

Trimble Duo

INSTALLATION GUIDE



TRANSFORMING THE WAY THE WORLD WORKS



FEDERAL COMMUNICATION COMMISSION INTERFERENCE STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.



INDUSTRY CANADA STATEMENT

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- l'appareil ne doit pas produire de brouillage, et
- l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FOR MOBILE DEVICE (>20cm from body / low power)

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

FOR WLAN 5GHZ DEVICE:

Caution: The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

Avertissement: Les dispositifs fonctionnant dans la bande de 5150 à 5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux

End Product Labeling FOR MOBILE DEVICE USAGE (>20cm/low power)

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains IC:1756A-DUOLTE & Contains IC:1756A-DUOWIFI".

Plaque signalétique du produit final

Ce module émetteur est autorisé uniquement pour une utilisation dans un dispositif où l'antenne peut être installée de telle sorte qu'une distance de 20cm peut être maintenue entre l'antenne et les utilisateurs. Le produit final doit être étiqueté dans un endroit visible avec l'inscription suivante: "Contient des IC: Contains IC:1756A-DUOLTE & Contains IC:1756A-DUOWIFI".

Manual Information To the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning as show in this manual.

Manuel d'information à l'utilisateur final

L'intégrateur OEM doit être conscient de ne pas fournir des informations à l'utilisateur final quant à la façon d'installer ou de supprimer ce module RF dans le manuel de l'utilisateur du produit final qui intègre ce module.

Le manuel de l'utilisateur final doit inclure toutes les informations réglementaires requises et avertissements comme indiqué dans ce manuel.

TABLE OF CONTENTS

Important Safety Considerations	5
Part List	6
System Overview	9
Diagnostic Cable Installation	16
Hardware Installation	20
Indicator Lights	23
Activation	24
System Information	35
Troubleshooting	43

IMPORTANT SAFETY CONSIDERATIONS

For ELD compliance, the device needs to be mounted in a fixed position during the operation of the commercial motor vehicle and visible to the driver when the driver is seated in the normal driving position.

Ensure that the location does not interfere with the driver's operation of the commercial motor vehicle, including view of gauges, and does not protrude over the dash covering the windshield view.

The mounting plate should be located on an area that is flat and can support the weight of the mount arm and the device.

INSTALLATION KITS

M-010-0659 - Trimble Duo Base Installation Kit

Part Number	Item
M-010-0637	Trimble Duo Display
H-010-0529	RAM Mount
H-048-0523	8-32 x 5/8" Screw Pack
H-048-0526	#8 x3/4" Screw Pack

M-010-0648 - Trimble Duo 2-Pin Installation Kit

Part Number	Item
M-010-0637	Trimble Duo Display
H-010-0529	RAM Mount
H-048-0523	8-32 x 5/8" Screw Pack
H-048-0526	#8 x3/4" Screw Pack
L-016-0652	J1939 2-Pin Cable
L-016-0153	J1939 Pigtail Kit

M-010-0647 - Trimble Duo Standard Installation Kit

Part Number	Item
M-010-0637	Trimble Duo Display
H-010-0529	RAM Mount
H-048-0523	8-32 x 5/8" Screw Pack
H-048-0526	#8 x3/4" Screw Pack
L-016-0681	9-Pin Pass Through Connector

M-010-0649 - Trimble Duo OBD-II Installation Kit

Part Number	Item
M-010-0637	Trimble Duo Display
H-010-0529	RAM Mount
H-048-0523	8-32 x 5/8" Screw Pack
H-048-0526	#8 x3/4" Screw Pack
L-016-0653	OBD-II Cable

M-010-0699 - Trimble Duo RP1226 Installation Kit

Part Number	Item
M-010-0637	Trimble Duo Display
H-010-0529	RAM Mount
H-048-0523	8-32 x 5/8" Screw Pack
H-048-0526	#8 x3/4" Screw Pack
L-016-0698	PR1226 Cable

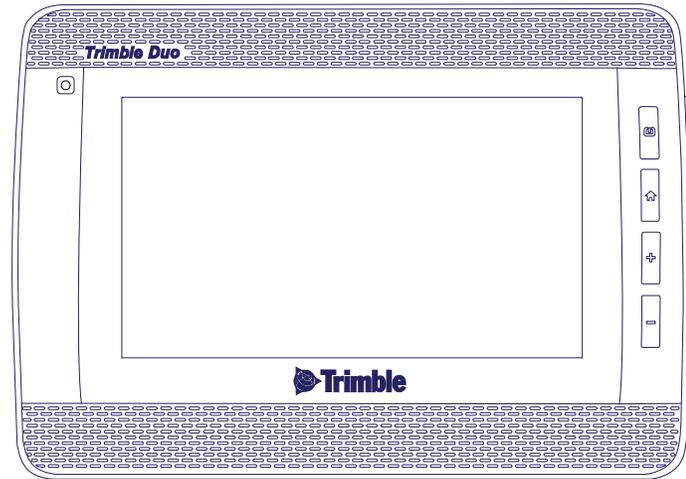
M-010-0650 - Trimble Duo Volvo / Mack Installation Kit

Part Number	Item
M-010-0637	Trimble Duo Display
H-010-0529	RAM Mount
H-048-0523	8-32 x 5/8" Screw Pack
H-048-0526	#8 x3/4" Screw Pack
L-016-0654	Volvo / Mack Cable

