

SmartValve™
Electronic Height Control

LINK®

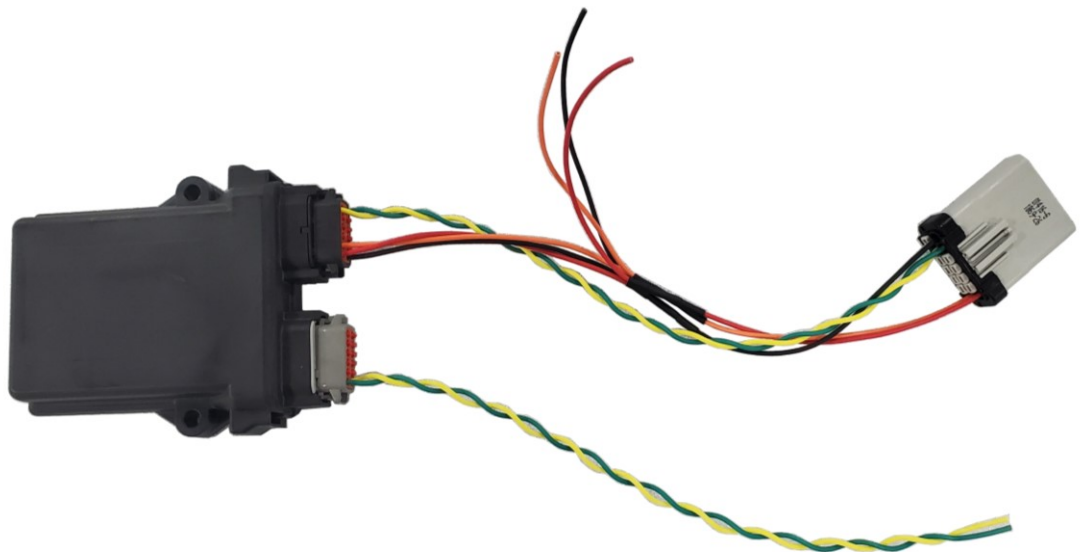
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**QUESTIONS?
CALL CUSTOMER
SERVICE
1-800-222-6283**

INSTALLATION INSTRUCTIONS

**SMARTVALVE
CAN DATA CONVERTER**

H00701SDC



1 INTRODUCTION

Thank you for choosing a Link SmartValve. This document is a supplement to the SmartValve installation instructions and contains information to assist in the installation of a SmartValve Data Converter. These instructions are intended solely for use by qualified personnel and with the product listed on the first page.

For additional information or assistance, please refer to the Link Manufacturing website and contact Link Customer Service.






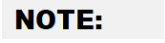
2 SYSTEM OVERVIEW

The H00701SDC CAN bus converter is designed to receive specific 500kb/s J1939 CAN signals from a vehicle and re-transmit them on a separate CAN bus to the Smart Valve at 250kb/s.

Upfit and retrofit SmartValves require a 250 kbit/s SAE J1939 Controller Area Network (CAN bus). The lower speed is required for both for message rate compatibility and because of the cable length restriction in the 500 kbit/s standard.

The SAE specification J1939 defines standardized digital messages for commercial vehicles and provides active information, such as vehicle speed, required by SmartValve for safe operation. The J1939 message system adapts the CAN standard, that is also used in other industries, to define the electronic signaling characteristics. Two variants of J1939 have been defined. The original one operates at 250 kb/s; a newer version delivers twice the data rate (500kb/s) but requires shorter wire lengths.

DOCUMENT SYMBOLS

	DANGER indicates a hazardous situation which if not avoided, will result in death or serious injury.
	WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
	CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.
	NOTICE indicates a potentially hazardous situation which, if not avoided, may result in property damage.
	TORQUE indicates named fasteners are to be tightened to a specified torque value.
	NOTE: A Note provides information or suggestions that help you correctly perform a task.

3 SAFE WORKING PRACTICES

⚠ CAUTION

When handling parts, wear appropriate gloves, eyeglasses, ear protection, and other safety equipment.

⚠ CAUTION

Proper tightening of fasteners is important to the performance and safety of the suspension. Follow all torque specifications throughout the instructions.

4 TOOLS REQUIRED

- Wire cutter
- Wire stripper
- Screwdrivers
- Multimeter (volt-ohm) tester
- Crimping tool (for insulated wire terminals)
- Heat gun (optional, for crimp terminals)

5 MATERIALS REQUIRED

- Nylon cable ties
- 18 or 20 AWG GXL or TXL wire
- Electrical tape
- Heat shrink tubing (if required)

6 DATA CONVERTER INSTALLATION

IMPORTANT: READ ALL INSTRUCTIONS BEFORE PROCEEDING WITH THE INSTALLATION.

6.1 Determining Available Connections.

An RP1226 connector is the preferred interface for connecting SmartValve to the vehicle electrical system.

