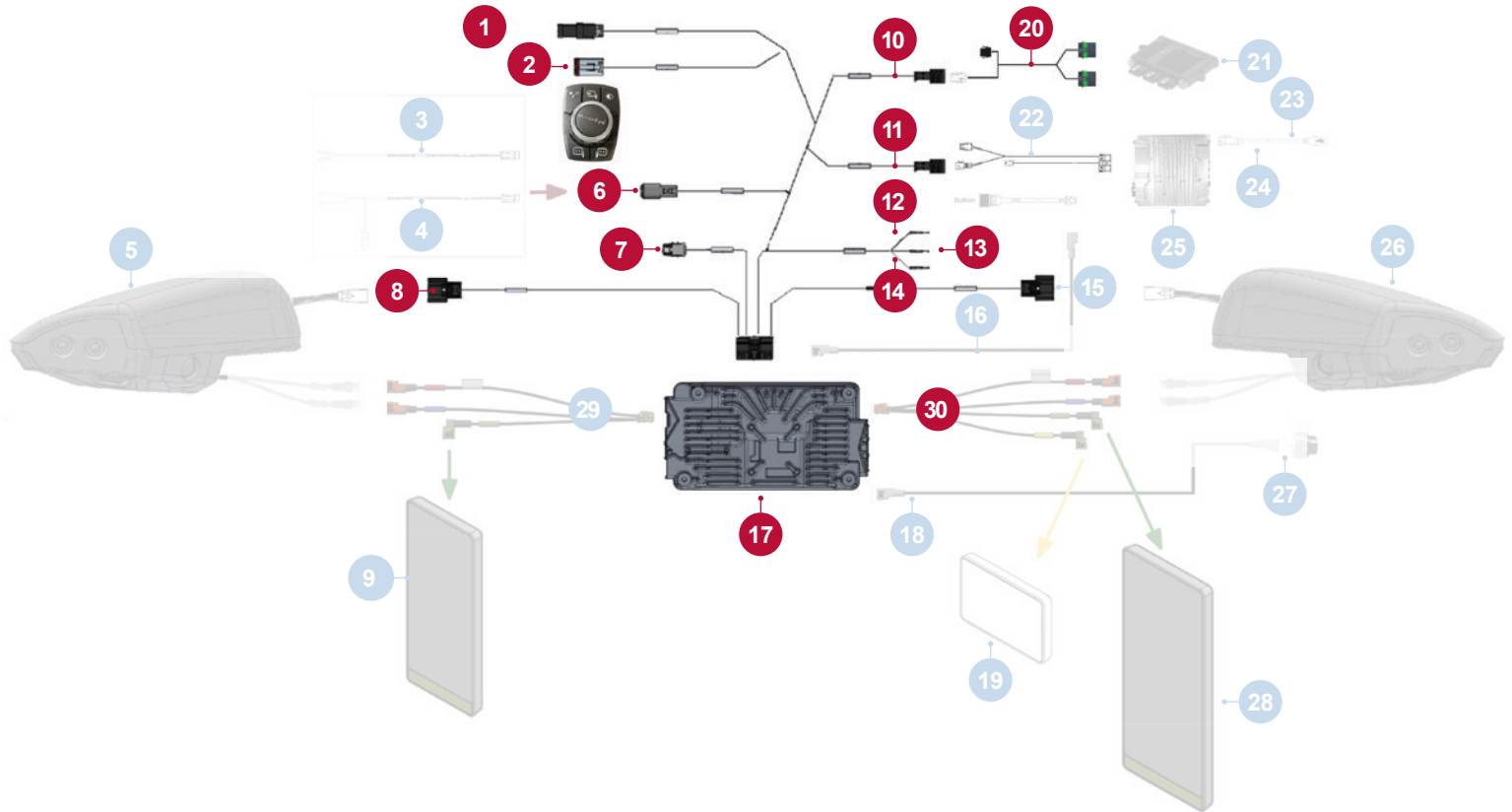
15. KL30
16. Ground
17. KL15 (IGN)
18. Camera Wing (Passenger Side)
19. Ethernet
20. ECU
21. COAX Class V
22. Class V - 7" Monitor
23. FA470 Wire Harness
24. FA470
25. DVR Wire Harness
26. USB Cable for Flash Drive
27. USB Cable for Connectivity Dongle (Alternate use)
28. DVR GEN1
29. DVR Trigger Button
30. Camera Wing (Passenger Side)

31. Class V Camera (Blind Spot)
32. Passenger Side Monitor (Right Side 15" Monitor)
33. Camera/Monitor Harness (Driver Side)
34. Camera/Monitor Harness (Passenger Side)

ECU views for reference



2



## Main MirrorEye ECU Harness

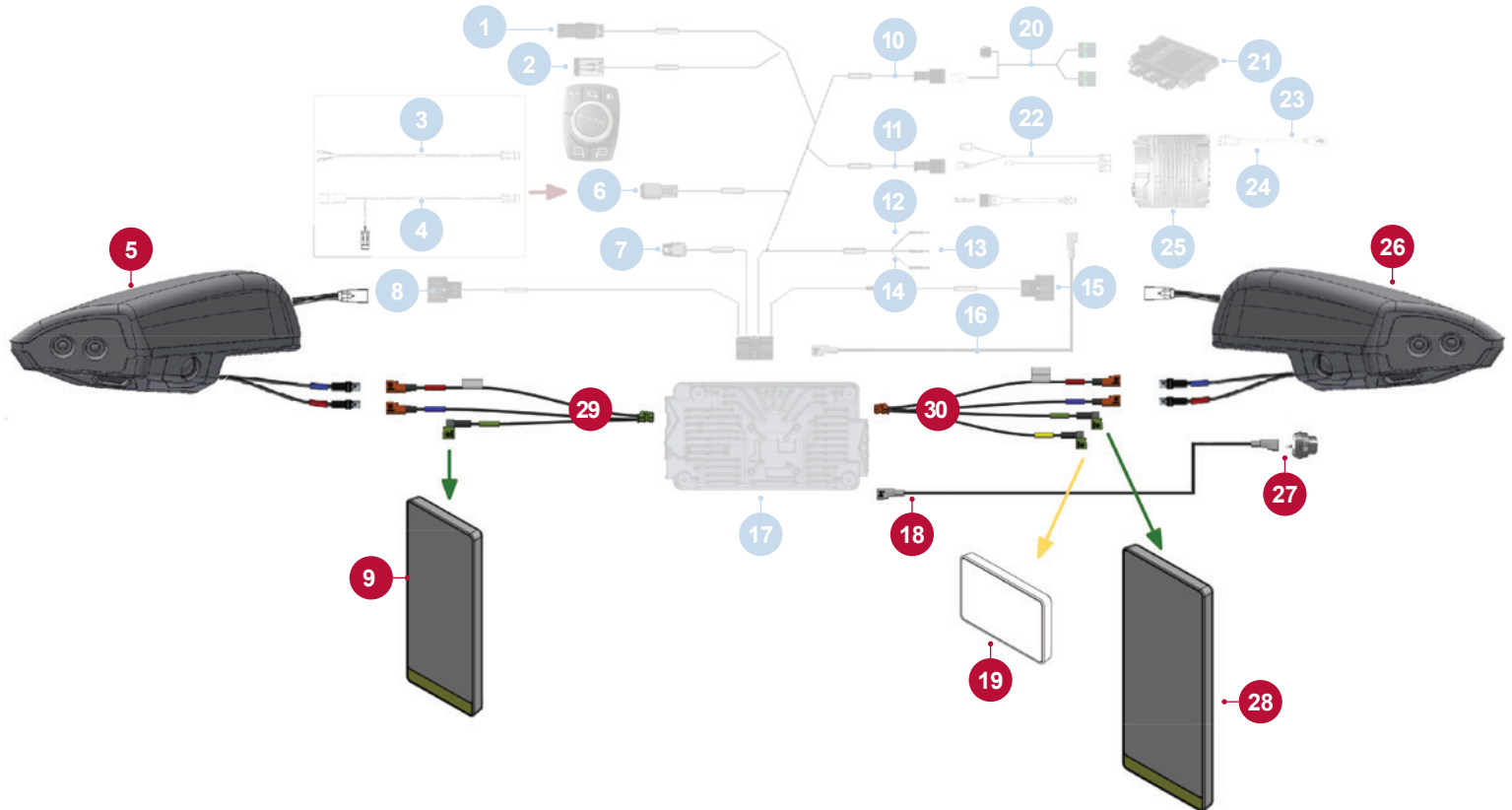
- 1. CAN Termination Resistor
- 2. Controller
- 3. CAN Spliceback
- 4. CAN Breakout
- 5. Camera Wing (Driver Side)
- 6. Vehicle CAN
- 7. DVR or Class V Monitor
- 8. Camera Wing (Driver Side)
- 9. Driver Side Monitor (Left Side 12.3" Monitor)
- 10. FA470
- 11. To DVR Harness
- 12. KL30
- 13. Ground
- 14. KL15 (IGN)
- 15. Camera Wing (Passenger Side)
- 16. Ethernet
- 17. ECU
- 18. COAX Class V
- 19. Class V - 7" Monitor
- 20. FA470 Wire Harness
- 21. FA470
- 22. DVR Wire Harness
- 23. USB Cable for Flash Drive or USB Connectivity Dongle
- 24. DVR Output
- 25. DVR GEN1
- 26. Camera Wing (Passenger Side)
- 27. Class V Camera (Blind Spot)
- 28. Passenger Side Monitor (Right Side 15" Monitor)
- 29. Camera/Monitor Harness (Driver Side)
- 30. Camera/Monitor Harness (Passenger Side)

**NOTE:** The MirrorEye system's OAT sensor is not terminated on PACCAR vehicles unless mirrors are removed.

ECU views for reference



3



## Camera/Monitor Harness Diagram

- 1. CAN Termination Resistor
- 2. Controller
- 3. CAN Splice pack
- 4. CAN Breakout
- 5. Camera Wing (Driver Side)
- 6. Vehicle CAN
- 7. DVR or Class V Monitor
- 8. Camera Wing (Driver Side)
- 9. Driver Side Monitor  
(Left Side 12.3" Monitor)
- 10. FA470
- 11. To DVR Harness

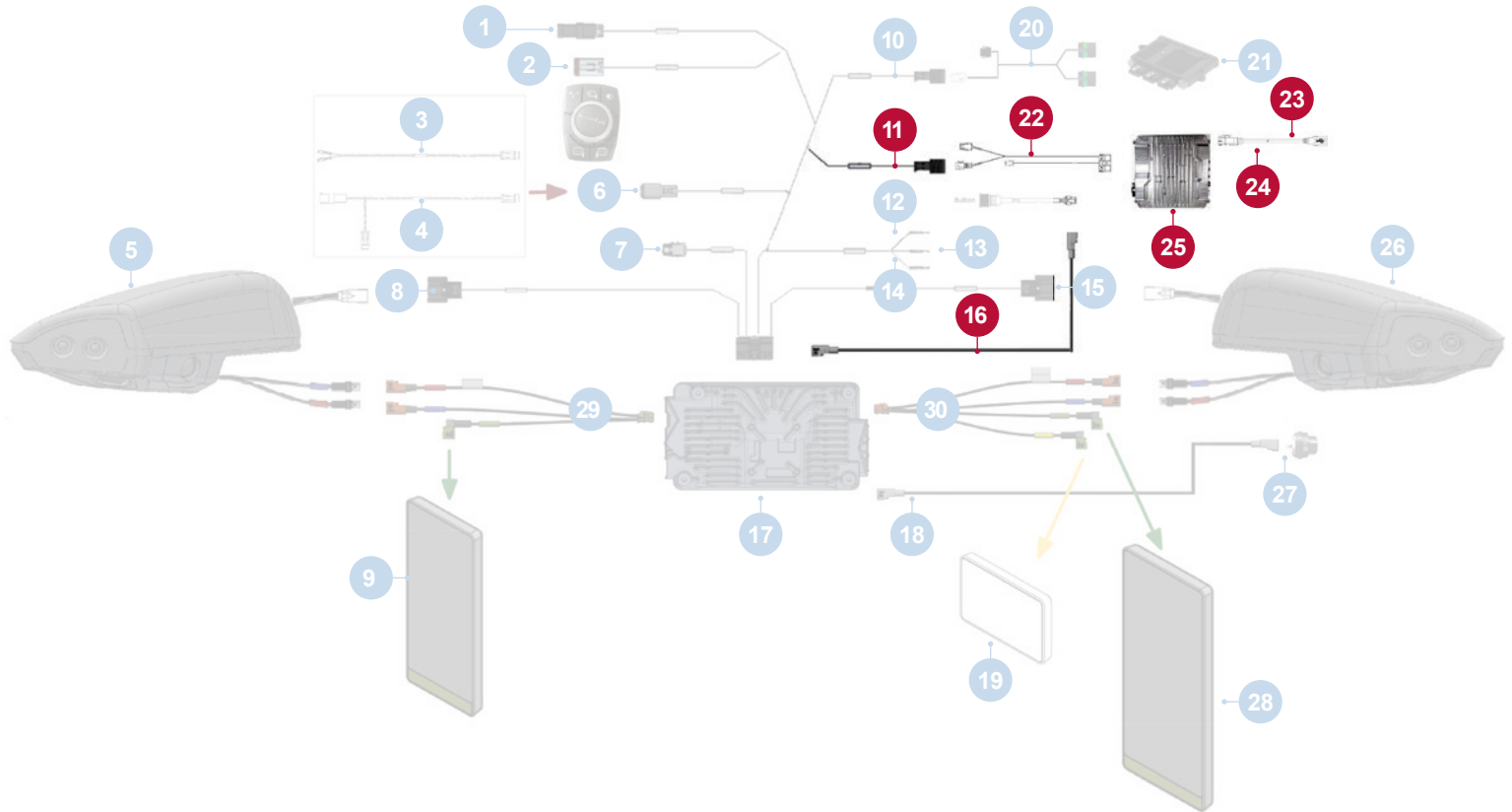
- 12. KL30
- 13. Ground
- 14. KL15 (IGN)
- 15. Camera Wing (Passenger Side)
- 16. Ethernet
- 17. ECU
- 18. COAX Class V
- 19. Class V - 7" Monitor
- 20. FA470 Wire Harness
- 21. FA470
- 22. DVR Wire Harness
- 23. USB Cable for Flash Drive or  
USB Connectivity Dongle
- 24. DVR Output
- 25. DVR GEN1

