

Prerequisites

Required Information

- Name of asset (*ex: Propane Truck #20*)
- IMEI of each device to be installed (*IMEI is on the label where the mounting plate is attached*)

Standard Equipment



Camera



Power/Accessory
Harness



Mounting Plate



Optional Inline Fuses



Optional Circuit Taps



Tamper Cover

Required Tools

Rubbing Alcohol or Window Cleaner (*to clean window surface for best adhesion*)
 Level (*to level camera during mounting*)
 Drill with Phillips & Torx bits
 Small Socket Set
 Volt Meter
 Tablet with POV (*Optional: to see live view of camera when setting mounting location*)

Before You Begin

TIPS FOR PROPER CAMERA MOUNTING

- Ideal Location: Center (or as close to center as possible) of the windshield.
- Ideal Height: Highest point near rearview mirror - in the area swept by the wipers.
- Field of View: Should be clear of any occlusions (EZPass, rear view mirror, window tint, etc.)
- Angle: Camera should have a negative pitch angle (it should look "down" a few degrees.)
- The field of view should not have too much "sky".
- Split windows may have to adjust mounting location other than what is recommended in this document. Consult with your implementation manager at Pedigree Technologies.

Dry Fit

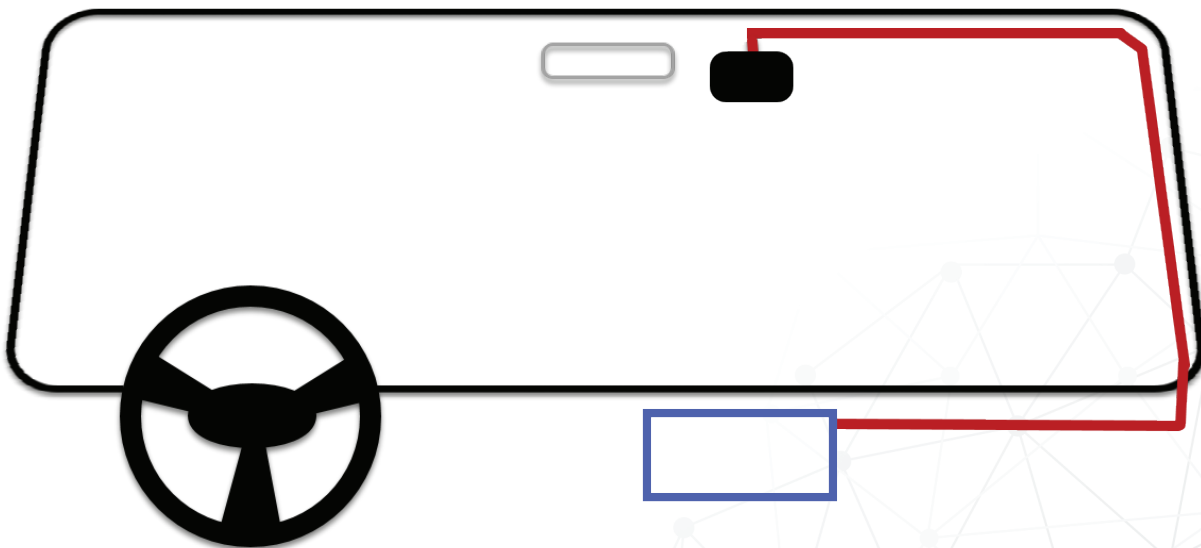
Determine proper placement of camera on the front windshield. (Dry fit only. It's important to run cabling to power source and determine where it will fit properly.)

- High on the windshield next to the rearview mirror area right of center divider
- Highest possible placement within the wiper blade path
- Avoid any overhanging exterior sun visor or other materials on glass including rock chips or cracks.



Power Cable

During the dry fit, make sure you can route the cable inside the headliner and A pillar to the ELD cradle (or fuse panel for direct wire installations). (Avoid airbags and other hardware inside the A pillar.) Cables and wiring should be routed behind the dash and should not be visible after installation is complete. (Connect the accessory harness to cradle or power/fuse panel before actually routing the cables in the A pillar.)



APMM Power Module Installation for Cab-Mate One

Installation of new Cab-Mate One plus camera - Start with **Step One**

Installation of camera on previously installed Cab-Mate One - Start with **Step Three - 2**

Installation of new camera on Cab-Mate One with previously installed camera (switching out cameras) - Start with **Step Eleven**

STEP ONE

Identify and record the ESN of the Cab-Mate One before proceeding. The following steps will cover the serial number and you will need it for activating the device later, or servicing the device in the future.

