



samsara

Vehicle IoT Gateway
VG55 datasheet and user manual

VG55-NA model # 010-00006
VG55-EU model # 010-00007
VG55-FN model # 010-00008

Powerful, Easy-to-Use Fleet Telematics

Instantly-Accessible, Real-Time Fleet Visibility

An always-on cellular connection reports data in real-time to the Samsara Cloud. Operators gain instant visibility into the movements and status of their entire fleet simply by logging into the dashboard from their desktop or mobile device.

Designed to Increase Efficiency

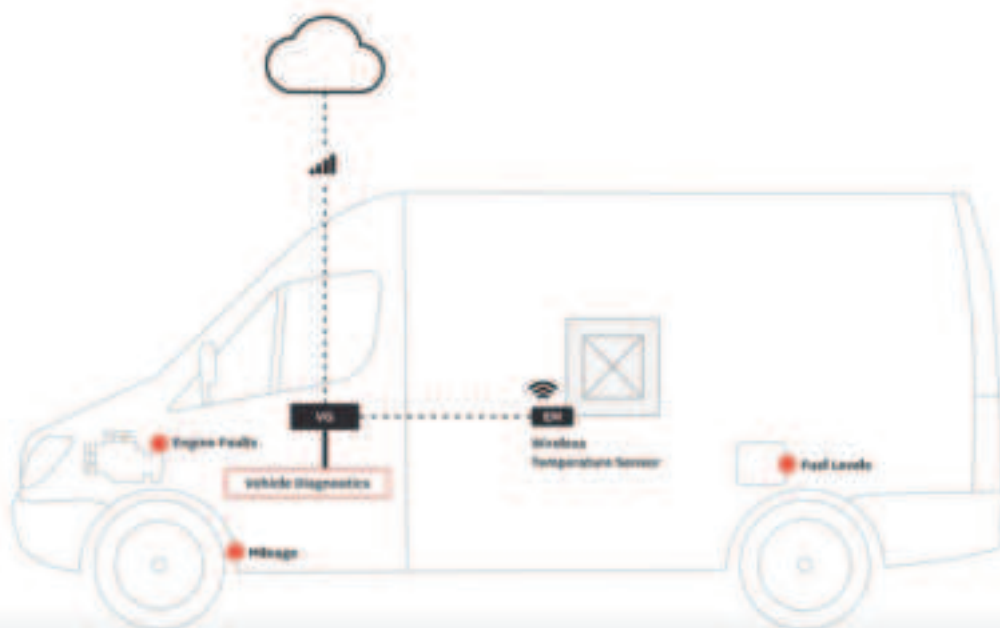
A powerful software platform analyzes each vehicle's behavior, providing operators with insight to fleet utilization, expected maintenance, and fuel efficiency. Analytics and reports are automatically generated in the cloud, providing operations team with the data they need in just a few clicks.

Telematics Beyond GPS

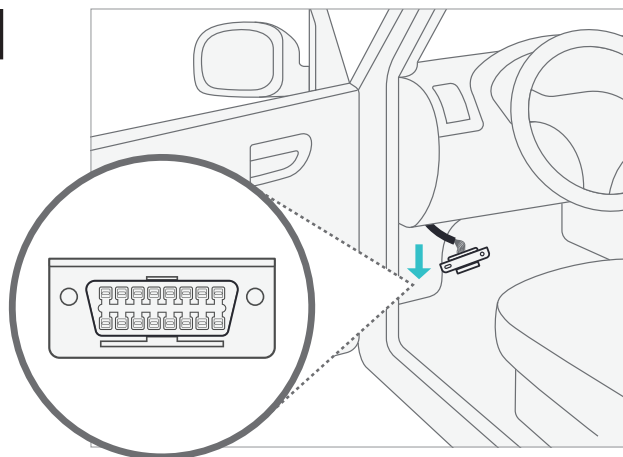
Samsara gateways integrate traffic, temperature, and other sensor data with real time location, streamlining route planning and improving fleet efficiency. Samsara's cloud architecture provides operators with a wealth of actionable data, from real-time traffic and trip history to efficiency reports that save fuel and increase utilization.

