

SKSNG166D3 SmartKey Starter® Installation Manual

Installation for SKSNG166D3 remote start for 2012-2013 ML, 2013 GL, 2014 CLA, 2013-2015 G Wagon

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INTRODUCTION

The SKSNG166D3 is a remote start and alarm interface.

Out of the box the remote start will working using the OEM key fob (1X press of the panic button or Lock-Unlock-Lock, if no panic button on key)

Vehicle Compatibility:

- CLA 2014
- G 2012-2015
- GL 2013
- GLA 2014
- ML 2012-2013

The SKSNG166D3 is compatible with the following add-ons:

- Any current Compustar Drone Smart Phone Control (X1, X2, LTE, MAX, XC)
- Compustar DAS II digital sensor for shock, tilt, glass break, and tow sensing (uses OEM horn for alarm)
- Compustar RF antenna and remotes (**NON-AM remotes only, AM remotes NOT compatible**)
- Directed Smart Start
- Compustar external remote start + alarm brain (eg, CM900, CMX). Note: RS232 4-pin to 4-pin data cable with RX and TX reversed on one end required for external alarm
- Compustar KeyLocker
- Compustar KP2 touch pad (**KeyLocker required**)

The installation to the vehicle involves the following:

- T-harness connection behind the EIS (electronic ignition switch)
- Keyless Go jumper harness (**only required for vehicles equipped with push to start (Keyless Go)**)
- Optional accessories and add-ons

There is no flashing required for this installation, but options settings can be programmed using the instrument cluster menu. See user's manual (link below) for options settings. Please go through menu to make sure settings such as run time are set to preferred setting.

[Click Here for User's Manual](#)

DO NOT MOUNT THE MODULE NEAR ANY HEAT SOURCES IN THE VEHICLE. SPECIFIC LOCATIONS TO AVOID ARE THE HEATER CORE AND THE TRANSMISSION TUNNEL

See end of guide for troubleshooting error codes



TOOLS:

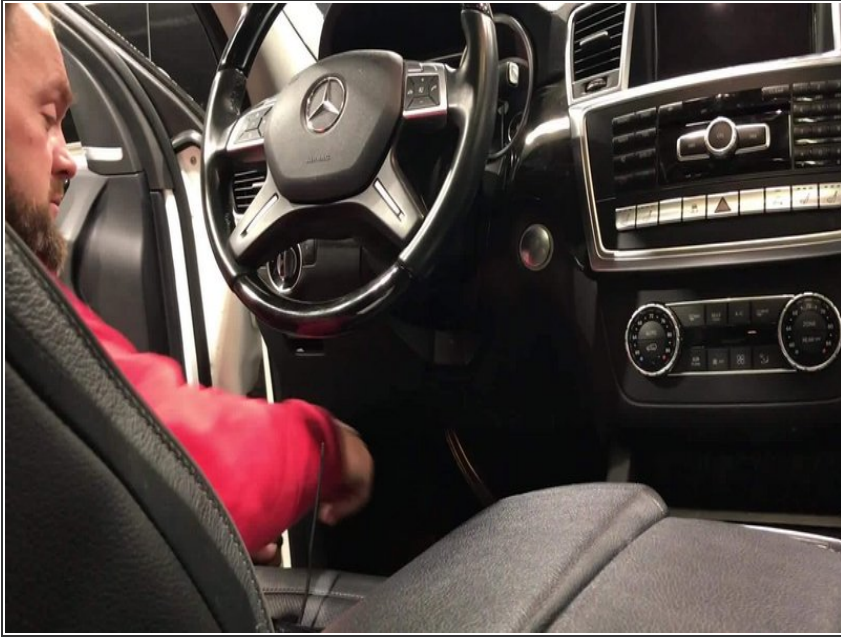
- [T-20 Driver](#) (1)
- [Drill](#) (1)
- [E14 Torx Socket](#) (1)
- [T45 Torx Bit](#) (1)
- [T40 Torx Bit](#) (1)
- [Panel Removal Tool](#) (1)
- [Pick Tool](#) (1)



PARTS:

- [SKSNG166D3](#) (1)

Step 1 — Remove under dash screws



- Remove three (3) T20 screws from driver side under dash panel
- Carefully pull panel down
- [For CLA, GLA and G Wagon specific step by step disassembly and T harness connections, click here](#)

Step 2 — Remove EIS plugs and connect to T-harness



- Un-plug two (2) plugs from rear of EIS (electronic ignition cylinder). 1 x green 12 pin plug and 1 x blue 8 pin plug
- Plug green 12 pin plug into plug 12 pin socket of T-harness
- Plug blue 8 pin plug into blue 8 pin socket on T-harness