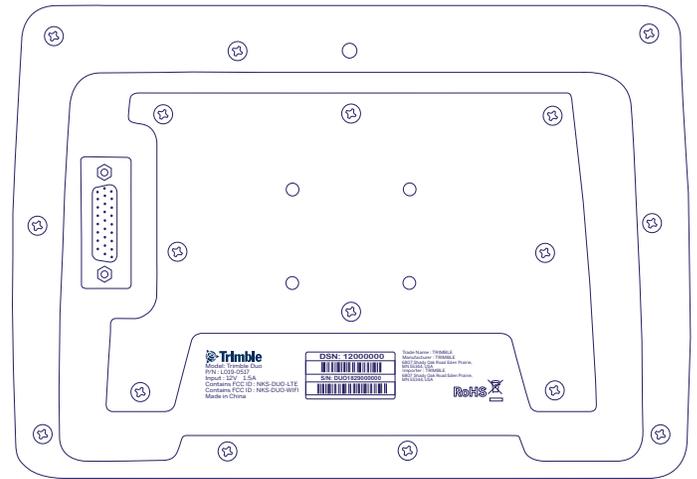
Optional Mount Accessories

Part Number	Item
H-050-0530	Suction Cup Mount
H-050-0526	Grab-Bar Claw Mount

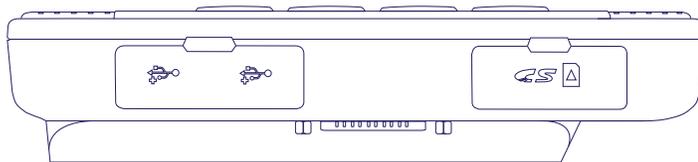
TRIMBLE DUO DIAGRAM



FRONT



BACK

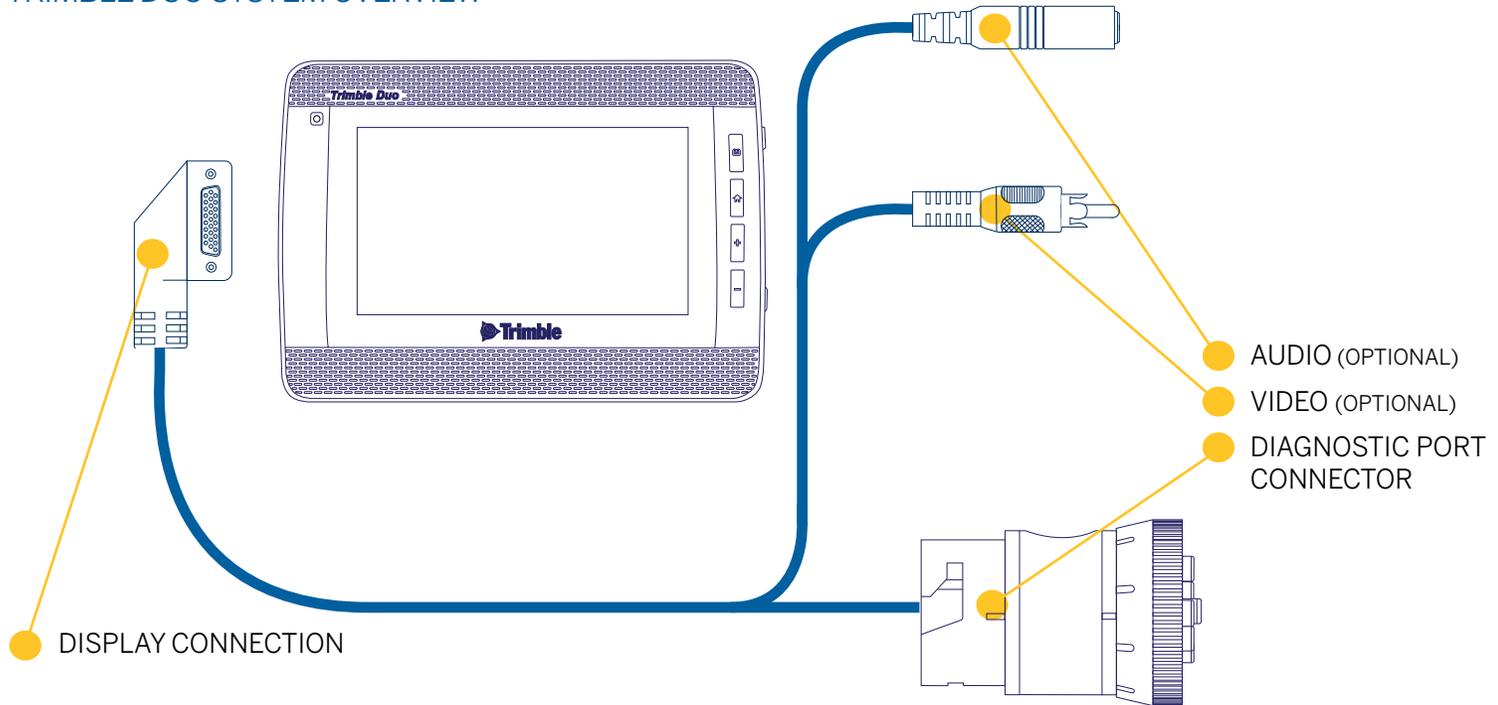


RIGHT SIDE



LEFT SIDE

TRIMBLE DUO SYSTEM OVERVIEW



TRIMBLE DUO 9-PIN PASS THROUGH CONNECTOR

The Duo 9-Pin Pass Through Connector Cable (part L-016-0681) is recommend for most vehicle installations. It connects directly to the vehicle diagnostic port and allows an additional cable to be attached. This cable works with most Class 6-8 vehicles.



TRIMBLE DUO OBD-II MAIN CABLE

The Duo OBD-II Main Cable (part L-016-0653) is recommended for small vehicles running OBD-II engine data. This will include most vans, pick-up trucks, and sedans. The cable connects directly to the OBD-II port near the steering column of the vehicle.



TRIMBLE DUO VOLVO / MACK CABLE

The Trimble Duo Volvo / Mack Cable (part L-016-0654) is recommended for 2013 to 2017 Volvo and Mack trucks with Volvo and Mack engines. The cable connects directly to the diagnostic port of the vehicle.



TRIMBLE DUO PR1226 CABLE

The Trimble Duo PR1226 Cable (part L-016-0698) is designed to work with the following vehicles:

2018 and newer Class 8 Kenworth and Peterbuilt trucks.

2020 and newer vehicles including Freightliner, International, Mack, or Volvo that were built with the RP1226. Consult your dealership for details.



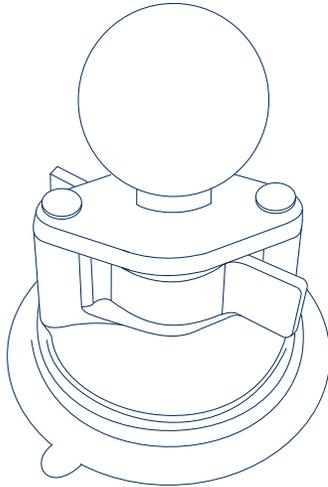
TRIMBLE DUO 2-PIN MAIN CABLE

The Duo 2-Pin Main Cable (part L-016-0652).

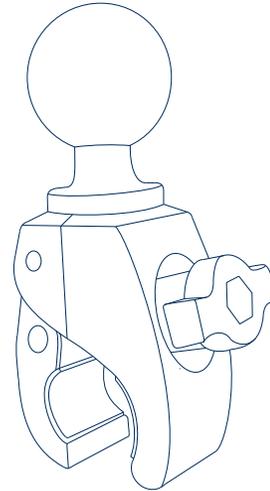


TRIMBLE DUO OPTIONAL ACCESSORIES

Optional accessories are available to mount the Trimble Duo without the use of drilling holes.



