



Installation Guide
MK II System

SLEEPER CAB

July 22, 2025

MirrorEye®

PACCAR Trucks North America

Ultra Loft & Kenworth, T680 High-Roof

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

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PACCAR Trucks North America

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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 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

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

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	Butane 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	Torque Wrench w/Adjustable Torque Settings	1	
Allen Wrench Set	Metric	1 set	
Allen Keys	#6, #5, #4, #3, #2.5, #2	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	

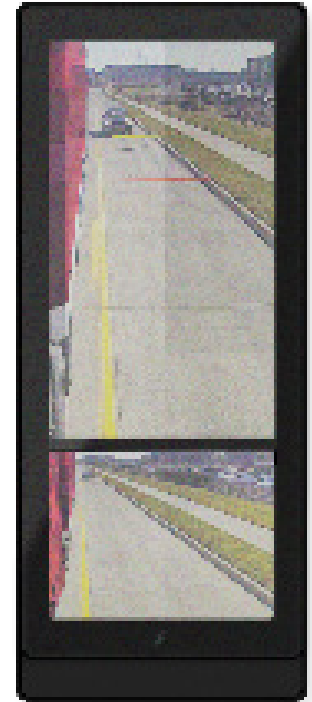
Class V Monitor



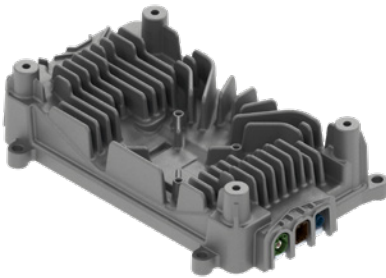
Driver Side Monitor (12")



Passenger Side Monitor (15")



Electronic Control Module (ECU)



Driver Side Camera (Right)



Passenger Side Camera (Left)



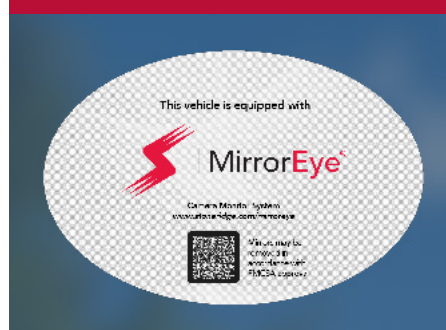
Blind Shot Camera (Right)



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



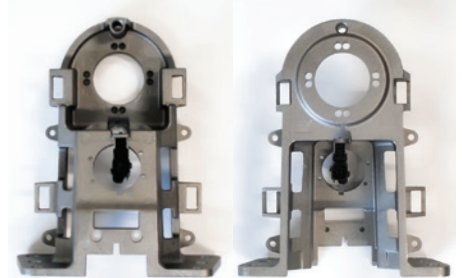
Class V Monitor Bracket (Right)



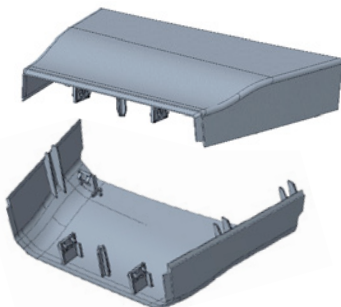
Ram Kit for Class V Monitor (Central)



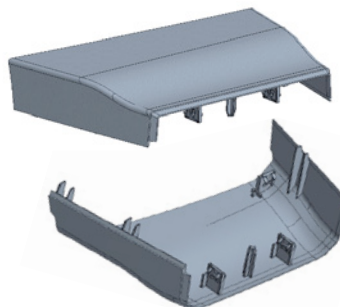
Main Brackets



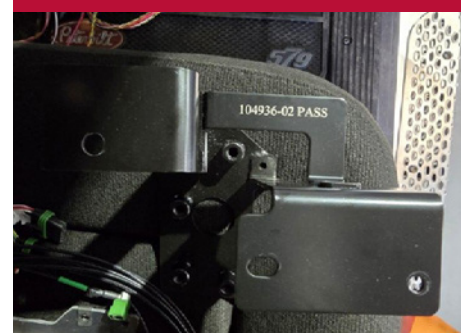
Top/Bottom Cover Extensions (Driver Side)



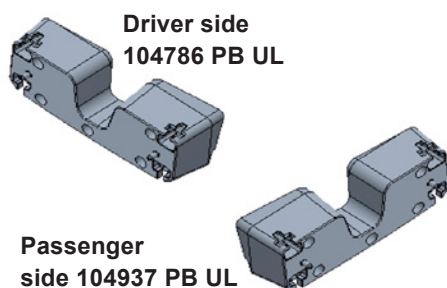
Top/Bottom Cover Extensions (Passenger Side)



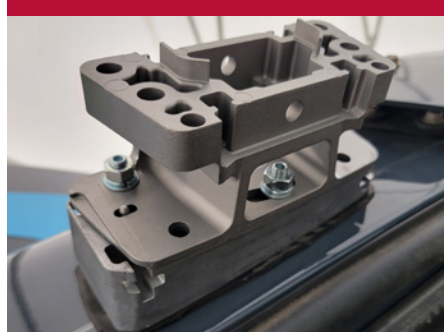
Backplate Bracket



Interface Brackets



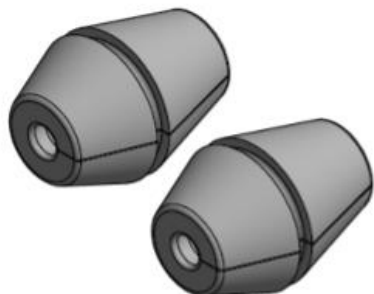
Extension Brackets



Vehicle Interface Fastener Set



Set Grommet MK II Harness



Driver Coax Cable



Passenger Coax Cable



Blind Spot Camera Coax



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



Controller Kit (Right)



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



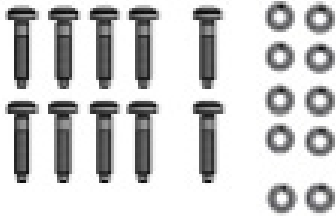
**Screws Kit for Monitor Interface
(Passenger Side)**



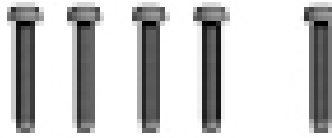
Wire Harness OAT Sensor



Set Fasteners Camera Arm



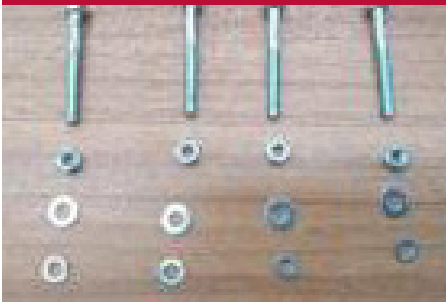
Set Fasteners Camera Bracket



Set Fasteners Monitor Interface Class V



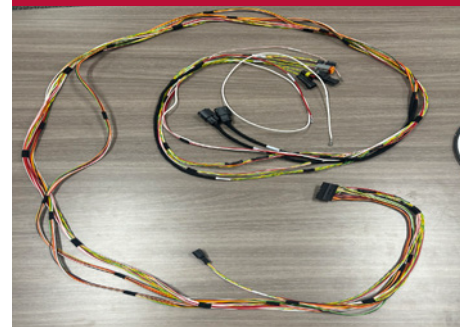
Hardware for ball mount for monitors



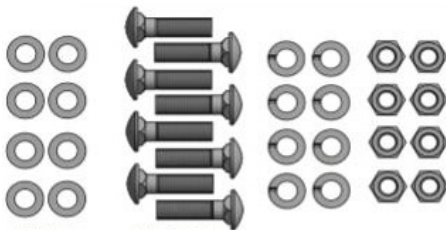
FA470 Cable



Main Harness



Set Fasteners Hood Cover



ECU - Bracket



ECU - Bracket Fastener Set



Set Fasteners Door Mirror Removal



Set Fasteners DVR Bracket



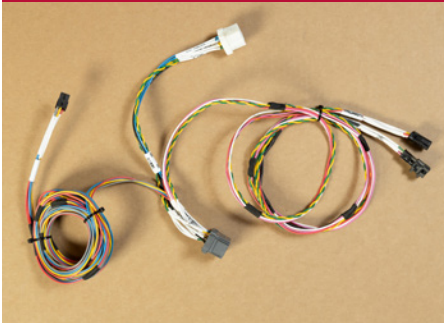
Ethernet Cable



USB



DVR Harness



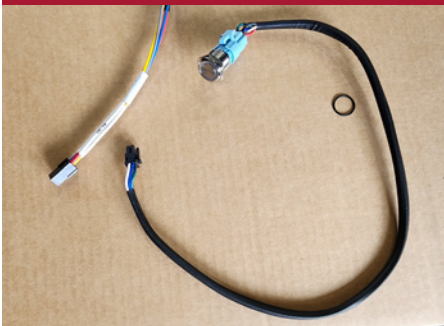
DVR



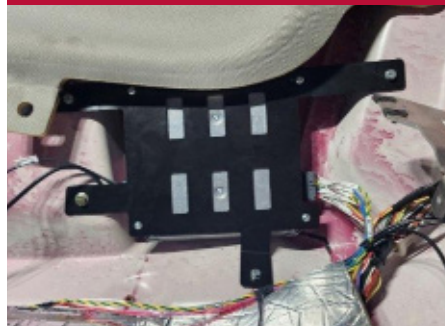
Connectivity Dongle (Optional)



DVR Trigger Cable



DVR secured to bracket



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	Complete activation. (page 65)	

1

Photo Documentation is Essential

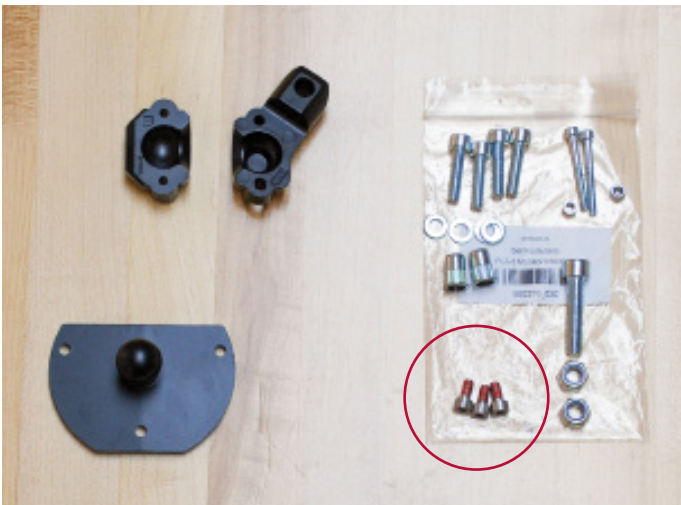
- 1** Prior to installation: take “before” pictures of the interior cab area(s) and exterior area above the door frame(s) – this helps ensure the truck is returned to its original condition
- 2** Make sure to take pictures noting any existing modifications or damage to the truck prior to beginning the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

2

Order of Installation

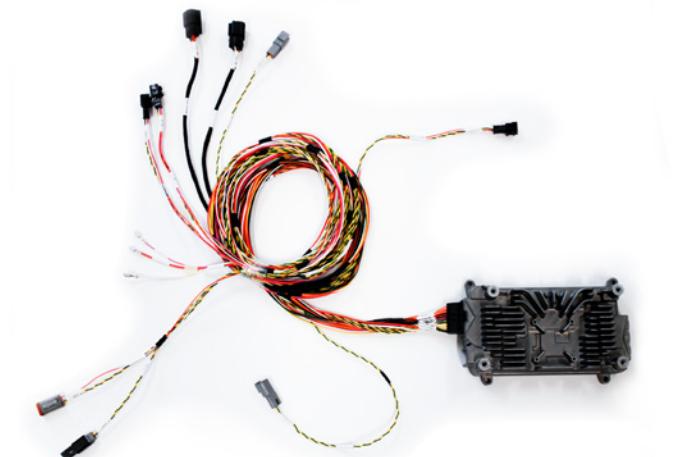
The task list (previous page) is ordered for the efficient installation of MirrorEye® components – however, installers should determine up front what order of installation works best for them.