Part of a complete solution

Samsara brings complete visibility to physical operations: Monitor the temperature of refrigerated compartments with real-time alerts to prevent spoilage. Protect high-value cargo from extreme temperature, humidity, or shock. And monitor specialized vehicles by adding pressure sensors, flow meters, and more - all from a single system.



1



EN

Locate vehicle's diagnostic port and detach it from its original location.

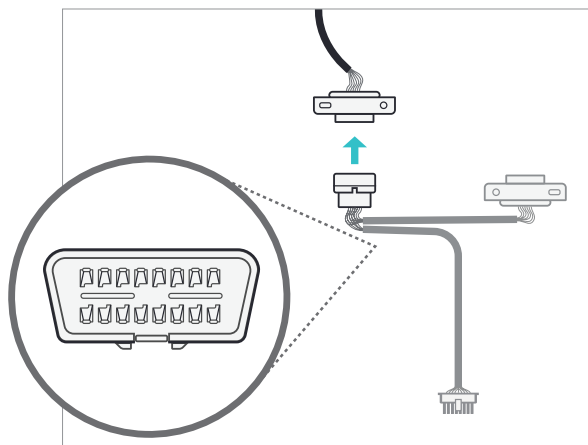
FR

Localisez le port de diagnostic du véhicule et détachez-le de son emplacement d'origine.

ES

Localice el puerto de diagnóstico del vehículo y retírelo de su ubicación original.

2



EN

Connect the Samsara cable. Vehicle's diagnostics remain accessible via the unconnected port.

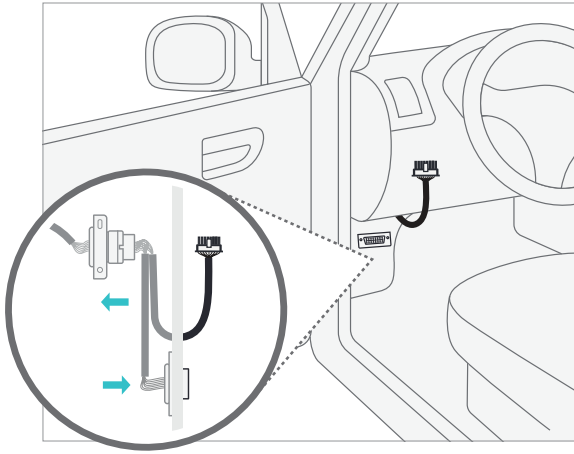
FR

Connectez le câble fourni par Samsara. Les diagnostics sont toujours possibles en utilisant la prise non connectée.

ES

Conecte el cable de Samsara. Aún podrá acceder al diagnóstico del vehículo a través de la entrada no conectada.

3



EN

Fasten unconnected diagnostics port to vehicle's original port location.

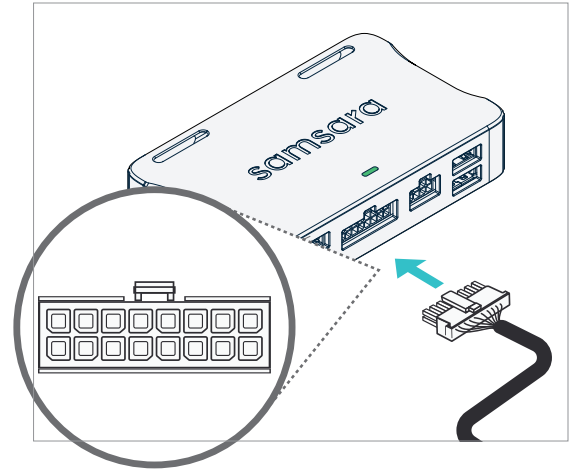
FR

Attachez la prise de diagnostic non connectée à l'endroit où se trouvait initialement le port du véhicule.

ES

Coloque la entrada de diagnóstico no conectada en la ubicación original de la entrada del vehículo.

4



EN

Plug the Samsara cable gateway connector into the gateway. It will click when fully inserted.