If an RP1226 connector is not available, or if available connectors are used by other devices, separate connections to Ground, 12V battery, Ignition, and CAN_H, CAN_L will need to be made. Detailed instructions for using fuse taps and CAN Y-cables are available in SmartValve installation instructions.

Please consult the vehicle OEM before using an RP1226 splitter Y-cable. Use of a splitter is not recommended by RP1226.

6.2 RP1226 Connection

The RP1226 connector is a standardized electrical interface optionally provided by vehicle manufacturers to facilitate connection of the vehicle J1939 CAN bus to aftermarket vehicle accessories such as Electronic Logging Devices.

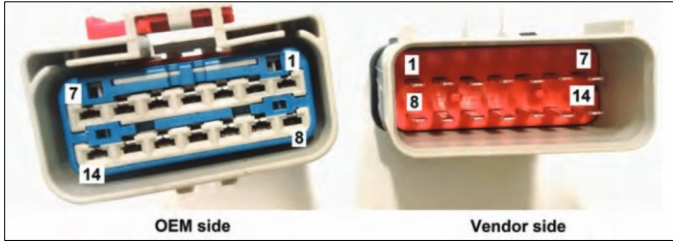


Figure 1. RP1226 Connectors

The OEM may provide multiple RP1226 connectors to support additional accessory devices. Connecting multiple devices to the CAN signals of an RP1226 connector using Y-adaptors or splices is a violation of the TMC RP1226 and SAE J1939 standards because doing so could cause signal interference. New connections to a CAN bus should be made directly to the main wire pair, not to a wire pair that branches off to connect another CAN device (like the pair leading to the RP1226 connector).

6.3 Option 1: Use Premade RP1226 Cable

1. Use crimp splice terminals supplied with a SmartValve installation kit to connect the “250k” harness to the SmartValve CAN wires. It is important to connect only matching wire colors: green to green and yellow to yellow.
2. Fully insert the gray 12-position connector to the gray socket on the H00701SDC.
3. Use the red pin terminals supplied with a SmartValve installation kit to connect the “500k” harness (H19038) wire ends to the Smart Valve interface module power inlet terminals. It is important to connect each wire according to its color: red to +BATT, orange to +IGN, black to GRND. Crimp splices and wire may also be used to extend the harness.
4. Fully insert the black 12-position connector to the black socket on the H00701SDC.
5. Fully insert the RP1226 connector to the vehicle RP1226 socket connector.
6. Mechanically secure the H00701SDC and wiring to prevent wire strain or abrasion.