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

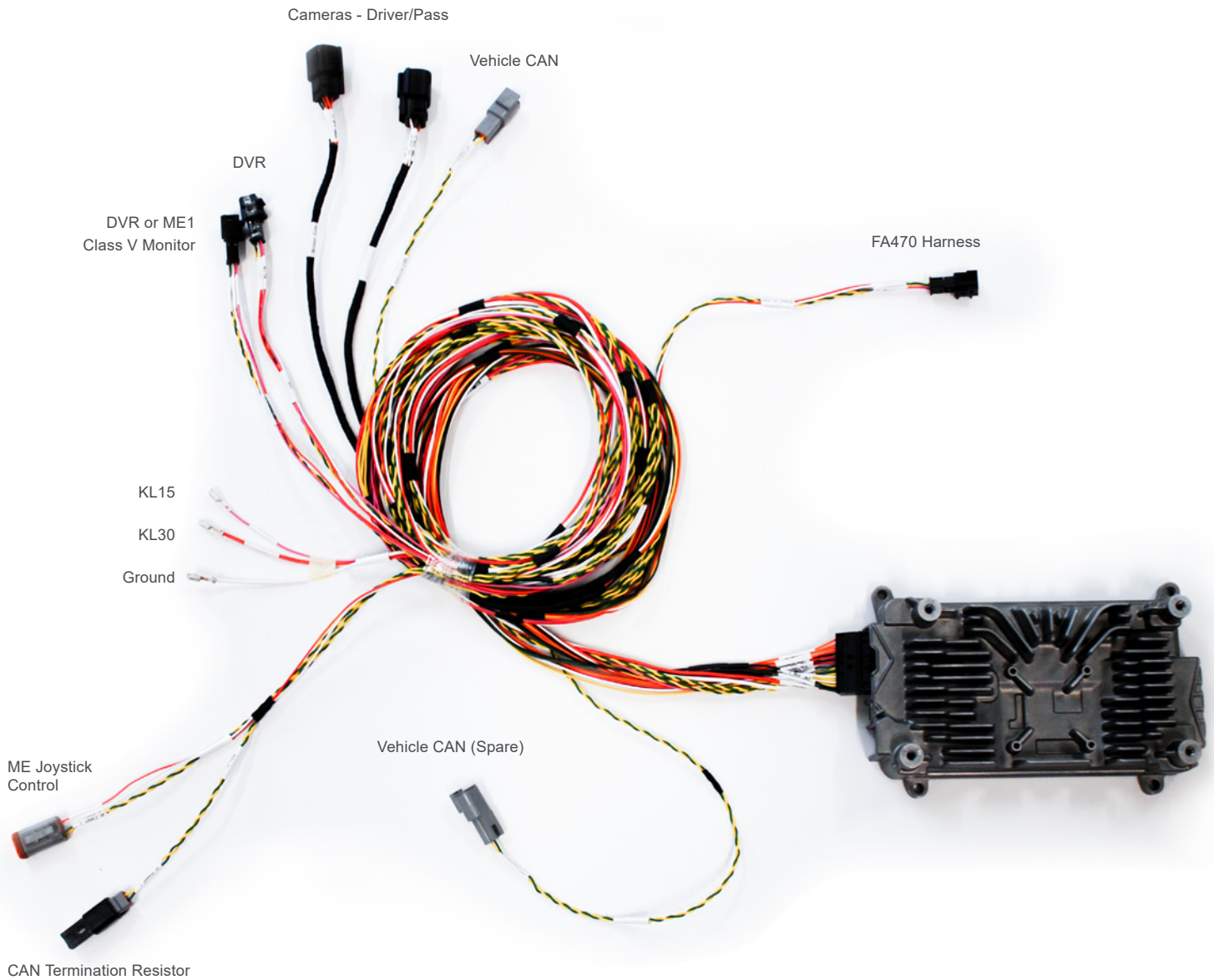


NOTE: On A-pillars, begin with removal of grab handles

Installation

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

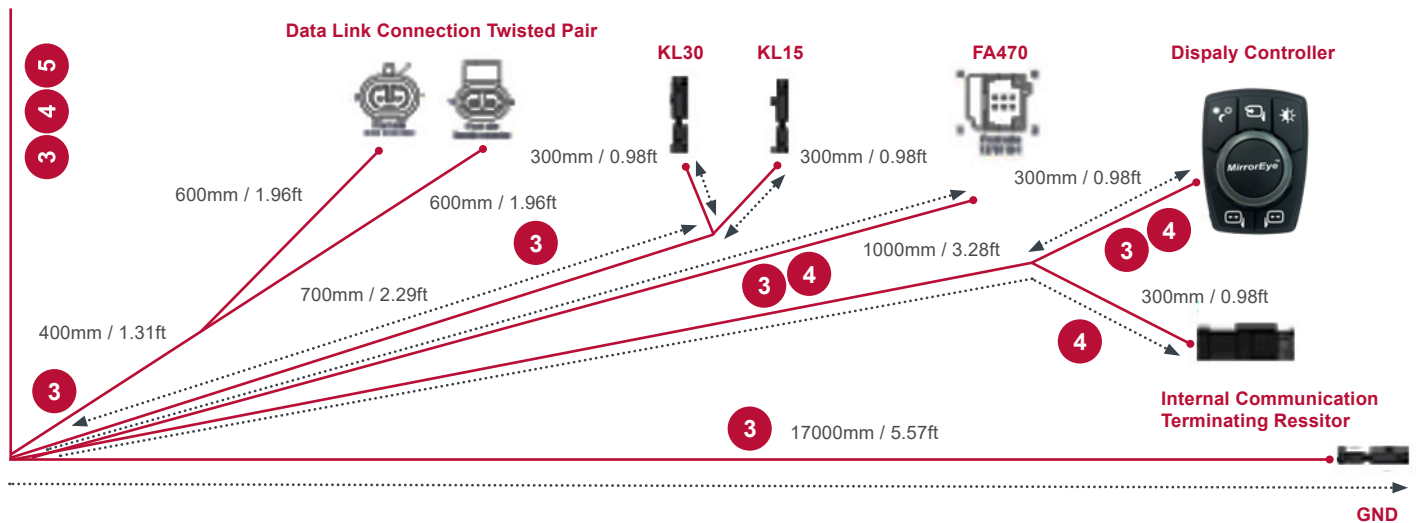
1



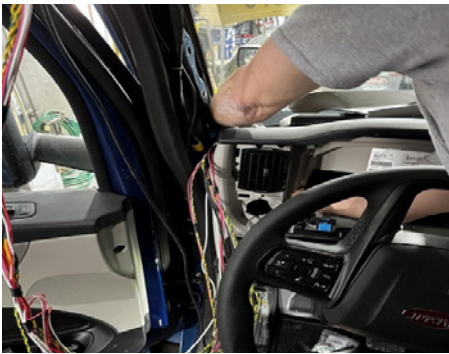
Become familiar with the main MirrorEye® ECU harness, it's orientation and any portion of the connection points

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

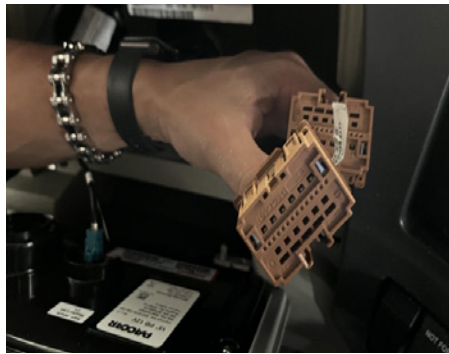


3



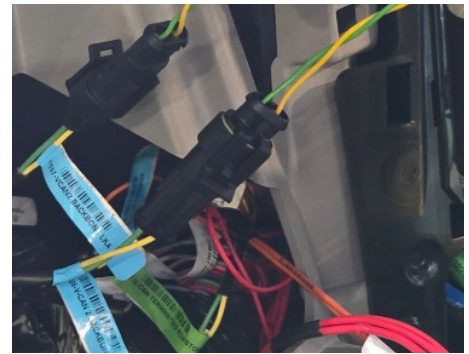
Main harness is routed through A-Pillar. Power ground and ignition are connected through factory ports. CAN-Connection is also connected behind cluster.

4



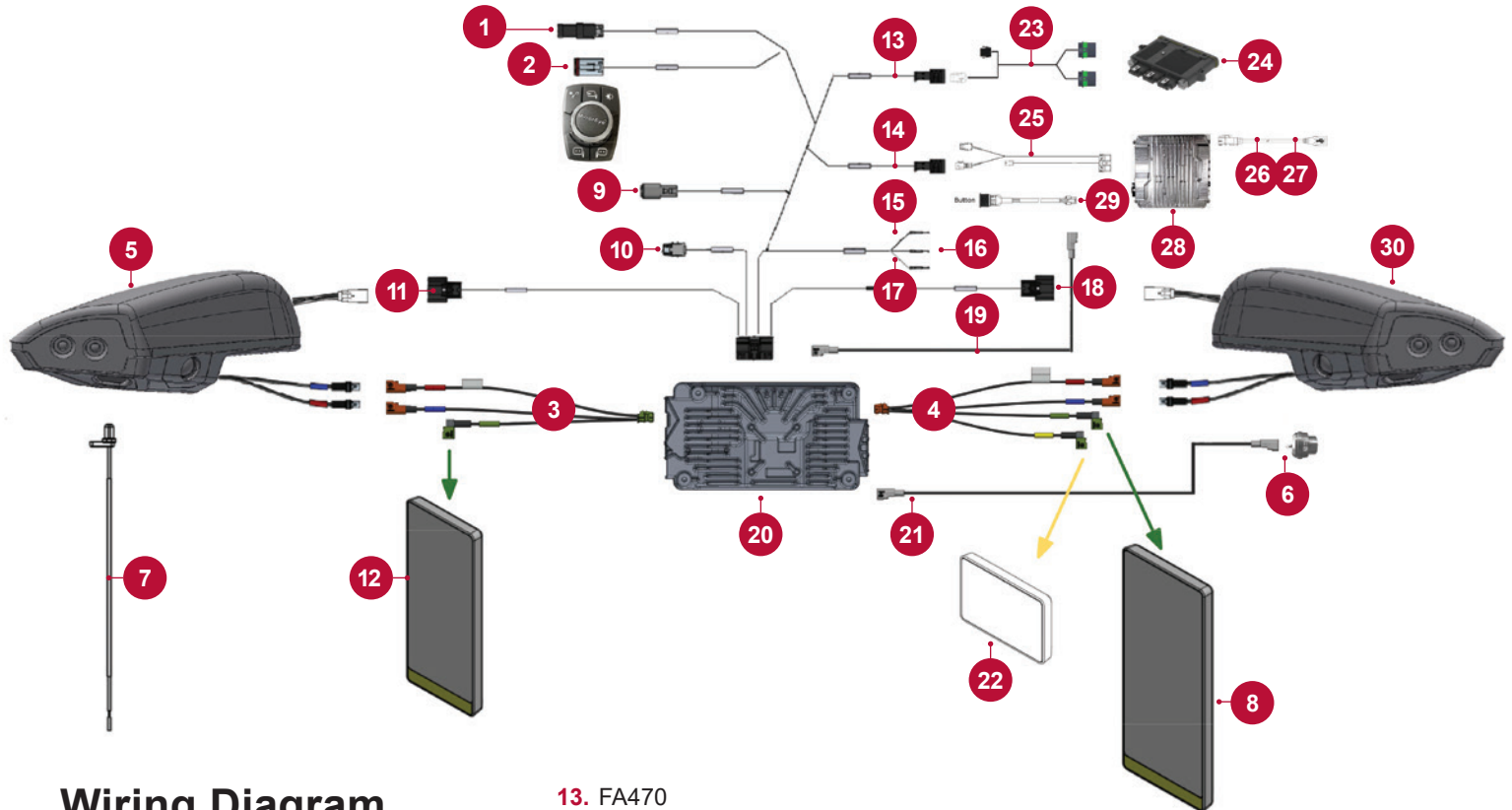
Power and ignition inputs are located behind driver cluster in dashboard. KL15 (orange) , KL30 (red) and Ground (white) are all terminated at the OEM splice packs located in dash, typically to the right of the steering wheel behind the radio.

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



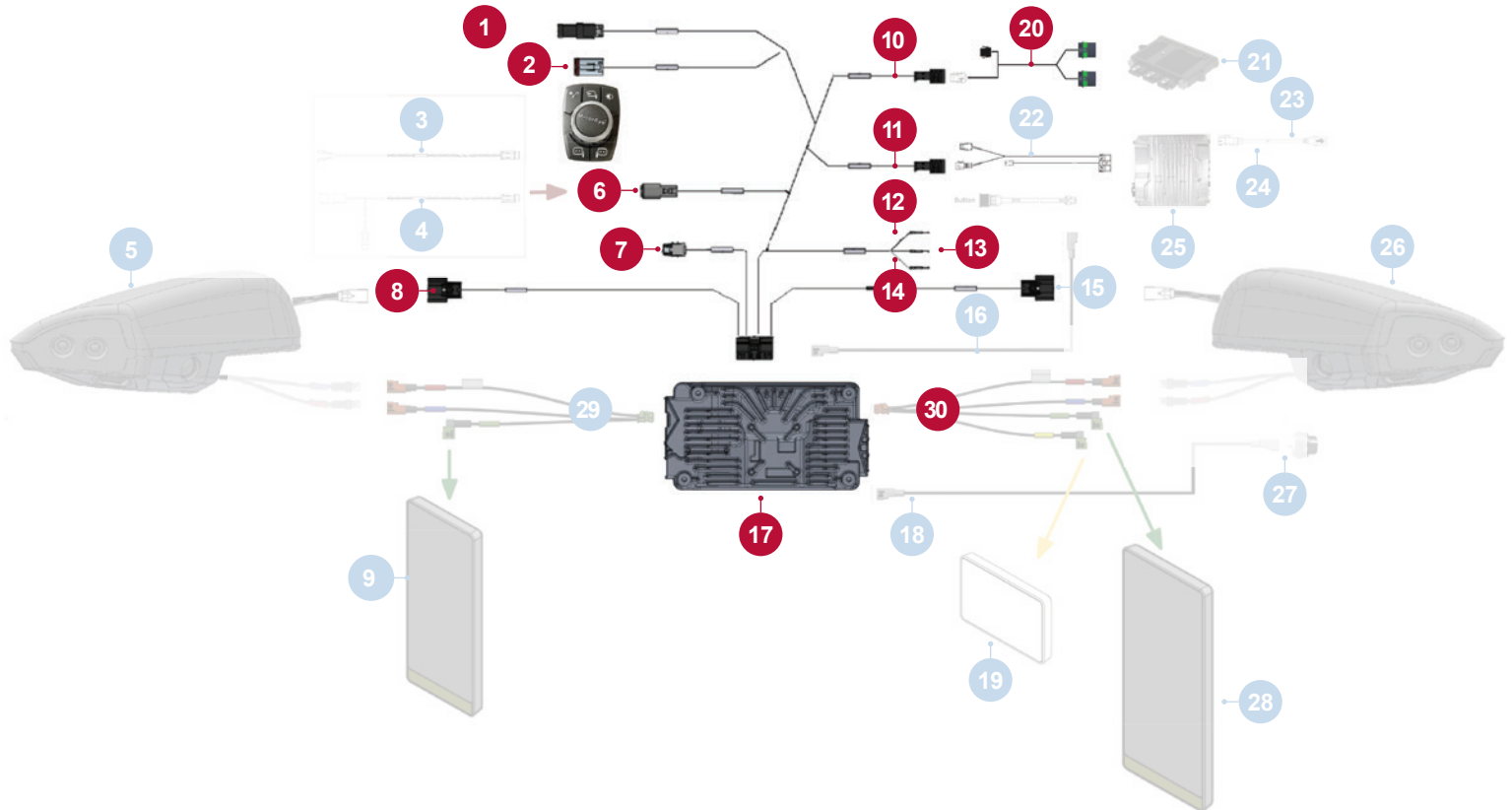
Wiring Diagram

1. CAN Termination Resistor
2. Controller
3. Camera/Monitor Harness (Driver Side)
4. Camera/Monitor Harness (Passenger Side)
5. Camera Wing (Driver Side)
6. Class V Camera (Blind Spot)
7. OAT Sensor Wire Harness
8. Passenger Side Monitor (Right Side 15" Monitor)
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)

