

Data Controller (DC)

Remote Start for Mercedes
Direct Plug (T-Harness) Solution

General Installation Manual

FT-MB164-DC

FT-MB211-DC

FT-MB906-DC

FT-MB204-DC

FT-MB221-DC



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DC

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Introduction and Fit Guide

Welcome to the Mercedes Data Controller (DC) installation manual. This manual is intended for experienced installers only. We highly recommend that you contact your local Compustar dealer and seek professional installation. Call 888-820-3690 or visit our website at www.compustar.com for more information.

This is a general install manual for Mercedes DC. For specific vehicle installation information please register at www.firtechonline.com for. Please review this entire manual before attempting installation. There are specific instructions that need to be completed in order. Also observe all warnings detailed throughout this manual.

| DC for Mercedes Fit Guide | | | | | |
|---------------------------|-------------|-------------|-------------------|-----------|-------------|
| Model | Years | Part Number | Model | Years | Part Number |
| B Class | 2005-2010 | FT-MB211-DC | G Class | 2005-2011 | FT-MB211-DC |
| C Class | 2003-2007 | FT-MB211-DC | GL Class | 2006-2011 | FT-MB164-DC |
| C Class | 2008-2011 | FT-MB204-DC | GLK Class | 2008-2011 | FT-MB204-DC |
| CL Class (Non AMG) | 2007-2011 | FT-MB221-DC | ML Class | 2006-2011 | FT-MB164-DC |
| CLK Class | 2004-2009 | FT-MB211-DC | R Class | 2006-2011 | FT-MB164-DC |
| CLS Class | 2004-2011 | FT-MB211-DC | S Class (Non AMG) | 2007-2011 | FT-MB221-DC |
| E Class | 2004-2009 | FT-MB211-DC | SLK Class | 2005-2009 | FT-MB211-DC |
| E Class | 2010 - 2011 | FT-MB204-DC | Sprinter Van | 2007-2011 | FT-MB906-DC |

FT-MBKG20-HRN harness is required for installation in KeylessGo vehicles.

KeylessGo System

Some Mercedes are now equipped with the KeylessGo system. This allows the user to start their vehicle without inserting any key into the ignition. All they have to carry is a card style key and push the start button to engage the motor.

In order to have keyless entry in KeylessGo Mercedes you must install an additional harness. (Part Number: FT-MBKG20-HRN) This harness must be ran to the KeylessGo module in the vehicle, assuming you have completed the install on the main DC for Mercedes module.

We do not include the installation manual for KeylessGo here. To view the KeylessGo installation manual please register on www.firstechonline.com.

Do not mount the DC module near any heat sources in the vehicle. Locations to avoid are the heater core and transmission tunnel areas.

Firstech, LLC. will not assume any responsibility for improper use and/or installation that results in damage to vehicle and/or persons.

Tools and Parts Needed

| | | | |
|---|--|--|--|
| <ul style="list-style-type: none">• Straight and right angle pick tools | <ul style="list-style-type: none">• T-25 Torx Driver | <ul style="list-style-type: none">• 10 mm Socket, Extension and Ratchet | <ul style="list-style-type: none">• Phillips Screwdriver |
| <ul style="list-style-type: none">• T-10 Torx Driver | <ul style="list-style-type: none">• T-30 Torx Driver | <ul style="list-style-type: none">• Drill | <ul style="list-style-type: none">• 3/4" Drill Bit or Unibit |
| <ul style="list-style-type: none">• T-20 Torx Driver | <ul style="list-style-type: none">• Panel Removal Tool | <ul style="list-style-type: none">• Mercedes EIS removal tool (Part Number: 639 589 01 07 00) Optional in most installations however makes job much easier. It can be purchased at your local Mercedes dealer. | |

General Installation Instructions

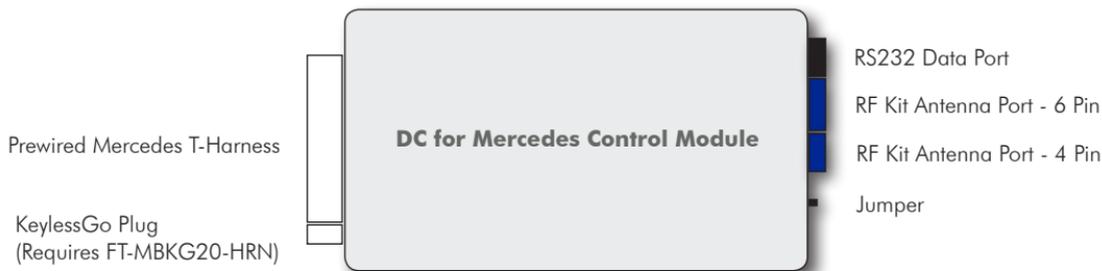
Here are the general installation instructions for Data Controller for Mercedes. These instructions will differ from vehicle to vehicle. Register and download the vehicle specific manuals online at www.firstechonline.com.