SUCTION CUP MOUNT
H-050-0530



GRAB-BAR CLAW MOUNT
H-050-0526

DIAGNOSTIC CABLE INSTALLATION

Step 1. Ensure power to the vehicle is **OFF** before installation.

Step 2. See next page for diagram.

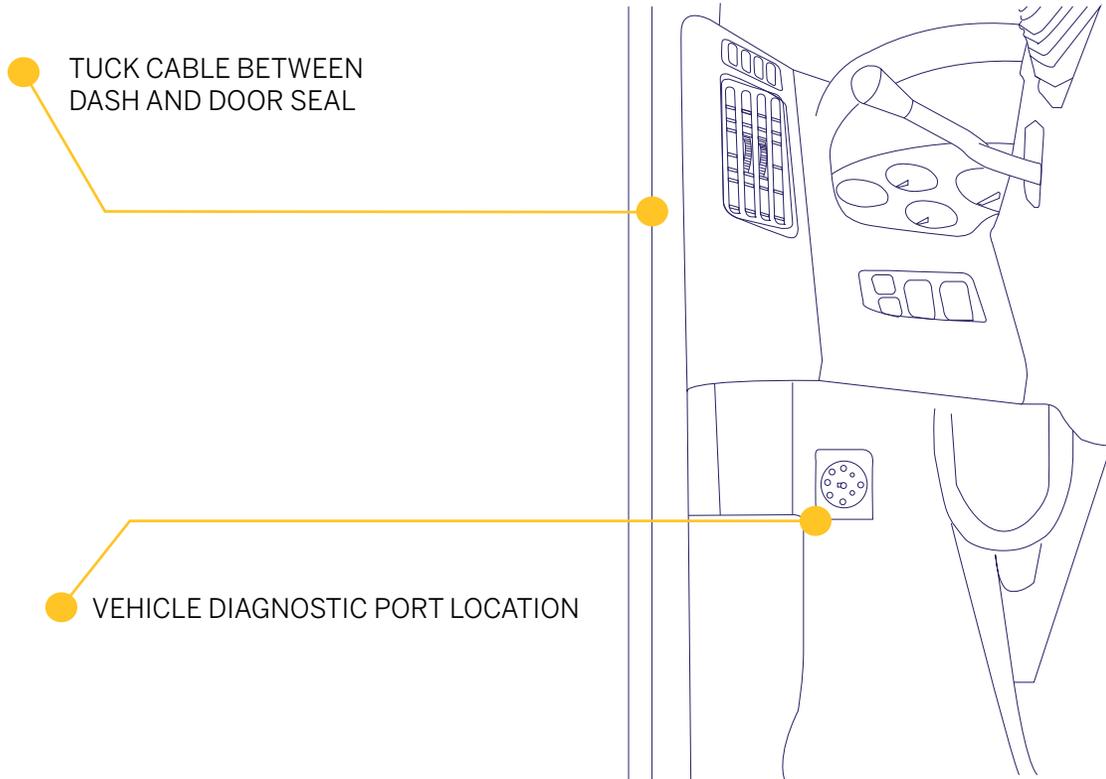
Expose the area in the vehicle's cab for the diagnostic port.

Step 3. Align the diagnostic cable with the vehicle's diagnostic port.

Step 4. Connect the diagnostic cable with the diagnostic port.

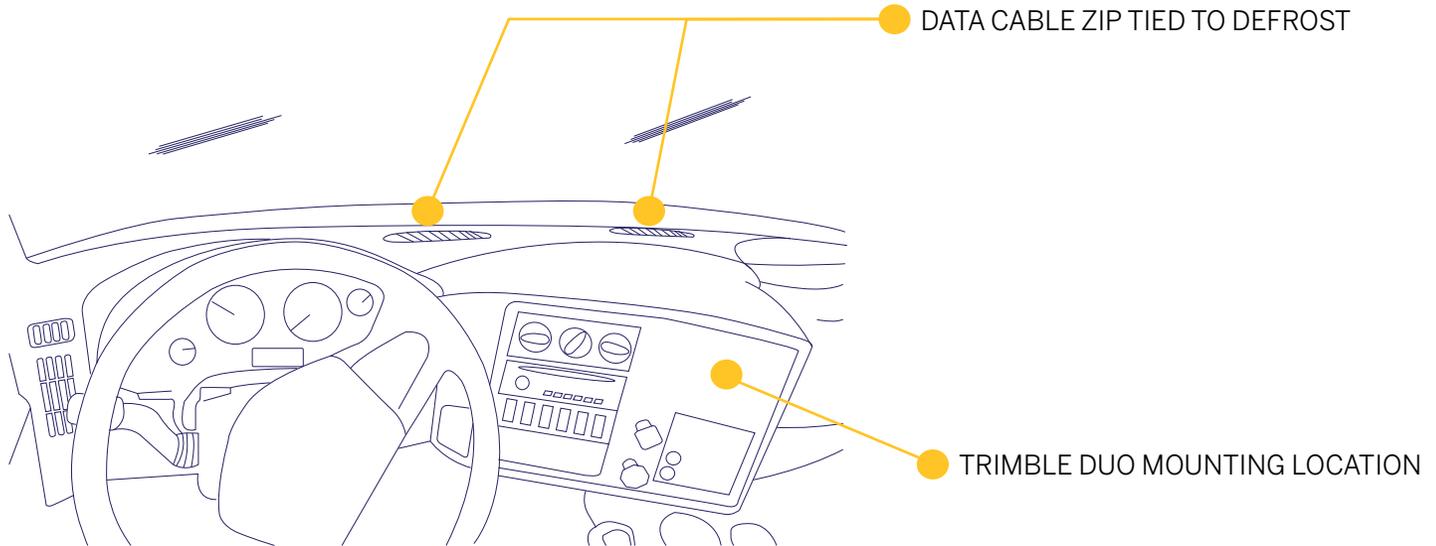
Step 5. Ensure that you hear an audible click or a twist lock is engaged making a good connection. The connection will depend on the type of cable you will need to use.

DIAGNOSTIC CABLE INSTALLATION



DIAGNOSTIC CABLE INSTALLATION

Step 6. Carefully route the cable to the intended display mount area. It is important to avoid interference with vehicle or driver activities.

