



USER MANUAL

IN-300CM

Keep this manual in the vehicle for future reference.

Read this manual before using this product. Failure to follow the instructions and safety precautions in this manual may result in serious injury or death.

IMPORTANT SAFETY INFORMATION

The Halo Connect Gateway and its components should be installed and maintained in accordance with the instructions in this manual. Proper installation of the Halo Connect is critical to ensure safe use of the device. Failure to do so may result in injury or death, damage to equipment, material or property. Carefully read, understand and follow all safety related information within this manual.

▲ WARNING: Exercise caution when working with the vehicle power sources to avoid injury.

SAFETY WORDS AND SYMBOLS

Please pay attention to special symbols used through this manual to convey important information. Hazard signal words such as WARNING, CAUTION, or NOTICE are used throughout this manual. Information accented by these words indicates a point of emphasis and importance. The following definitions comply with ANSI Z535.6 and indicate the use of signal words as they appear within this manual.



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

▲ WARNING

WARNING indicates a hazardous situation that, if not avoided, could result in serious injury or death.

▲ CAUTION

CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injuries.

NOTICE

NOTICE is used to address practices which could result in damage to equipment or property.

SAFETY

CONTENTS

3 Safety

- 3 Important Safety Information
- 3 Safety Words and Symbols

5 Introduction

6 Getting Started

- 6 System Components
- 6 Installation Tools

7 Halo Connect Installation

- 7 Affix gateway ID sticker to vehicle
- 8 Determine where to put the Gateway
- 9 Locate power source and ground
- 10 Attach TPMS antenna to vehicle
- 10 Attach GPS antenna to vehicle
- 11 Attach Gateway to vehicle
- 11 Connect cables to Gateway
- 11 Confirm Gateway power
- 12 Install TPMS sensors
- 12 Pair Gateway using mobile app

13 Regulatory

CUSTOMER SUPPORT

If any product issues arise please follow the troubleshooting steps found in the Halo Tech mobile app and/or contact Aperia customer support.

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SYSTEM

HALO CONNECT WEB PORTAL

The Halo Connect Portal gives you full control over your data, alerts, and reports. All of the issues in the fleet, active and historical, are easily viewed and organized, using the systems that fleets are most comfortable with, such as email. For each vehicle issue, the portal gives recommended actions for resolution. For an understanding of the bigger picture, we distill the data into analytical reports to visualize the trends in the fleet.

HALO CONNECT GATEWAY

The Halo Connect Gateway is comprised of a durable enclosure that is secured in the cab of the vehicle. It uses a built-in LTE cellular connection to send data to the cloud, TPMS to talk to the sensors, and a bluetooth connection to talk to mobile devices. It also has GPS, which notifies the location in which a vehicle issue transpired.

HALO CONNECT MOBILE APPLICATION

The mobile application makes installation and configuration of the Gateway and sensors seamless, requiring just two data matrix scans per install. The app allows you to choose between various truck configurations, register the vehicle in our system, and add or replace sensors.

GETTING STARTED

SYSTEM COMPONENTS

HALO CONNECT GATEWAY



- Gateway
- Pack of Halo Connect sensors
- External TPMS cable/antenna (optional)
- External Bluetooth antenna (optional)
- External GPS antenna (optional)

INSTALLATION TOOLS

- 5/16" Hex Head Screwdriver
- Torx Screwdriver (or Other, as needed, to access fuse panel)
- Wire Crimper
- Cutters (for cutting zip ties)
- Isopropyl Alcohol and Wipes

MOUNTING PARTS

- #10 x 1" Hex Head Screws (5/16" Hex Head)
- UV Stabilized Zipties

START

HALO CONNECT INSTALLATION

1. AFFIX GATEWAY ID STICKER TO VEHICLE

Select an easy to access location to permanently attach the gateway ID sticker inside the vehicle.

The gateway ID sticker contains gateway identification information used to pair the gateway when using the phone app, and during customer service calls.

Aperia recommends placing the sticker in the door jamb.