ECU views for reference



2



Main MirrorEye ECU Harness

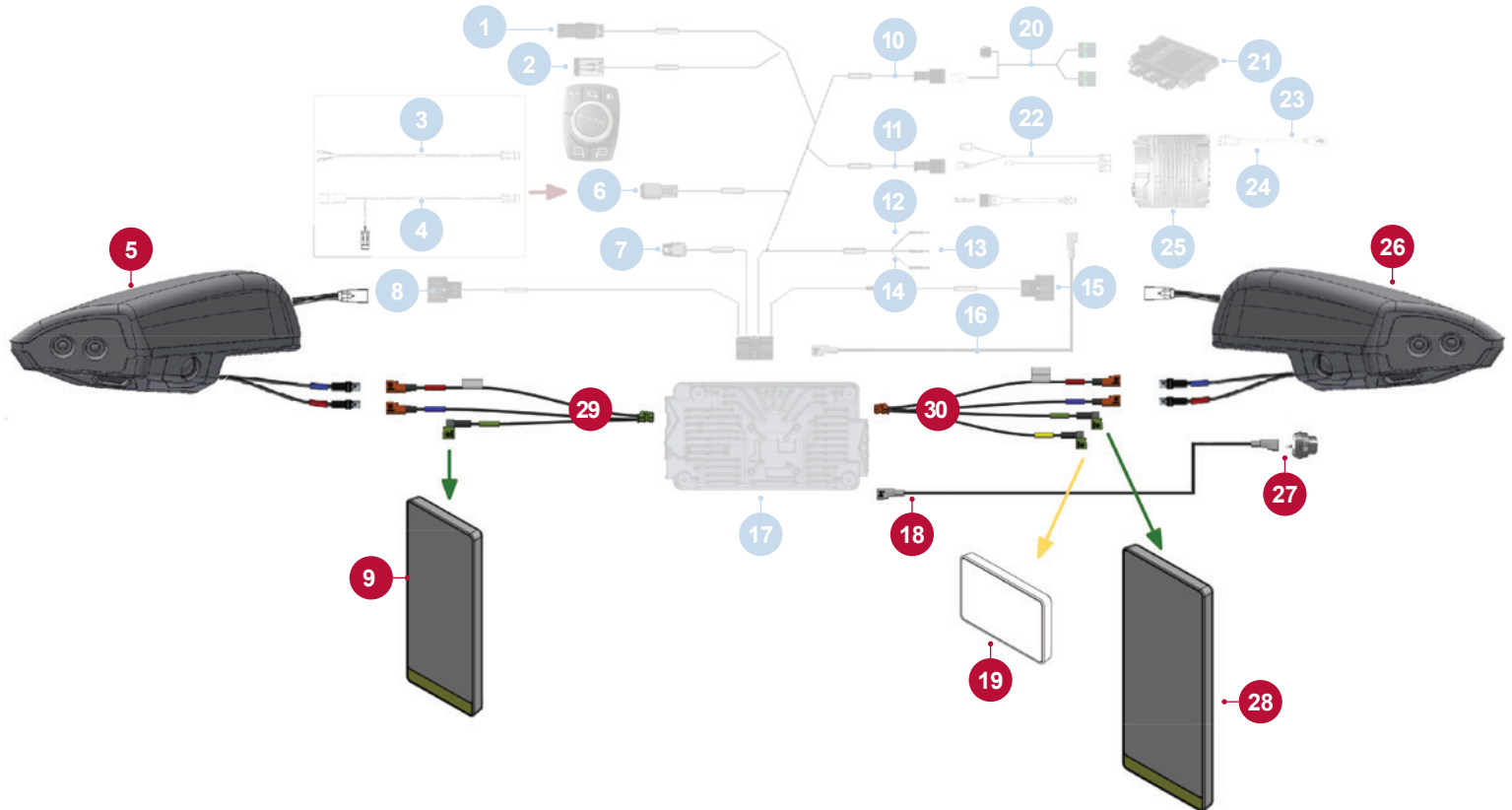
- 1. CAN Termination Resistor
- 2. Controller
- 3. CAN Spliceback
- 4. CAN Breakout
- 5. Camera Wing (Driver Side)
- 6. Vehicle CAN
- 7. DVR or Class V Monitor
- 8. Camera Wing (Driver Side)
- 9. Driver Side Monitor (Left Side 12.3" Monitor)
- 10. FA470
- 11. To DVR Harness
- 12. KL30
- 13. Ground
-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

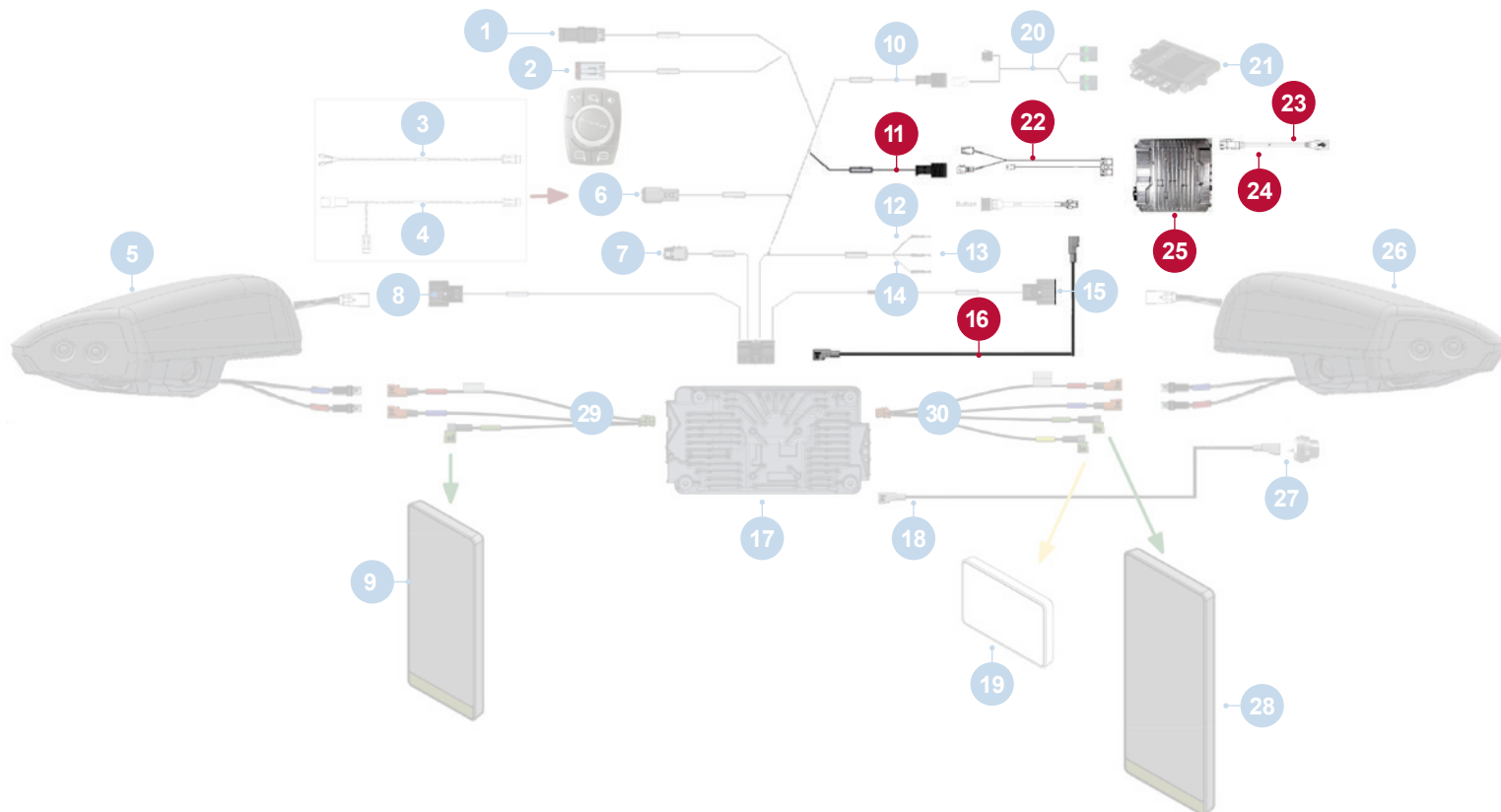
- | | |
|---|---|
| 1. CAN Termination Resistor | 12. KL30 |
| 2. Controller | 13. Ground |
| 3. CAN Spliceack | 14. KL15 (IGN) |
| 4. CAN Breakout | 15. Camera Wing (Passenger Side) |
| 5. Camera Wing (Driver Side) | 16. Ethernet |
| 6. Vehicle CAN | 17. ECU |
| 7. DVR or Class V Monitor | 18. COAX Class V |
| 8. Camera Wing (Driver Side) | 19. Class V - 7" Monitor |
| 9. Driver Side Monitor
(Left Side 12.3" Monitor) | 20. FA470 Wire Harness |
| 10. FA470 | 21. FA470 |
| 11. To DVR Harness | 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



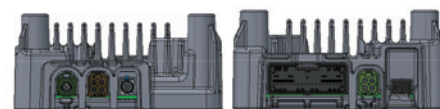
4

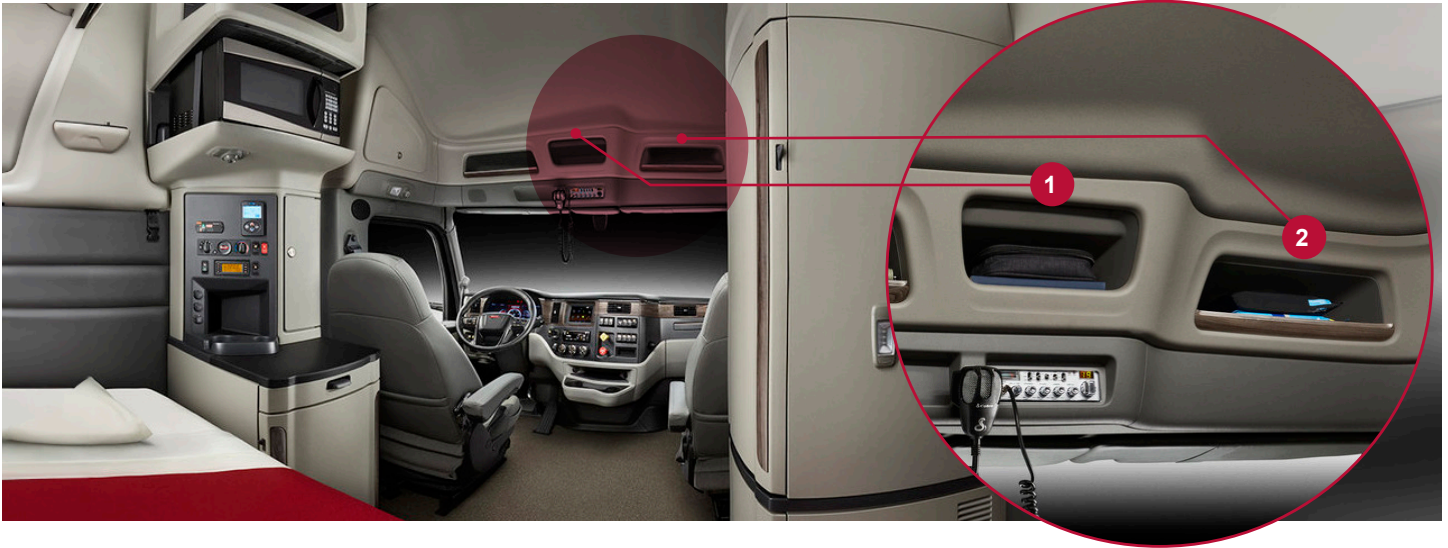


Optional DVR

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

ECU views for reference



1


Disassemble the overhead console, both left and right side storage compartments and remove A pillar covers to prepare the area for ECU and optional DVR installation

