SEON

XELR-8 G-Sensor
Installation Guide
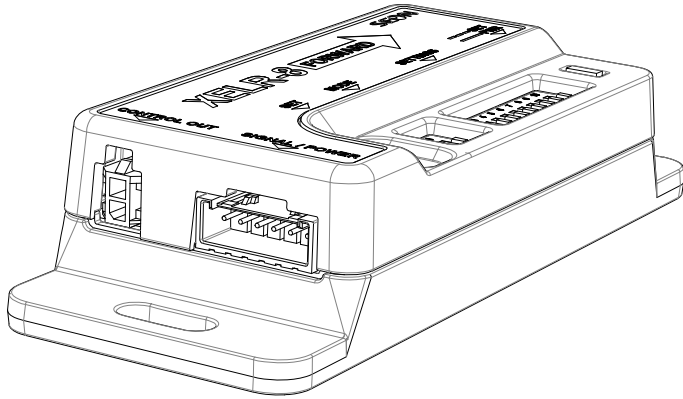
Installation Kit Contents

- XELR-8 G-Sensor
- 2 #10 3/4" Hex head screws
- Power/Signal cable
- Programming cable (optional)
- Control cable (optional)
- Installation Guide

Tools Required

- 5/16" hex drill socket
- 5/32" diameter drill bit
- Power drill
- Spirit level
- Marking pen

1. Installation

1. With the vehicle parked on a level surface, choose a location out of the way of unintentional access. Select a flat horizontal or vertical location parallel or perpendicular to the road surface.

⚠ **CAUTION: Installation Alignment**
- The XELR-8 unit must be installed with the vehicle parked on a level surface.
- It can be installed facing up, down, or either side, as long as the FORWARD arrow on the label (see Figure 1) is pointed toward the FRONT of the bus.
- The long side of the XELR-8 must be aligned with the long side of the bus.

2. Position the XELR-8 as shown in Figure 1. Allow room to access cable connections and switches.
3. Using the level and the marking pen, mark a 4" line.
4. Align the XELR-8 with the level and mark the screw hole locations.
5. Drill the two (5/32" diameter) screw holes.
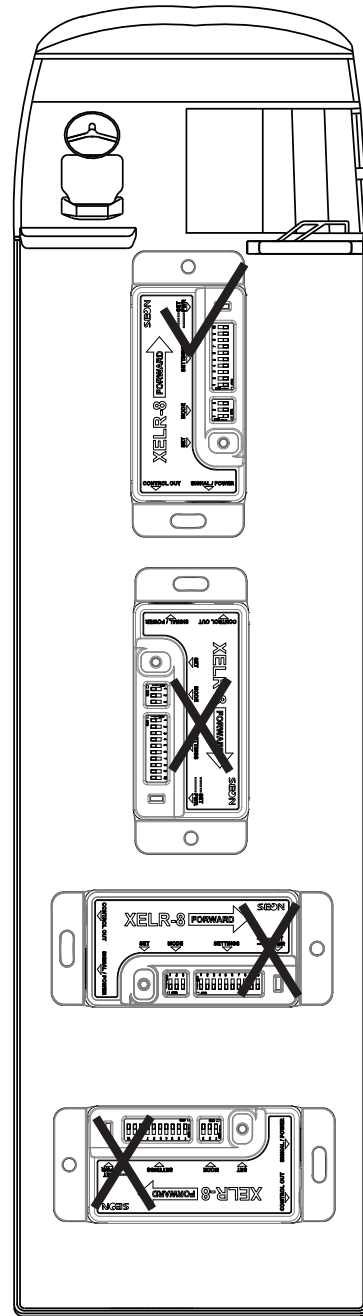6. Using the level to determine final position, thread the screws and tighten to 0.5 N.m (4.4 lb-in) torque.

⚠ **CAUTION: Do Not Overtighten Screws**
Overtightening the mounting screws can break the XELR-8 housing and cause unstable detection of vehicle motion.
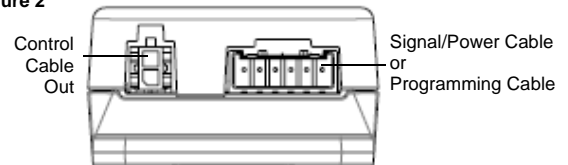
Figure 1

Install with label arrow facing forward

2. Cable Connections

1. With vehicle power off, connect the Signal/Power cable connector to the Signal/Power socket on the side of the XELR-8. See Figure 2.

Figure 2

Control Cable Out

Signal/Power Cable or Programming Cable

2. Connect the green and white Signal wires to one of the following:
   a) DVR signal or alarm harness wires
   b) Smart-Link signal or alarm harness wires
3. Connect the red and black cabled Power jack to the DVR Power Output socket.

NOTE: The XELR-8 can be used to pass power from the DVR through to another downstream device, such as a Wi-fi bridge, via the optional Control cable.

4. If a downstream device is to be powered, connect the Control cable from the Control socket on the XELR-8 to the control socket on the device.
5. Power on the vehicle and verify the XELR-8 LED shows green. See Figure 4.