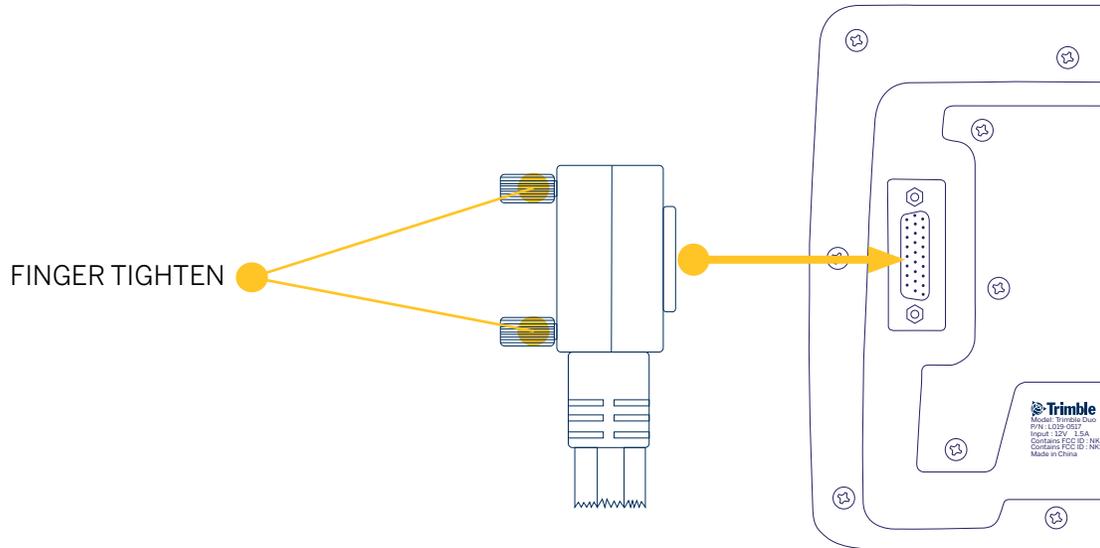


DIAGNOSTIC CABLE INSTALLATION

Step 7. Orientate the diagnostic cable to the back of the Trimble Duo data input making sure the pins are positioned squarely.

Step 8. Push the diagnostic cable gently into the Trimble Duo data input.

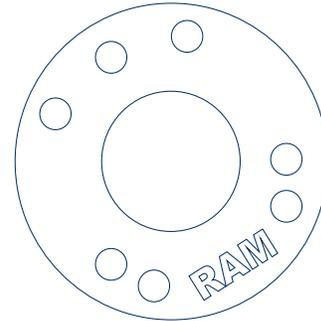
Step 9. Finger tighten the thumb screws on the diagnostic cable.



MOUNTING ARM INSTALLATION

Trimble recommends using the RAM Mounting System (part H-048-0529) included in your Trimble Duo Base Installation Kit.

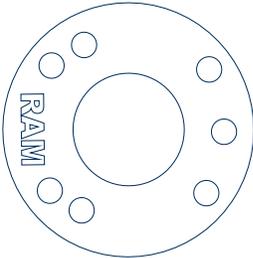
- Step 10. Verify there are no wires behind the backing surface that may be damaged by drilling into the surface.
- Step 11. Mark and Drill the holes for the mounting bracket using a 3/16" drill bit.
- Step 12. Attach the RAM Ball Joint Mount to the dash using the 4 supplied 8-32 3/4" screws (part H-048-0526).



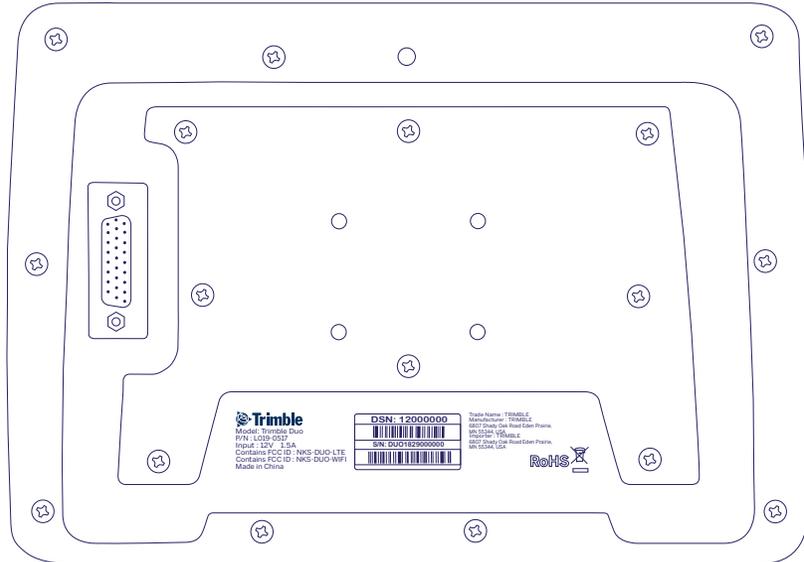
RAM MOUNT BALL JOINT

MOUNTING ARM INSTALLATION

Step 13. Line up the RAM Ball Joint Mount to ensure that it will be attached with 4 screws to the Trimble Duo. Using the supplied #8-32 x 5/8" screws (part H-048-0523), attach the mounting plate on the back of the Trimble Duo.



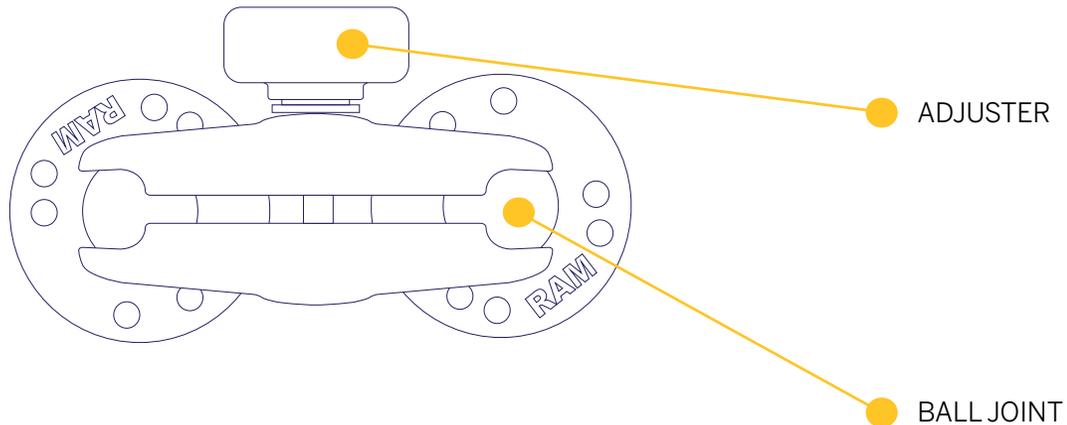
BALL JOINT MOUNTING PLATE



TRIMBLE DUO BACK

MOUNTING ARM INSTALLATION

Step 14. Loosen the RAM mount arm via the adjuster. Slide the arm over the ends of the mounted ball joints. Position the device to the desired position and tighten the arm with the adjuster. To re-position, loosen the arm prior to making any adjustments and then re-tighten to lock in place.