STEP TWO

For new intalls of the Cab-Mate One, install the diagnostic data cable as per the Cab-Mate One installation document. DO NOT CONNECT DIAGNOSTIC CABLE TO CRADLE YET

STEP THREE (for new Cab-Mate One installs)

Remove the ball mount from the Panavise mount. With the other side (the long piece) locate the desired position on the dash of vehicle and secure with hardware.



STEP THREE - 2 (for previously installed Cab-Mate One)

Remove the ball mount from the Panavise mount and remove from the back of the tablet by removing the 4 fastening screws.

STEP FOUR

Dry fit CameraView module as per the installation instructions (page 3 of this document), routing the USB cable to the Cab-Mate One, but do not plug it into the APMM module yet.

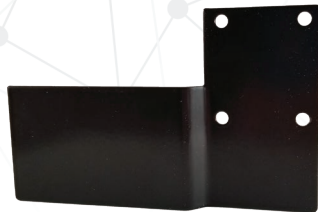
APMM Power Module Installation for Cab-Mate One continued

STEP FIVE

Secure the APMM bracket to the Cab-Mate One by sandwiching it between the Cab-Mate One and the ball mount using the supplied screw and washer pack. (Use the longer machine screws provided, paired with star washers.)



Ball Mount



APMM Bracket



Cab-Mate One

STEP SIX

Secure the APMM module to bracket using the supplied double-sided tape with the text side facing up as pictured below.



STEP SEVEN

Connect the 16pin and 6 pin plugs of the APMM harness to the ports on the bottom of the Cab-Mate One. (For previously installed Cab-Mate One, remove 16 pin connector from bottom of Cab-Mate One and replace with the APMM harness.)



APMM Harness



Bottom view

APMM Power Module Installation for Cab-Mate One continued

STEP EIGHT

Connect the APMM harness to the AUX1 and LMU DIAG ports on the top of the APMM module.



Top view

STEP NINE

Mount the Cab-Mate One/APMM assembly to the dash using the Panavise ball mount (not pictured).

STEP TEN

Connect the diagnostic cable to the port on the APMM labeled "VEHICLE DIAG" on the bottom of the APMM module.



Bottom view

STEP ELEVEN

For a previously installed camera, unplug the 10 pin plug from the port on the side of the APMM power module.

STEP TWELVE

Connect the 10 pin plug from the Power/Accessory Harness cable into the port on the side of the APMM power module.



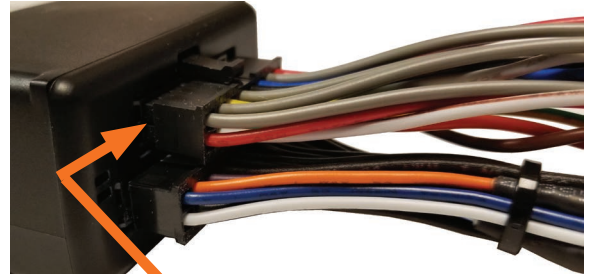
APMM Power Module Installation for CalAmp LMU 3640



Remove Existing Diagnostic Cable

STEP ONE

For a previously installed LMU 3640, unplug the diagnostic cable from the LMU.



STEP TWO

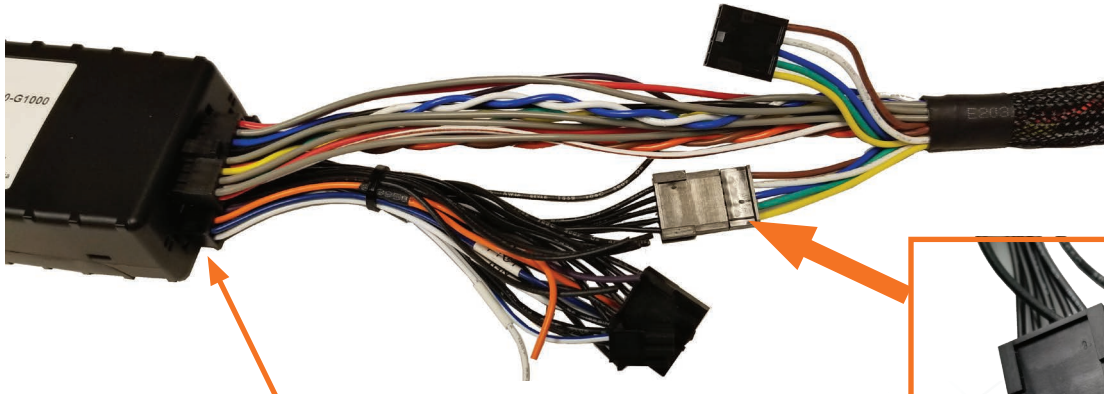
Plug the longer 16-pin plug from the APMM harness into the 16 pin port on the LMU, replacing the diagnostic cable you just removed if working on previously installed LMU.