Attach the ECU to the ECU Bracket using the supplied fastener set. Pay close attention to the orientation of the ECU mounting. ECU Main harness side should align with the small tabs side of the bracket. Connect all associated cables, main harness, both passenger and driver side coax and Class V Photo ECU Bracket

2


Location Mockup
(1) ECU (2) DVR

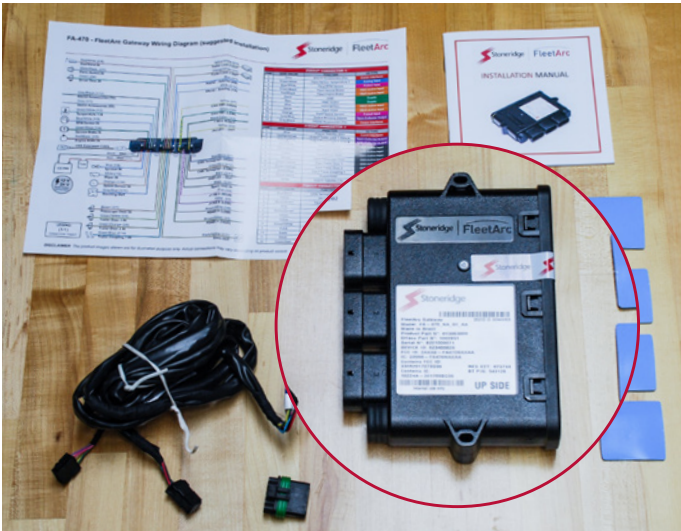
3


ECU Fit in location with very little room to spare. Designed holes lined up correctly which allowed for a smooth installation. Place ECU and mark up fastener location for M6 rivenut installation. Drill 13/32"

4

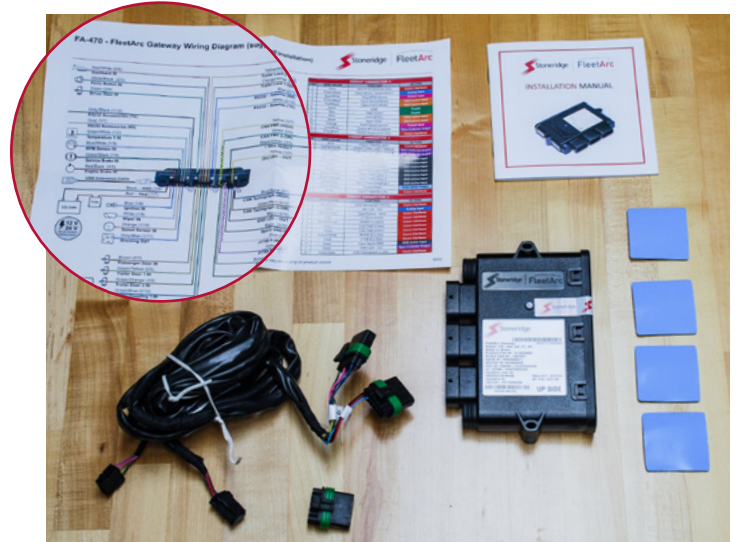
Route main harness down passenger side A pillar for all in dash connections: FA470, Joystick controller, KL15, KL30 and ground.

1



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

2



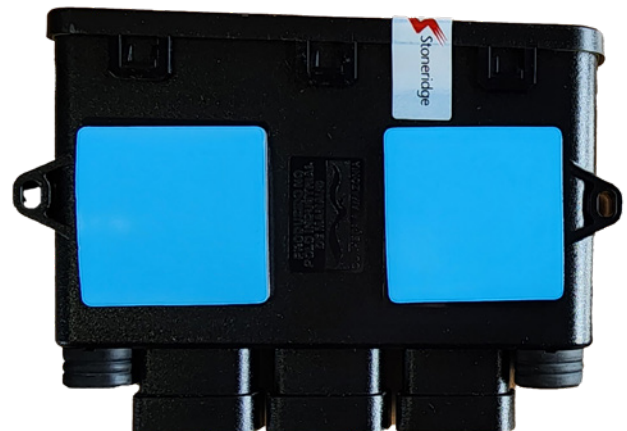
Assemble the connectors as depicted in the provided FA 470 schematic – note that the center shroud is for an additional connector (blind). Each module connector is numbered (CN 1,2,3).

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

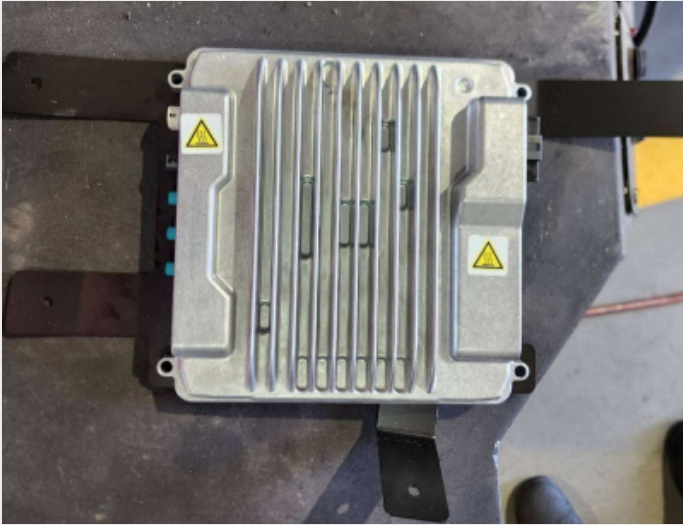


Add Velcro® to FA 470 module base for mounting, as depicted.

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.

1



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

2



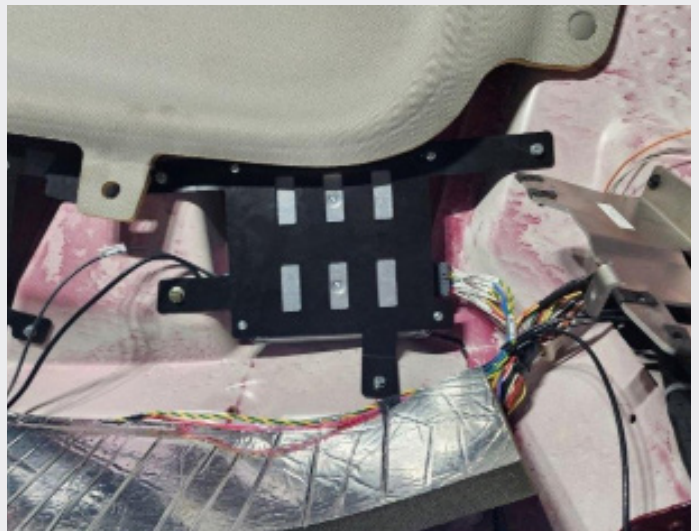
Locate the DVR harness (depicted)
and connect to the DVR module

3



Connect relating USB cable to the DVR, as depicted

4



Using correlating screw set, mount DVR/bracket
combination in upper console location

INSTALLATION

Passenger Side Monitor Installation (15" Monitor)

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")

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.

INSTALLATION

Driver Side Monitor Installation (12" Monitor)

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")

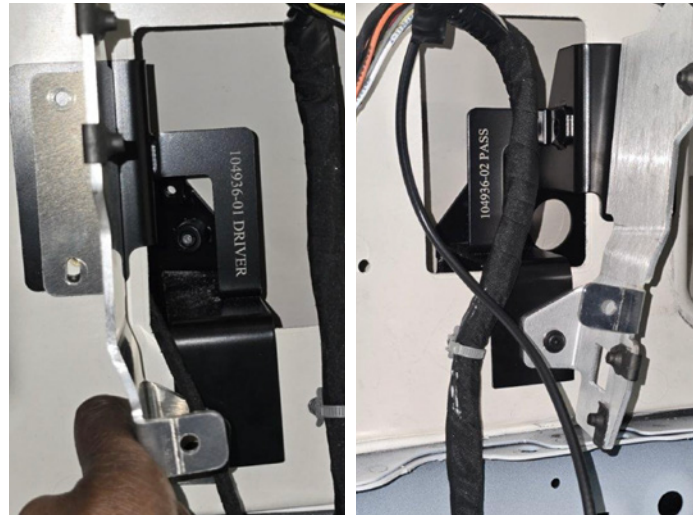
1



Disassemble and Remove headliner.

Internal Wing Bracket, ECU and DVR will all be mounted behind headliner

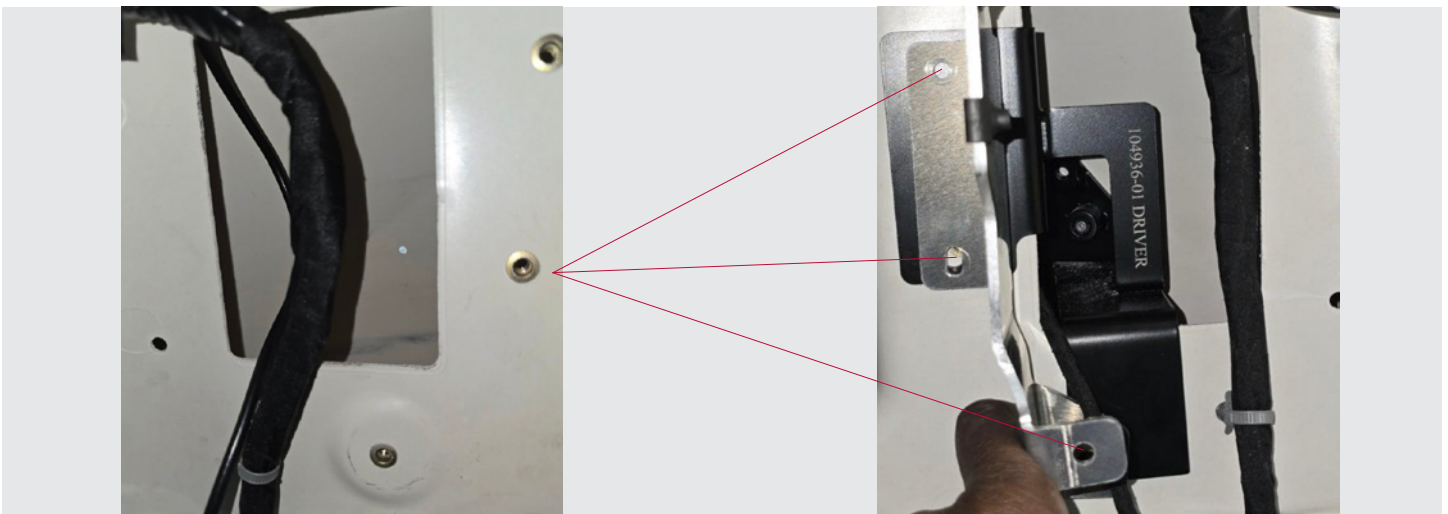
2



Drivers Side 104936-01

Passenger Side 104936-02

3



Once interior is disassembled, Starting with left or right mount one bracket on the interior side of truck utilizing bolts existing.

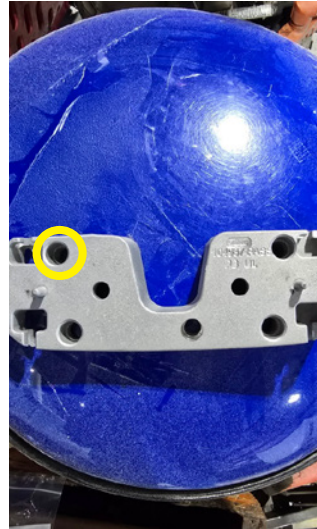
1

Drill bit with a 12" lead is needed



Using a 13/64 size drill bit created a pilot hole with bracket mounted tight. This will then allow for alignment on template on outside of vehicle. 13/64 is slightly smaller than the 6mm hole.

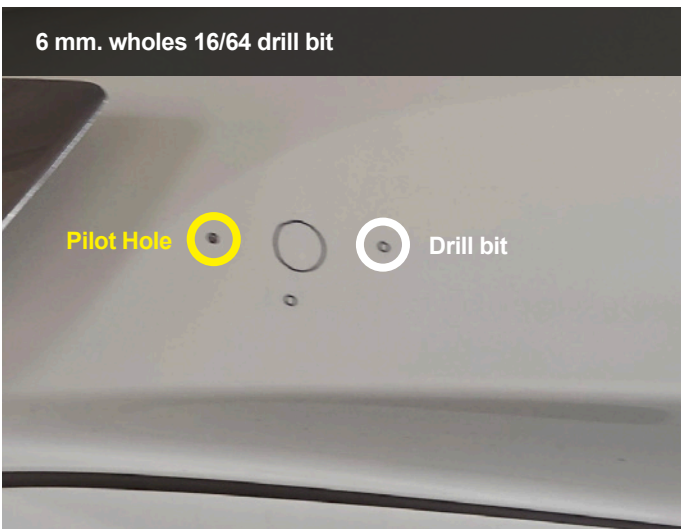
2



Drill bit with a 12" lead is needed. Yellow circle are Pilot holes.