INDICATOR LIGHTS

Step 15. Turn the vehicle ignition to ON and verify the device boots up.



POWER BUTTON / CHARGING INDICATOR



Solid Blue - Powered on but not charging.



Solid Green - Device is charging.



Blinking Green - Issue with battery or imminent loss of battery power.

ACTIVATION

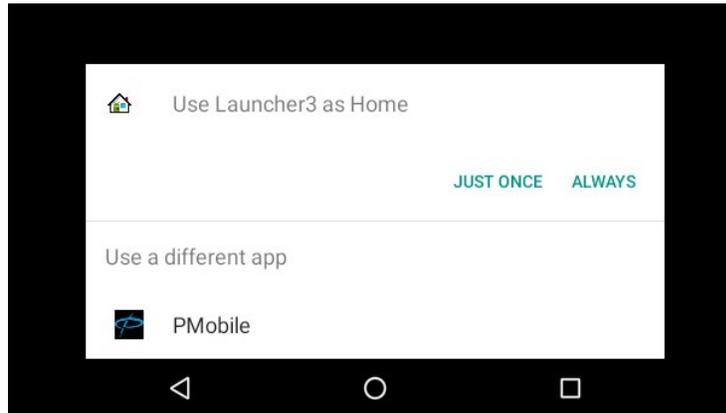
Step 1. When the Trimble Duo powers on for the first time, the software will ask to use Launcher3 as Home.

Tap **PMobile**.

Tap **ALWAYS**.

This will set PeopleNet Mobile Software™ as the home page when turning on the Trimble Duo.

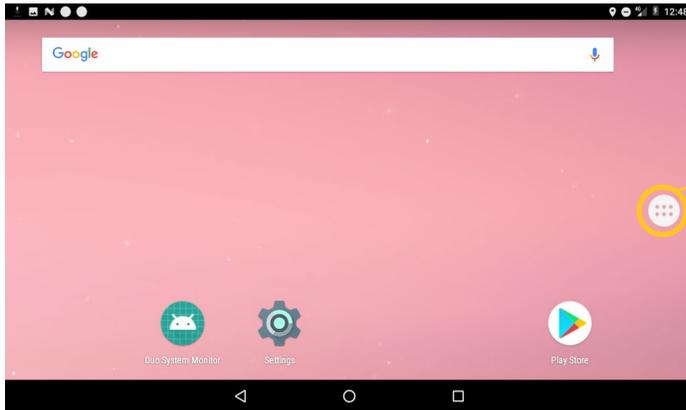
If the Trimble Duo displays the Android Home Screen (pink) proceed to Step 1a to have the device boot to PMobile.



ACTIVATION

Step 1a. In certain instances the Trimble Duo will begin activation on the main Android page. If this occurs follow the below instructions:

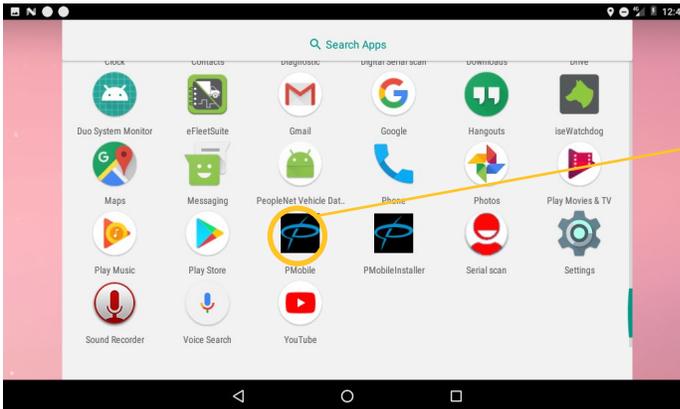
Tap the **Apps** button.



APPS BUTTON

ACTIVATION

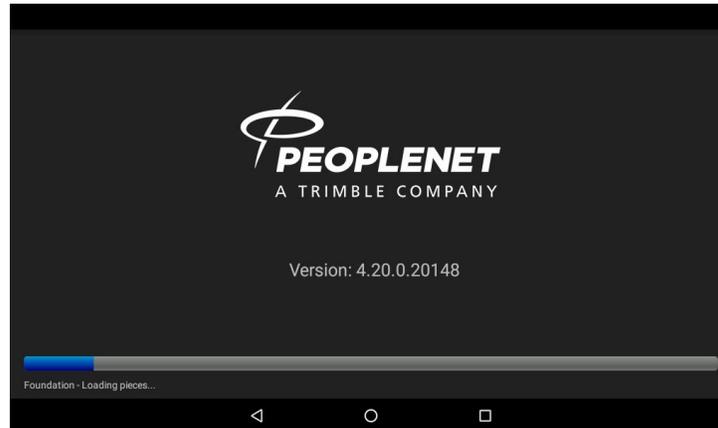
Step 1b. Tap the **PMobile** icon.



PMOBILE BUTTON

ACTIVATION

Step 2. PeopleNet Mobile Software will boot up.

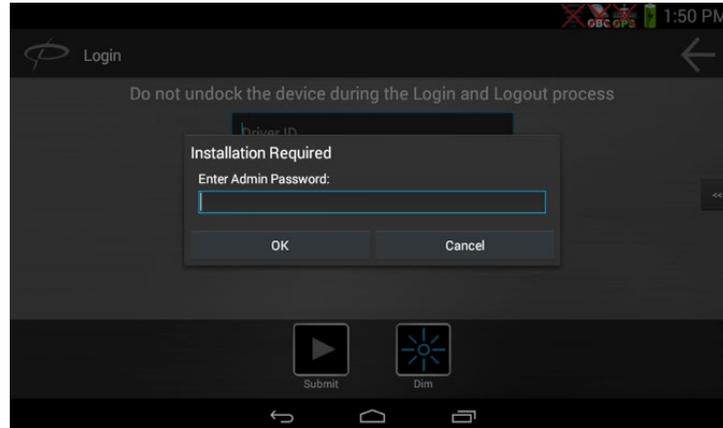


ACTIVATION

Step 3. When the PeopleNet Mobile Software runs for the first time, it will indicate that it needs configuration.