APMM Harness

STEP THREE

Plug the male 5 pin plug from the APMM harness into the female 5 pin plug of the accessory harness.



OPTIONAL STEP

If this is a new installation of the LMU 3640, plug the 20 pin plug of the accessory harness into the 20 pin port of LMU.



Female 5 pin from Accessory Harness

Male 5 pin from APMM Harness

APMM Power Module Installation - CalAmp LMU 3640 continued...

STEP FOUR

Plug the 16 pin plug from the short end of the APMM harness into the LMU DIAG port on the power module.

STEP FIVE

Plug the 6 pin plug from the APMM harness into the AUX 1 port on the power module.



STEP SIX

Plug the diagnostic cable (from STEP ONE) into the VEHICLE DIAG. port on the power module.

Power Module



STEP SEVEN

Plug the usb adapter cable into the 10 pin port on the side of the power module.



For a previously installed camera, remove the power cable of the old camera and replace with the 10 pin connector of the new camera power/accessory harness.

Direct Wire Installation Option

STEP ONE

Cut off the 10-pin molex connector from the power cable.



STEP TWO

The **Black** wire (*ground*) should be securely fastened to a grounded screw or chassis ground.

STEP THREE

The **Yellow** wire (*power*) should be connected to a constant 12-24VDC power source found at the key source or the fuse panel.

(Circuit taps are provided in the hardware kit if needed, however soldering and using inline fuses is the recommended connection.)



STEP FOUR

The **Red** wire (*ignition*) is the ignition event wire that is best installed directly to 12v switched ignition wire.

Ensure that power to the ignition wire is available ONLY when the vehicle ignition is turned on. All makes and models of vehicles are different - we recommend knowledge of the particular vehicle's constant and ignition wiring prior to installation.



Connect Power Cable to Camera

STEP ONE

Connect the power plug to the power port on the camera.



Power Cable Port



Camera with power cable attached

Test Camera Functionality

STEP ONE

Before securing cabling, check that the camera is receiving power. Start the truck's engine.

STEP TWO

Check that the blue indicator light on the front of the camera is on.

STEP THREE

Secure the cable by attaching the port cover and securing with the attached screw mechanism.



Blue Power LED

Mount Camera

STEP ONE

Determine proper placement of camera on the front windshield.

- Center of the windshield next to the rearview mirror area
- Highest possible placement within the wiper blade path
- Avoid any overhanging exterior sun visor or other materials on glass including rock chips or cracks.



STEP TWO

Match the small brackets on the mounting plate with the knotsches on the camera and slide together to connect.



Mounting Plate back



STEP THREE

Clean the mounting area on the windshield with alcohol (not provided). Remove all dirt, oil, and grime.

STEP FOUR

Remove protective plastic on the camera lens. Clean the lens with a soft, lint-free cloth (not provided). The lens should be free of scratches, dirt, and dust.

Mount Camera *continued*

STEP FIVE

Orient the camera to the windshield.

- Camera should be level to the horizon line.
- Point the lens forward with a slight downward angle so the camera picks up the front hood at the bottom of the frame.
- Rotate the camera lense on the mount to adjust the position.
- Peel the film from the mounting plate tape.



STEP SIX

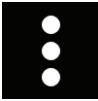
Press the mount firmly to the windshield glass.

Optional Check Camera Position

STEP ONE

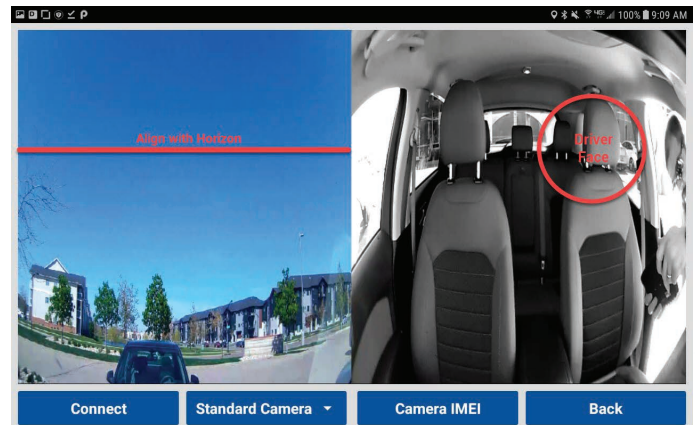
On the tablet, open POV, but **stay logged out**.

