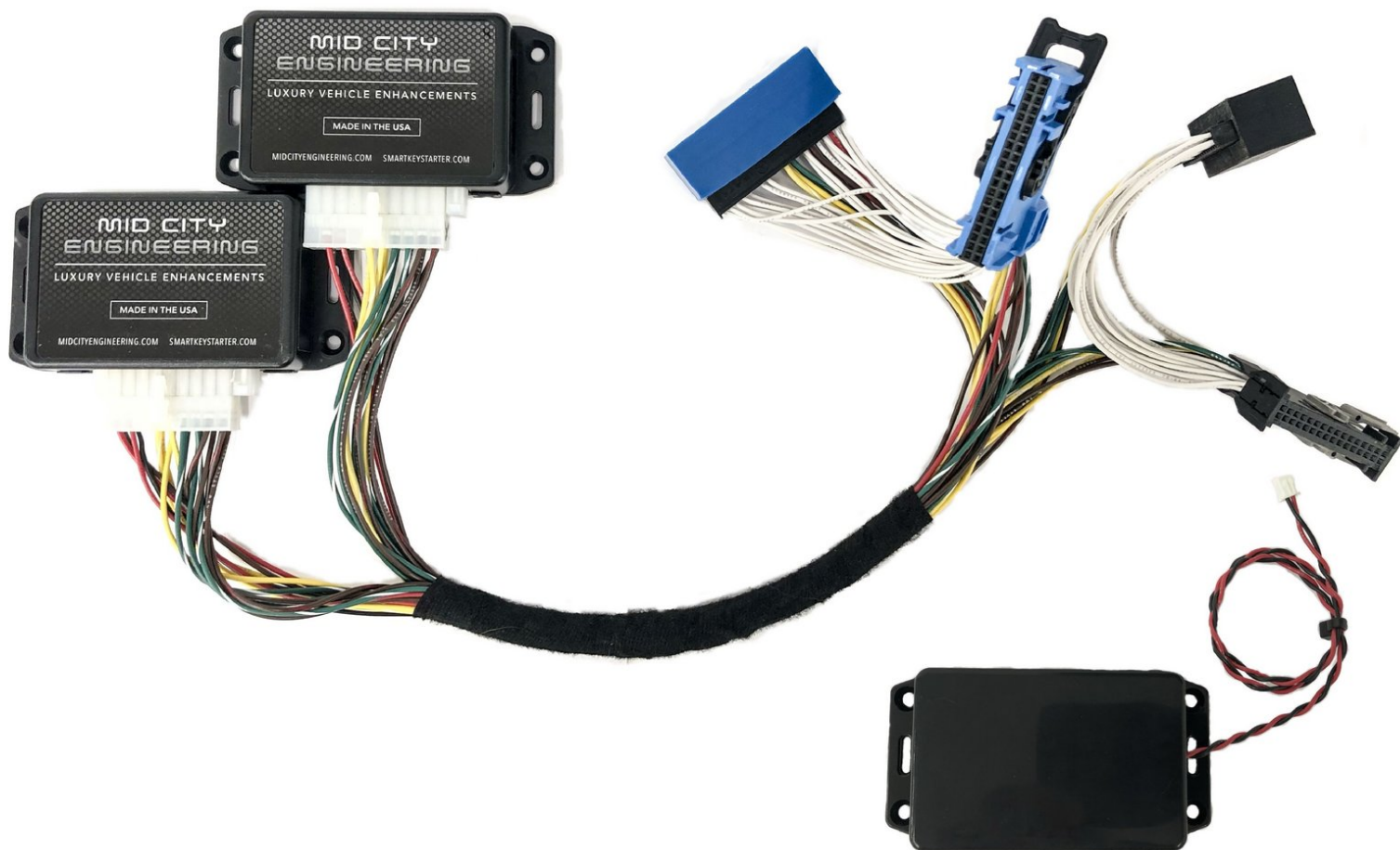# SKSNG907 & SKSNG907RV Installation Manual

Installation manual for the SKSNG907 / SKSNG907RV remote start, high idle, and alarm for 2019 - 2020 Sprinter (907).