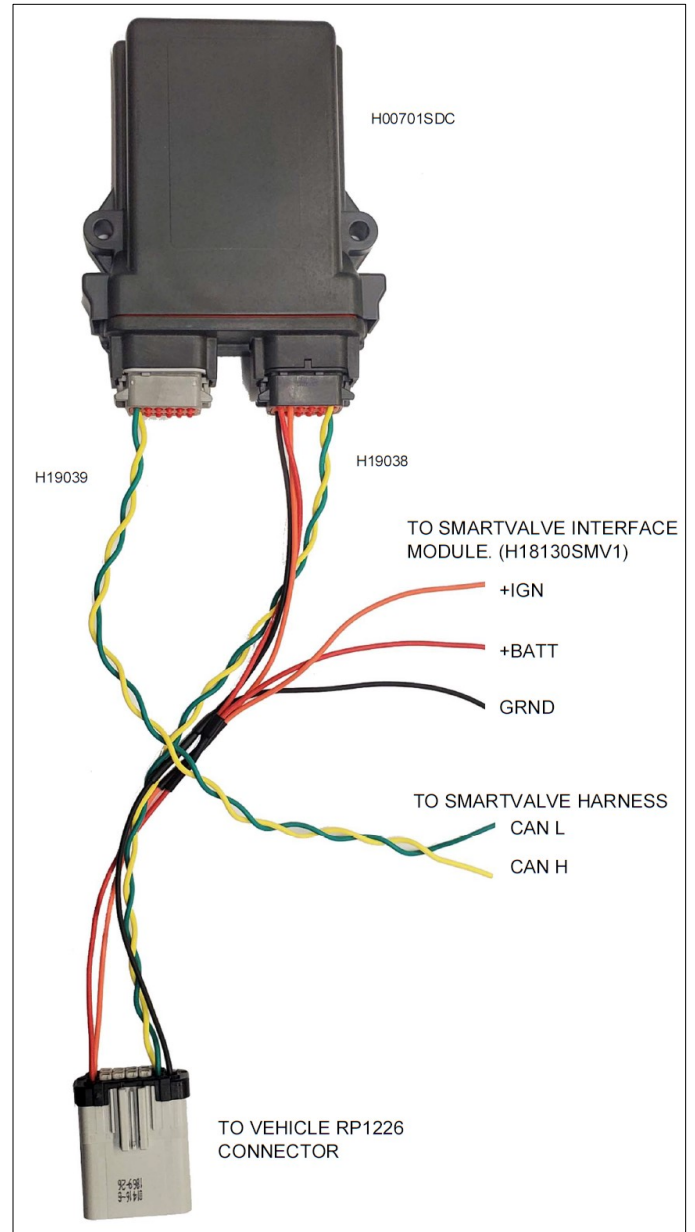


Figure 2 H00701SDC electrical connections

6.4 Option 2: Installation without RP1226 Connector

If the vehicle does not have an RP1226 OEM connector available, the RP1226 connector on the supplied H19038 harness can be removed for the alternative connection option. The wires can then be stripped and connected using crimp splices from the SmartValve installation kit. Connect the wires according to Figure 3 . Refer to the SmartValve installation Instructions for additional guidance.

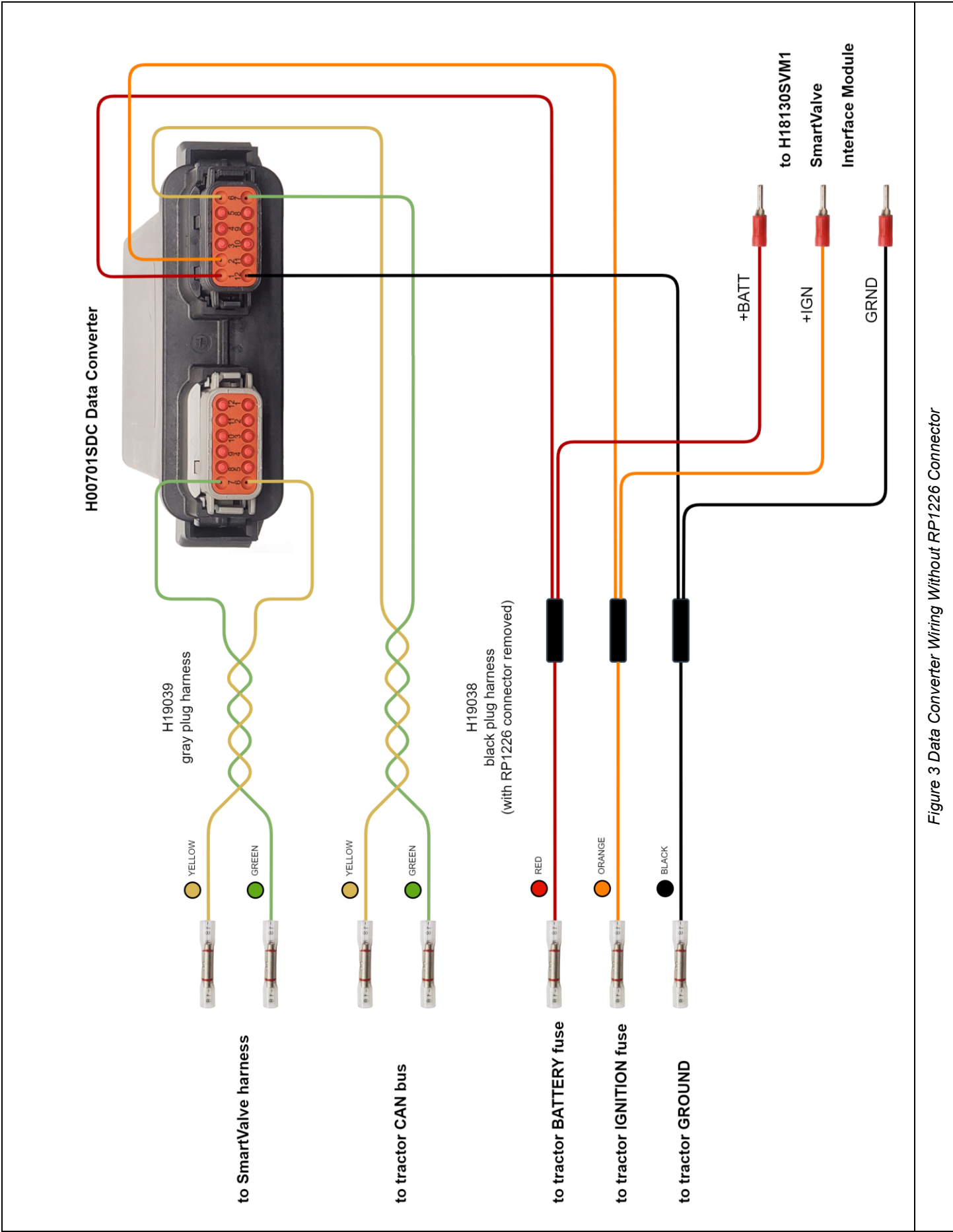


Figure 3 Data Converter Wiring Without RP1226 Connector



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