STEP TWO

Tap the ellipsis menu  in the upper right corner of POV, and then select "Camera Setup".

STEP THREE

Connect: use this button to search for powered cameras in your immediate area. Choose the matching IMEI number from any results returned.



View from camera

Standard Camera: keep this field as "Standard Camera"

Camera IMEI: use this field to add the camera's IMEI to directly connect to this camera instead of using the Connect to search. (IMEI number is on the label of the camera beneath the mounting plate. Capture this information before adding mounting plate.)

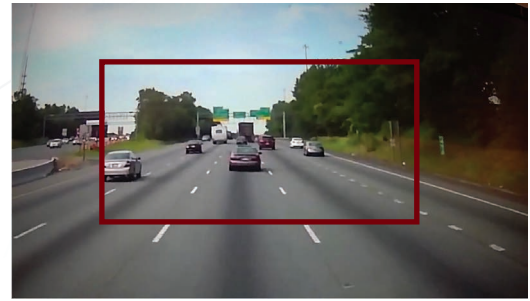


Once connected, use the horizon guide line to align your front camera and the Driver Face circle to align your rear facing camera.

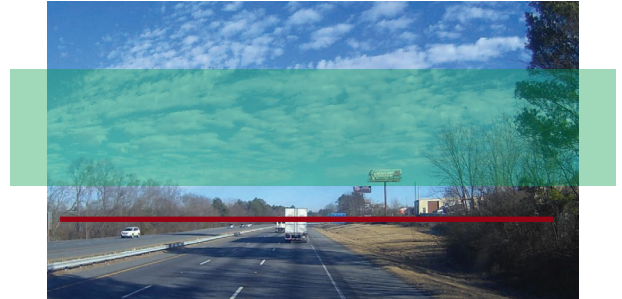
Mounting Tips

GOOD MOUNTING TIPS

- Metrics visual detection happens within red square area (image right)
- Horizon line must be level with more road than sky
- Field of view in green area
- No occlusions in field of vision.



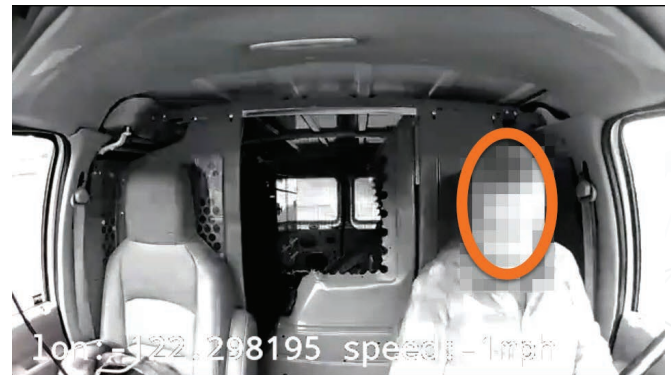
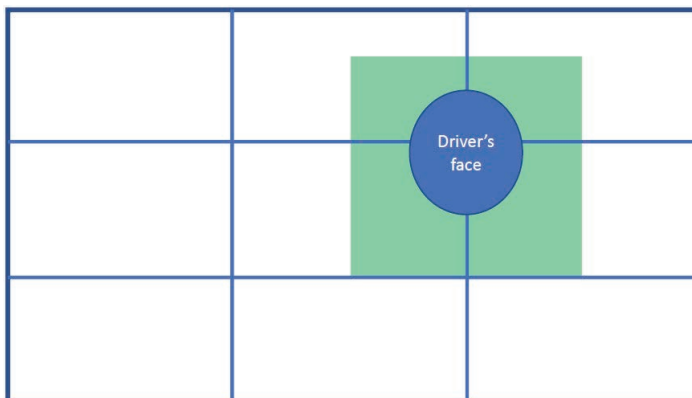
Good = level horizon, road in range



Bad = too much sky

CABIN VIEW

- In cab camera should show driver's face.
- No obstructions between camera and driver
- Camera should be mounted closer to driver
- Face should be within the example green band
- Must NOT affect driver's line of sight as per local regulations



Install Confirmation: 701-499-0022

You will need to call Pedigree Install Support to finalize and confirm the installation.