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Installation RFID Reader and Kit guide for pro installer partners

This installation guide provides comprehensive “before you get started” information. It is intended for Verizon Connect professional installer partners who are not yet familiar with installing this specific device or may need a review of such knowledge. Installers already well-versed in the installation of this specific device may opt to proceed to the Reveal Hardware Installer app and follow the process outlined there.

Product Overview

The Verizon Connect 125kHz PLA-X21RFID card reader device reads data from an HID ISO PROXII RFID card when held within close proximity. Card data is transferred to the connected Xirgo VTU device using 1WIRE/DS1990 Emulation mode. The Verizon Connect 125kHz PLA-X21RFID card reader has an operating frequency from 110kHz to 125kHz. The Xirgo XT-6300 series VTU (Vehicle Tracking Unit) is used to collect and transmit vehicle based data (position, speed, heading, acceleration, etc..) as part of our software as a service fleet management product. The Verizon Connect 125kHz PLA-X21RFID card reader device provides the means to include HID ISO PROXII RFID card data with the transmitted vehicle based data

Important information

RFID I/O adapter harness

1. Use the [RFID I/O adapter harness](#) when performing 4G [RFID card reader](#) upgrades and any 3G migration swap installations. **Do not use this adaptor for new vehicle installations.**
2. The RFID I/O adapter harness does not replace the existing I/O harness. It installs in-line between the Xirgo and the existing I/O harness, and allows technicians to complete installations without re-making I/O and power connections.
 - Technicians must verify the existing device wiring is in good operating condition and perform wire repairs as necessary. This includes **all** 3 wire and PTO trigger wire connections.

RFID card reader

1. RFID reader installation requires increasing the existing Driver ID reader's pass through hole to **1" in diameter**. A 1 in. hole saw may be easier to control than a 1-1/8th inch Unibit or standard drill bit. If you accidentally drill the diameter 1/8" too large the grommet will not seat in the hole. Use a safe method you are comfortable with and always look before you drill.
 - If the existing Driver ID reader's mounting hole cannot be reused due to location or fit, then a new 1" hole must be drilled.
 - **You must** disconnect the iButton reader's 2-pin Molex connector from the I/O harness so it doesn't trip the buzzer after completing the installation.
 - Leave the old iButton reader mounted in place and secure the harness.

New Vehicle Installation

New vehicle installations will use the recently updated Xirgo I/O accessory harness released in August 2022. This harness has an integrated 6-pin connector that is compatible with the RFID reader.

- Do not use an RFID I/O adapter harness with a new vehicle installation.
- Connect Sensor Input 1 to the PTO trigger wire. The PTO switch is normally found in the center console and is marked AUX1 with a PTO sticker.
- The installation guide for new Xirgo installations including instructions for the RFID reader installation are available at install.verizonconnect.com.

Kit components

- [RFID Adapter Harness](#) – Part # CBA-US-XIR-002-01-00
- [RFID Card Reader](#) – Part #
- Alcohol wipes x 2
- Velcro/VHB Tape x 1
- Adhesive cable tie mount x 1
- [Locking Grommet](#) x 1

A [4G Xirgo device](#) will be shipped separately when a 3G swap is required.

Mounting the RFID reader

Determine if you are able to reuse the existing Driver ID reader location.

- To reuse the existing hole, you must increase its diameter from 3/8" to 1". You must also be able to Velcro/VHB mount the new RFID reader in a location convenient for the driver to reach with their RFID badge.
- If you are unable to reuse the location, leave the existing Driver ID reader mounted in place and choose a location based on the guidelines below. Don't forget to disconnect the Driver ID reader's 2 pin connector and secure or cut its cable.

Recommended RFID reader mounting locations

Location 1: Reuse the existing Driver ID hole to the right of the steering column whenever possible.

Location 2: An empty space on a driver's side hush panel.