INSTALL

HALO CONNECT INSTALLATION, CONT'D

2. DETERMINE WHERE TO PUT GATEWAY

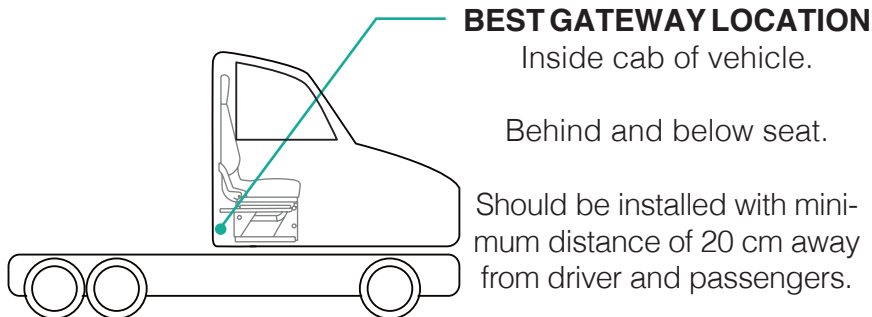
Select a location to permanently attach the Gateway box inside the cab of the vehicle.

Consider that the Gateway will have power and possibly antenna cables attached to it that need to be routed to locations specified in later steps. See step 5 for further instructions on attaching the Gateway to the vehicle.

▲ CAUTION: Before attaching the Gateway box to the vehicle review the entire install procedure and ensure the antenna and power cables are safely routed to the recommended locations.

Other Gateway placement considerations include:

- Gateway should be accessible for maintenance.
- Gateway should be installed with minimum distance of 20 cm away from driver and passengers.
- Does not interfere with passenger access or storage.
- Protected from spills and passenger movement in vehicle.
- Does not interfere with seatbelts.
- Allows for permanent attachment using self tapping screws or other secure attachment based on fleet preference.



INSTALL

HALO CONNECT INSTALLATION, CONT'D

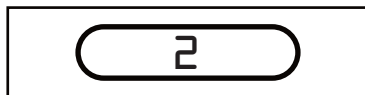
3. LOCATE POWER SOURCE AND GROUND

In order for the vehicle's tires to be monitored 24 hours, the Gateway power cable should be connected to a 24 hour continuous 12-24V power source and be securely grounded to the vehicle chassis.

Always use an Aperia provided, fused, power harness.

A 2 amp (32V DC) fuse rating is appropriate when adding or replacing a fuse to the gateway power connection.

Fuse Rating: 2 Amp (32V DC)



▲ WARNING: The positive wire of the power cable or vehicle power source must be fused. An un-fused power cable may over-heat and lead to a vehicle fire.

NOTICE: Use a voltmeter to test the power source and ground with the ignition on and off to ensure that the voltage of the chosen fuse slot is correct and continuous..

INSTALL

HALO CONNECT INSTALLATION, CONT'D

4. ATTACH TPMS ANTENNA TO VEHICLE (OPTIONAL)

The optional TPMS antenna must be placed outside on the rear of the vehicle and the cable needs to be routed back to the Gateway.

Find an opening in the cab to route the antenna cable from the Gateway to the outside of the vehicle.

Once the cable is routed, attach the TPMS antenna to the end of the TPMS antenna cable and securely attach the TPMS antenna to the outside of the vehicle using the included bracket.

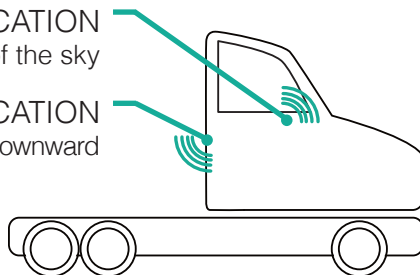
NOTICE: Expected vehicle operation must be considered when routing the TPMS antenna to avoid damage to the antenna. Make sure the antenna is routed so it won't be excessively stretched or cut when the truck airbags are inflated or deflated. Protect the antenna cable with loom and maintain at least 6" of distance from heat sources when routing.

▲ WARNING: Avoid creating a tripping hazard when routing the TPMS antenna on the exterior of the vehicle.

5. ATTACH GPS ANTENNA TO VEHICLE (OPTIONAL)

The GPS antenna should have a clear view of the sky to operate properly. Remove adhesive protector from GPS antenna, and place the antenna on the dashboard inside the cab. Route the cable back to the Gateway.