Enter **9238** for the admin password.

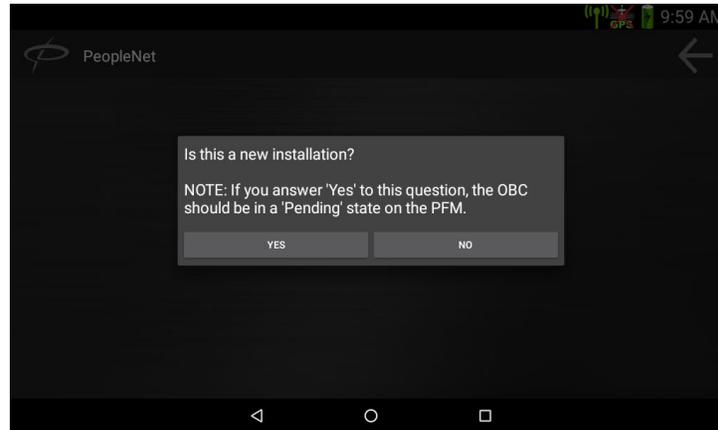
Tap **OK**.



ACTIVATION

Step 4. Answer the new installation dialog question.

Tap **Yes**.



ACTIVATION

Step 5a.

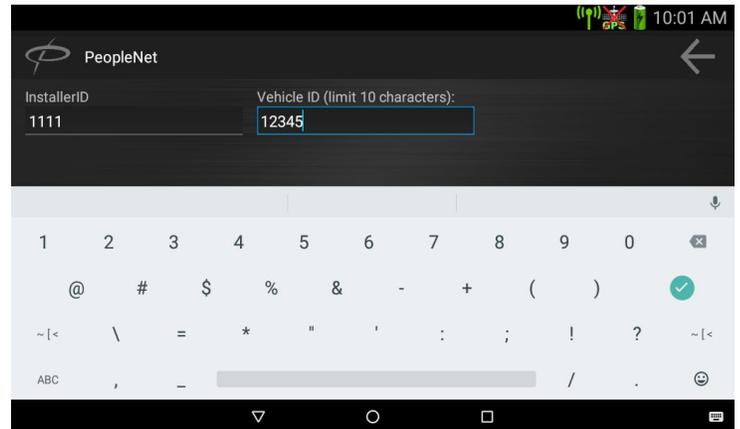
Tap in the **InstallerID** entry box.

Enter your Installer Identification number. (if you do not have one enter 0000)

Tap in the **Vehicle ID** entry box.

Enter the Vehicle Identification number as it corresponds to that in the PeopleNet Fleet Manager™.

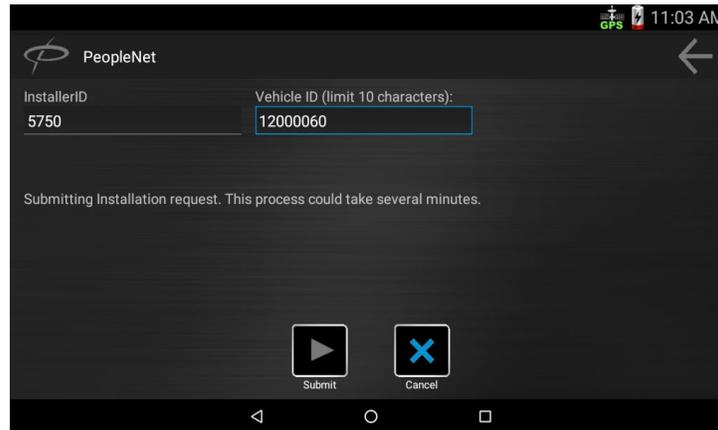
Tap **Enter**  to begin activation.



ACTIVATION

Step 5b.

A message of **Submitting Installation Request, This process could take several minutes** will display on the device.

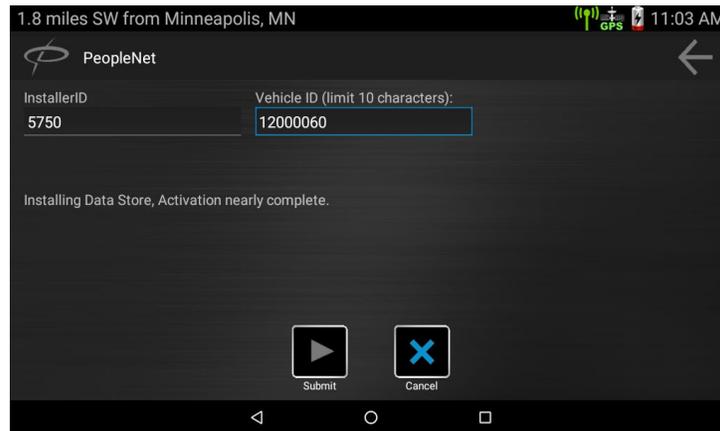


ACTIVATION

Step 5c.

The device dialog will change to **Installing Data Store, Activation nearly complete.**

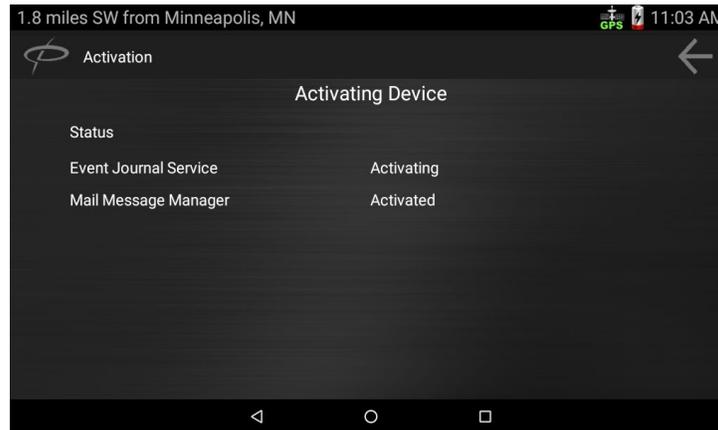
If the dialog has not changed on the device after 5 minutes, reboot the Trimble Duo and return to Step 1 of the Activation process.



ACTIVATION

Step 6a. Status Changes

During the process of Activation, the status should change from **Activating** to **Activated**.