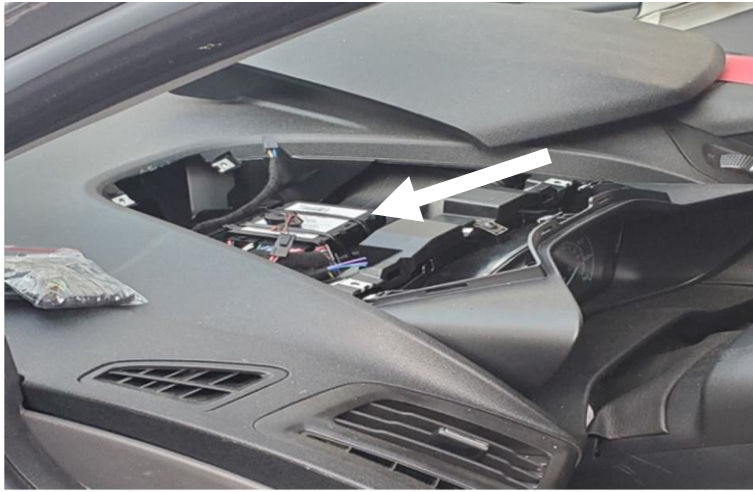
Location 3: Left side of the steering column if the other locations are not practical or available.



Installation steps

Refer to the [Xirgo OBD-II Powered Y-cable installation guide](#) if you are unfamiliar with installation of Xirgo devices or need a refresher.

1. Locate the existing Xirgo installation and perform the 3G swap if necessary.
 - If you are performing a 3G swap, disconnect the 14-pin and 24-pin molex connectors from the 3G Xirgo device. Use snips to cut the mounting zip ties and remove the device. Then mount the 4G device in its place and proceed to the next step.



2. Disconnect the 2-pin iButton reader from the 24-pin I/O harness then disconnect the I/O harness from the Xirgo.



Connect the inline RFID adapter harness

1. Connect the male end of the RFID I/O adapter harness to the existing I/O harness. To power the device, connect the female end to the Xirgo.
 - The existing power connections, peripheral and sensor input connections are passed through to the Xirgo.



Install the RFID reader

1. Carefully create a 1" hole. - Look before you drill, be careful not to damage adjacent vehicle parts.
2. Use the supplied alcohol wipes to clean the mounting surface and allow it to fully dry.
3. Pass the RFID reader's 6-pin Molex through the grommet then insert the grommet into the hole.
4. Route the card reader's 6-pin harness towards the Xirgo until you are able to connect it to the RFID I/O adapter's matching 6-pin harness leg.
5. Secure the harness using zip ties so it doesn't interfere with the driver or normal operation of the vehicle.



6. Apply a 1"x2" strip of VHB/Velcro tape to the back of the reader for 30 seconds then press and hold the reader to the mounting location for at least 30 seconds.



Download firmware updates

1. Wait 10 minutes before starting the vehicle to allow firmware updates to complete.

Note: Xirgo devices do not download FW updates while a vehicle is running.

Verify installation

1. Once the firmware has downloaded, start the vehicle.
2. The buzzer sounds <after X min/sec> to indicate you must touch the RFID card to the reader.
 - The card reader's green LED flashes to indicate a successful ID read and the buzzer stops.

Note: If the buzzer fails to sound, check the connection and use a spare buzzer to test the connection if one is available. If the buzzer still doesn't sound call Technician Support to order a replacement buzzer.

3. Complete verification through the [Reveal Hardware Installation Application](#). If you are unable to complete the verification, call the Reveal Technician Support line (866) 908-1165 from 7:00 a.m. -10:00 p.m. EST.