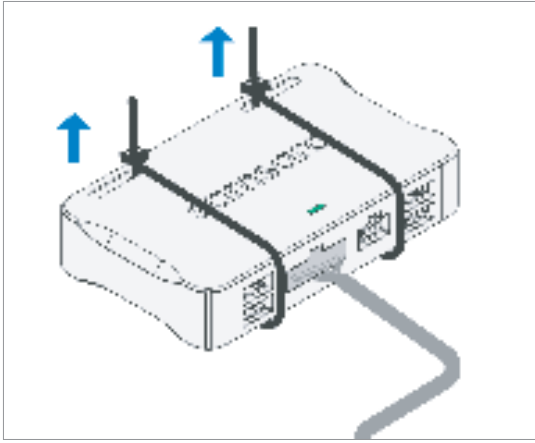
FR

Branchez le connecteur du câble fourni par Samsara pour boîtier télématique au boîtier télématique jusqu'à entendre un clic.

ES

Conecte el conector correspondiente del cable de Samsara al terminal telemático. Si está conectada correctamente, escuchará un clic.

5



EN

Fasten connected gateway in a secure position. Verify the gateway indicator light turns green, this could take 1-3 minutes.

For more information on configuration, adjustment, operation and troubleshooting procedures please contact support@samsara.com.

FR

Fixez le boîtier télématique connecté dans une position sûre. Vérifiez que le voyant lumineux du boîtier télématique est vert. Cela peut prendre 1 à 3 minutes.

ES

Sujete la puerta de enlace conectada en una posición segura. Verifique que la luz indicadora de la puerta de enlace se ponga en verde. Esto podría tardar entre 1 y 3 minutos.

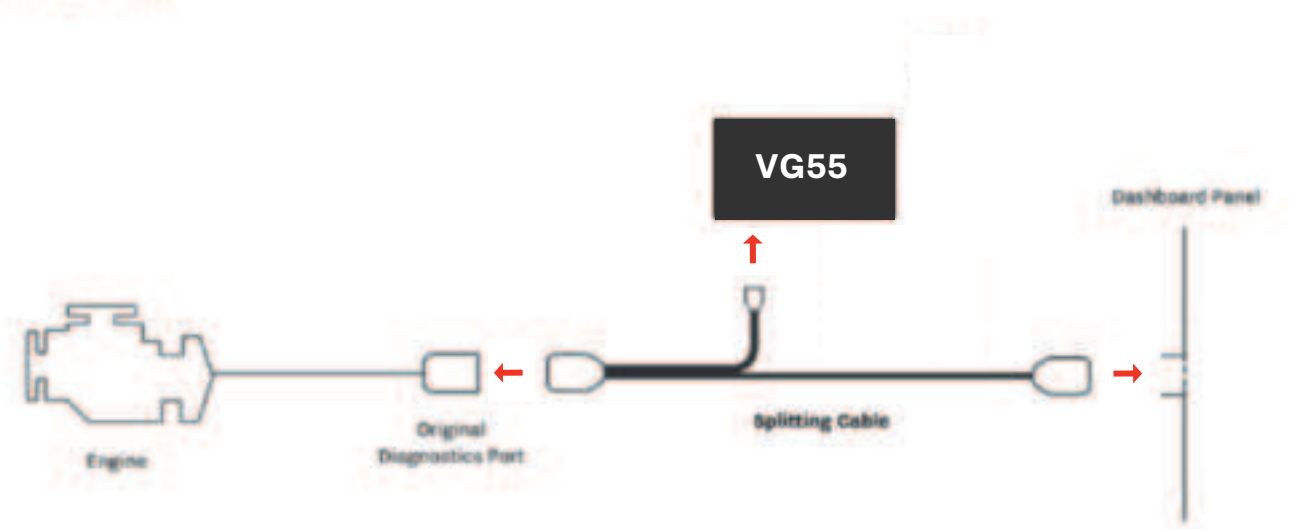
Para más información sobre los procedimientos de configuración, ajuste, operación y resolución de problemas por favor contacte support@samsara.com.

Installation Instructions

Splitting Cable

Part Number: 100-100000-0000

Revision: 1.0





Vehicle Gateway

HW-VG55

Data Sheet



Overview

The VG55 Vehicle Gateway is an advanced sensor platform for fleets, providing operators with real-time location and analytics, sensor data, accessory compatibility, WiFi hotspot connectivity, and ELD-ready hours of service logging.