Step 3 — Connect T-harness plugs into EIS



- Plug green 12 pin plug from T-harness into rear of EIS
- Plug blue 8 pin plug from T-harness into rear of EIS

Step 4 — Connect SKS module to T-harness and sync with key



- Plug SKS module into main 20 pin plug on T-harness
- Start engine manually with either the push button start (if applicable) or key in ignition
- ☒ Make sure vehicle starts normally with no errors
- Let engine run for 30 seconds and shut down

Step 5 — Test remote start



- Press and release panic button on OEM key fob 1X (do not hold button)
- Make sure engine starts remotely
- After engine is remote started, confirm shut down with the key by pressing and releasing the panic button 1X (vehicle should shut down)

Step 6 — Test key takeover



- Remote start vehicle. Once vehicle is started, to perform key takeover insert the key and turn to the 2nd position (IGN) or press the push to start button 1X (if applicable)
- ⚠ **Note:** do not turn the key past the 2nd position. If the key is turned to crank during key takeover, the HVAC will not work properly until the ignition is cycled
- Parking lights will flash 3X and vehicle can be shifted into gear
- ☑ After key takeover, make sure to leave the vehicle running for at least 30 seconds. If the vehicle is shut down or turn off before 30 seconds, the remote start will not be synced with the key and you will get error code 5 (5X parking light flashes). To fix error code 5, start the vehicle manually and let run for at least 30 seconds
- ⓘ Whenever the vehicle is started manually or ignition is turned on, be sure to leave the vehicle running or the ignition on for at least 30 seconds. If vehicle is started or ignition turned on and shut off in less than 30 seconds, it will result in error code 5 when trying to remote start

Step 7 — Test brake shutdown



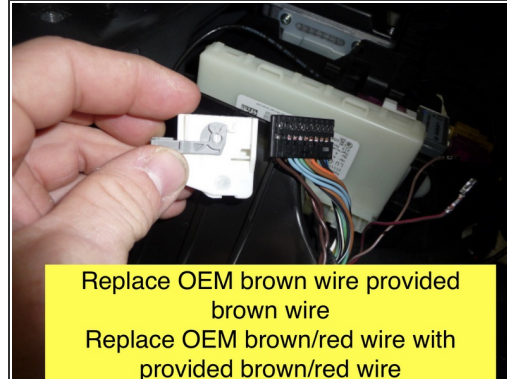
- Remote start vehicle
- Once vehicle has remote started, press the brake pedal and confirm that vehicle shuts down

Step 8 — Test hood shutdown



- Open hood
- Attempt to remote start and confirm vehicle does not remote start. Parking lights should flash 7X times

Step 9 — Keyless Go connection. Only applicable for Keyless Go equipped vehicles (push to start)



- ☑ If the vehicle is equipped with push to start, the provided brown and brown/red Keyless Go harness (KG20166) needs to be connected to the OEM Keyless Go module.
 - Locate twisted pair of brown and brown/red wires at the Keyless Go module. Unlatch and unplug connector. Remove connector shroud.
 - De-pin OEM brown wire and replace with provided brown wire from KG20166 harness
 - Run KG20166 harness to driver side under-dash and connect to 2-Pin white plug on SmartKey Starter module labeled **KG**
- ML: Keyless Go module is located under the rear seat. [For detailed instructions on how to locate this module, click here](#)
- GL: Keyless Go module is located behind a side panel above the driver side rear tire. [For detailed instructions on how to locate this module, click here](#)
- ❗ G Wagon, CLA, and GLA covered by the SKSNG166D3 do not have Keyless Go

Step 10 — Test Keyless Go connection



- ① Once the Keyless Go connection is completed, you can test it by verifying KG operation while the vehicle is started remotely
 - Start engine manually and let run for at least 30 seconds
 - Turn vehicle off
 - Remote start vehicle
 - Once vehicle is started remotely, test lock / unlock from door handle (key must be on you). If the Keyless Go lock and unlock from the door handle work while the vehicle is started remotely, all Keyless Go connections were done properly.
- ① If the lock / unlock from door handle do not work while vehicle is started remotely, go back to previous step and check connections and re-do KG finder test.