Hardware identification

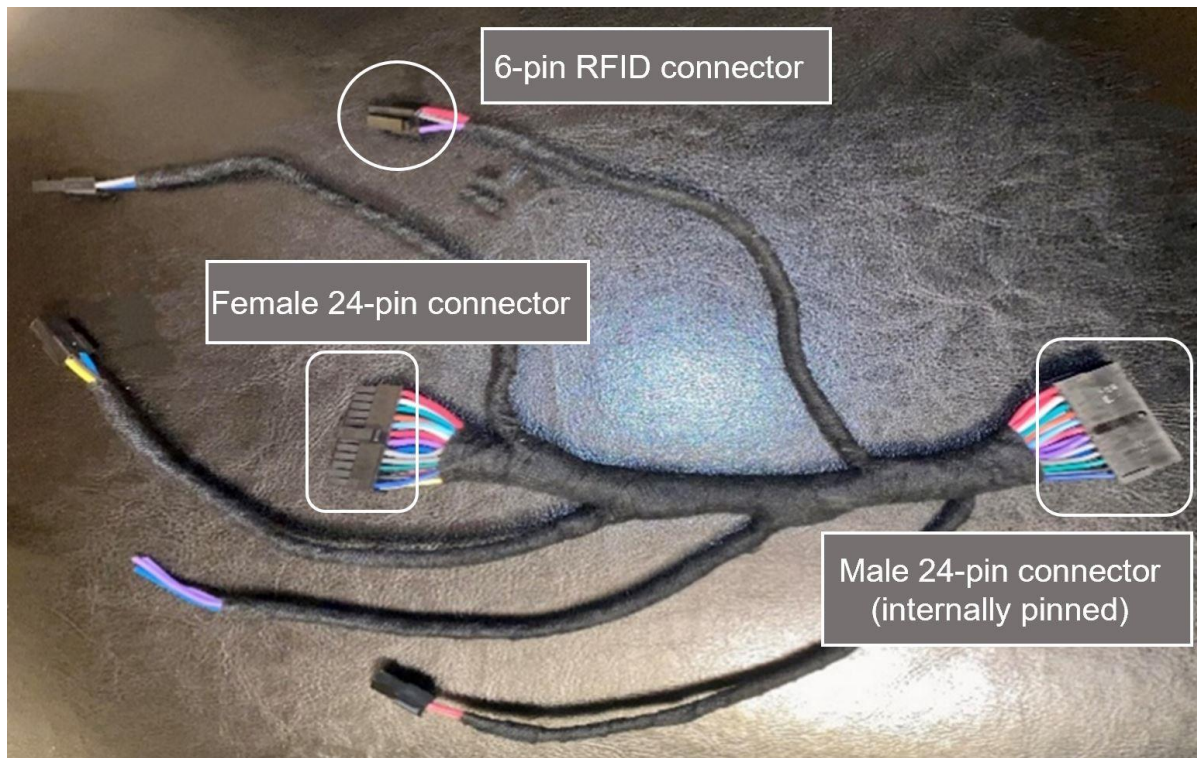
Xirgo devices



RFID card reader



RFID I/O adapter harness



Webbed locking grommet

Grommet specs:

- Mounting Hole Diameter: 1"
- Inside Diameter: 0.75"
- Head Diameter: 1.06"
- Panel Thickness: <0.125"
- Overall Height: 0.44"



Spare grommets are available from vendors such as [Heyco](#) Part# 2137, [Delcity](#) Part# 5038, [McMaster](#) Part# 4946A701, and are eligible for reimbursement on a limited basis.

- For more details, contact the Install Partner Vendor Management team before purchasing.. InstallPartnerHelp@verizonconnect.com Help@verizonconnect.com

Disclaimer

Verizon Connect shall have no liability whatsoever for any damages that arise from, or are connected with, your use of our services, including the GPS tracking hardware and dash cams, in a manner contrary to the(se) instructions or in violation of law and/or our agreement. Tracking hardware connected to the diagnostic port in any vehicle that has third-party devices also connected to the diagnostic port can cause interference or loss of functionality of the third-party device. These third-party devices include, but are not limited to, wheelchair lifts, lifesaving equipment, emergency lighting, and radar guns. If such a conflict exists, contact Verizon Connect support to have the tracking hardware configured to support the third-party device. Failure to do so relieves Verizon Connect of all liability for damages that arise from or are connected with your use of the devices. Installed devices may only be removed and transferred to another vehicle if the second vehicle has been tested for compatibility, as per the(se) instructions. Transfers between vehicles which do not follow the(se) instructions will void any and all warranties from Verizon Connect, and relieve Verizon Connect of all liability for damages that arise from or are connected with your use of the devices.

FCC Notes

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 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 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 install technician for help.