

Installing GNX-6 Companion

APPLICATION NOTE

This document describes how to install and configure a GNX-6 Companion (SKU 1104242) in a vehicle with an AirLink MP70 (all SKUs) or AirLink LX60WT (SKU 1104493), or MG90 (all SKUs). This includes installation of the GNX-6 Companion, installation of the AirLink router and cabling required.

For configuration information, see the application notes *Configuring ALEOS Devices for GNX-6 Companion* (document number 41114147) or *Configuring MG90 for GNX-6 Companion* (document number 41114161). Both are available at [the Sierra Wireless Source](#).

Note: No other GNX devices support the GNX-6 Companion functionality.

Introduction

When connected and configured as a system in a vehicle, GNX-6 Companion and an AirLink router can provide both Internet connectivity and GNX telemetry over a single cellular connection provided by the AirLink device (the GNX-6 Companion has no cellular connectivity of its own). Alternatively, the GNX-6 Companion can be used to extend AirLink telemetry on an MP70 or LX60WT to include J1708 support.

Note: Once the GNX-6 Companion is installed, you can configure and monitor it as you would a standard GNX-6 device. This document assumes that you are familiar with GNX-6 operation and configuration.

This document covers the following topics:

- [Prerequisites](#)
- [Installation](#)

Prerequisites

Components required to install GNX-6 Companion include:

- GNX-6 Companion device (SKU 1104242)
- Serial-to-Molex cable for ALEOS devices (SKU 6001224)
- Serial-to-Molex cable for MG90 (SKU 6001239)
- GNX Cable connecting GNX-6 to the vehicle (Varies according to vehicle type. See [Table 1](#) for SKU numbers)

Correct installation of the GNX-6 Companion varies depending on the vehicle in which the GNX-6 Companion is being installed. The supported vehicle types are shown in [Table 1](#).

Table 1: Supported vehicle types

Vehicle	Bus	Required GNX Cable SKU #
Light Duty (2008 or later)	CAN/OBDII	6001044
Heavy Duty	CAN/J1939 (9 pin)	6001053
Heavy Duty	J1708 (6 pin)	6001048

The connection between the GNX-6 Companion and the AirLink router requires a serial port-to-Molex cable (SKU 6001224).

Before installing the hardware, determine how the GNX-6 Companion serial-to-Molex cable 6001224 (ALEOS devices) or 6001239 (MG90) will be routed in the vehicle between the GNX-6 Companion installation location and the AirLink router installation location. The cable is 5 meters (16 feet) long. Sierra Wireless does not recommend using any cable other than the 6001224 cable for connection between the GNX-6 Companion and the AirLink router.

Installation

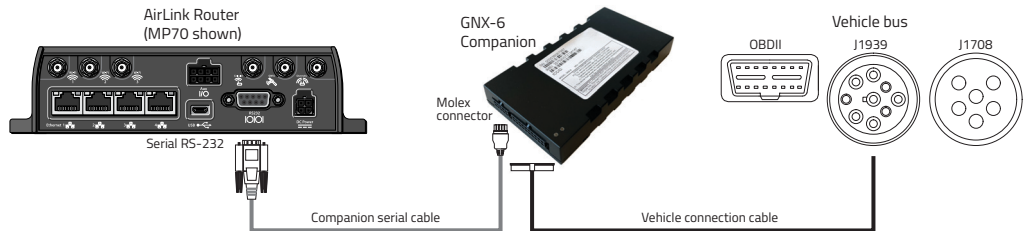


Figure 1: GNX Companion Installation diagram

1. Install the AirLink router in your vehicle as per the installation guides:
 - [AirLink MP70 Hardware User Guide](#)
 - [AirLink LX60 Hardware User Guide](#)
 - [AirLink MG90 Hardware User Guide](#)
2. Install the GNX-6 Companion in an appropriate location under the dash or similar convenient location.
3. Route the GNX-6 Companion serial-to-Molex cable so that it can be attached to the GNX-6 Companion (via the Molex connector), and the AirLink router (via its RS-232 connector), and will not be damaged or disturbed in normal vehicle use.
4. Plug the GNX-6 Companion serial-to-Molex cable into the GNX-6 Companion and the AirLink router.
5. Plug the vehicle connection cable into the GNX-6 Companion and the appropriate vehicle diagnostic port.

Note: This connection provides power to the GNX-6 Companion.

Note: If no diagnostic port is available, consult your vehicle manufacturer for a suitable connection point. A custom cable will be required if no diagnostic port is available (or the vehicle connector can be removed from the standard cable, and suitable ends made).

6. Confirm that both the AirLink router and GNX-6 Companion power up when the vehicle is on.
7. With the AirLink router powered up, configure it as per *Configuring ALEOS Devices for GNX-6 Companion (document link TBD)* or *Configuring MG90 for GNX-6 Companion (document link TBD)*.
8. Once all configuration steps have been completed, power down BOTH the AirLink router and the GNX-6 Companion.
9. Power up again. Observe that the GNX-6 Companion green LED flashes (after approximately 20 seconds).
10. Check that the GNX-6 Companion has configured itself from the GNX configuration server and is reporting to the desired data server.

Contact Sierra Wireless support for help troubleshooting if the GNX-6 Companion does not report correctly. Before requesting support, please obtain clear pictures of the installation location and connections to the vehicle.

Document History

Revision number	Release date	Changes
1	January 2021	First release

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