Designed for plug-and-play installation in a wide variety of vehicles, the VG55 offers a broad array of business-relevant fleet management features in an integrated, easy-to-use solution.

Highlights

- **Location Tracking:** High-precision GPS with real-time visibility
- **Integrated Platform:** Full extensible platform works with Samsara wireless sensors, camera modules, Samsara USB accessories, and WiFi devices. These are all part of a complete hardware + software solution to enhance efficiency, safety, customer service, and compliance
- **High-speed Wi-Fi Hotspot:** Includes high-speed 4G LTE WiFi hotspot
- **Full Vehicle Compatibility:** Compatible with light, medium, and heavy-duty vehicles

Diagnostic Protocols Supported

Protocols	Supported w/ VG55-NA	Support w/ VG55-EU	Support w/ VG55-FN
High Speed CAN 2.0	Yes	Yes	Yes
J-1939	Yes	Yes	Yes
J-1708	Yes	No	Yes
RP-1226	Yes	Yes	Yes
Single Wire CAN	Yes	No	Yes
J-1850 (VPW, PWM)	No	No	No
Secondary High Speed CAN	Yes	Yes	Yes
K-Line for Tachograph	No	Yes	No

Hardware Specs

<i>Material</i>	Polycarbonate
<i>Encasing Size</i>	71mm x 117mm x 24mm
<i>Weight</i>	197 g
<i>USB Port</i>	4 Type A USB 2.0 Ports
<i>Auxiliary I/O Port</i>	8 Pin Connector
<i>Diagnostic Port</i>	16 Pin Connector
<i>Supported AUX Lines</i>	3 Digital & 2 Digital/Analog Inputs, 1 Digital Output
<i>Input Voltage Range (Power)</i>	7-32V
<i>Input Voltage Range (AUX)</i>	0-30V
<i>Temperature Range</i>	-40°C - 85°C

Wireless Connectivity Specs

Cellular:

<i>Accessible Cellular Networks - North America*</i>	Dual SIM: AT&T and partners; Vodafone and Partners
<i>Accessible Cellular Networks - Europe*</i>	Dual SIM: Vodafone and partners; AT&T and Partners
<i>Cellular Generation Support</i>	NA - 3G, 4G LTE EU - 4G LTE FN - 4G LTE
<i>North America (NA) Cell. Band Coverage</i>	LTE: 2,4,5,12,13 3G: 2,5 2G: None
<i>European Cell. Band Coverage</i>	LTE: 1,3,7,8,20,28 3G: None 2G: None
<i>FirstNet Cell. Band Coverage</i>	LTE: 2,4,5,12,14 3G: None 2G: None
<i>LTE Jamming Detection</i>	Supported through local signal processing

* All major network coverage includes most supporting roaming networks for each respective network and geography

Location Tracking:

<i>GNSS (Global Navigation Satellite System) Supported</i>	GPS L1, Glonass L1, & Galileo
<i>Supports External GNSS Antenna</i>	No
<i>Supports GNSS DR (Dead Reckoning)</i>	No
<i>Supports GNSS Jamming Detection</i>	Yes

Wi-Fi:

<i>Wi-Fi Protocols</i>	802.11 b/g/n 2.4GHz
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Bluetooth:

<i>Bluetooth Protocol</i>	Bluetooth 5.2 (BLE)
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FCC Regulations:

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.

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

This device complies with radio frequency (RF) exposure limits adopted by the Federal Communications Commission for an uncontrolled environment. This equipment should operate with minimum distance 20 cm between the radiator & your body.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

IC Regulations:

This device complies with Industry Canada's licence-exempt RSSs. 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:

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

This equipment complies with Innovation, Science and Economic Development Canada RF exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated to ensure a minimum of 20 cm spacing to any person at all times.

Pour se conformer aux exigences de conformité CNR 102 RF exposition, cet équipement doit être installé et utilisé en maintenant le radiateur à au moins 20cm ou plus du corps de la personne.

CAN ICES(A) / NMB(A)