Vertical Radar Alignment

Wingman Advanced - All Model Years

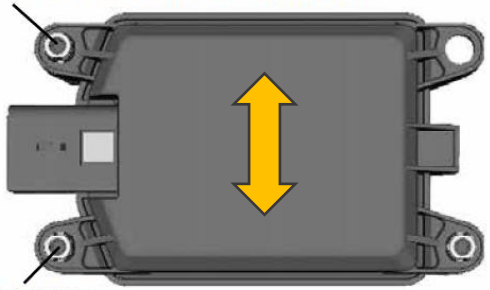
1. Park the bus on a level surface. Air suspension must be charged as it would be during normal operation.
2. Place the digital inclinometer on a horizontal section of the frame rail. Zero out the inclinometer.
3. Place the calibrated inclinometer against the front surface of the radar unit so that it is in the same orientation as it was on the frame rail.
4. Verify that it displays 0° (+/- 1.5°)
5. If no adjustment is necessary, proceed to next page.
6. If adjustment is necessary, use a Torx T-20 Screwdriver, rotate the top left adjustment screw on the forward-facing radar unit until the inclinometer display reads 0° (+/- 1.5°)
7. Re-cycle the ignition key
8. If necessary, clear the DTC using Bendix ACom.
9. Proceed to next page

Vertical Radar Alignment Check Worksheet V2

Place this side against the radar.

Place this side on the frame.

Use a Torx T-20 screwdriver here to adjust for the **vertical alignment**



IMPORTANT: Do not adjust this stand-off!!

Vertical Radar Alignment

2025+ Wingman Fusion

1. Park the bus on a level surface. Air suspension must be charged as it would be during normal operation.
2. Place the digital inclinometer on a horizontal section of the frame rail. Zero out the inclinometer.
3. Remove the radar cover by removing the two bolts (6) at the bottom of the plastic cover (5).
4. Place the calibrated inclinometer against the front surface of the radar unit so that it is in the same orientation as it was on the frame rail.
5. Verify that it displays 0° (+/- 1.5°)
6. If no adjustment is necessary, proceed to next page.
7. If adjustment is necessary, use a Torx T-20 Screwdriver, rotate the top left adjustment screw (1) on the forward-facing radar unit until the inclinometer display reads 0° (+/- 1.5°)
8. Re-cycle the ignition key
9. If necessary, clear the DTC using Bendix ACom.
10. Proceed to next page

Place this side against the radar.

Place this side on the frame.

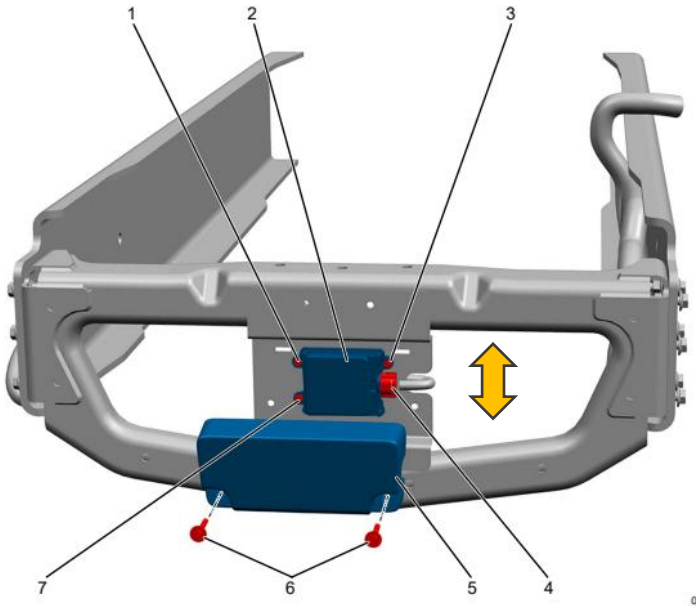


Figure 977 FLR Sensor Component View

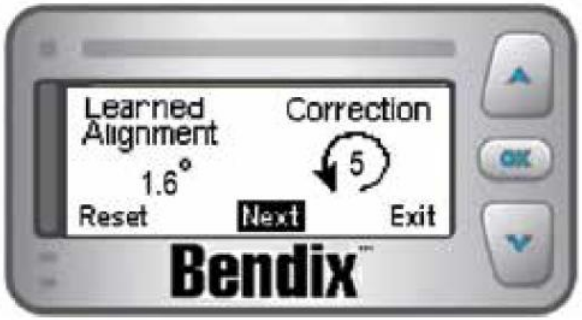
1. Vertical adjustment screw
2. FLR sensor
3. Lateral adjustment screw
4. FLR sensor connector
5. FLR cover
6. M6 bolt (2)
7. Stationary adjustment screw