Figure 4

Set button Mode and Settings switch groups LED
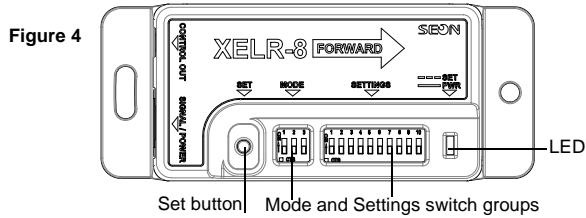
3. Sensor Orientation

1. Press the SET button for 5 seconds until the LED flashes to enable the XELR-8 to detect it's orientation.

The XELR-8 is now ready to be configured to provide driver behavior and accident impact detection.

- Driver behaviour detection output is based on threshold settings for acceleration, braking, and skid motion. See Table 2.
- Accident detection output is based on a combination of higher threshold settings from the acceleration, braking, and skid motion settings. See Table 3.

The XELR-8 can be configured either with the manual switches or with the XELR-8 software application via the optional Programming cable connection.

2. See section 4a for switch setting details or section 4b for software setting details.

⚠ **CAUTION: Orientation**
The XELR-8 is not ready to be configured and will not monitor vehicle movement until it is oriented.

4a. Switch Configuration

1. To configure with manual switches, set MODE switch 1 to ON.
2. Set the MODE and SETTINGS switches (see Figure 4) to the appropriate sensitivity settings. See the following Caution note and tables for setting suggestions and options.

⚠ **CAUTION: Default Switch Settings**
When configuring the XELR-8 with the switches, be aware that setting the XELR-8 lower than the default settings of 0.6 for acceleration, braking, and skid motion detection may cause many false alarms. Seon recommends settings of 0.6 or higher for non-excessive accelerating, braking, and skid detection.

Table 1: MODE Switches 1-3 (**default**)

Switch	Function	OFF	ON
1	Configuration Source	**Software**	Switch
2	Driver behavior exceeded (white)	**Signal**	Alarm
3	Accident threshold exceeded (green)	**Signal**	Alarm

Table 2: SETTINGS Switches 1-9 (**default**)

G	Acceleration			G	Braking			G	Skid		
	1	2	3		4	5	6		7	8	9
0.3	Off	Off	Off	0.3	Off	Off	Off	0.3	Off	Off	Off
0.4	Off	Off	On	0.4	Off	Off	On	0.4	Off	Off	On
0.5	Off	On	Off	0.5	Off	On	Off	0.5	Off	On	Off
0.6	**Off**	**On**	**On**	**0.6**	**Off**	**On**	**On**	**0.6**	**Off**	**On**	**On**
0.7	On	Off	Off	0.7	On	Off	Off	0.7	On	Off	Off
0.8	On	Off	On	0.8	On	Off	On	0.8	On	Off	On
0.9	On	On	Off	0.9	On	On	Off	0.9	On	On	Off
1.0	On	On	On	1.0	On	On	On	1.0	On	On	On

Table 3: SETTINGS Switch 10 (**default**)

Switch	Function	OFF	ON
10	Accident signal threshold	**3G**	6G

3. When switch configuration is complete, press and hold the SET button until the LED flashes.
   When the LED flashes 3 times, the XELR-8 is ready to use.

4b. Software Configuration

The optional XELR-8 software is provided with the programming cable and cable driver from Seon. Ensure that the cable driver is installed and the XELR-8 Settings software application is open on the computer before connecting the XELR-8. The cable driver can be found on the Programming Package CD in the folder XELR-8_TTL232R.

1. To enable software setting updates, set MODE switch 1 to OFF.
2. On the PC, install the programming cable driver if necessary.
3. From the CD, launch the XELR-8 software application.
4. Disconnect the Power/Signal cable from the XELR-8.
5. Connect the Programming cable to the socket.
6. Connect the Programming cable USB socket to the PC USB port.
7. In the software application, set the desired configurations and save them to the XELR-8 by pressing the Write Values button.
   For detailed XELR-8 software information, see the XELR-8 Software Help menu.
8. When the settings are saved, close the application.
9. Disconnect the programming cable from the XELR-8 and PC.
10. Reconnect the Power/Signal cable to the XELR-8.
    When the LED shows solid green, the XELR-8 is ready to use.

5. Specifications

Operating Voltage Range	11-17 VDC
Operating Temperature Range	-40 to 140°F (-40 to 60°C)

Service and Warranty

If your XELR-8 is to be returned to Seon Design for service, please call toll free 1-877-630-7366, or 604-941-0880, and provide the model and/or serial number of your unit. Ask for a Return Authorization (RA) number. An RA number allows the Service Technicians to better track your product when it comes in for service. Please show the RA number on the outside of the package.

ANY PRODUCT SENT TO SEON DESIGN WITHOUT AN RA NUMBER MAY BE REFUSED.

Please refer to the Warranty form provided with your product to review the terms of warranty service, contact and shipping information, as well as other important issues regarding the service and operation of your product.
Information in this guide is subject to change without notice.