- 26. Camera Wing (Passenger Side)
- 27. Class V Camera (Blind Spot)
- 28. Passenger Side Monitor  
(Right Side 15" Monitor)
- 29. Camera/Monitor Harness  
(Driver Side)
- 30. Camera/Monitor Harness  
(Passenger Side)

ECU views for reference



4



## Optional DVR

- 1. CAN Termination Resistor
- 2. Controller
- 3. CAN Spliceack
- 4. CAN Breakout
- 5. Camera Wing (Driver Side)
- 6. Vehicle CAN
- 7. DVR or Class V Monitor
- 8. Camera Wing (Driver Side)
- 9. Driver Side Monitor (Left Side 12.3" Monitor)
- 10. FA470
- 11. To DVR Harness
- 12. KL30

- 13. Ground
- 14. KL15 (IGN)
- 15. Camera Wing (Passenger Side)
- 16. Ethernet
- 17. ECU
- 18. COAX Class V
- 19. Class V - 7" Monitor
- 20. FA470 Wire Harness
- 21. FA470
- 22. DVR Wire Harness
- 23. USB Cable for Flash Drive or USB Connectivity Dongle
- 24. DVR Output
- 25. DVR GEN1
- 26. Camera Wing (Passenger Side)

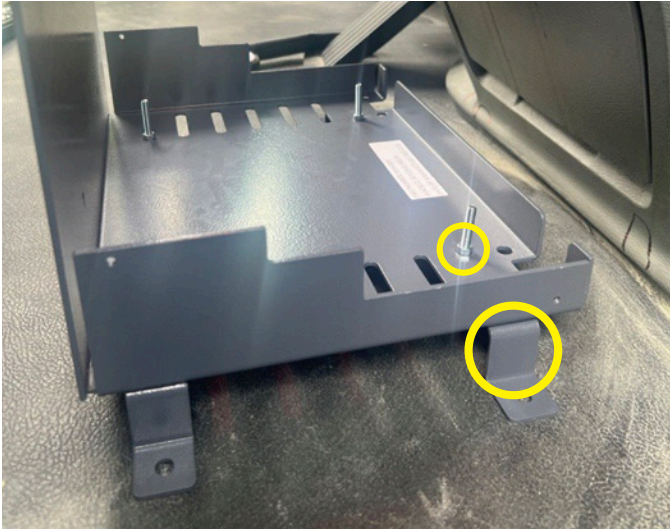
- 27. Class V Camera (Blind Spot)
- 28. Passenger Side Monitor (Right Side 15" Monitor)
- 29. Camera/Monitor Harness (Driver Side)
- 30. Camera/Monitor Harness (Passenger Side)

ECU views for reference

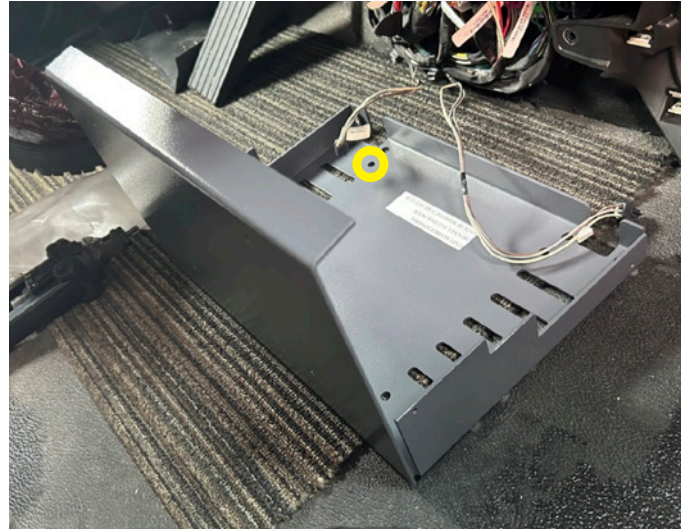




**1. Mount Brackets to Enclosure To Mark Measurements on Floor.**



Assemble the floor mount box with supplied hardware for placement marking on the floor. If the install includes a DVR, the bottom bracket bolts are also used to secure the DVR. Remove the nuts, place DVR on bolts and resecure.



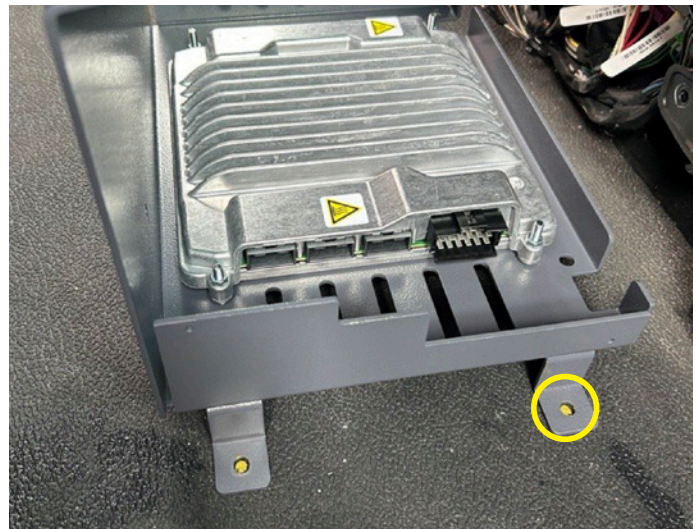
Holes for floor brackets

**3.**



Align box mount with center of doghouse and mark half shaped moons with a sharpie symmetrical with the pass through holes on the box floor mount. Using a 1" hole saw to cut out holes for wire pass through.

**4.**



Place ECU 4" away from center console "Doghouse".

Mark Mounting Holes. See circles.



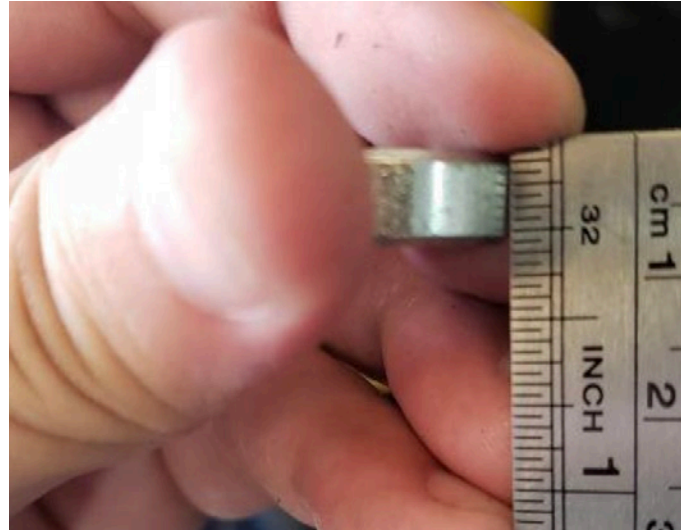
5.



After marking mounting holes for floorboard

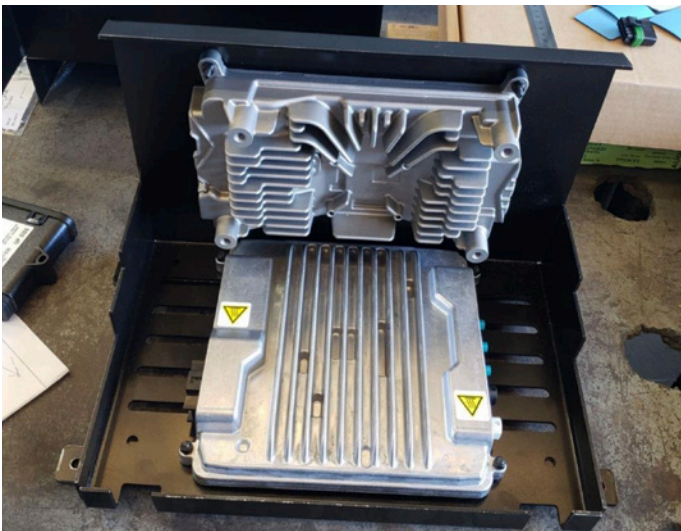
1. Drill rubber mat and floor pan with 7/16" drill bit
2. Use a 1" hole saw to cut out rubber mat floorboard covering to the floor pan surface
3. Install 8mm Riv-Nut in the floor pan
4. Place 1/4" spacer on top of the installed Riv-Nut

6.



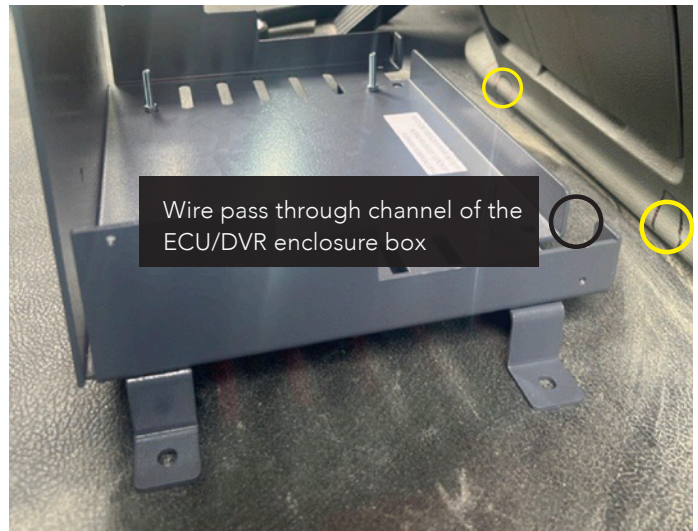
Used 1/4" steel inserts

7.



Install ECU and DVR in enclosure with provided hardware.  
Use lock washer to reduce vibration.  
ECU and DVR will line up with mounting holes in enclosure.  
\*they only go one way.

8.



1. With Floor mount assembly in place in the center of the doghouse, Mark cut out for main harness and coax cable pass through in the dog house cover.
2. Remove Doghouse cover and cut using a 1" hole saw
3. Begin routing the main harness from the ECU up through the dash. Routing shown in following steps



9.

Up Drivers A-pillar

Out to wing



Floor

Drivers side harness and co-ax are routed from the floor up through the dash behind the cluster and directly up the A-pillar and out to MirrorEye wing.

## 10. Wiring Routing Passenger Side

MirrorEye Wing

Passenger Side  
A-Pillar



Floor mount

Passanger side harness and co-ax are routed from the floor up through the dash across the shown support bar. Securing the harness as you go directly up the A-pillar and out to MirrorEye wing.

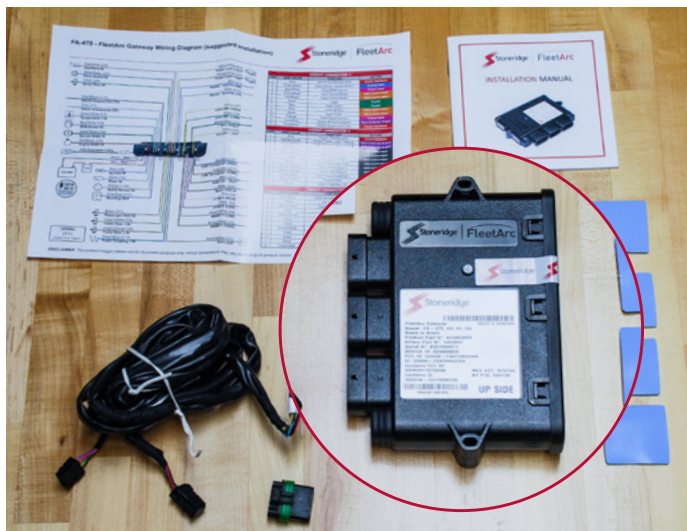
11.



1. When harness routing and coax cable is completed begin reassembly.
2. Install corrugated loom protecting the main harness and coax cables
3. Install the mount box cover securing with the supplied T15 screws
4. Reinstall the doghouse cover
5. Secure mount box to the floor pan with provided M8 bolts
6. Use caution when routing coax cables to never exceed bend radius limits. (pg x)



1



Locate the telematics module (FA 470) in the FleetArc box

2



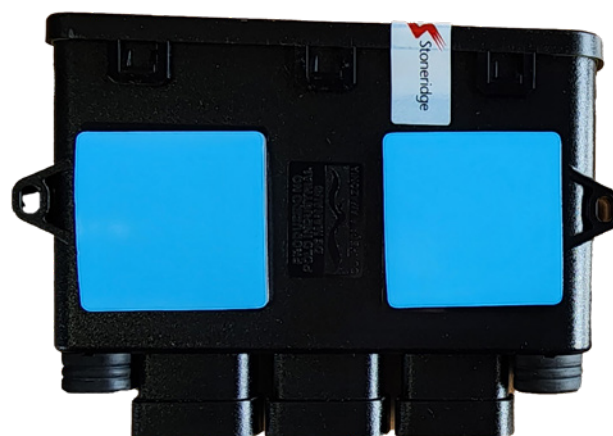
Assemble the connectors as depicted in the provided FA 470 schematic – note that the center shroud is for an additional connector (blind). Each module connector is numbered (CN 1,2,3).