Written By: Noah Thatcher

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INTRODUCTION

ATTENTION: IF YOU ARE INSTALLING THIS SYSTEM ON A GASOLINE SPRINTER, PLEASE MAKE SURE THAT THE SOFTWARE VERSION IS V5.23 OR ABOVE

The SKSNG907 is a remote start and alarm kit for the 2019 Mercedes & Freightliner Sprinter (907)

Link to product here.

Out of the box, the remote start will work using the factory key fob (lock-unlock-lock). It will also include

OEM style alarm with no additional hardware. A Compustar DAS sensor can be plugged in to add shock/tilt/vehicle movement protection to the alarm. The alarm will use the factory horn and flash the parking lights. In addition, a full Compustar or Directed external alarm can be added.

For extended range, the Compustar Drone and Directed Smart Start can be added and will provide 2-way communication (including alarm notifications). All Compustar RF kits are compatible with the system and any Directed RF kit using an XL202 (XL202 not needed if using Directed external alarm).

The remote start & alarm installation for the SKSNG907 or SKSNG907RV is 100% plug & play and requires the following steps:

- T-harness connection at PCM module
- T-harness connection at EIS module
- Key box installation

There is also an kit (SKSNG907RV) that also includes OEM style high idle and an optional external trigger for start / stop. Link to that product here.

PARTS:

- SKSNG907 (1)

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Step 1 — Pull back weather seal

⚠ ATTENTION: IF INSTALLING THIS SYSTEM ON A GASOLINE SPRINTER, PLEASE MAKE SURE THE FIRMWARE IS 5.23 OR ABOVE

● Pull back weather seal from driver door jam

Step 2 — Remove intermediate panel

● Using a pry tool remove intermediate panel between A pillar and kick panel

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Step 3 — Remove 2 x T20 screws from sill plate

- Remove the 2 x T20 screws from the sill cover

- Remove sill cover and carefully set aside

Step 4 — Remove 1 x T20 from below hood release
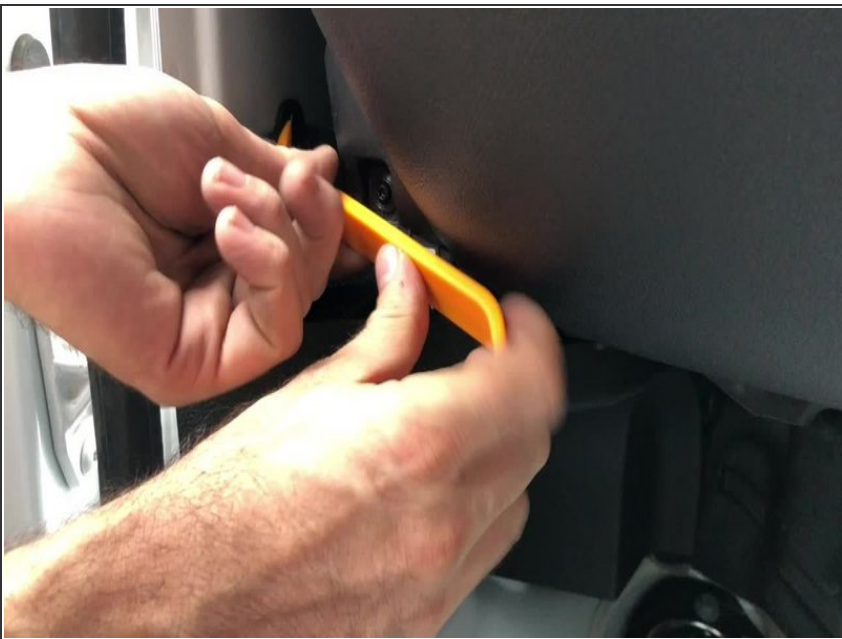

- Remove 1 x T20 from below hood release

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Step 5 — Remove 1 x T20 from bottom of kick panel

- Remove 1 x T20 from bottom of kick panel

Step 6 — Remove plastic push fastener next to knee bolster

- Remove plastic push fastener next to knee bolster

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Step 7 — Remove 2nd plastic push pin from kick panel

- Remove plastic push pin from kick panel (behind hood release)

Step 8 — Remove 3rd plastic push fastener from kick panel

- Remove 3rd plastic push fastener from kick panel

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Step 9 — Remove kick panel

- Remove kick panel
- Route hood release through kick panel opening

⚠ Be careful of OBD harness

Step 10 — Disconnect OBD harness

- Disconnect OBD harness
- Carefully route hood release through opening and set trim piece panel aside