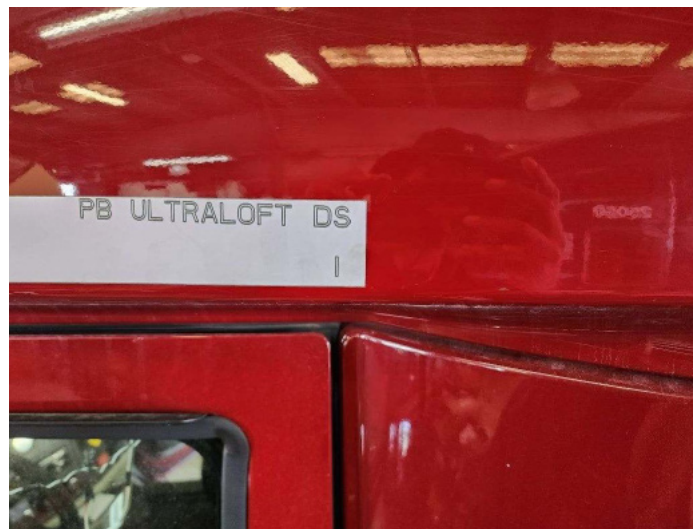
3

6 mm. wholes 16/64 drill bit



Once the pilot hole is created. Then go on outside of truck and lay template aligning the pilot hole to the correlating hole on the template.

4



1



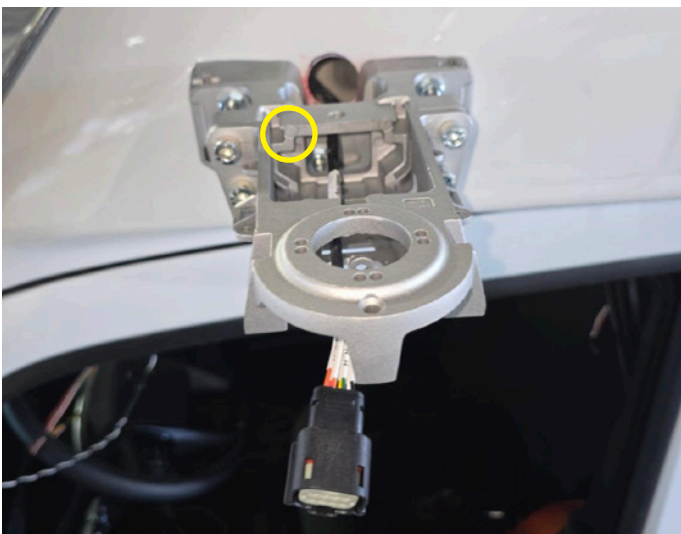
3 8mm studs will allow extension brackets to be mounted to the main brackets. NOTE: Studs will thread into interface bracket on the inside of the cab.

2



Extension bracket mounted to main bracket.

3



PASSENGER SIDE WING LOCATION

1

DRIVER SIDE WING LOCATION

2

Align templates with holes.



PASSENGER SIDE WING LOCATION

Note: This applies only to the Antenna version. Otherwise, proceed to the next page

1



Controller can be mounted in a couple different places depending on the fleet. Template for cutout of controller is on the back of the packaging box.

2



Custom mounting made in house of shop not included with kit. Picture just for reference.

INSTALLATION

Driver Side Monitor Installation (12" Monitor)

5



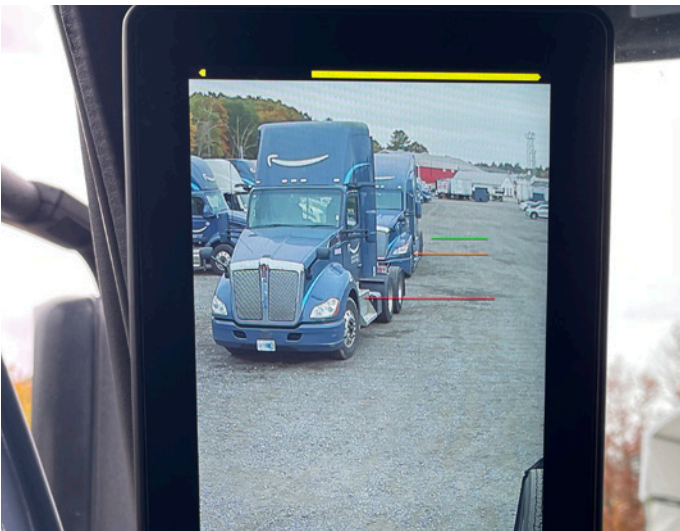
Mount the driver side monitor joining RAM® base and relating bracket

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

NOTE: MirrorEye MKII Generation – Coax Cable Connections

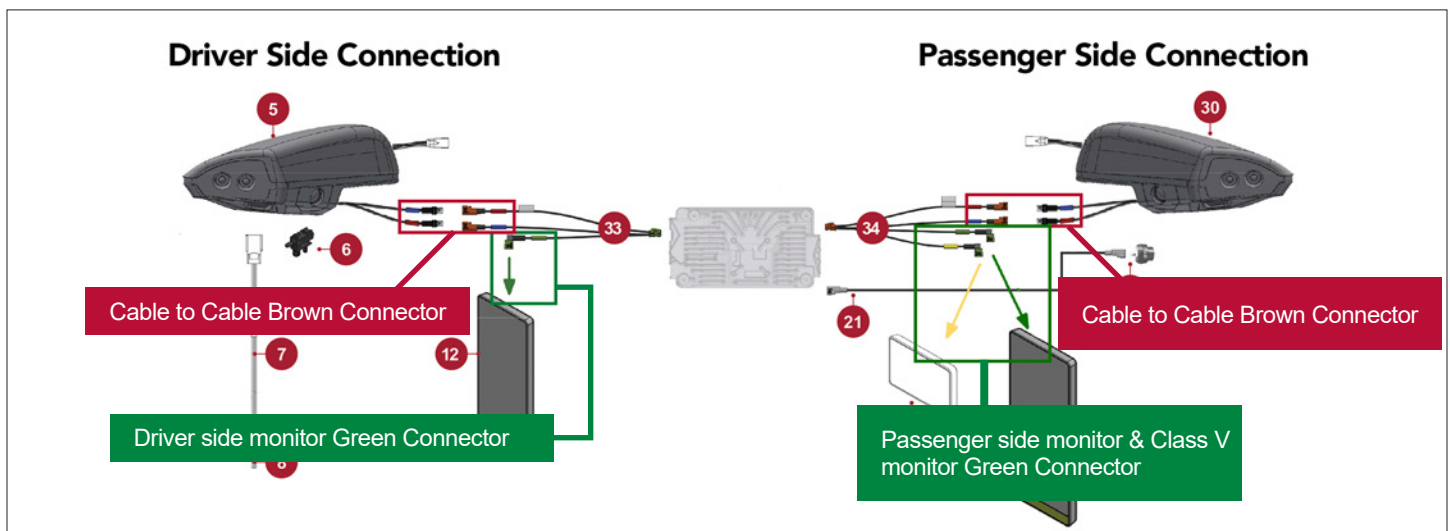
Issue: Coax cable harness connector unmated cable to cable AND/OR coax cable connection at any or all monitor connections resulting in loss of communication signal between the MKII Camera Wing and in-cab Monitor.

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.

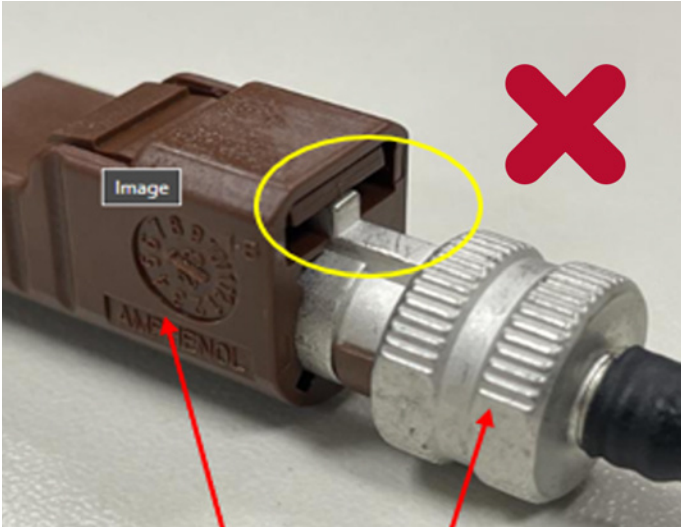
Verification test of this seated connection should be performed by completing a light tug test on the connector after securing. Take caution to not pull the coax of either cable possibly damaging the crimp of the cable. Ensure the connection is locked or fully seated and will not be affected by cable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

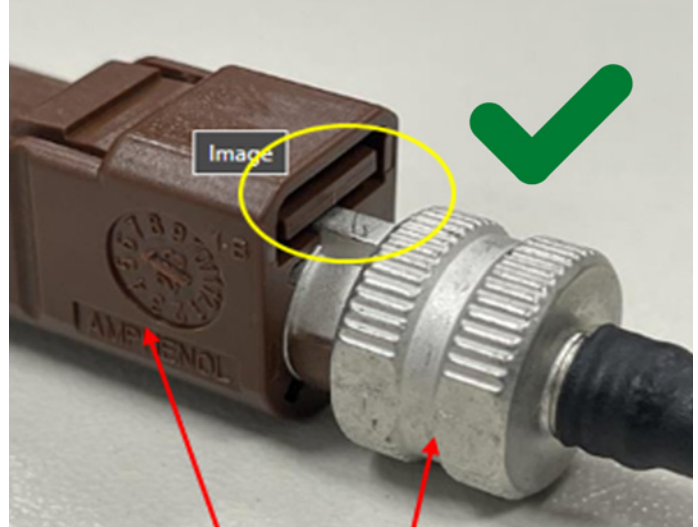


1. Failed - unlocked connection



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



Hold point to test Monitor connection

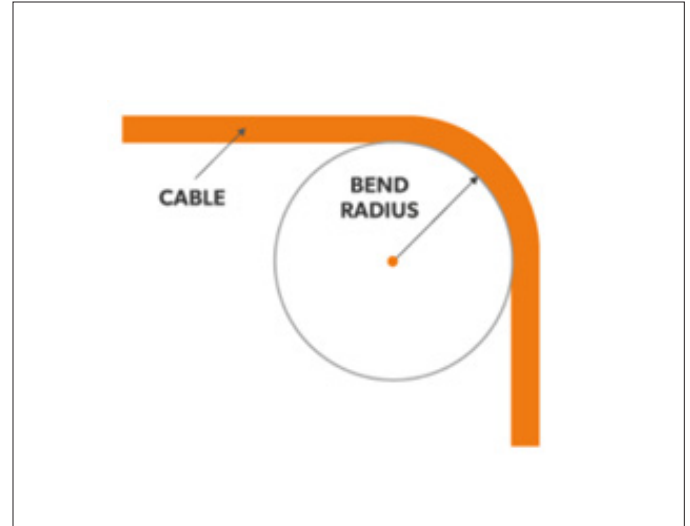
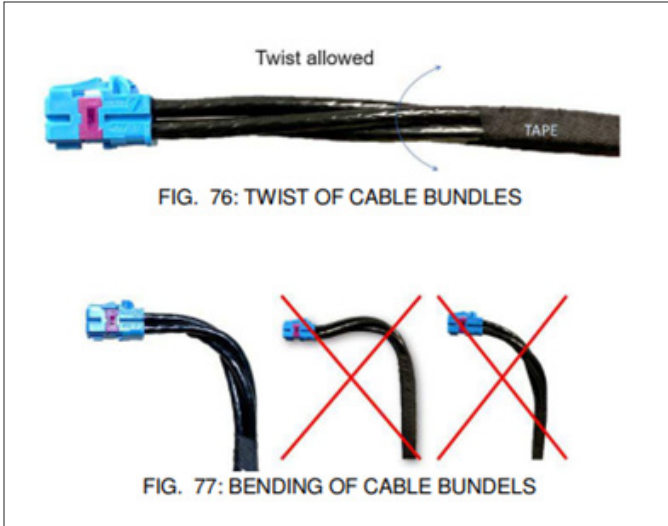
4

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, 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.