3



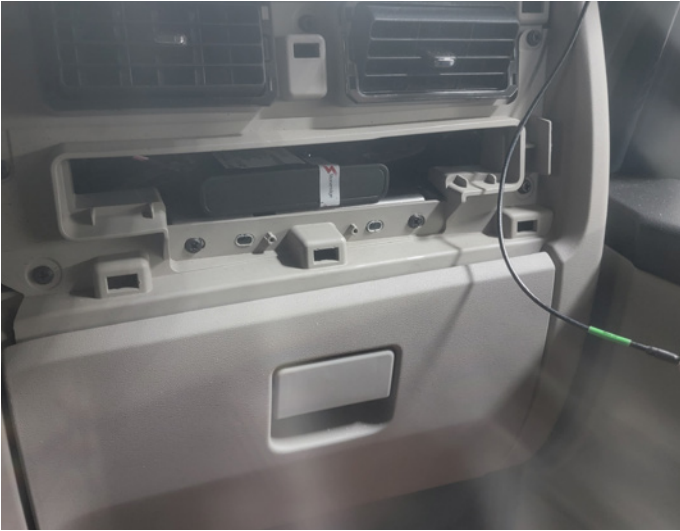
Proceed with the telematics module (FA 470) connection to the main harness. **NOTE:** Incorrect connection of the telematics module will prevent certification during the cloud activation/virtual checkout (required)

4



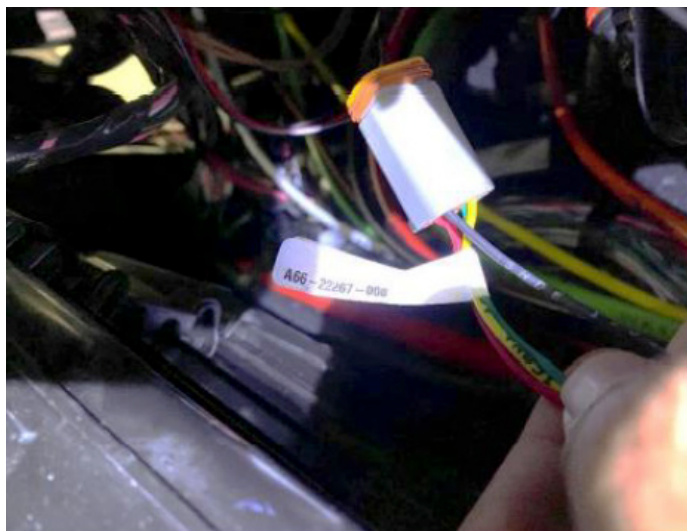
Add Velcro® to FA 470 module base for mounting, as depicted.

5



When mounting the FA 470 module, ensure that it lays flat (horizontally) to ensure optimal reception. FA470 device is installed in the dash with LED facing the sky.

5



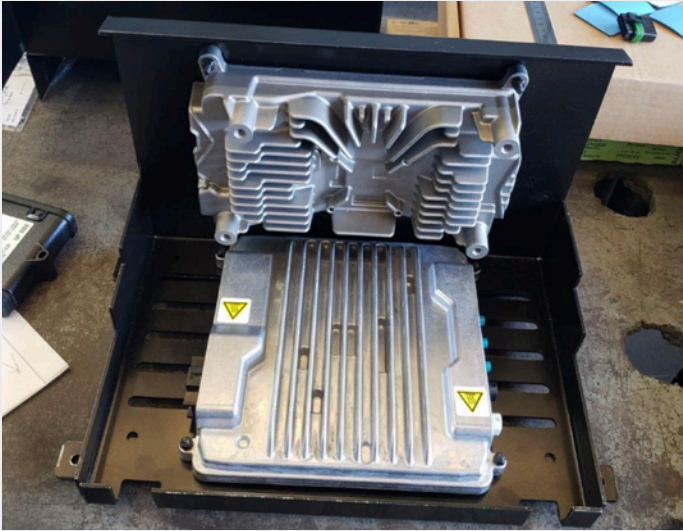
Connect the controller to the main wiring harness,  
then mount in place

6



Controller mounting template is included on back of pack-  
aging box. Mount controller in location pictured using pro-  
vided hardware labeled controller.

1



Using the corresponding screw set,  
attach the DVR module to its bracket

2



Locate the DVR harness (depicted)  
and connect to the DVR module

3



Connect relating USB cable to the DVR, as depicted



1



Refer to the image above for determining hole locations on the passenger side A-pillar for bracket mounting. Peterbilt / Kenworth bracket tab should be facing the door. Measure from top of existing hole 2 3/4" to top mount location. Use the bracket to mark location for bottom hole. Drill 13/32" hole for rivenut installation.

2



Use the monitor bracket as a template to measure hole locations on the passenger side pillar. Make two (2) holes with 10mm drill bit and insert the Riv-Nuts using Riv-Nut puller tool

3



Assemble bracket with corresponding screw set

4



Install RAM® base to the monitor with relating kit set screws (NOTE: Red Loctite® should be on screws; passenger-side monitor is 15")

## INSTALLATION

### Passenger Side Monitor Installation (15" Monitor)

5



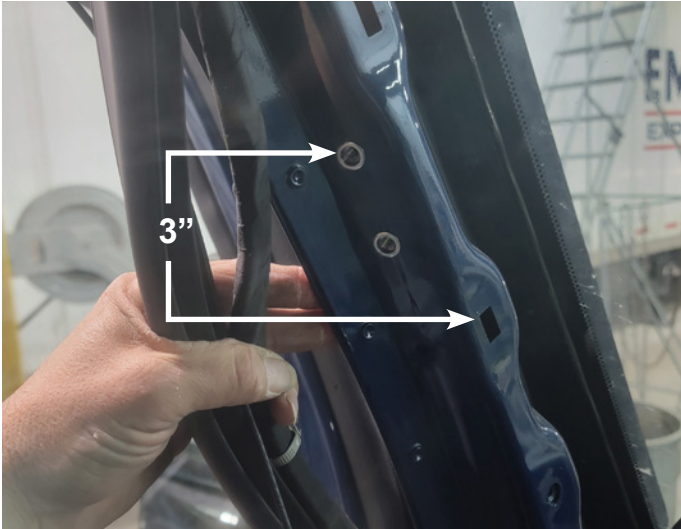
Mount monitor with correct hardware to mounting bracket on A pillar.

6



Ensure connections between the monitor, main wiring harness and relating passenger side coax cables; route cables within A-pillar.

1



Refer to the image above for determining hole locations on the passenger side A-pillar for bracket mounting. Peterbilt / Kenworth bracket tab should be facing the door. Measure from top of existing hole 2 3/4" to top mount location. Use the bracket to mark location for bottom hole. Drill 13/32" hole for rivenut installation.

2



Use the monitor bracket as a template to measure hole locations on the passenger side pillar. Make two (2) holes with 3/8" drill bit and insert the Riv-Nuts using Riv-Nut puller tool

3



Assemble bracket with corresponding screw set (Allen wrench)

4



Install RAM® base to the monitor with relating kit set screws (NOTE: Red Loctite® should be on screws; passenger-side monitor is 15")



5



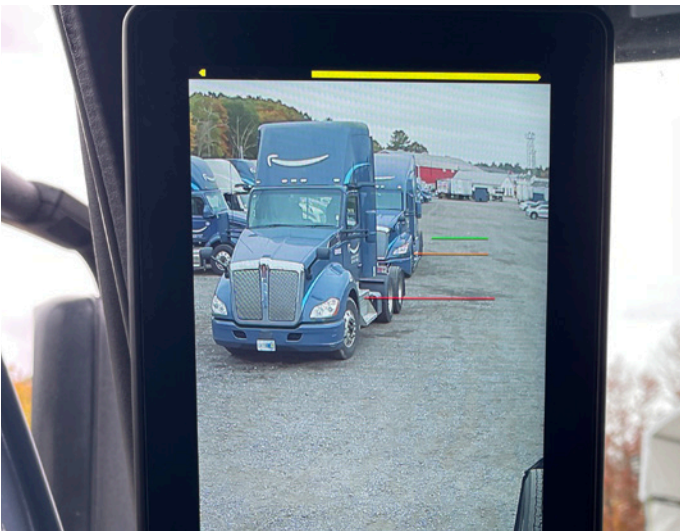
Mount the driver side monitor joining RAM® base and relating bracket

6



Ensure connections between the monitor, main wiring harness and relating driver side coax cables; route cables within A-pillar

7



Installed, operational driver's side monitor



1



Remove center sunvisor for Class V monitor install. Install the RAM mount to the bracket and secure using provided fastener set. Do Not use the sunvisor screws, they are too short to secure monitor mount. Secure the Class V Bracket to roof. Install the RAM ball plate to the back of the Class V monitor and mount to the installed bracket.

2



Assemble the monitor bracket and kit screws for Class V monitor interface

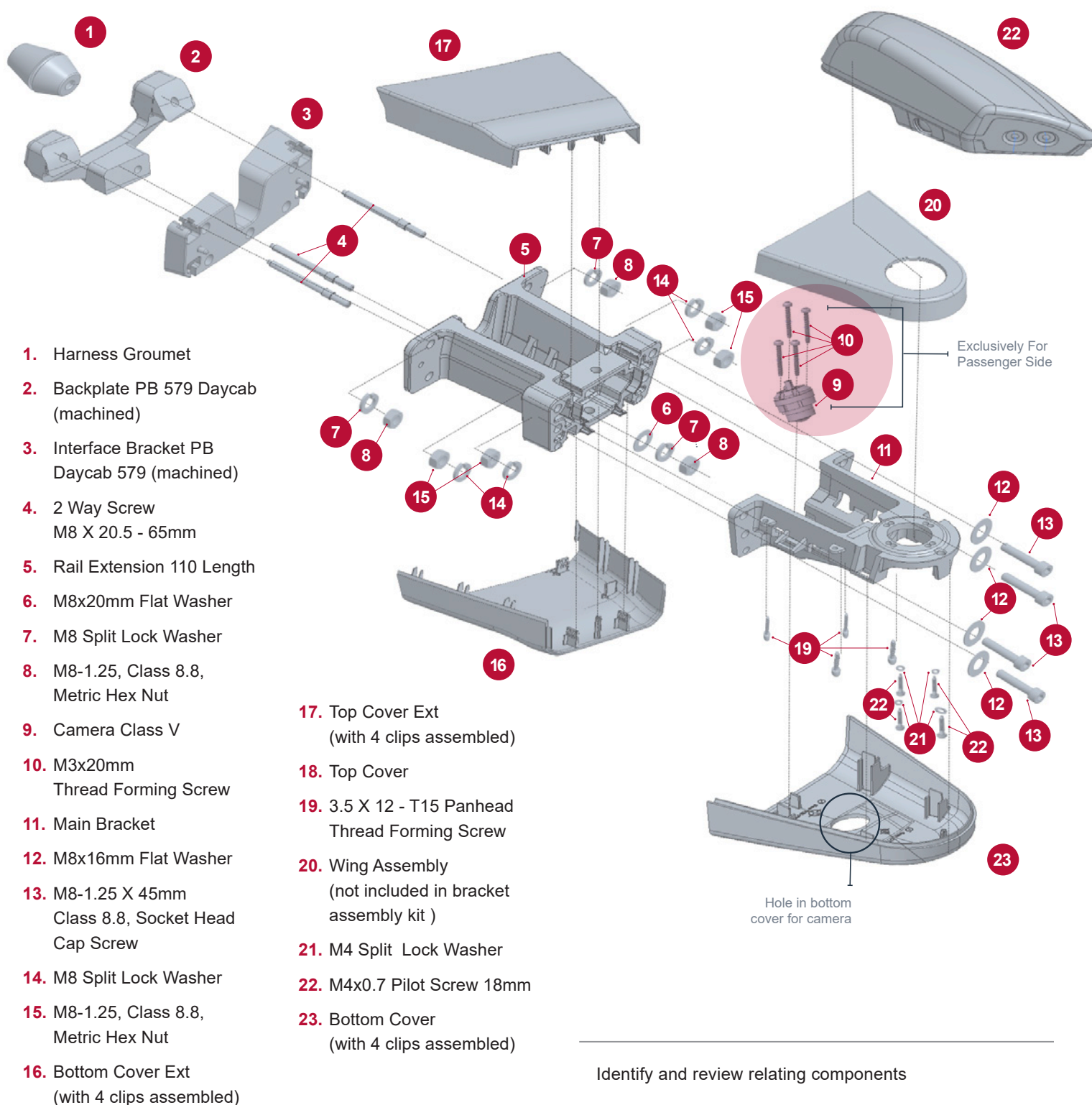
3



Assemble the central bracket and RAM® base, adjusting with an impact driver. Install monitor with the screws that are indicated in the kit to assemble the bracket; USE SHORT SCREWS with red Loctite® visible



1



Identify and review relating components

**NOTE: MirrorEye MKII Generation – Coax Cable Connections**

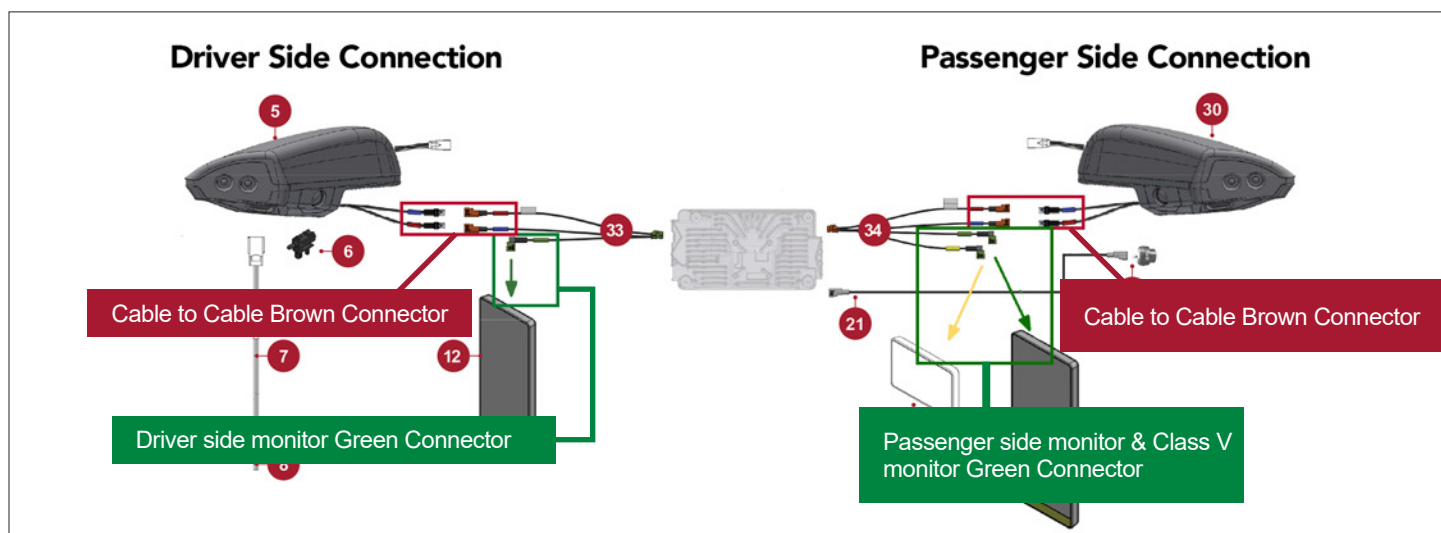
**Issue:** Coax cable harness connector unmated cable to cable AND/OR coax cable connection at any or all monitor connections resulting in loss of communication signal between the MKII Camera Wing and in-cab Monitor.