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Step 11 — Locate and un-clip PCM module

- Un-clip PCM module from bracket in back of kick area (towards driver front tire)

Step 12 — Connect T-harness to PCM module

- Locate black 32 pin plug on PCM module

- Unlatch and unplug black 32 pin connector from PCM module

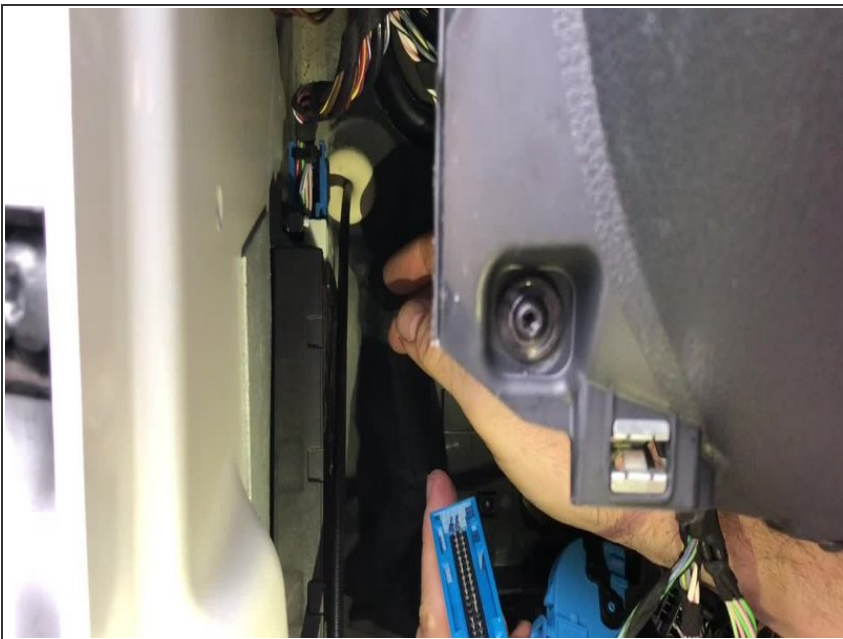- Plug connector into mating black 32 pin plug on T-harness

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Step 13 — Connect 32 pin plug from T-harness to PCM module
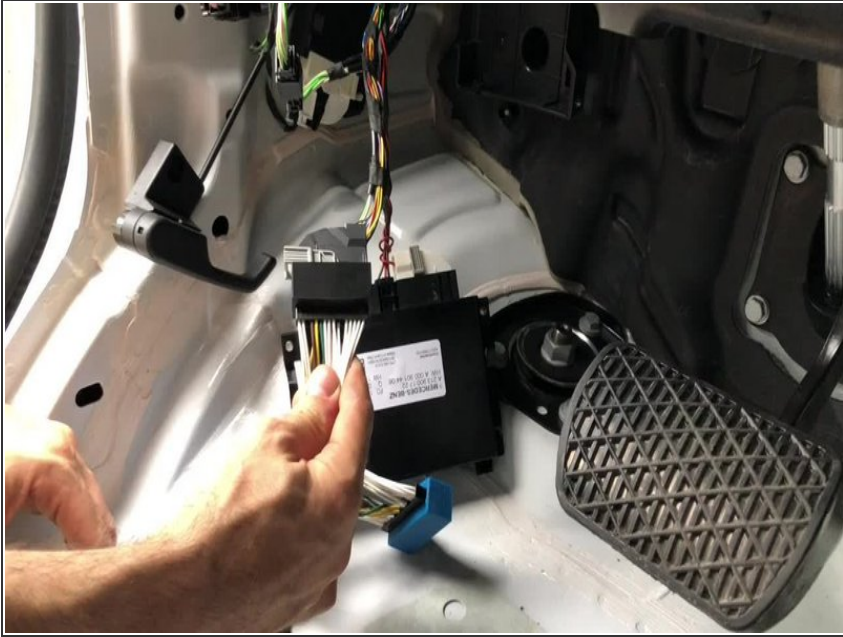
- Connect and latch 32 pin black plug from T-harness into PCM module where plug was removed in last step