- 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

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

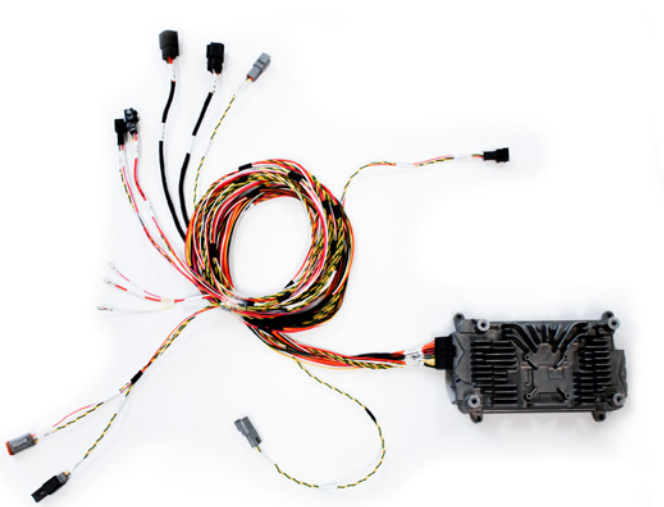
Cable mounting clips and ties are permitted. Make sure that the clamping force of a clip or tie is just adequate to prevent unwanted movement. Clamping forces shall not be too high: the COAX cables may not be 'strangled'. Too high clamping forces will deteriorate the signal quality from the camera to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

1



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

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

SYSTEM ALIGNMENT/CALIBRATION

Calibration of Distance Lines

1



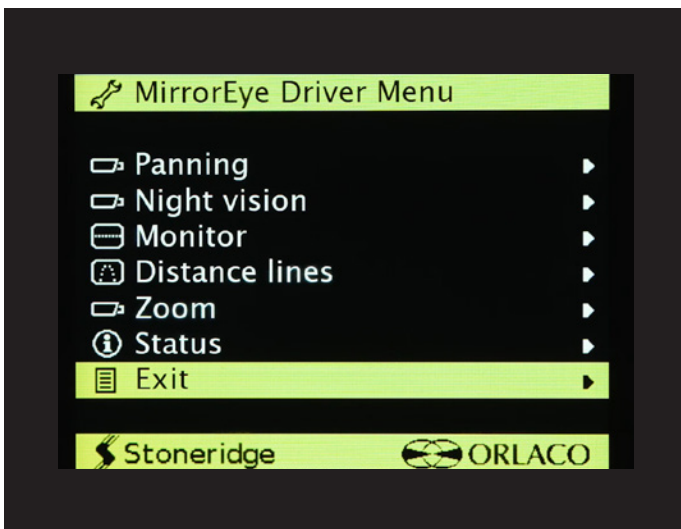
At the time of installation, the vehicle's distance lines **must** be calibrated in the MirrorEye® system ...

2



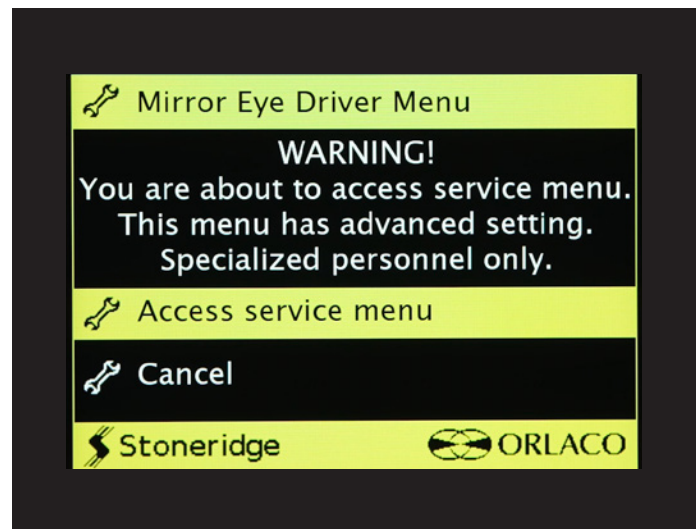
To do so, first bring up the Driver Menu by long-pushing (e.g., "push and hold") the lower-left button on the MirrorEye® Controller ...

3

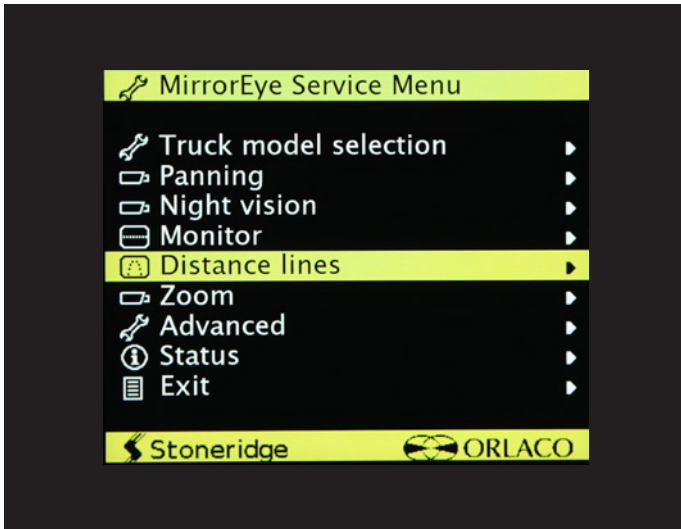


Using the controller's dial knob, scroll down to the Exit selection, and **long-push the Driver Side Manual Panning button and Controller Knob simultaneously** ... this will bring access to advanced settings ...

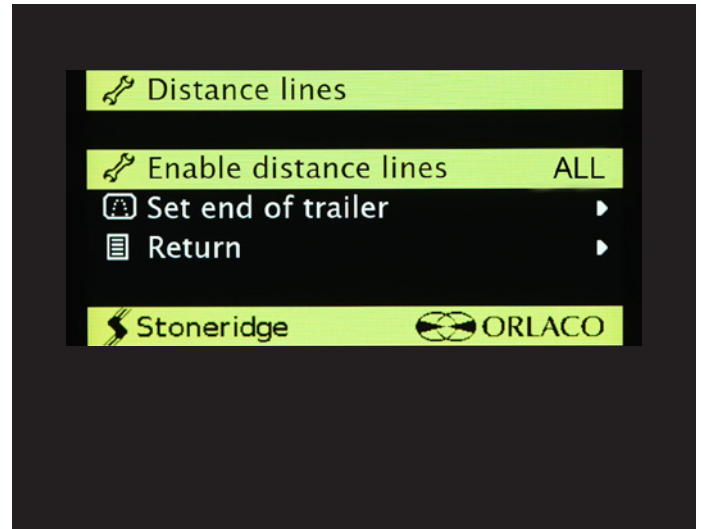
4



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

5


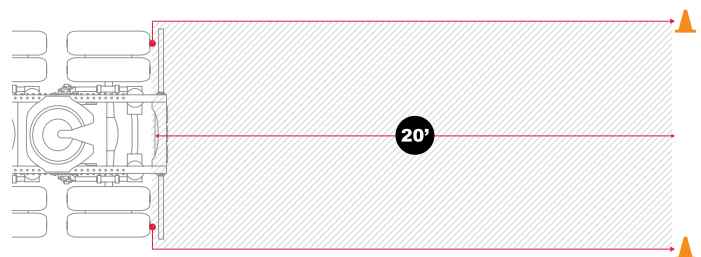
On the MirrorEye® Service Menu, dial-scroll to Distance Lines, then press the Controller Knob ...

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


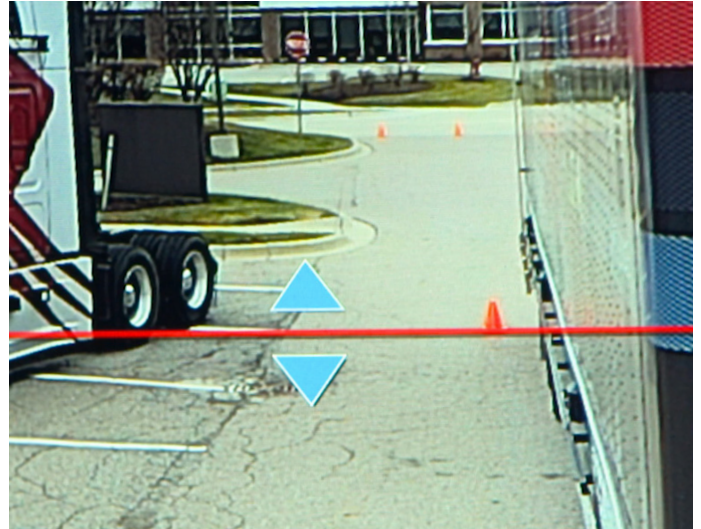
If a trailer isn't attached, measure 20-ft. from the first rear axle rearward and place a cone at that location on both sides of the vehicle (passenger and driver sides)

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



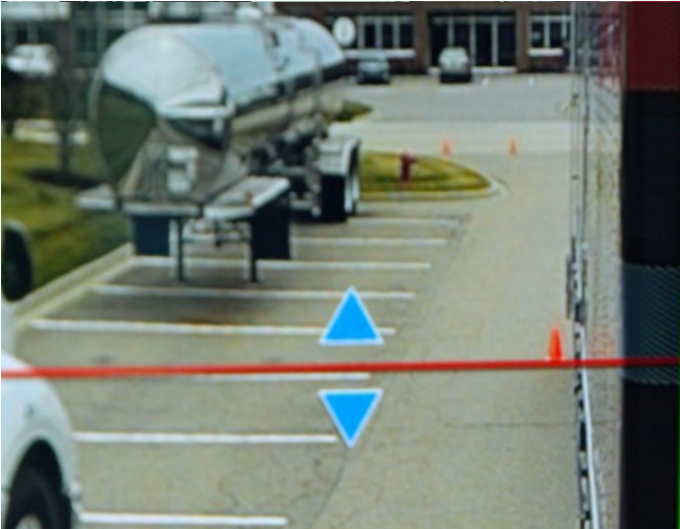
Once set, the correct driver-side distance lines are adjusted and displayed on the monitor ...

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



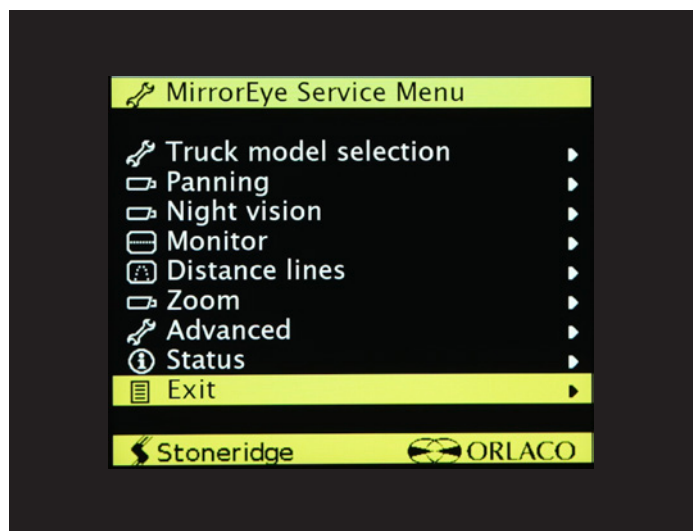
At this point, all distance lines for both sides of the truck are displayed and color-identified in red, yellow and green ...

15



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

16

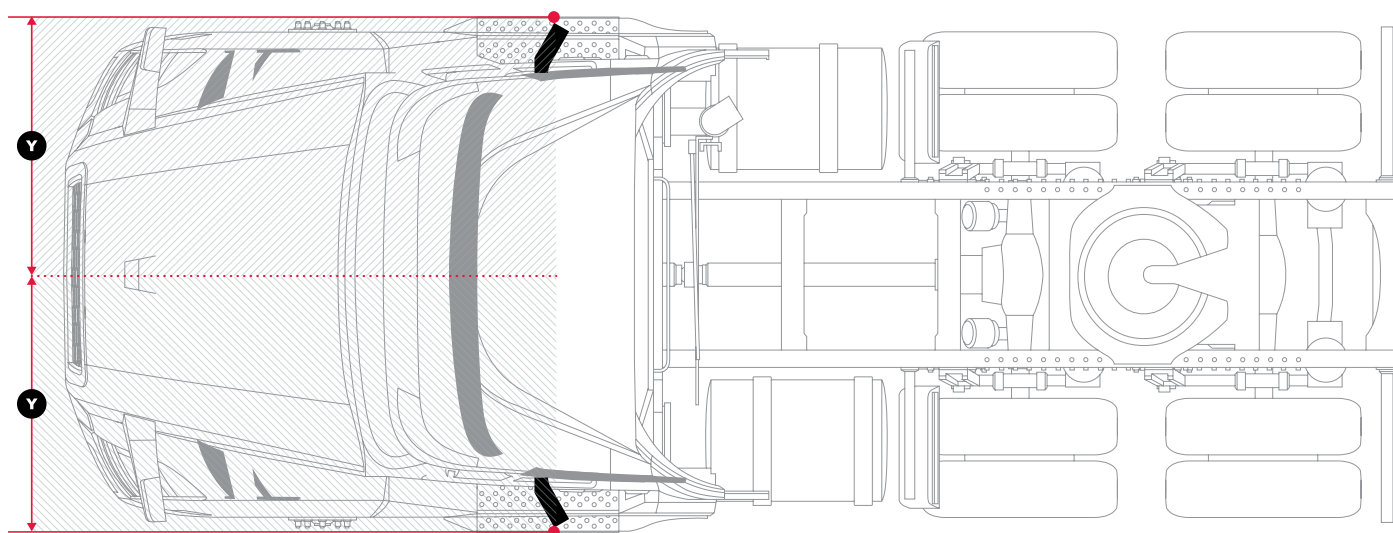
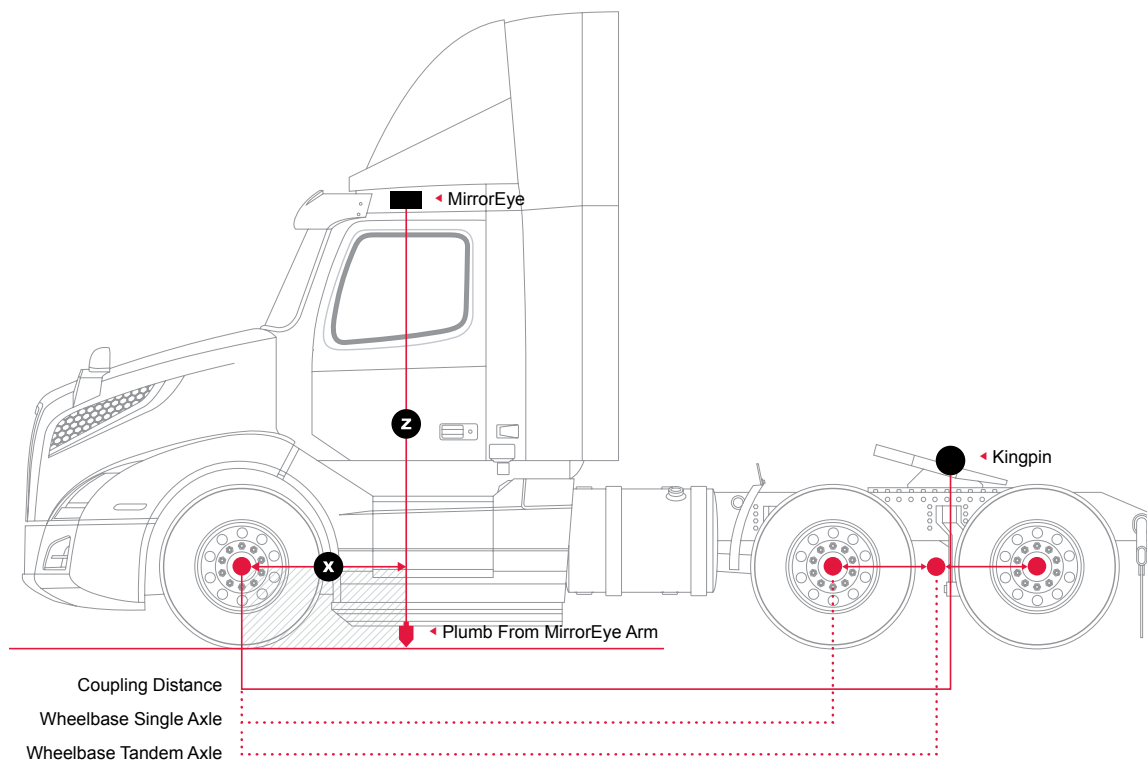


To exit the Service Menu, scroll down to Exit and press the Controller Knob again ...