The Brown or Green Fakra cable connector securing the MirrorEye Camera Wing to the in-cab Monitor and ECU if not properly secured may interrupt communication and video feed to the in-cab monitor. This connection when properly installed should result in an audible snap hearing the lock tab of the connect fully seat.

Verification test of this seated connection should be performed by completing a light tug test on the connector after securing. Take caution to not pull the coax of either cable possibly damaging the crimp of the cable. Ensure the connection is locked or fully seated and will not be affected by cable movement or vehicle vibration.

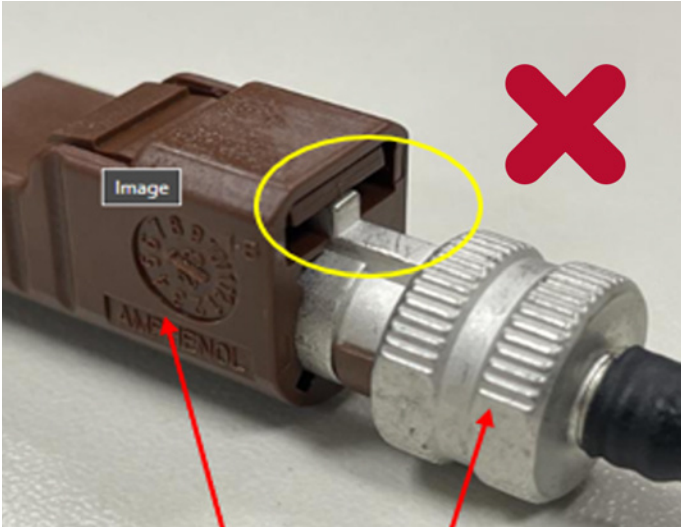
**Affected connectors illustrated below for Driver and Passenger side wing connection and monitor connections.**

- Cable to Cable – connecting the ECU to the Camera Wing (Brown Connector)
- Cable to Monitor – Connection ECU to the Monitor (Green Connector)



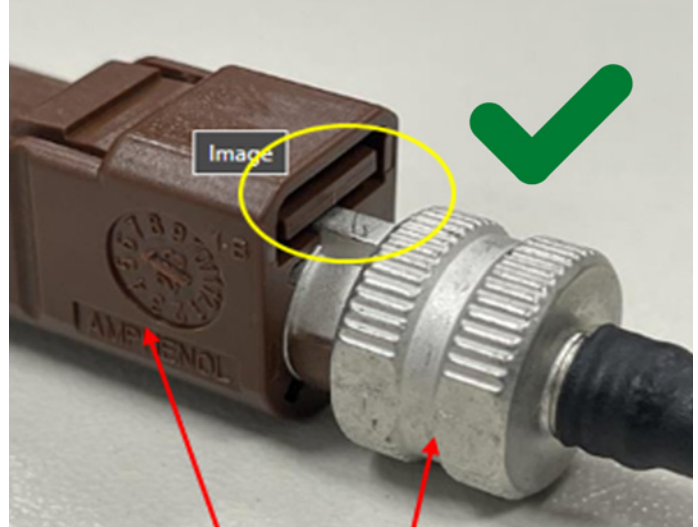


**1. Failed - unlocked connection**



Hold points for tug test. Do not pull from the cable.

**2. Good -locked connection**



Hold points for tug test. Do not pull from the cable.

**3**



- Connections at all monitor's - the connector when fully seated should result in an audible snap
- Lite tug test should be performed after seating the connector

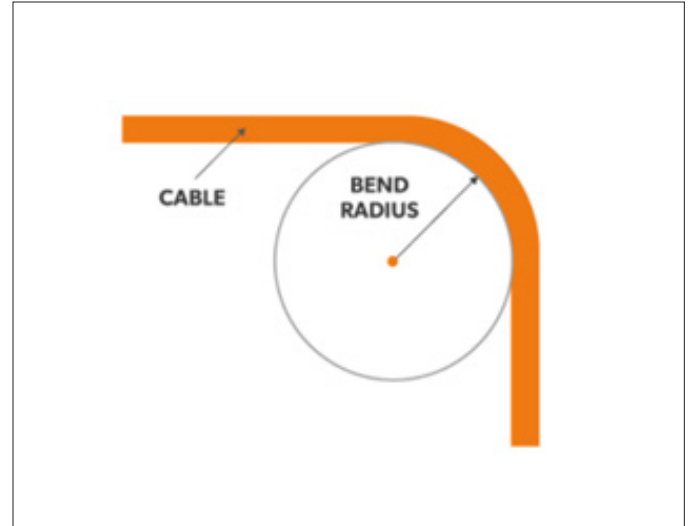
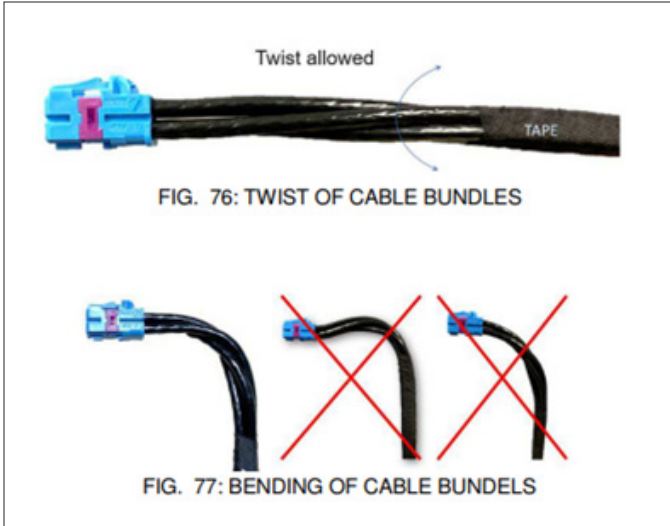
**4**

**If you encounter a cable that is fails, the tug test of a locked connection:**

1. Remove the cable and replace and repeat test.
2. Open a service ticket directly with Stoneridge Support Team. Ticket can be generated by emailing [Incident@stoneridge.com](mailto:Incident@stoneridge.com), please be sure to include the vehicle asset or unit number, registered vehicle owner, your contact information, Name, phone number. Or submit a new ticket via the Stoneridge Service Portal at [Stoneridge.app](https://stoneridge.app) (This does require registration and log on access to the page.)
3. Keep the cable for return to Stoneridge, RMA shipping label and instructions will be provided via the service ticket communication.



## 5. Minimum Allowed Bending Radii



For correct data transmission through the COAX cables, it is important to route the cables in such a way that the minimum bending radius is ensured. Installing the cables with a bending radius smaller than the minimum bending radii specified in this document could result in partial, temporary or permanent loss of image on the displays.

### Minimum bending radius of the COAX cables:

No.	Cable	Single bend	Multiple bends
2	ECU to wing-pigtail	16.5mm	51mm
2	ECU to monitor	16.5mm	51mm
3	Wing-pigtail	8.7mm	29mm

Cable mounting clips and ties are permitted. Make sure that the clamping force of a clip or tie is just adequate to prevent unwanted movement. Clamping forces shall not be too high: the COAX cables may not be 'strangled'. Too high clamping forces will deteriorate the signal quality from the camera to the electronic control unit, could result in partial, temporary or permanent loss of image on the displays.

1



Driver side template alignment refer to picture.

2



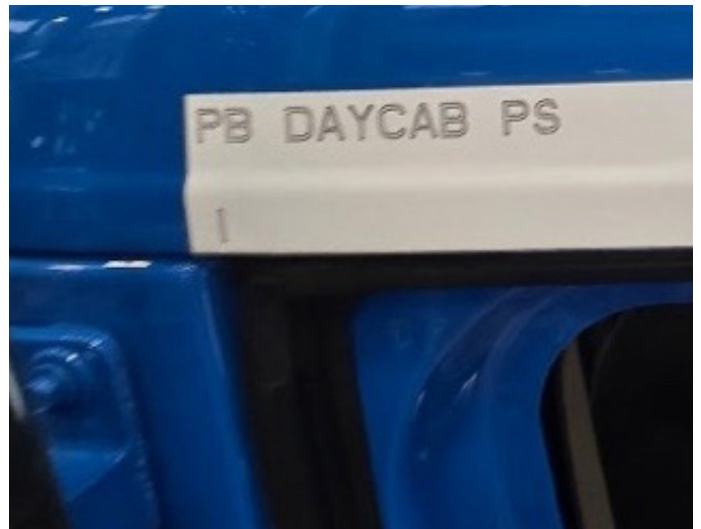
Alignment upm template needs te be in parallel with door seal.

3



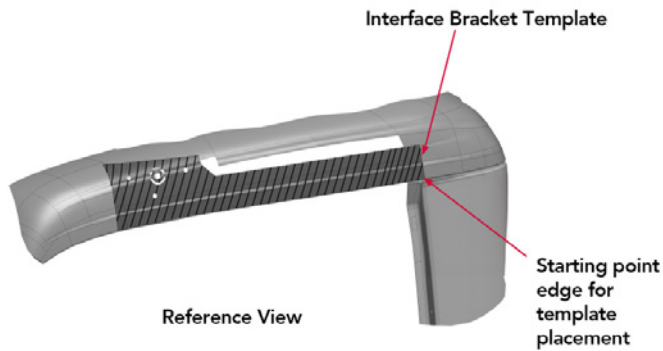
Passenger side template alignment refer to picture.

4



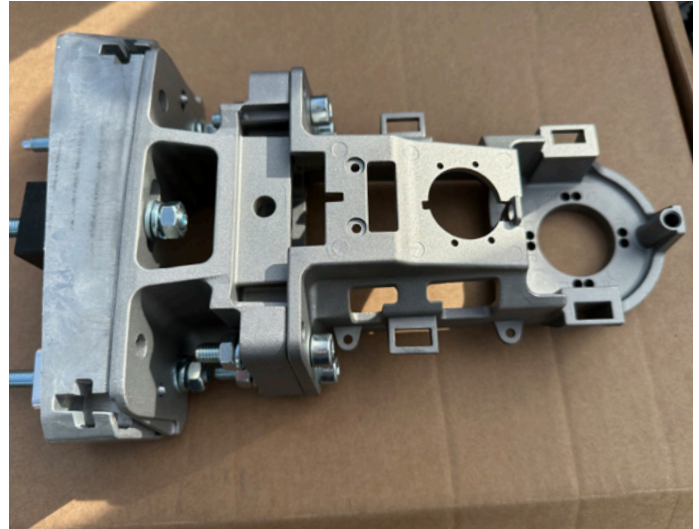
Alignment upm template needs te be in parallel with door seal.