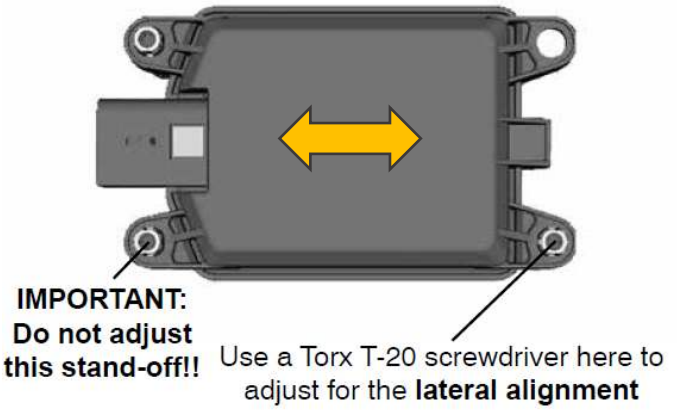
Lateral Radar Alignment

Advanced/Fusion – Up to 2024 Model Year

1. Select “OK” on the DIU.
2. Using the arrows to the right of the screen, scroll to the menu screen “Radar” then, “Alignment Check” and press “OK”
3. Doing so will display a Learned Alignment indicator. It is important to note that the system learns its true alignment over the course of many hours of driving – this does not necessarily mean that something went wrong with the system.
4. If no correction is required (displays 0), proceed to next page
5. In this case, the display shows that a counterclockwise correction is required – indicated by the number 5 in the circular arrow. *Note that this correction may be in either direction and any number – not necessarily 5*
6. Using a Torx T-20 Screwdriver, rotate the bottom right adjustment screw on the forward-facing radar unit (5) five full turns, counterclockwise.
7. Upon completion, select “Reset” and then “Exit” on the DIU.
8. Re-cycle the ignition key.
9. If necessary, clear the DTC using Bendix ACom.

Vertical Radar Alignment Check Worksheet V2





Lateral Radar Alignment

2025+ Wingman Fusion

1. Key ON Engine OFF (KOEO)
2. Using the Cluster Display Control (CDC), scroll sideways to Active Cruise Control (ACC) on the instrument cluster display.
3. Remove the radar cover by removing the two bolts (6) at the bottom of the plastic cover (5).
4. Using a Torx T-20 screwdriver, rotate the top right adjustment screw on the forward-facing radar unit by the number of turns indicated in the correction section.
5. Hold OK on CDC to reset radar learned alignment.
6. Re-cycle the ignition key.
7. If necessary, clear the DTC using Bendix ACom.

Note: The arrow direction in the instrument cluster indicates which direction the adjustment screw needs to be turned. In the example on the right, the adjustment screw must be turned 2.5 full turns to the left to complete the adjustment.