Step 14 — Connect T-harness to EIS module

- Locate EIS module in driver kick (mounted to exterior wall below A pillar)

- Unlatch and unplug 40 pin blue connector from top of EIS module

- Connect 40 pin blue connector from EIS to mating connector on T-harness

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Step 15 — Connect T-harness to EIS module

- Connect and latch blue 32 pin connector from T-harness to top of EIS module where plug was removed in previous step

Step 16 — Remount PCM module

- Place and clip PCM module back into bracket

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Step 17 — Install battery emulator into key

- Remove battery from extra factory fob

- (i) One side of the battery emulator has a foam strip and text that reads 'BOTTOM OF KEY'

- Insert the battery emulator in the battery cavity of key with **side that reads 'BOTTOM OF KEY' facing the side of the key with no buttons**

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Step 18 — Install button pusher and close key box

- IMPORTANT: When installing the key in the box, make sure that the plastic insert in the key box is pushing **DOWN on the UNLOCK button**. The insert **must be holding the UNLOCK button DOWN on the key when the box is closed**

- Put key inside box and slide button pusher over the center of the **UNLOCK button**

- Put lid on box and fasten the 4 screws. Confirm that the unlock button on the key is being pressed when the box is closed

Step 19 — Connect key box to SmartKey Starter module

- Connect the 2 pin white plug from the key box to the 2 pin white port labeled '**KEY**' on the module labeled '**SmartKey Starter**'

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Step 20 — Test remote start operation

⚠️ Make sure that vehicle is in a safe place to start engine

- Close all doors on vehicle

- On factory key fob, hit 'LOCK-UNLOCK-LOCK' buttons in sequence.

Step 21 — Test key takeover

- After remote start, enter vehicle with key and place foot on the brake then press push to start button

- ⓘ Engine will quickly shut down and restart after you press the button- after that, you can shift into gear

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Step 22 — Test alarm

- Roll down driver side window

- From outside vehicle, close and lock doors with factory key fob

- Reach inside driver window and open door from inside handle

- Alarm should sound (factory horn) and lights should flash

- Press unlock on factory remote to disarm alarm

Step 23 — Mount modules and re-assemble vehicle
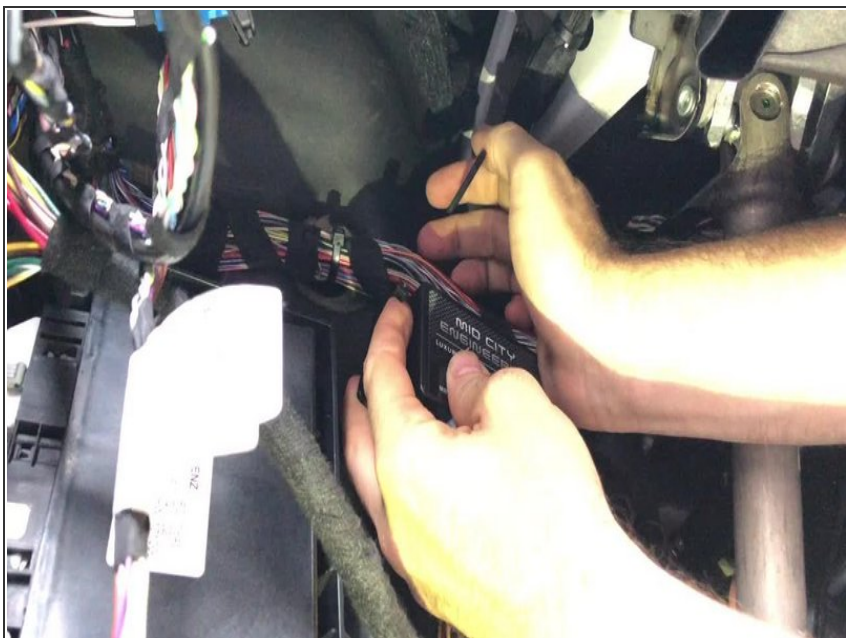
- Mount SmartKey Starter® and SKSPCM module in secure location. Suggested location is to wiring harness in driver under dash

- Mount key box in secure location. It is recommended to mount the key box further up into dash area for additional key security