1



Use template provided to identify mounting M8 mounting hole locations (3), and center-located 1" cable pass-through hole

2



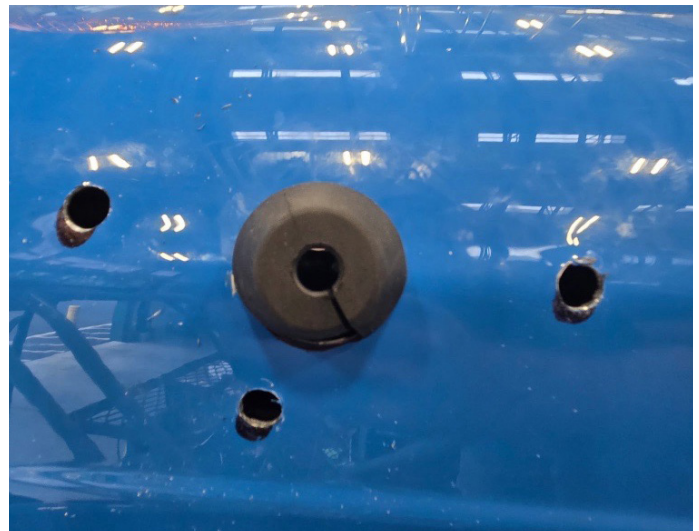
The passenger side camera/arm assembly consists of four components: (1) Backplate Bracket (interior side) (2) Interface Bracket (exterior side) (3) Extension Bracket (4) Main Bracket/Arm

3



Identify the Backplate Bracket, then affix from interior of passenger side (depicted) with corresponding M8 two-way screw set

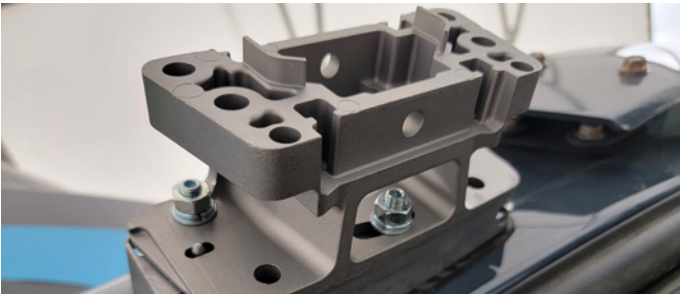
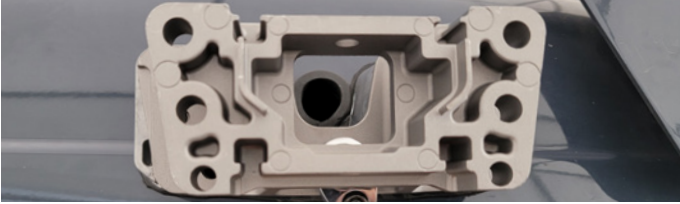
4



Place relating exterior gasket and center-hole grommet in place, then align the Interface Bracket by with the M8 two-way screw set



6



Align and attach the Extension Bracket with corresponding nuts/M8 two-way screw set

7



Route the relating passenger side harness and coax cables relating to Wing Camera and Class V (blind spot) camera through cable pass-through hole

8



Attach the Main Bracket/Arm with corresponding screw set and route affiliated cables/connections

9



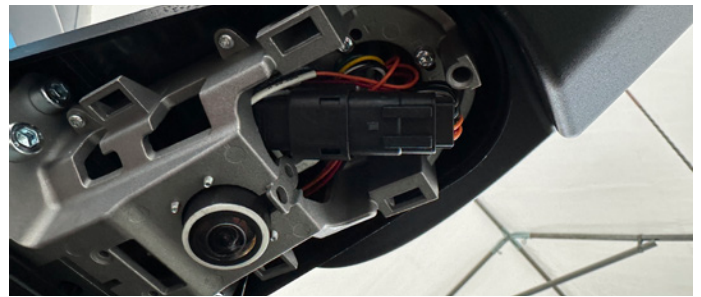
Affix upper and lower Extension Covers

10



Install the Class V (blind spot) camera in the center position of the Main Bracket/Arm (as depicted), while being careful to not scratch/damage the lens

11



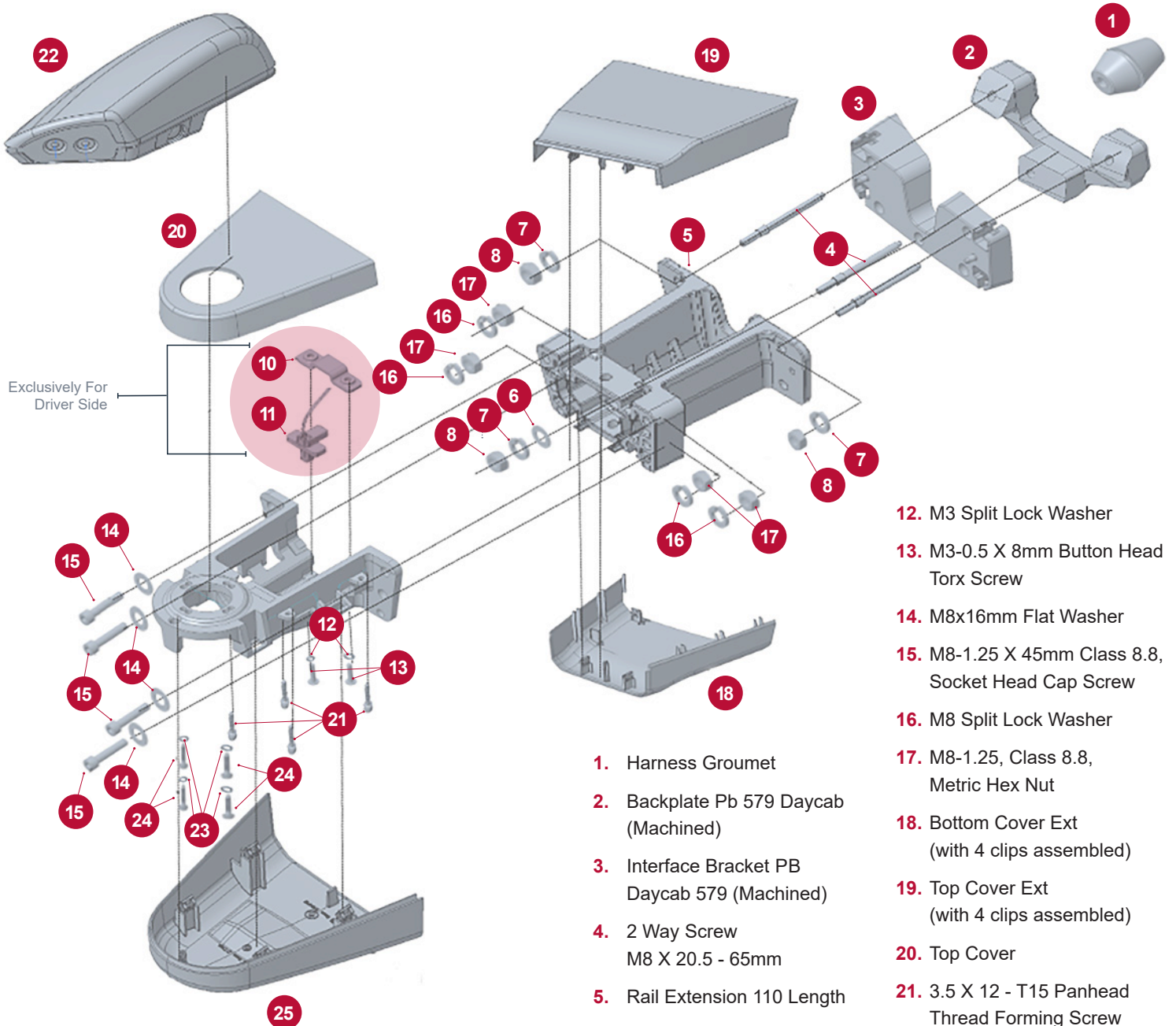
Using the corresponding fastener set, install upper and lower covers to the Main Bracket/Arm

12



Install passenger side camera wing to Main Bracket/Arm (completed passenger side arm/camera, assembly depicted)

1

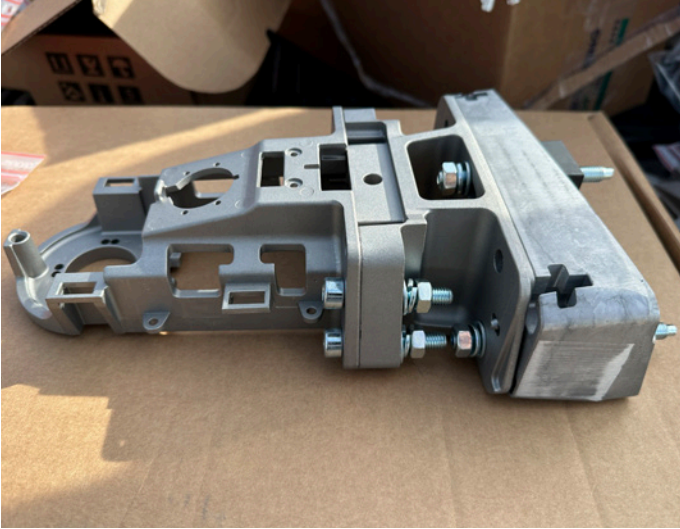


1. Harness Grommet
2. Backplate Pb 579 Daycab (Machined)
3. Interface Bracket PB Daycab 579 (Machined)
4. 2 Way Screw M8 X 20.5 - 65mm
5. Rail Extension 110 Length
6. M8x20mm Flat Washer
7. M8 Split Lock Washer
8. M8-1.25, Class 8.8, Metric Hex Nut
9. Main Bracket
10. Bracket OAT Sensor
11. OAT Sensor
12. M3 Split Lock Washer
13. M3-0.5 X 8mm Button Head Torx Screw
14. M8x16mm Flat Washer
15. M8-1.25 X 45mm Class 8.8, Socket Head Cap Screw
16. M8 Split Lock Washer
17. M8-1.25, Class 8.8, Metric Hex Nut
18. Bottom Cover Ext (with 4 clips assembled)
19. Top Cover Ext (with 4 clips assembled)
20. Top Cover
21. 3.5 X 12 - T15 Panhead Thread Forming Screw
22. Wing Assembly (not included in bracket assembly kit )
23. M4 Split Lock Washer
24. M4x0.7 Pilot Screw 18mm
25. Bottom Cover (with 4 clips assembled)

Identify and review relating components



2



The driver side camera/arm assembly consists of four components: (1) Backplate Bracket (interior side) (2) Interface Bracket (exterior side) (3) Extension Bracket (4) Main Bracket/Arm

3



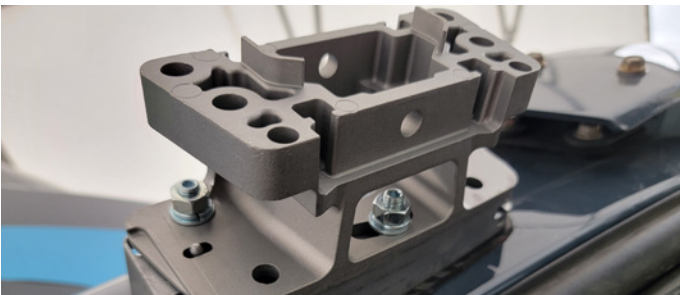
Identify Backplate Bracket, then affix from interior of driver side (depicted) with corresponding M8 two-way screw set

4



Place relating exterior gasket and center-hole grommet in place, then align the Interface Bracket by with the M8 two-way screw set

6



Align and attach the Extension Bracket with corresponding nuts/M8 two-way screw set

7



Ensure the relating driver side harness and coax cables is routed through cable pass-through hole and mounted brackets

8



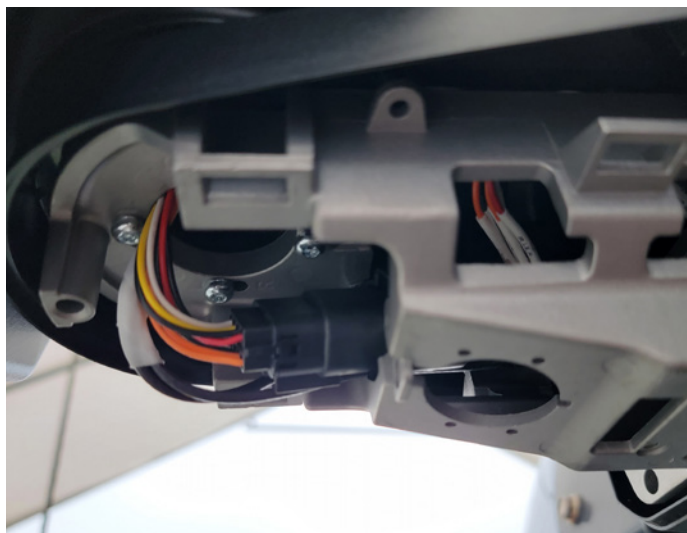
Attach the Main Bracket/Arm with corresponding screw set and route affiliated cables/connections. Affix upper and lower Extension Covers

9



Using the corresponding fastener set, install upper cover to the Main Bracket/Arm

10



Before affixing lower cover, ensure the assembly of the Main Bracket/Arm (depicted) and all connections are secure and unkinked

11



Install driver side camera wing to Main Bracket/Arm (completed driver side arm/camera assembly depicted)

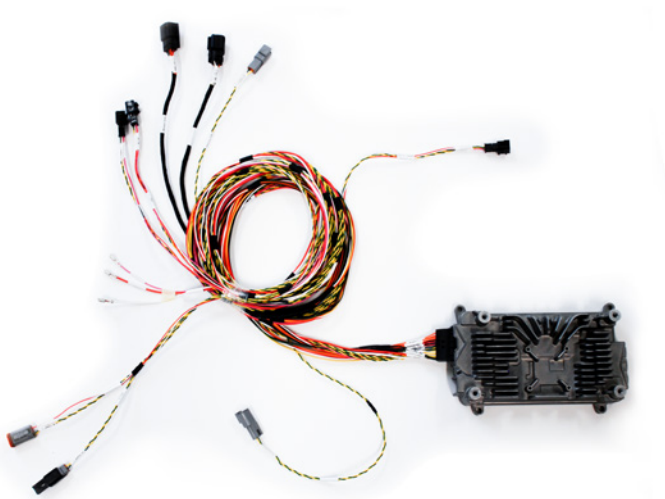


1



Confirm the system powers up properly and that all monitors are showing the correct feed from their respective cameras

2



Make sure the main harness and relating cables/connections are properly seated in the dash, A-pillar(s), console or headliner locations

3



Re-install all panels, upper console, covers and headliner to their original configuration(s). Be mindful of harness/cable placement to avoid kinking during re-installation

A close-up photograph of a black plastic side mirror housing on a vehicle. Two circular camera lenses are visible, each surrounded by a white ring. A horizontal red line is positioned below the cameras.