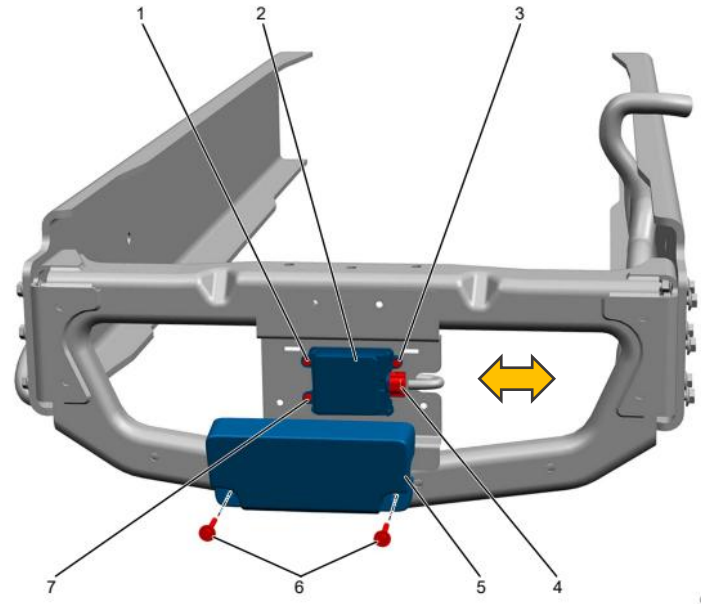
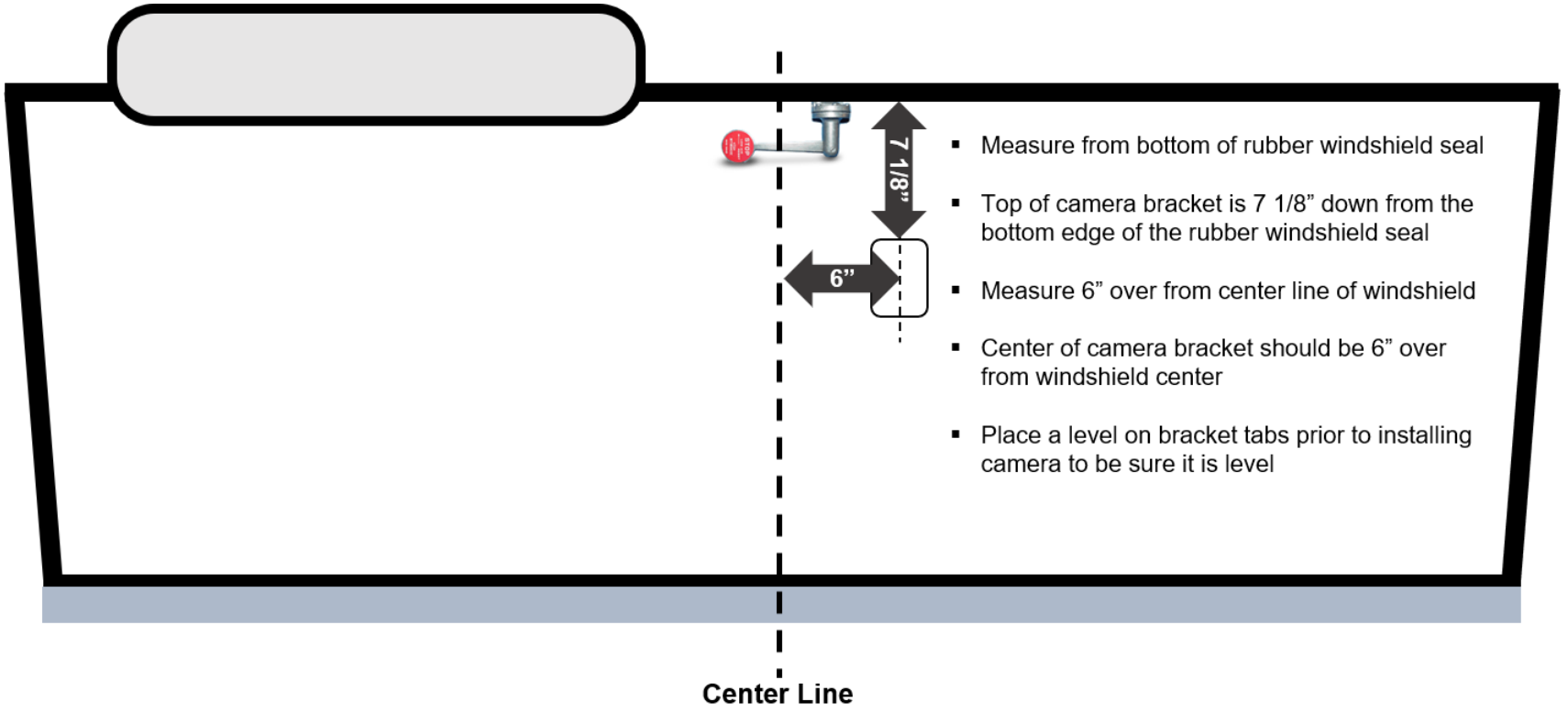