- ⚠ Mount all modules away from any heat sources or moving parts

- Re-assemble vehicle in reverse order of disassembly steps

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Step 24 — Install warning sticker
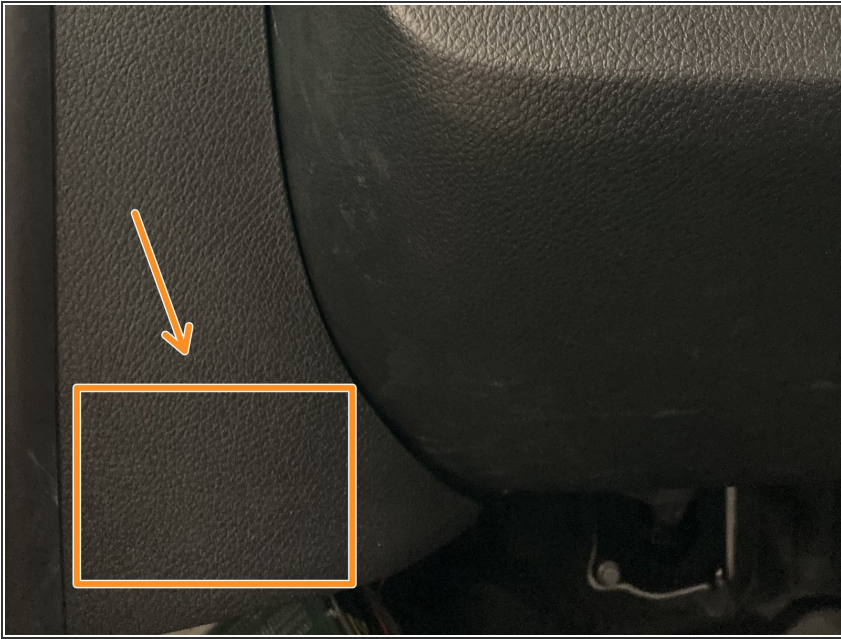
⚠️ The provided warning sticker must be installed in this location or your SmartKey Starter® warranty will be voided

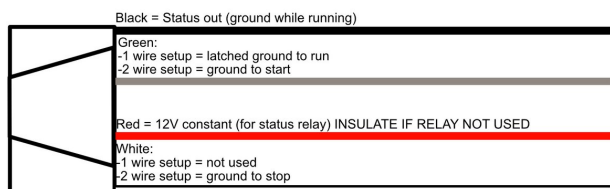- Install provided warning sticker on intermediate panel between A pillar and kick panel

Step 25 — OPTIONAL: External device connection

- For Compustar Drone connection, click here

- For Directed Smart Start Connection, click here

- For Compustar RF remote connections, click here

- For Compustar external alarm connection, click here

- For Compustar DAS sensor connection, click here

- For Directed external alarm connection, click here

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Step 26 — OPTIONAL: START/STOP TRIGGER FOR SKSNG907RV

Analog Trigger Wiring Diagram for SKSNG907CRV

Black = Status out (ground while running)

Green:
-1 wire setup = latched ground to run
-2 wire setup = ground to start

Red = 12V constant (for status relay) INSULATE IF RELAY NOT USED

White:
-1 wire setup = not used
-2 wire setup = ground to stop

- (i) The SKSNG907RV includes an analog start/stop trigger to operate the remote start from an external trigger. The cable has a white 4 pin plug and is plugged into the white 4 pin plug on the module labeled 'SKSPCM.' Refer to this diagram for wiring.

- (i) The trigger has 2 configurations, 1 wire or 2 wire. The 1 wire configuration (default) will start the engine when the start wire is grounded (green). The 2 wire configuration has a separate start wire (green) and stop wire (white). In the 2 wire configuration, a momentary ground on the start/stop wires will execute the command

- (📌) The 1 wire configuration is the default setting. To change to the 2 wire configuration, you can use the SmartKey Starter® menu. The trigger configuration is in the hidden menu. For menu instructions refer here:

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📌 For Sprinters **without** the volume and mute buttons on the steering wheel, you will need to use a USB programming tool with a Windows laptop to adjust this setting. You can use a Compustar/ADS programmer, Directed XKLoader, or USB programmers provided by Mid City Engineering for sale for $10 + shipping. Click here for programmer instructions

⚠️ If analog input(s) not being used, the 4 pin white input cable should not be plugged into the SKSPCM module. Be sure to insulate all wires not used on the cable.

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