# System Alignment/ Calibration

## SYSTEM ALIGNMENT/CALIBRATION

---

# Alignment of Cameras

This step may require temporary removal of the camera wing cover in order to adjust camera angle and field of view



## SYSTEM ALIGNMENT/CALIBRATION

### Alignment of Cameras

1



Verify field of view for all three cameras

2



The Class V camera should show as parallel to the truck's body and should be positioned to maximize the outward view

3



For the driver side camera view make sure that the horizon is parallel to the top of the monitor screen. Align the inside edge of the camera view to be parallel with the fairing

4



Repeat the previous step (3) on the passenger side ensuring a similar field of view in both the driver side and passenger side monitors

## SYSTEM ALIGNMENT/CALIBRATION

---

# Calibration of Distance Lines

This step must be completed without a driver present

1



At the time of installation, the vehicle's distance lines **must** be calibrated in the MirrorEye® system ...

2



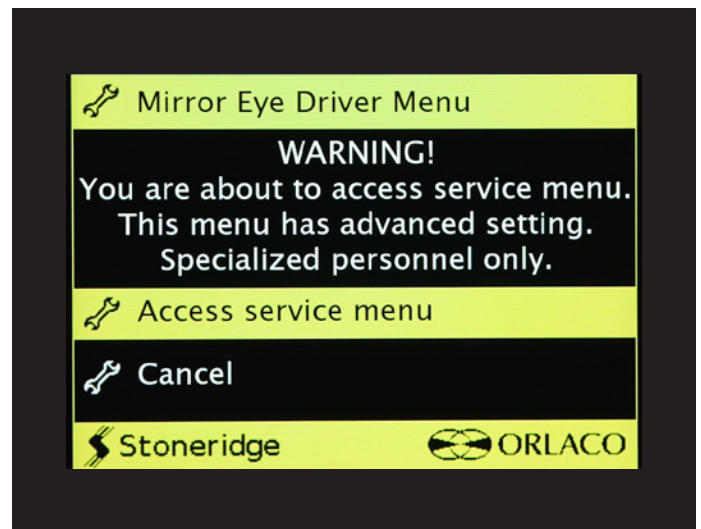
To do so, first bring up the Driver Menu by long-pushing (e.g., "push and hold") the lower-left button on the MirrorEye® Controller ...

3



Using the controller's dial knob, scroll down to the Exit selection, and **long-push the Driver Side Manual Panning button and Controller Knob simultaneously** ... this will bring access to advanced settings ...

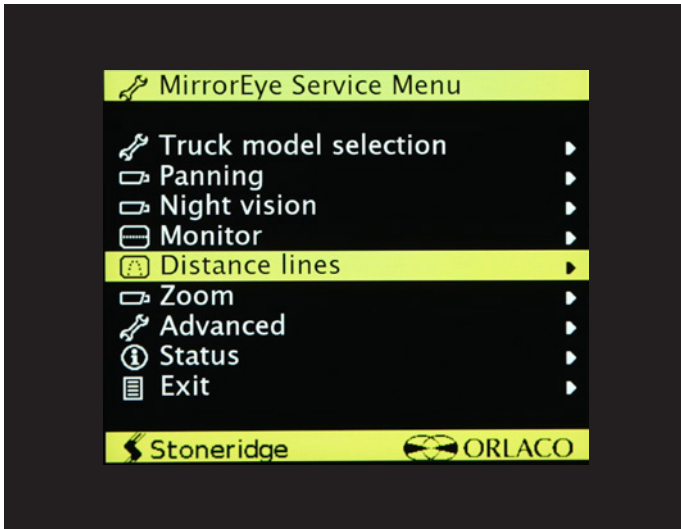
4



Warning message will appear... on the same page, "Access service menu" is default-selected, press the Controller Knob ...

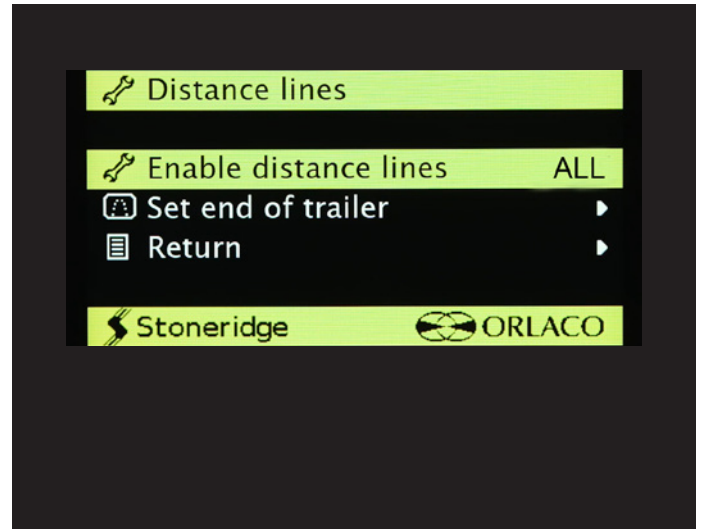


5



On the MirrorEye® Service Menu, dial-scroll to Distance Lines, then press the Controller Knob ...

6



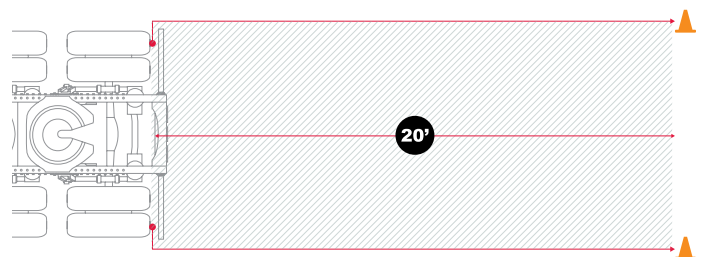
MirrorEye® installation technicians need to set the End of Trailer – or EOT – distance to calibrate the vehicle's distance lines ...

7



Before doing so, first place cones at the end of the trailer on both the driver and passenger sides of the truck ...

8



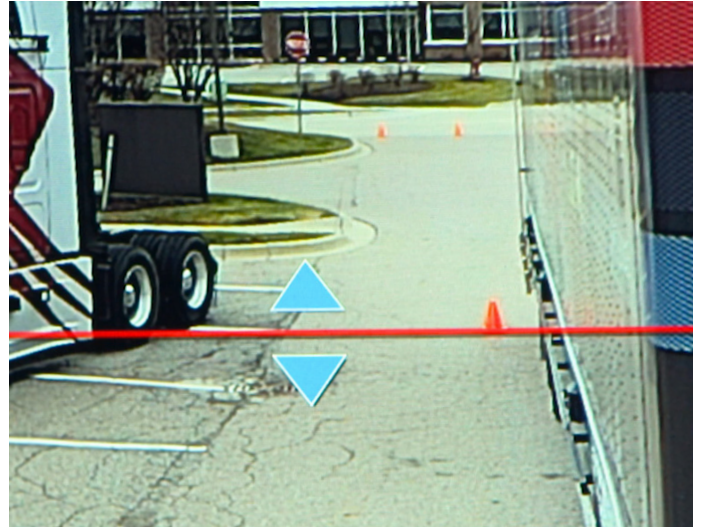
If a trailer isn't attached, measure 20-ft. from the first rear axle rearward and place a cone at that location on both sides of the vehicle (passenger and driver sides)

9



Back in the cab, dial-scroll to the "Set End of Trailer" selection and push the Controller Knob ...

10



Match the red line on the monitor with the cone at the end of the trailer on the Driver Side using the Dial Knob ... when it's aligned, push the Controller Knob ...

11



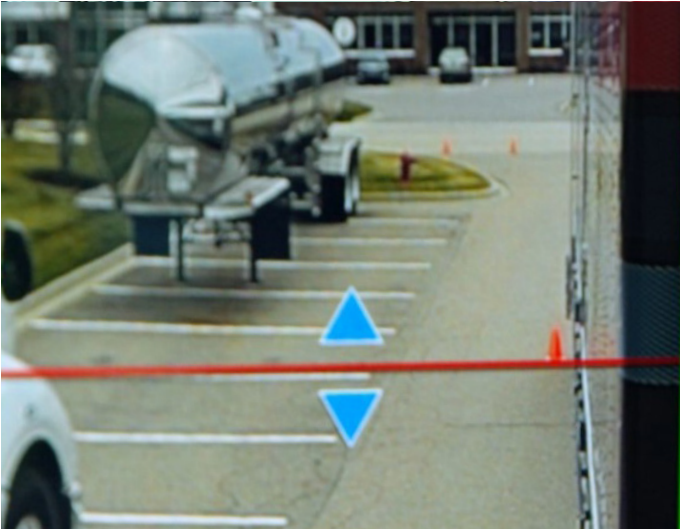
Once set, the correct driver-side distance lines are adjusted and displayed on the monitor ...

12



To match Passenger Side distance lines with those of the driver side, push and hold the lower-right button on the MirrorEye® Controller ...

13



Match the red line on the monitor with the cone at the end of the trailer on the Passenger Side using the Dial Knob ... when it's aligned, push the Controller Knob ...

14



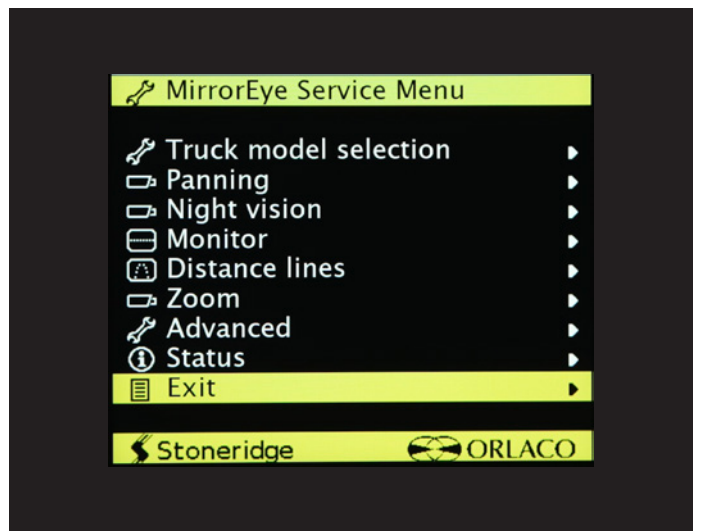
At this point, all distance lines for both sides of the truck are displayed and color-identified in red, yellow and green ...

15



To exit Distance Lines in the Service Menu, dial-scroll to Return and push on the Controller Knob ...

16



To exit the Service Menu, scroll down to Exit and press the Controller Knob again ...



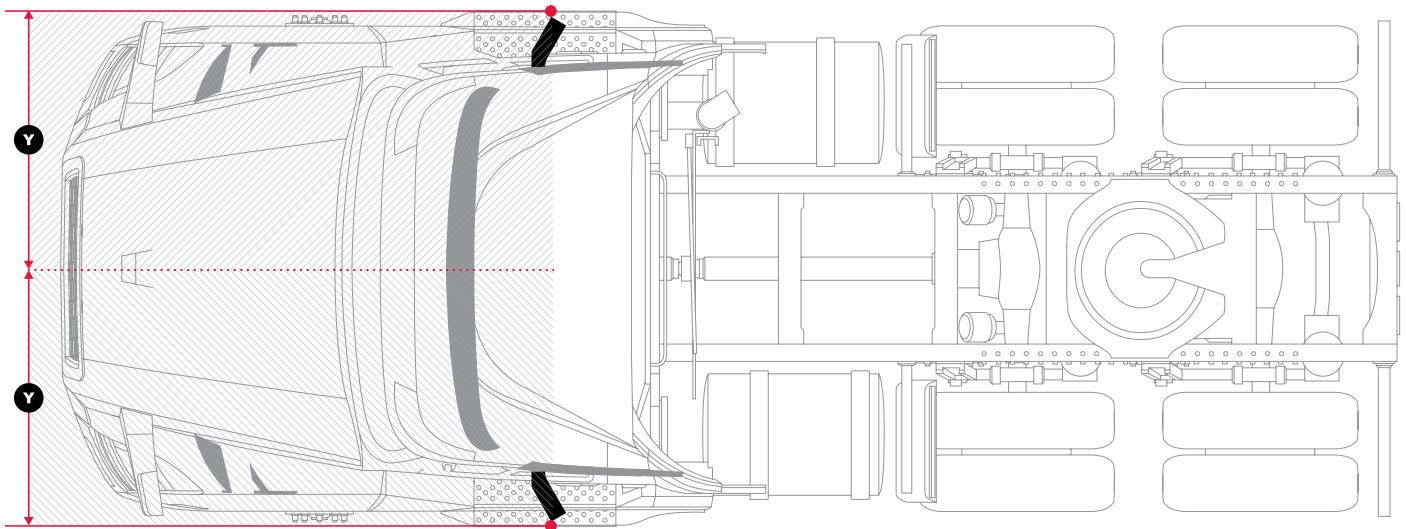
## SYSTEM ALIGNMENT/CALIBRATION

---

# Entering Critical Values

At the time of installation, key and critical vehicle measurements **must** be entered into the MirrorEye® system