SYSTEM ALIGNMENT/CALIBRATION

Entering Critical Values

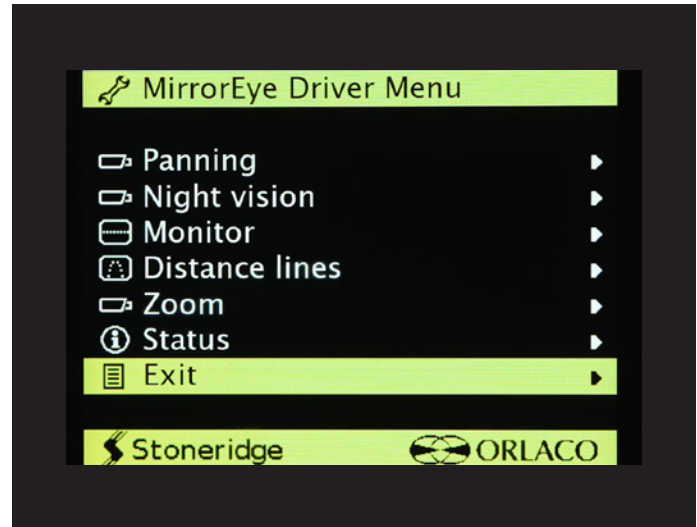
At the time of installation, key and critical vehicle measurements **must** be entered into the MirrorEye® system

1


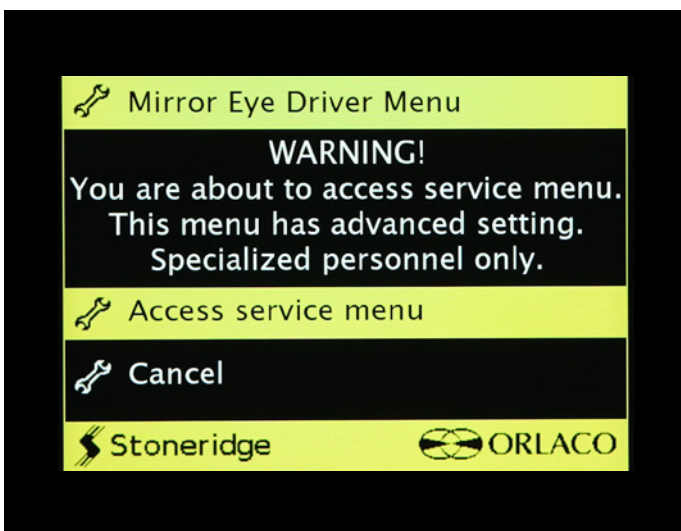
At the time of installation, key and critical values/measurements relating to the vehicle's **wheelbase, steering ratio, coupling position and camera positions (X,Y and Z)** must be entered into the MirrorEye® system.

2

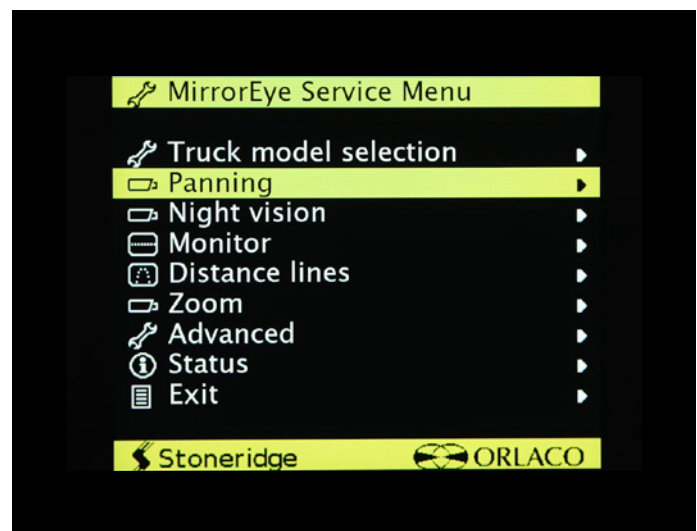

To do so, first bring up the Driver Menu by pushing and holding the lower-left button on the MirrorEye® Controller ...

3


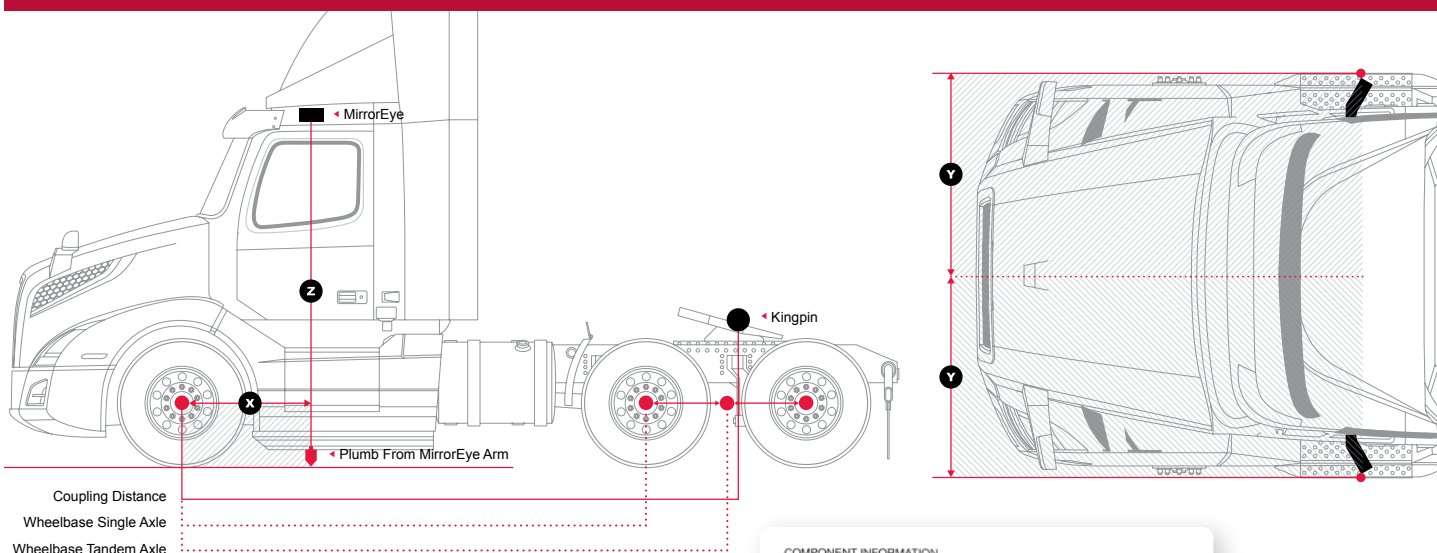
Using the controller's Dial Knob, scroll down to the Exit selection, then **push and hold the Driver Side Manual Panning button and Controller Knob simultaneously** ... this will bring access to advanced settings ...

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


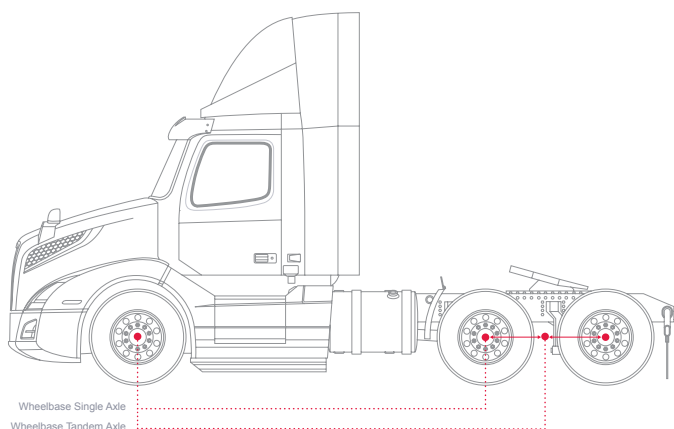
In the Panning service menu, the values/measurements relating to the vehicle's **wheelbase, steering ratio, coupling position** and camera positions (X,Y and Z) are accessed. All must be determined and entered into the MirrorEye® system at the time of installation.

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

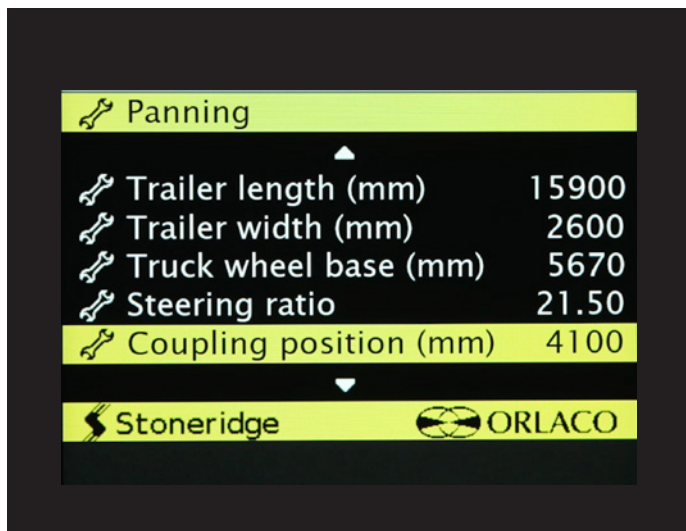
Panning	
Trailer length (mm)	15900
Trailer width (mm)	2600
Truck wheel base (mm)	5670
Steering ratio	18.50
Coupling position (mm)	4100
Stoneridge ORLACO	

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...

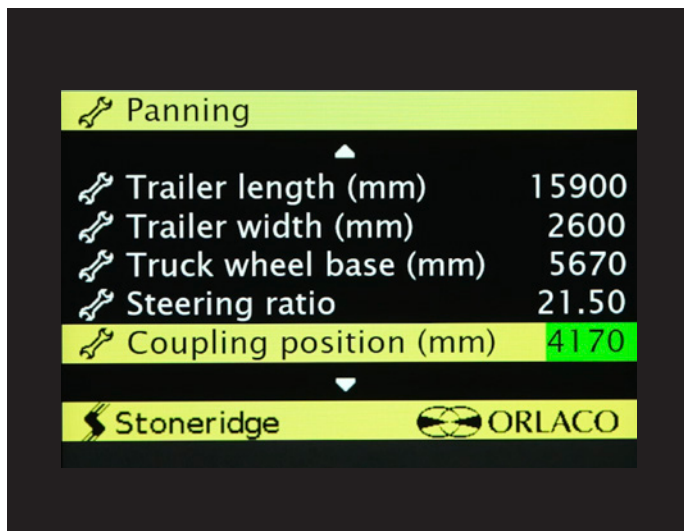
... to lock the value in, press the Controller Knob again ...

13



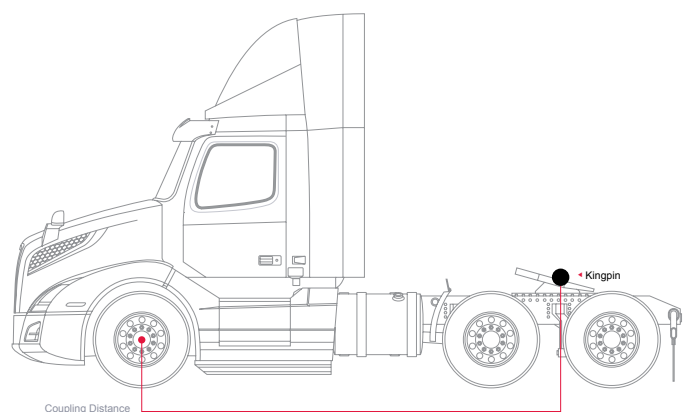
To adjust the **Coupling Position**, scroll to the selection in the Panning menu and press the Controller Knob ...