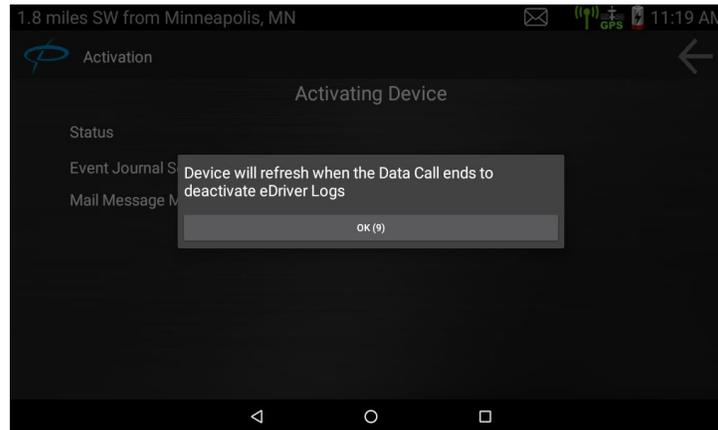


ACTIVATION

Step 6b. Status Changes Completion

Once the Activation has been successfully completed, the below dialog box will display.

Tap **OK** to complete the Activation of the Trimble Duo.



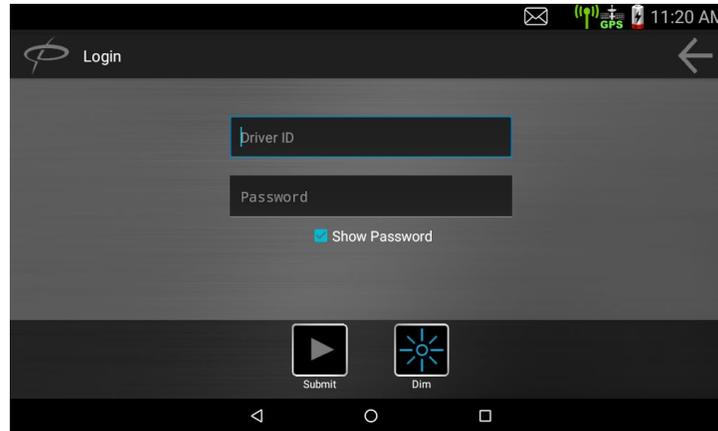
SYSTEM INFORMATION

Step 1. Driver Login

Tap in the top box and enter the Driver ID.

Tap in the lower box and enter the password.

Tap **SUBMIT** to complete the login.



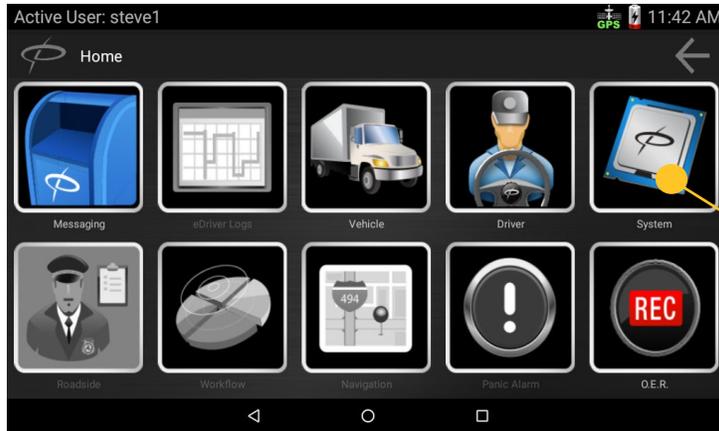
The display will show **Requesting driver info, data call started...**

Upon successful completion the display will show **Received driver configuration.**

SYSTEM INFORMATION

Step 2. Accessing System Information

Tap the **System Information** icon from the Home screen..



SYSTEM INFORMATION ICON

SYSTEM INFORMATION

Step 3. Accessing Information Panel

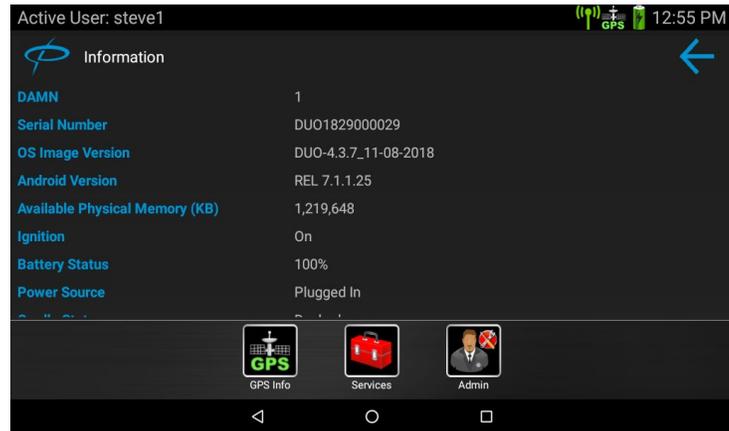
Tap the **Information** icon to display the Information Panel.



SYSTEM INFORMATION

Step 4. Viewing Information Panel

Verify **Ignition** is displaying **On** and the vehicle's key is in the ON position.

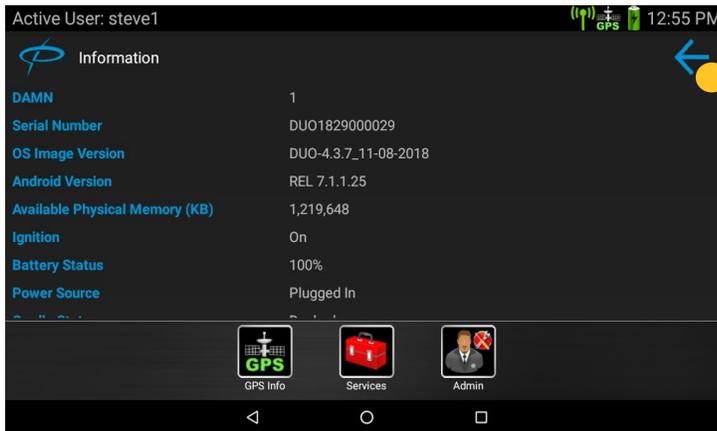


IGNITION VALUE

SYSTEM INFORMATION

Step 5. Return to the System Information Panel

Tap the Back button to return to the Systems Menu panel.



BACK ICON

SYSTEM INFORMATION

Step 6. Setting Menu

The System Menu will display on the device.

Tap the Settings icon .