- BEST GPS LOCATION**
On the dashboard with a view of the sky
- BEST TPMS ANTENNA LOCATION**
On rear of exterior of vehicle, pointing downward



INSTALL

HALO CONNECT INSTALLATION, CONT'D

6. CONNECT CABLES TO GATEWAY

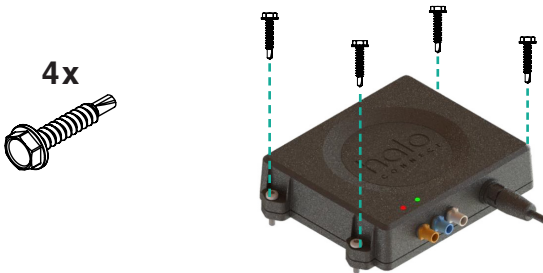
The cables attach on the side of the gateway. The cable ports are colored and keyed to only match with the correct antennas.



NOTICE: Ensure the cables are securely attached to the Gateway to avoid loosening due to vibration during vehicle operation.

7. ATTACH GATEWAY TO VEHICLE

Use the included mounting screws and a 5/16" socket to securely attach the Gateway in the location selected in step 1.



8. CONFIRM GATEWAY POWER

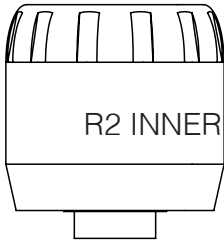
On the Gateway, ensure that the "Power" LED is emitting solid or blinking green.



INSTALL

9. INSTALL TPMS SENSORS

Locate the sensor pack. Each sensor has a label that specifies which valve stem the sensor must be screwed onto.



How to Read Tire Position Label

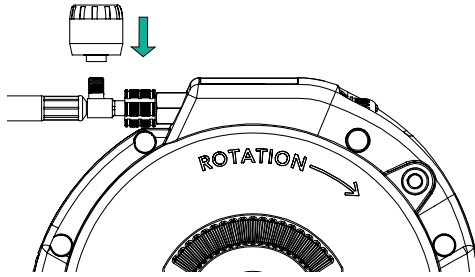
This sensor should be installed on:

R = Right side of vehicle (from driver perspective)

2 = 2nd Axle (steer tire is axle 1)

Inner = Inner tire position

Screw each sensor onto the correct valve stem. Sensors for Halo equipped tires should be attached to the Halo hose.

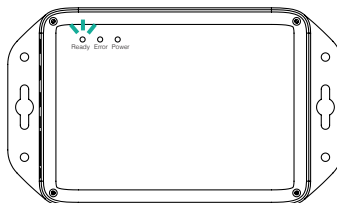


▲ WARNING: A contaminated, corroded, or damaged valve stem or sensor seal may cause a poor seal between the sensor and valve stem resulting in a tire leak.

10. ACTIVATE GATEWAY USING HALO TECH APP

On the Gateway, ensure that the blue "Comm. Status" LED is blinking.

Download the Halo Connect mobile app to a compatible device, and complete the pairing process.



INSTALL

REGULATORY

RF EXPOSURE

This equipment complies with FCC and IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux radiations de la FCC et de l'IC définies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et votre corps. Cet émetteur ne doit pas être co-localisé ou fonctionner en conjonction avec une autre antenne ou un autre émetteur.

This device complies with part 15 of the FCC rules and RSS-247 of Industry Canada. 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.

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 Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

FCC Part 15.21 Warning: You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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 or more 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
- This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

The unit is compatible with optional external antennas for enhanced TPMS, GPS & BLE reception, if needed based on the installation location/configuration, with the following maximum specified antenna gain:

Optional External Antenna	Maximum Gain Specification
TPMS	2dBi. (N.B. This antenna is receive only.)
GPS	30 dBic (N.B. This antenna is receive only.)
Bluetooth	Peak Gain (bent): 5.89 dBi Average Gain (bent): -0.8 dBi Peak Gain (straight): 4.22 dBi Average Gain (straight): -1.05 dBi

It is only permitted to use external antennas sourced through Aperia Technologies. In particular, it is essential that the bluetooth antenna is installed in a location at least 20 cm from the position of the driver or any passengers. This antenna requires professional installation.

This radio transmitter 24637-HCGW3 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed above, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Cet émetteur radio 24637-HCGW3 a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessus, avec le gain maximal autorisé indiqué. Les types d'antenne non inclus dans cette liste et dont le gain est supérieur au gain maximal indiqué pour l'un des types répertoriés ne sont strictement pas autorisés pour une utilisation avec cet appareil.



QTY: 1



Part Number:

IN-300CM



Description:

User Manual, Halo Connect

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