1



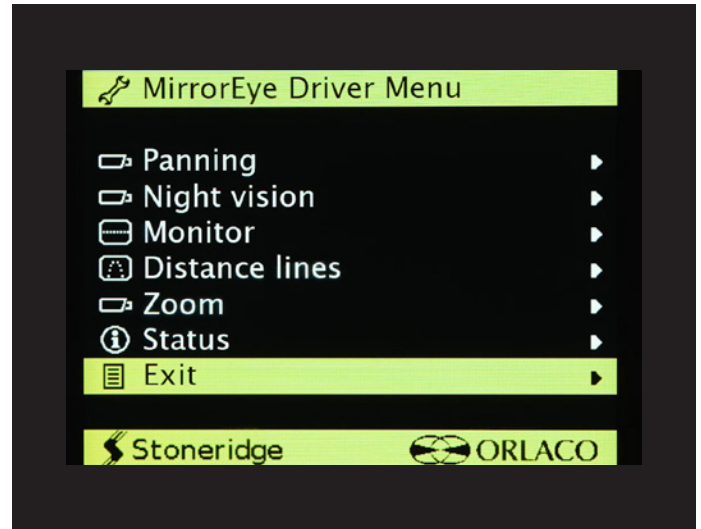
**Vehicle Application:** PACCAR Trucks North America

2



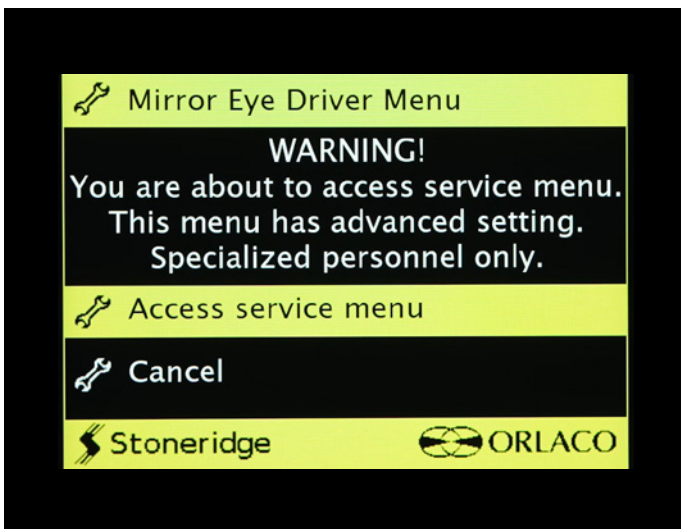
To do so, first bring up the Driver Menu by pushing and holding the lower-left button on the MirrorEye® Controller ...

3



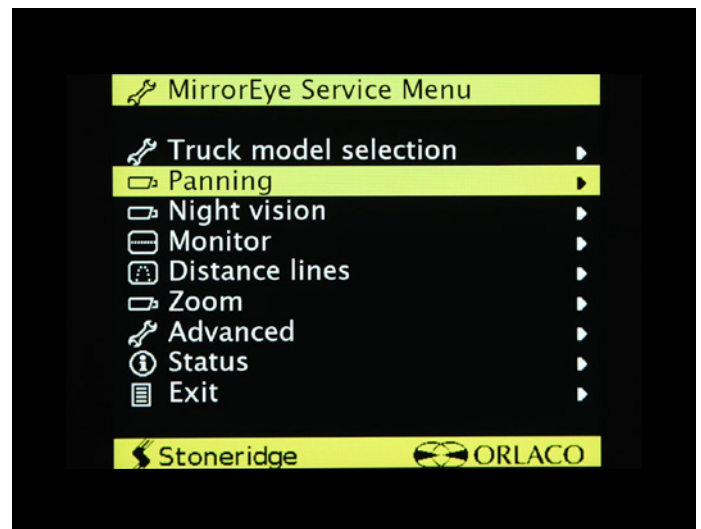
Using the controller's Dial Knob, scroll down to the Exit selection, then **push and hold the Driver Side Manual Panning button and Controller Knob simultaneously** ... this will bring access to advanced settings ...

4



A Warning message will appear ... on the same page, "Access service menu" is default-selected, press the Controller Knob ...

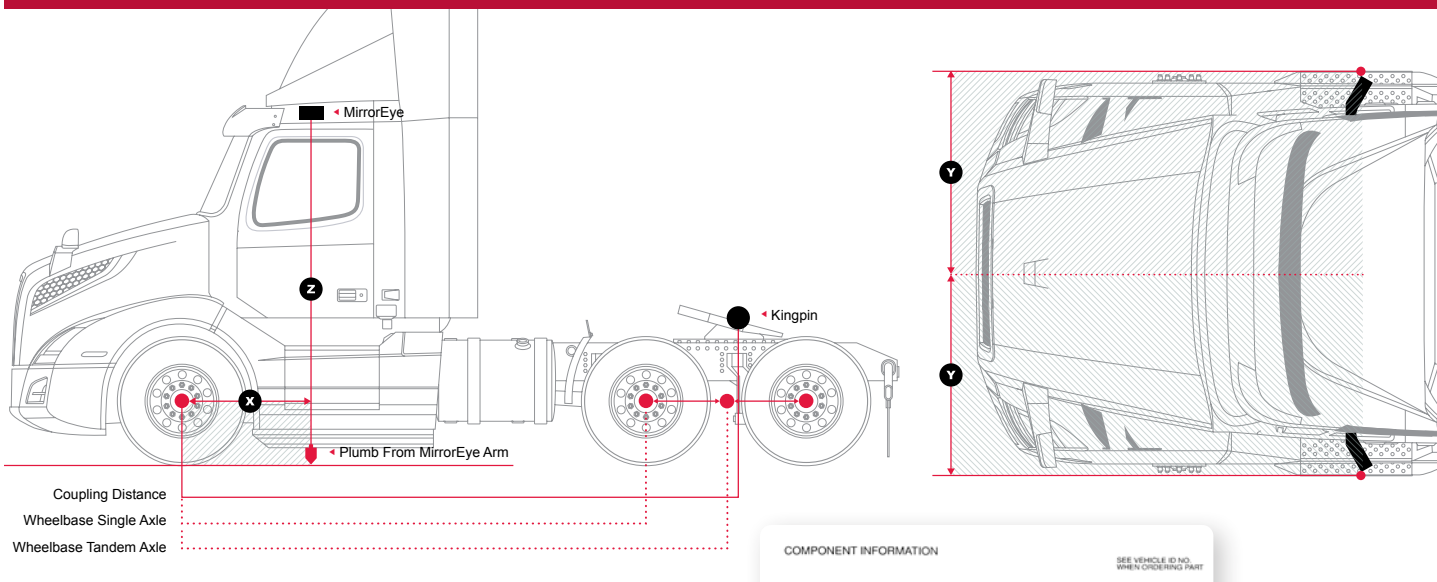
5



On the MirrorEye® Service Menu, dial-scroll to Panning, then press the Controller Knob ...



6



In the Panning service menu, the values/measurements relating to the vehicle's **wheelbase**, **steering ratio**, **coupling position** and **camera positions (X,Y and Z)** are accessed. All must be determined and entered into the MirrorEye® system at the time of installation.

7



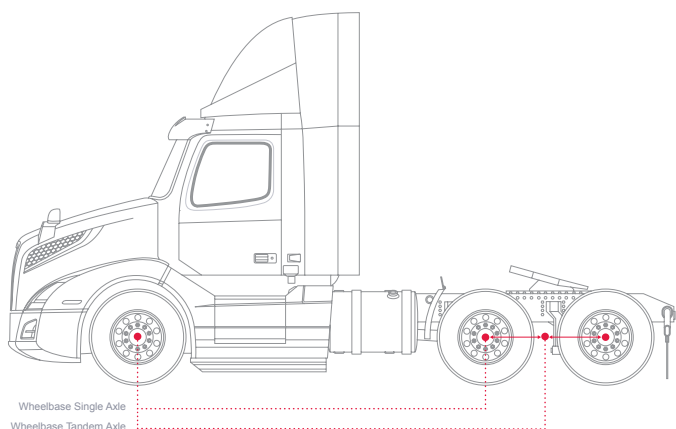
To adjust the **Wheelbase**, scroll to the selection in the Panning menu and press the Controller Knob ...

8



Most trucks will have an OEM decal in the door jamb that carries the wheelbase value, and usually in standard measurements (e.g., "inches"). **Be aware that all standard measurements for the wheelbase and other values will need to be converted to metric (e.g., "mm") before being entering into the MirrorEye® system.** Conversion tables are readily available online.

9



The wheelbase is measured from the center of the front axle to the center of the rear axle group

10

Panning	
Trailer length (mm)	15900
Trailer width (mm)	2600
Truck wheel base (mm)	5760
Steering ratio	21.50
Coupling position (mm)	4100
Stoneridge ORLACO	

Use the Dial Knob to adjust the millimeter value in the green box until the proper value is found, then press the Controller Knob ...

... to lock the value in, press the Controller Knob again ...

11

Panning	
Trailer length (mm)	15900
Trailer width (mm)	2600
Truck wheel base (mm)	5670
Steering ratio	18.50
Coupling position (mm)	4100
Stoneridge ORLACO	

To adjust the **Steering Ratio**, scroll to the selection in the Panning menu and press the Controller Knob ...

12

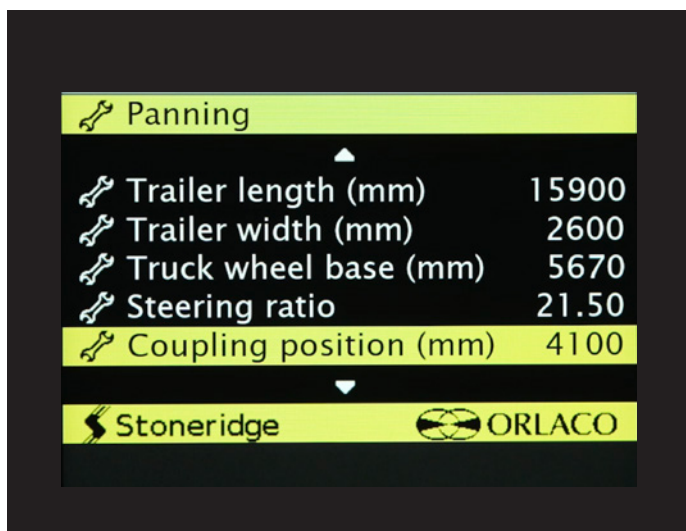
Panning	
Trailer length (mm)	15900
Trailer width (mm)	2600
Truck wheel base (mm)	5670
Steering ratio	18.50
Coupling position (mm)	4100
Stoneridge ORLACO	

Be aware that the steering wheel ratio for all trucks – regardless of make or model – **should be set to 18.50**

Use the Dial Knob to adjust the steering ratio to 18.50, then press the Controller Knob...

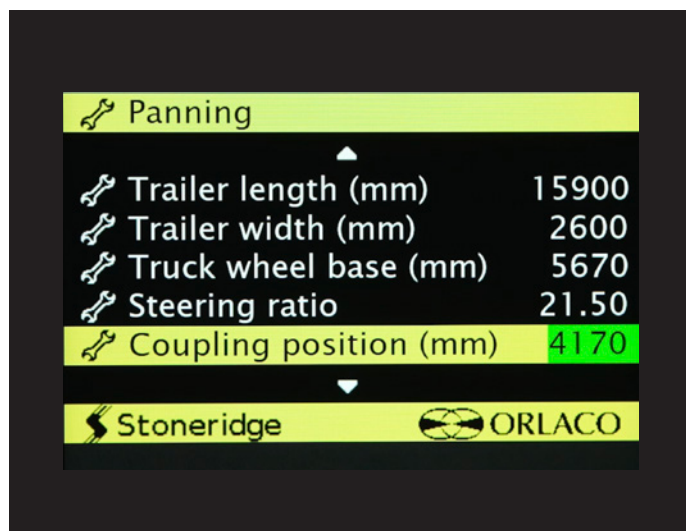
... to lock the value in, press the Controller Knob again ...

13



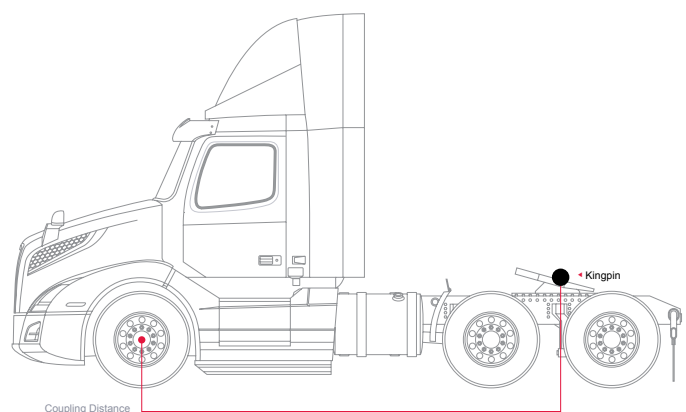
To adjust the **Coupling Position**, scroll to the selection in the Panning menu and press the Controller Knob ...

14



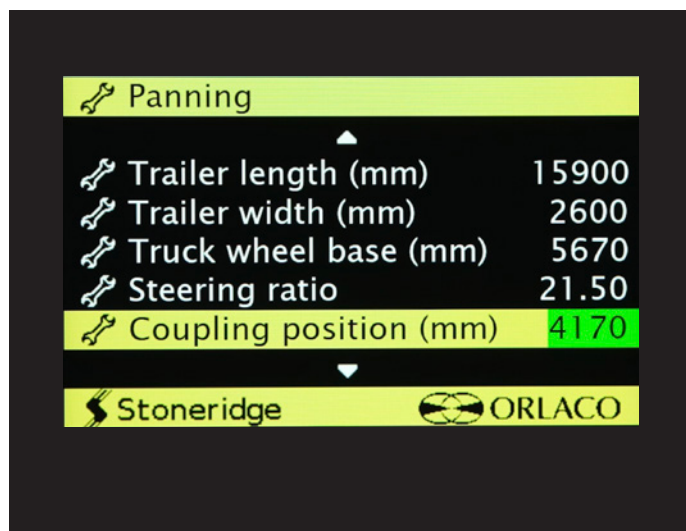
Be aware that the Coupling Position value needs to be entered in millimeters. All standard measurements (e.g. "in inches") will need to be converted before entering values into the system. Conversion tables are readily available online.