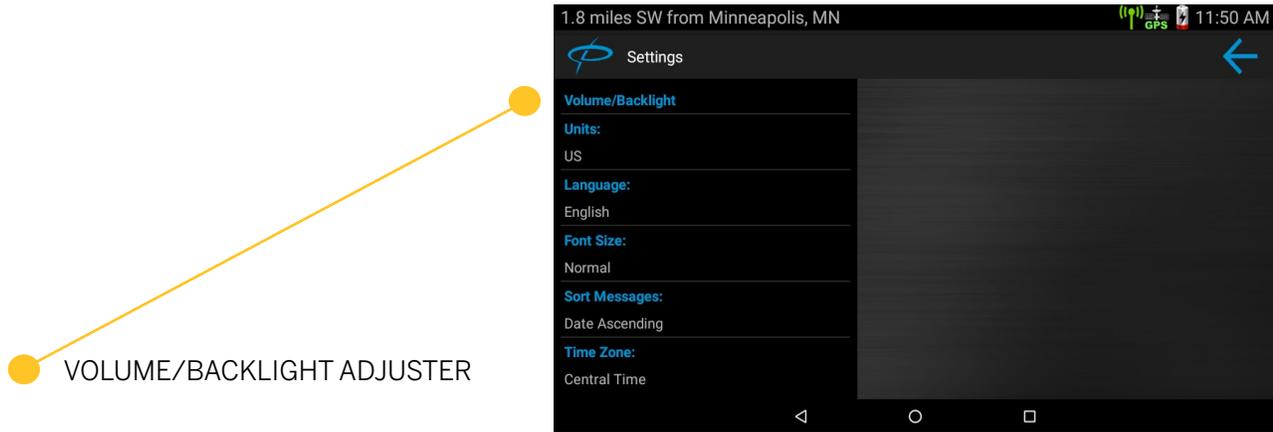
● SETTINGS ICON



SYSTEM INFORMATION

Step 7. Adjust Trimble Duo volume and display backlight.

Tap in the Volume/Backlight menu to make sound and brightness adjustments to the display.

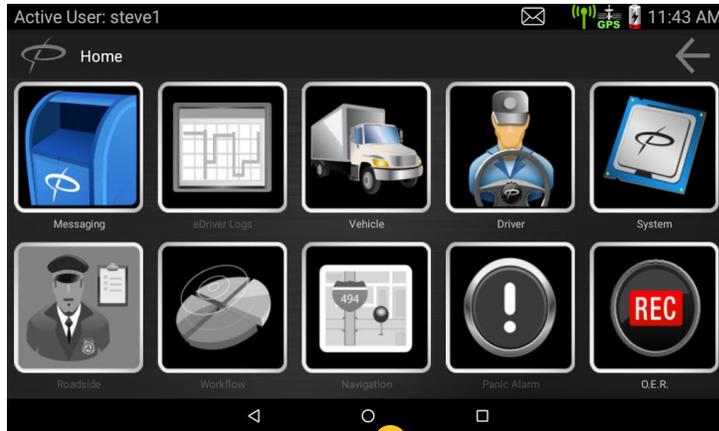


LOGGING OUT OF DEVICE

Step 1. From any menu you can log off from the Trimble Duo.

Tap the **Home** button.

Tap **Log Off**.



HOME BUTTON

TROUBLESHOOTING

DEVICE ICONS



Battery state



Battery charging / Device plugged into power source



Indicated good GPS signal (Green icon)

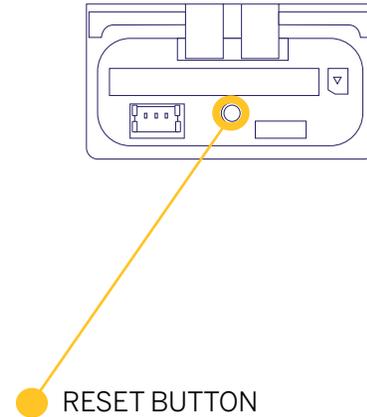


Indicates good cellular signal (Green icon)

TROUBLESHOOTING

HARD RESET BUTTON

A hard reboot button is available under the top access panel on the Trimble Duo's right side. Open the top access panel. Hold in the button to reboot the device if needed.



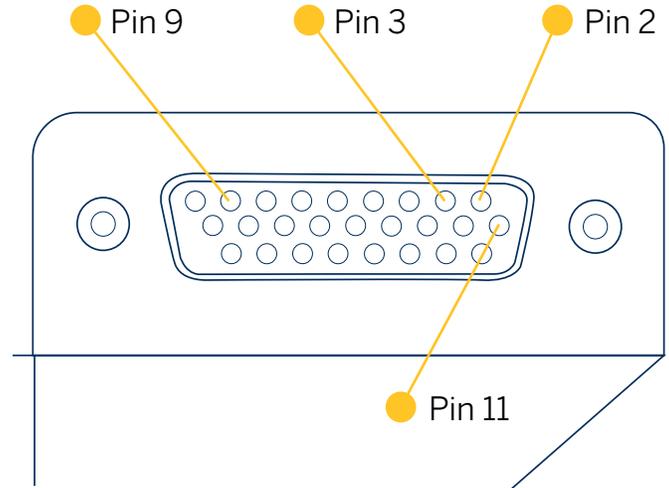
TROUBLESHOOTING

CABLE PIN OUT

This cable pin-out can aid in troubleshooting if the display fails to boot

Trimble Duo Display Connection Cable

PIN	DESCRIPTION
2	J1939 Low
3	Ground
9	Power
11	J1939 High
	12 Volts Pin 9 to Pin 3
	60 ohms Resistance Pin 2 to Pin 11



TROUBLESHOOTING

CABLE PIN OUT

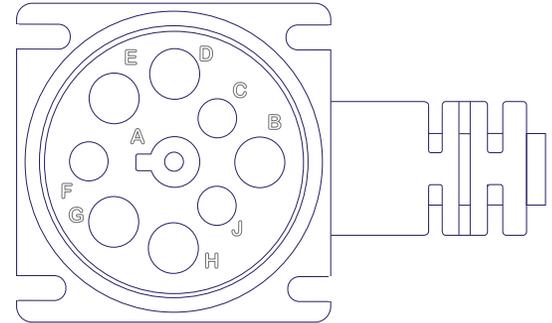
This cable pin-out can aid in troubleshooting if the display fails to boot

Diagnostic Plug

PIN	DESCRIPTION
A	Ground
B	Power
C	J1939 High
D	J1939 Low

12 Volts Pin A to Pin B

60 ohms Resistance Pin C to Pin D



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