



Smartkey Starter NG Reference Manual



The Smartkey Starter NG represents the latest advancement in databus based remote starter technology. One hardware platform now covers all Mercedes Vehicles that use the high speed CAN platform (cover most vehicles from 2007-2015).

Vehicle Coverage

2007-2013 W221 S Class
2007-2013 W216 CL Class
2008-2014 W204 C Class
2010-2016 W212 E Class
2012-2016 W218 CLS Class
2010-2015 X204 GLK Class

2012-2015 W463 G Wagon
2014-2016 C117 CLA Class
2014-2016 X156 GLA Class
2011-2015 R172 SLK Class
2012-2015 W166 ML Class
2013-2015 X166 GL Class
2012-2015 W176 A Class
2012-2015 W246 B Class
2011-2015 R197 SLS Roadster

Features

- Multiple concurrently functioning I/O ports (all ports can function at once)
- Compustar 4 pin remote port
- Compustar 6 pin remote port
- Drone Mobile/serial programming port
- Shock sensor port (functional with future firmware update)
- D2D port for external directed electronics remotes
- ESP2 port for SmartStart
- 32bit PPC processor with 6X CAN allows full gateway functionality
- 4th Gen Automotive processor technology (all competitors are still 2nd gen)
- Fully automotive rated boards/components
- MISRA C qualified codebase
- Single Hardware for Directed/Compustar compatibility
- Plug-and-Play interface
- VIN detection over CAN for automatic feature/firmware selection
- Feature Programming selectable via steering wheel interface
- Advanced Feature programming using serial port and compu/ADS/XKLOADER interfaces
- Settable Runtime (3 to 60 minutes)
- Settable number of remote starts (3 to 10)
- Selectable flashing parking lights
- Remote start using MBrace interface (beta)
- Temperature controlled Heated Seat activation on remote start
- Temperature controller Defroster activation on remote start
- Temperature controlled Cooled Seats activation on remote start (except W166)
- Automatic detection for vehicles with/without panic button on keyfob
- Runtime report on remote control
- Vehicle internal/external temperature report on remote control/iphone
- Door/Hood/Trunk report on remote control/iphone
- Alarm trigger on remote control/iphone
- Panic via remote control/iphone
- Pitstop mode via Compustar remote
- Settings diagnostic indicators on unit
- Ready to start indicator on unit

Option Programming

Remote starter option programming is performed in the vehicle using the steering wheel controls. To perform option programming, first the vehicle key must be inserted into the ignition but not turned. This will unlock programming. Next the steering wheel hangup button is held pressed while watching the vehicle parking lights flash in an increasing pattern (1 flash, then pause, then 2 flashes, then pause, then 3 flashes... all the way to 6 flashes). When the number of flashes corresponding to the desired option is reached, the hangup button is released and then one of the follow buttons is pressed (vol+, vol-, send), each corresponding to a feature found in the table below. After 30 seconds of inactivity the starter will automatically exit programming mode.

Option settings procedure

1. remove push to start button (if installed)
2. insert key into ignition (do not turn)
3. hold steering wheel end button until parking lights blink number of times of desired feature.
4. press (VOL-), (VOL+), or (SEND) to select option 1,2, or 3
5. wait 30 seconds to exit programming

#	Feature	Option 1 (vol-)	Option 2 (vol+)	Option 3 (send)	Factory Setting
1	VALET MODE	OFF	ON	N/A	OFF
2	RUNTIME	15 MIN	25 MIN	45 MIN	15 MIN
3	PARKING LIGHTS	BLINK OFF	BLINK ON	N/A	BLINK ON
4	HEATED SEATS	ON < 32F	ON < 41F	ON < 50F	ON < 41F
5	NUMBER OF STARTS	3	5	7	5
6	INITIALIZE	N/A	INIT/RESET	N/A	N/A



Insert key into ignition (do not turn)



Hold feature select then press option button

Advanced Option Setting

Advanced option setting is done using a separate USB to Serial Adapter and Laptop. This allows advanced feature settings to be performed over and above what is available via the steering wheel interface. To do this either a Weblink interface or XKLOADER interface is required. The actual coding is performed using the SKS updater utility tool (serial_updater.exe) which can be obtained by contacting Midcity Engineering support.

Note: with XKLOADER, a Compustar to D2D adapter cable is required and TX/RX (blue and white wires) must be swapped.



Compustar Updater



XKLOADER Updater



Note swapped blue/white wires



Serial Updater Utility

Serial Update Procedure

1. Download **serial_updater.exe** to computer
2. Install remote starter.
3. Connect USB to serial adapter to remote starter
4. Plug in USB cable into computer
5. Launch serial updater utility
6. Select active com port in the upper left box
7. "Read Version" will display current firmware version on starter
8. Change desired settings in lower left hand boxes
9. Click "Update Settings" to program starter
10. To reset to factory settings click "Reset Settings" then "Update Settings"

External Device Connection

The Smartkey Starter NG allows for multiple external devices (such as remote or telematics controllers) to be connected without additional programming. To connect Directed Electronics brand remote controls an XL202 interface adapter is needed as well as the desired remote kit.

Note: Smartstart unit power can be tapped from the D2D port. To do this remove and insulate the blue and green wires from the D2D connector then connect as illustrated.

Below are diagrams illustrating the connections:



CompuStar remote connection



Drone telematics app connection



Smartstart connection



XL202 and remote antenna connection

Compustar remote programming procedure

1. Remove push to start button (if installed)
2. Insert key into ignition
3. Cycle key ON-OFF 5 times
4. Press "Lock" on each remote to be programmed
5. Programming will exit after 30 seconds