Step 11 — OPTIONAL: Accessory and upgrade connections (Drone, Smart Start, DAS II, etc)

- **Compustar Drone:** Connect to the **GRAY** 4-pin port labeled **DRONE** on the SmartKey Starter module.
- **Directed Smart Start:** Connect 4-pin D2D cable from Smart Start to white 4-pin port labeled **D2D** on the SmartKey Starter module. Cut and insulate blue and green data wires (leaving only black and red for power and ground).
 - Connect 3-pin ESP plug from Smart Start to 3-pin white plug on SmartKey Starter labeled **Smart Start**. *Do not ground gray wire from Smart Start.*
- **Compustar DAS II sensor:** Connect to 4-pin **RED** port labeled **SENSOR** on the SmartKey Starter module
- **Compustar RF remotes:** Connect Compustar antenna to 4-pin **BLUE** port on the SmartKey Starter module labeled **4PANT**
- ⚠ **AM remotes are NOT supported**
- **Compustar remote programming:** Cycle key from off to ignition 5X- parking lights will flash 1X after the 5th cycle. After the 5th cycle, press the button on the antenna (if antenna has a button) and press LOCK on each Compustar remote. Parking lights will flash when each remote is paired. Parking lights will flash 2X when exiting programming

Step 12 — OPTIONAL: Accessory and upgrade connections continued



- **Directed RF remotes:** to add Directed remotes, a Directed XL202 RF to data converter must be used. Connect the XL202 to the 4 pin white plug labeled **D2D** on the SmartKey Starter module. Connect Directed RF antenna to XL202 and follow XL202 programming instructions
- **Compustar Alarm/Remote start module:** an external alarm can be added using a Compustar Alarm/RS module (CM900, CMX, etc). To connect alarm use a RS232 cable. Plug one end of RS232 cable into **BLACK** port on CM7000 and other end of RS232 cable into **GRAY** 4 pin port labeled **DRONE** on SmartKey Starter module
 - ⓘ RS232 cable must have **blue and white (RX and TX) wires reversed** on one end of the cable. For example, if blue wire is in the outside pin position on one connector, it must be in the inside pin on the other side of the cable.
- Connect power, ground, and ignition wire from low current harness of Compustar CM. Constant power and ground can be wired to the SmartKey Starter T-harness
- Connect all accessories into Compustar CM
- **Compustar KeyLocker and KP2:** A KP2 Compustar touchpad can be connected using either a Compustar CM or a KeyLocker module. Connect KeyLocker to **GRAY** port labeled **DRONE**

Step 13 — Mount module



- Locate a place to secure the Smartkey Starter module in the dash cavity.
- ⚠ **DO NOT** mount the module on or near any heat sources or moving parts (eg, vents or steering column)
- Secure the module in its final location. Zip ties are recommended.

Step 14 — Reassemble vehicle and apply OBD sticker



- Reassemble dash and any panels removed running wires
- ⚠ 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 covering OBD II plug access. The purpose of the sticker is to inform anyone working on the vehicle that the vehicle is equipped with a remote starter
- ⚠ **Remote starter must be turned off (valet mode) any time the vehicle is being serviced or undergoing any diagnostic tests or parked in a location where it is not safe for the vehicle to start.**

Step 15 — Check option settings



- ☑ Use instrument cluster menu to check options settings (run time, light flash, etc) to make sure settings are to preference. See user's manual for instrument cluster menu instructions: [Click Here for User's Manual](#)

Troubleshooting:

If vehicle receives the command, but fails to remote start, the parking lights will flash a # of times. The number of parking light flashes corresponds to an error code. To troubleshoot no remote start count the number of parking light flashes.

Note: after a brief pause, the error code may be followed by a shutdown sequence of 3X flashes after the initial code

Error codes:

4 Flashes: Valet mode. The remote start is in valet mode (remote start off). [Click here for valet mode instructions using the instrument cluster menu.](#)

5 Flashes: Maximum 5 remote start attempts exceeded or vehicle is not synced with the key.

Start vehicle manually and let run for at least 30 seconds.

Whenever the vehicle is started manually or ignition is turned on, be sure to leave the vehicle running or the ignition on for at least 30 seconds. If vehicle is started or ignition turned on and shut off in less than 30 seconds, it will result in error code 5 when trying to remote start. The system stores enough error codes for 5 remote start attempts before it needs to be synced with the key.

6 Flashes: Brake depressed. The vehicle sees that the brake is depressed. If the brake pedal is not pressed down, it is possible that the brake switch is out of alignment. Check brake switch above brake pedal. If brake switch is out of alignment, you may see brake lights on all the time when the vehicle is started.

7 Flashes: Hood open. The remote start will not work if the hood is open or latch is not fully closed.

8 Flashes: RPM overrev. Vehicle sees that RPM is too high.

10 Flashes: Communication error. Check connections and power cycle module.