15



The Coupling Position is measured from the center of the front axle of the truck to the King Pin position on the fifth wheel ...

16

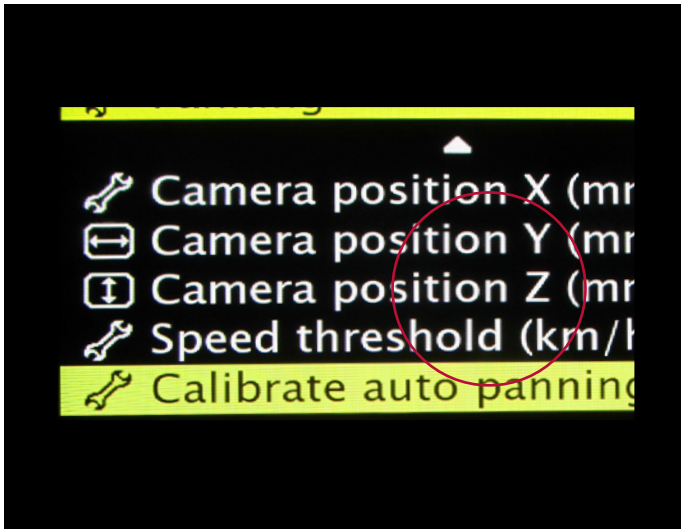


Use the Dial Knob to adjust the millimeter value in the green box until the proper value is found, then press the Controller Knob ...

... to lock the value in, press the Controller Knob again ...

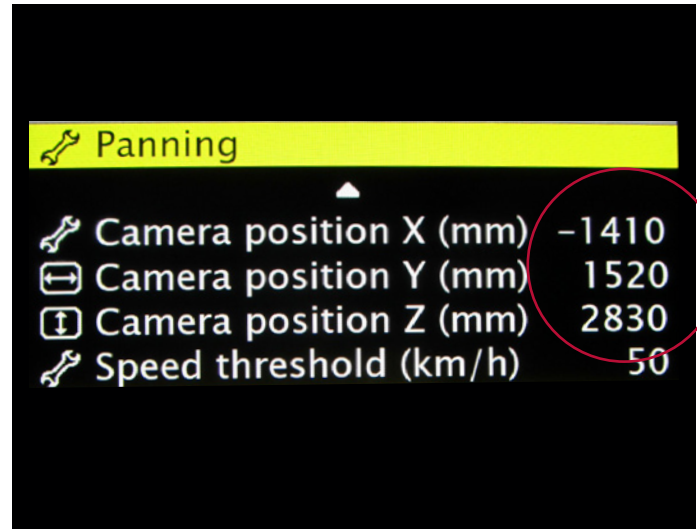


17



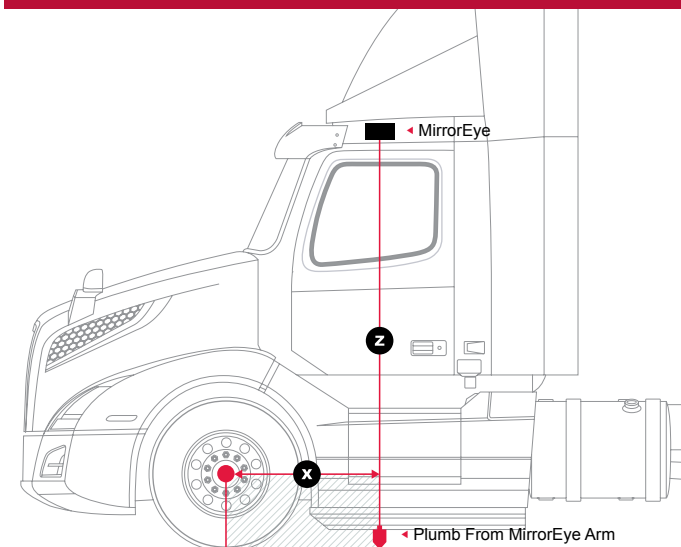
To adjust the **camera position values – X, Y, or Z** – scroll to the relating position in the Panning menu and press the Controller Knob ...

18



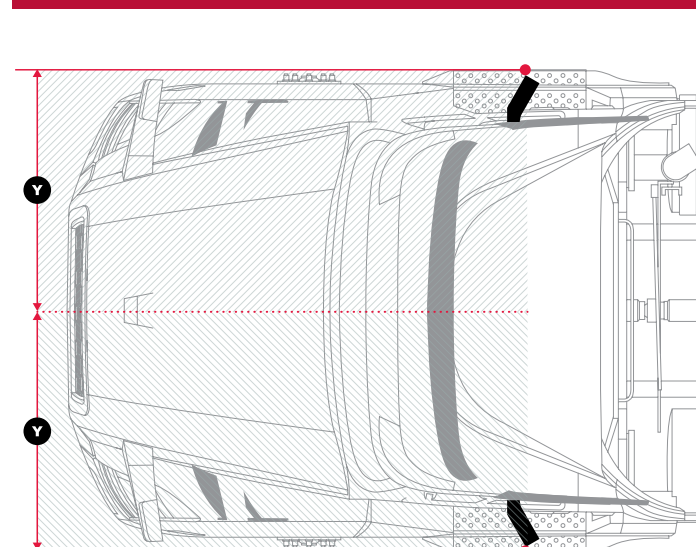
Be aware that all camera position values need to be entered in millimeters. All standard measurements (e.g. "in inches") will need to be converted before entering values into the system. Conversion tables are readily available online.

19



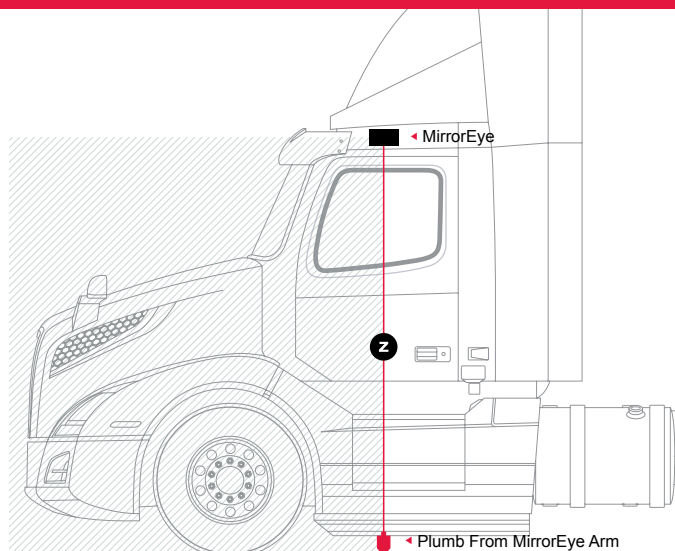
The camera position X value is the distance from the **Center Line of Front Axle to the Camera Lens** (plumb bob from camera lens to ground)

20



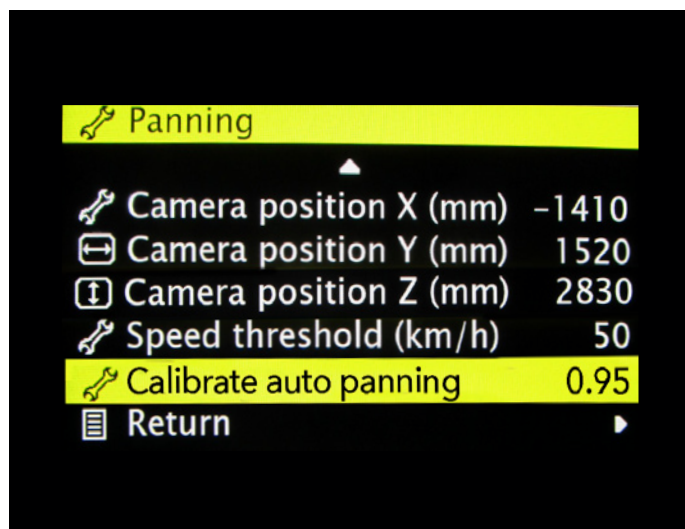
The camera position Y value is the distance from the **Center Line of the Truck to the Camera Lens** (plumb bob from camera lens to ground)

21



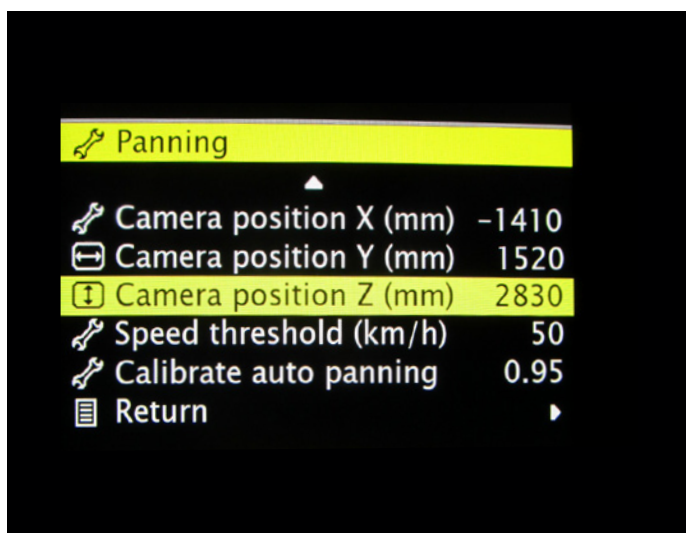
The camera position Z value is the distance from the **Ground to Camera Lens** (plumb bob from camera lens to ground)

22



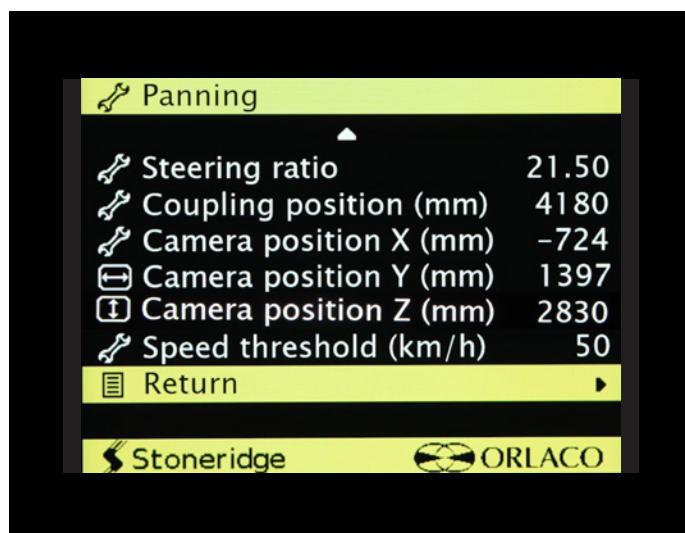
The default setting for "Calibrate auto panning" for all versions of MirrorEye should be 0.95. If your auto panning setting is not 0.95, make sure to do so

23



Use the Dial Knob to adjust any of the camera position X, Y or Z values, then press the Controller Knob ...  
.... to lock the value in, press the Controller Knob again ...

24



To exit Panning in the Service Menu, dial-scroll to Return and push on the Controller Knob ...

25



To exit the Service Menu, scroll down to Return and press the Controller Knob again ...





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# MirrorEye® Activation Process

# Activation

## (Required)

The following provides the steps necessary to activate the MirrorEye® system with Cloud Services for GPS and Video Feeds. If not already in hand, begin by downloading/reviewing the BASIC PROCESS PDF, which can be accessed at:

<https://www.stoneridge.app/en/help/how-to-cloud-activate-mirroreye-i-mk-ii>

**ALERT:** Before starting the activation process, make sure to have the following information available before submitting an activation form. It is imperative to for installers to take clear, decipherable photos of the serial numbers of the following components:

- The FleetArc FA470 Device ID #
- The VIN (or temporary VIN) of the Vehicle
- The Asset ID # or temporary internal ID # of the Vehicle
- The ECU # of any Monitor or Wing Camera (only one number needed)

### STEP 1.

Make sure the truck is turned on, with enough gas for any additional time it may take to activate your MirrorEye® system.

**NOTE:** Activation should take approximately 15 to 20 minutes, however in some cases, due to part failure or installation error, expect up to 4 hours for troubleshooting and communication with a developer or engineer.

### STEP 2.

Visit <https://www.stoneridge.app/activate>; enter truck information and device information and click "Submit." Any additional information you submit is optional and may improve the processing speed of your ticket.

### STEP 3.

#### Request Received

You should receive an email notification of your activation request, and the status of your ticket. If you have any questions or challenges, please reply to that email, or send a message to [incident@stoneridge.app](mailto:incident@stoneridge.app) or visit <https://www.stoneridge.app/tickets> to view the status of your tickets.

**NOTE:** If you do not have access to the portal to view tickets, you can request access here: <https://www.stoneridge.app/access>

### HOW TO CONTACT YOUR SERVICE TEAM

#### Email

[incident@stoneridge.app](mailto:incident@stoneridge.app)

#### Help Center Phone

888.624.4474

#### Help Center Hours

Monday - Friday  
8:00 a.m. - 8:00 p.m. EST

#### Visit Help Center

<https://www.stoneridge.app/help>

#### Reply to Emails

You can reply to any email you receive from the Service Team.

### STEP 4.

#### Request Processing

Your ticket will be submitted directly to a Stoneridge service agent who will review any details and contact you via email or phone to follow up with any questions or errors.

### STEP 5.

#### Certification Approved

Stoneridge software developers and engineers are on call to ensure a successful installation and activation. When installation is successful you will receive an email with details of the successful activation.



Better Safety Through Better Vision™