14



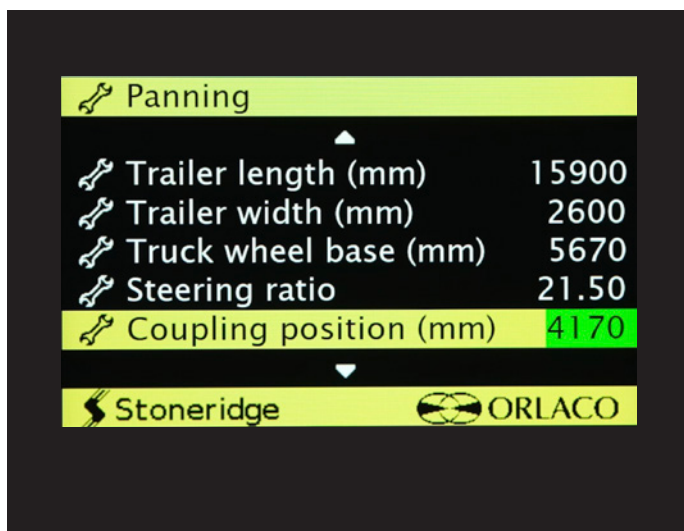
Be aware that the Coupling Position value needs to be entered in millimeters. All standard measurements (e.g. "in inches") will need to be converted before entering values into the system. Conversion tables are readily available online.

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 ...

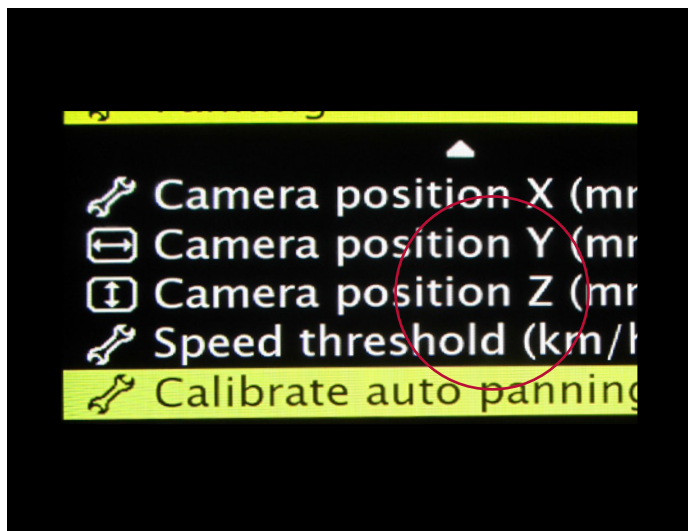
16



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

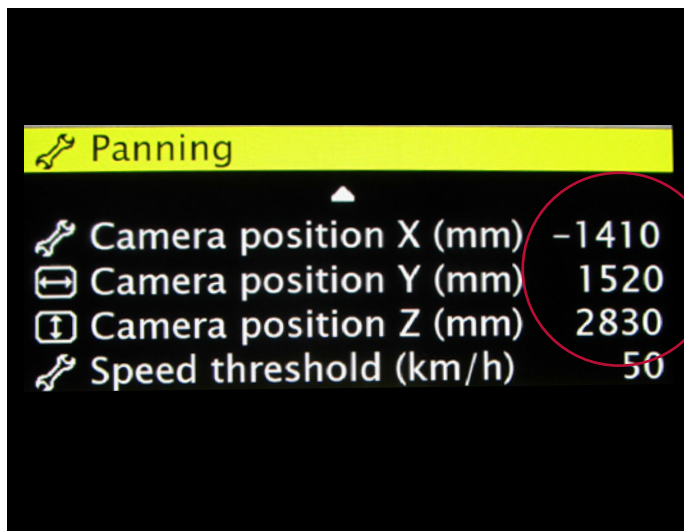
... to lock the value in, press the Controller Knob again ...

17



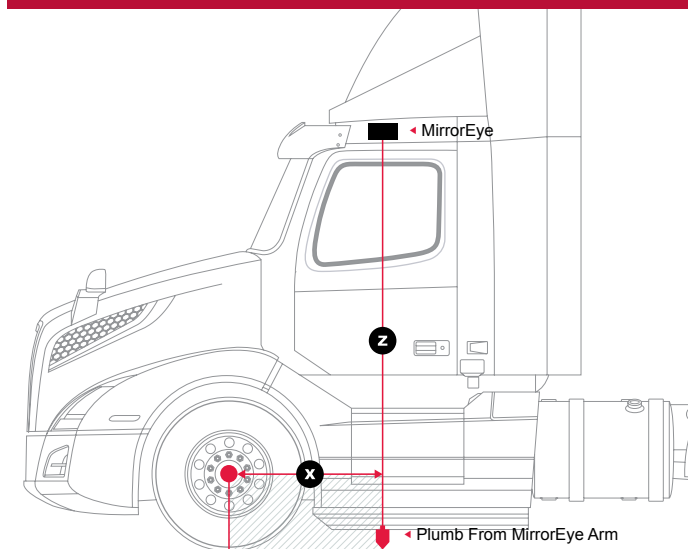
To adjust the **camera position values – X, Y, or Z** – scroll to the relating position in the Panning menu and press the Controller Knob ...

18



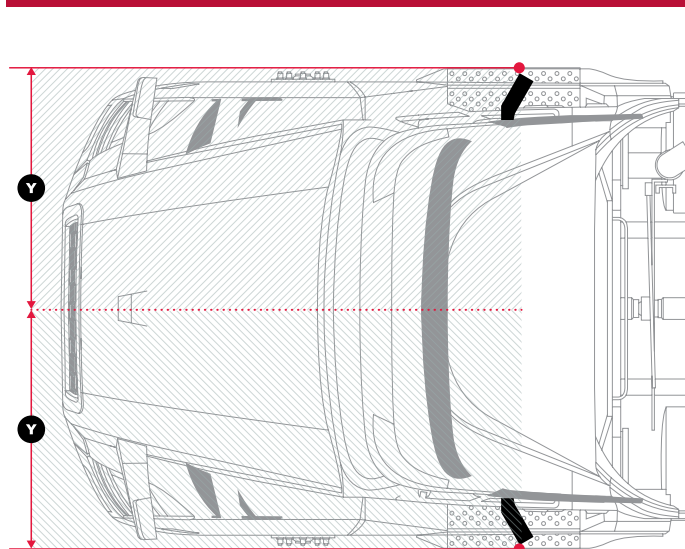
Be aware that all camera position values need to be entered in millimeters. All standard measurements (e.g. "in inches") will need to be converted before entering values into the system. Conversion tables are readily available online.

19

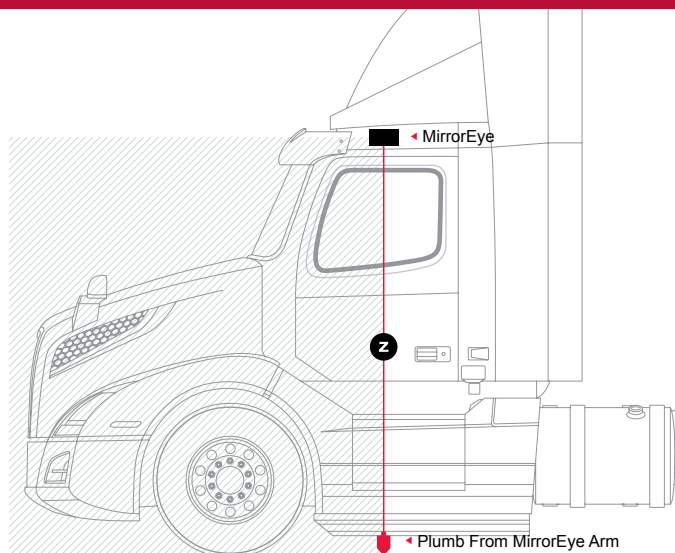


The camera position X value is the distance from the **Center Line of Front Axle to the Camera Lens** (plumb bob from camera lens to ground)

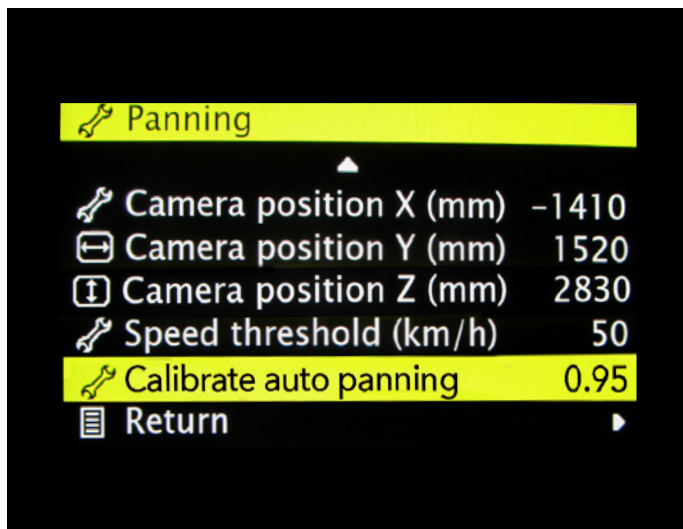
20



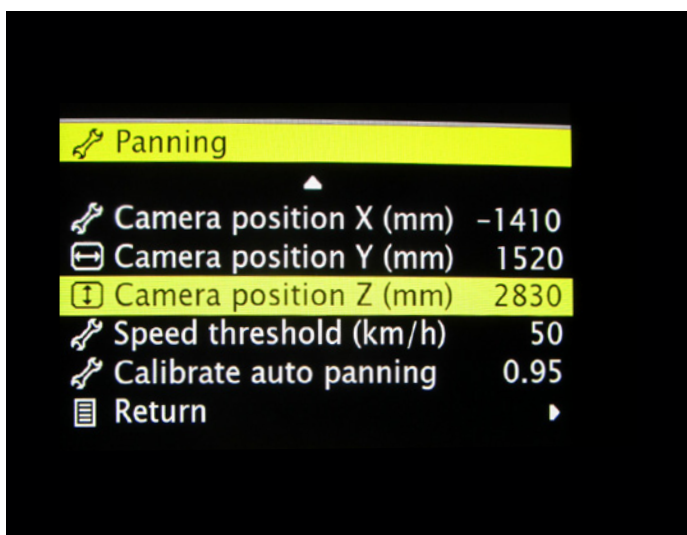
The camera position Y value is the distance from the **Center Line of the Truck to the Camera Lens** (plumb bob from camera lens to ground)

21


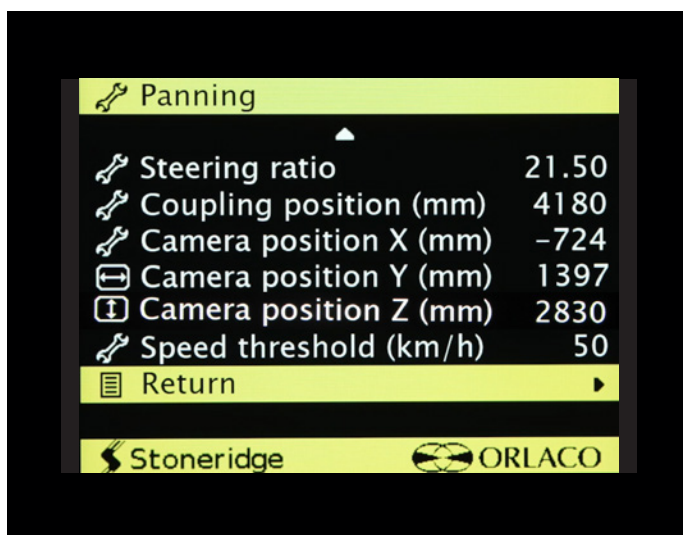
The camera position Z value is the distance from the **Ground to Camera Lens** (plumb bob from camera lens to ground)

22


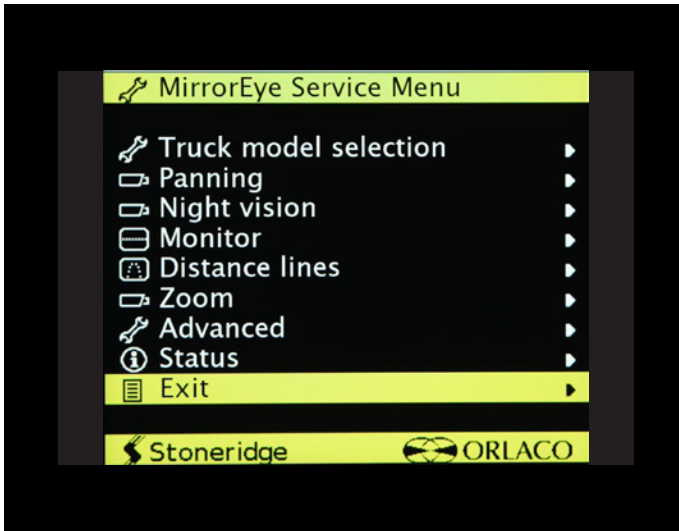
The default setting for "Calibrate auto panning" for all versions of MirrorEye should be 0.95. If your auto panning setting is not 0.95, make sure to do so

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 ...

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 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

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™



INSTALLATION

Driver Side Arm/Camera Installation