Figure 977 FLR Sensor Component View

1. Vertical adjustment screw
2. FLR sensor
3. Lateral adjustment screw
4. FLR sensor connector
5. FLR cover
6. M6 bolt (2)
7. Stationary adjustment screw

Camera Replacement

Measurements Apply to *2019-2024 Model Years Only*



- Measure from bottom of rubber windshield seal
- Top of camera bracket is 7 1/8" down from the bottom edge of the rubber windshield seal
- Measure 6" over from center line of windshield
- Center of camera bracket should be 6" over from windshield center
- Place a level on bracket tabs prior to installing camera to be sure it is level

Camera Replacement

3.1 CAMERA REMOVAL

⚠ CAUTION

Do not use a twisting action when releasing the tabs. Insert the screwdrivers and pry by moving the handles towards each other a small amount. Never twist the screwdrivers as the tabs may break! Replace the bracket if the tab is broken.

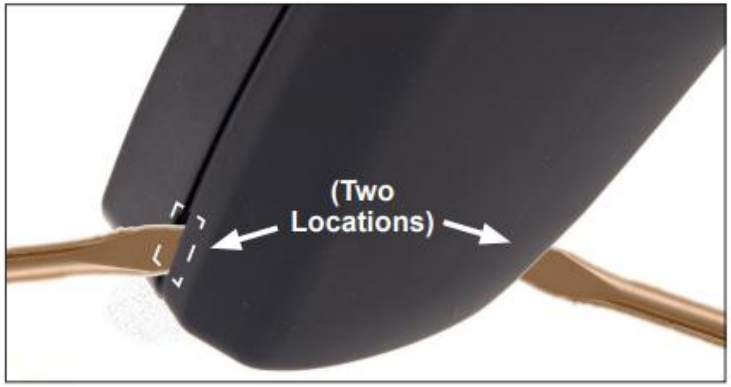


Figure 13 – Camera Release

See Figure 13. If a camera needs to be removed, locate the two locations at the lower corners where the camera and bracket meet.

1. Insert two medium-sized flat-blade screwdrivers into the slots, fully seating them.
2. *Then – **gently prying by moving the screwdriver handles away from the windshield a small amount** – push against the retaining clips to release the camera.*

3.2 BRACKET REMOVAL

The camera must be removed prior to this procedure. The preferred method for removing a bracket ideally requires two technicians. Using a heat-gun, one of the technicians gradually applies heat to the outside of the windshield at the location of the adhesive, while the other gently applies a prying force to the bracket while being careful not to damage the windshield.

As soon as the ideal temperature is reached, the bracket will release. Allow the windshield to completely cool down before cleaning the glass and installing a replacement bracket.

When replacing brackets, use only replacements with the same part number or a direct superceding replacement number supplied by Bendix or the OEM. If you have questions, contact the Bendix Tech Team at 1-800-AIR-BRAKE (1-800-247-2725), option 2.

NOTE: Some OEMs may offer the windshield with the bracket pre-installed. Contact the dealer for more information.

Camera Replacement

⚠ WARNING

Whenever re-installing or replacing a camera – for example, after a windshield is replaced – the recommended position for the vehicle must be used. Failure to install the camera in the correct position can result in system Diagnostic Trouble Codes being set, and system performance degradation.

The ambient temperature must be in the range of 50-100° F. Thoroughly clean the area of the windshield where the camera will be installed with a lint-free cloth and a 50-50 water/isopropyl alcohol solution. Make certain that there is no grease or contamination present and that the windshield is completely dry before installing the bracket.

Use removable tape or a non-permanent marker to indicate where the top of the bracket will be installed. Remove the protective film from the tape covering the adhesive on the bracket and, using a small "torpedo" level to be sure that it is level, install the bracket on the glass, holding firmly [a minimum of 62 lb. (28.1 kg.) pressure] in place for ten (10) seconds. Wait at least twenty minutes before installing the camera, at which point a 50% bond strength is created. The full bond between the bracket and windshield is achieved after 72 hours.

1. Engage the top of the camera into the bracket	2. Rotate the camera into the bracket	3. Listen for the click as the bracket engages the camera	**IMPORTANT: Double-check that the camera is fully engaged into the bracket.**
			 **Verify that the channel between them has the same gap all the way around, and pull gently on the camera to check that the tabs at the top and bottom are engaged and that there is no play.**