1. Access the rear of the key cylinder also known as EIS.
2. Remove the factory male plug(s) from the rear of the EIS that correspond to the included DC harness.
3. Plug the T-Harness male plugs into the rear of the EIS.
4. Reconnect the factory wiring removed in step 2 to the female side of the T-Harness.
5. Plug the T-Harness into the DC module.
6. If the vehicle has a KeylessGo system please see the KeylessGo installation manual.
7. Turn the Valet switch to the on position (White dot side).
8. Install one of the following controllers for Mercedes DC:
 - a: DroneMobile - this will control the vehicle through the user's smartphone or internet access. Please see the DroneMobile installation manual for instructions. Plug the Data plug into the DR-1000 and the other end into the Data port on the DC.
 - b: 2 Way RF Kit - a 2 Way system will control the vehicle and receive confirmation to the remote. Range varies by remote kit. To install just run the antenna cable up and mount the antenna on the windshield for best results. Lastly, plug the 4 or 6 pin antenna cable into the DC control module.
 - c: 1 Way RF Kit - a 1 Way system will only send commands to the vehicle. Range varies by remote kit. To install just run the antenna cable up and mount the antenna on the windshield for best results. Lastly, plug the 4 or 6 pin antenna cable into the DC control module.
9. Start the vehicle with the key and allow it to run for at least 1 minute. At the same time make sure all connections are secure and that there are no errors or warning lights on the vehicle.

10. Shut the vehicle off and remote start using one of the four methods mentioned in the DC for Mercedes Quick Start Card. Factory key fobs without a panic button use 'Lock, Unlock, Lock' to activate remote start (see activation programming section below).
11. Parking lights will flash once to confirm start command. The vehicle should start within 5 seconds.
12. Parking lights will flash once every 5 seconds while vehicle is running.
13. Remote start take over sequence:
 - a: Standard vehicle -- insert key into ignition and turn to 'on' position. Lights will flash 3 times and control will automatically be transferred to the key and remote start will turn off.
 - b: KeylessGo vehicle -- push start button once. Lights will flash 3 times, control will transfer to the key and remote start will turn off.
14. When you're through testing, shut the vehicle off.
15. Route the Valet switch to a convenient location under the dash.
16. Drill a 3/4" hole for mounting the valet switch. If you do not wish to drill a hole then you may mount or tie it up where the customer may easily reach.
17. Disconnect the wires from the switch and snap the valet switch into place.
18. Reconnect the wires and confirm starter operation once again prior to reassembling the vehicle.
19. Mount the DC module in the dash away from any heat sources. Make sure to tie up all harnesses neatly and away from heat sources or moving parts.
20. Reassemble vehicle.
21. Make sure to retest the remote start after reassembling vehicle.

Wiring Diagram

DC for Mercedes is a vehicle specific piece. The wiring diagram below shows the general location of ports and components on the control module. For specific diagrams and instructions please refer to the vehicle specific installation manuals on www.firstechonline.com.



Jumper Settings

Certain DC models require specific jumper settings. This table refers to side view with main label facing up.

| | | |
|--------------------------------|--------------|---|
| FT-MB164-DC and FT-MB211-DC | Jumper Left | Standard Compatible Vehicles |
| | Jumper Right | 2010 Bluetec Diesel |
| FT-MB204-DC and FT-MB221-DC | Jumper Left | S and CL Class Compatibility |
| | Jumper Right | C, E, and GLK Class Coupe/Sedan Compatibility |

Special Installation Instructions

Each Mercedes you install the DC into will be different. Please observe this section when it comes to certain models.

Please register online at www.firstechonline.com to access vehicle specific installation manuals for this unit. We do not include these manuals in the package.

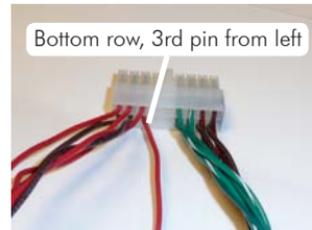
EIS Removal Tool

The EIS Removal Tool is a dealership specific piece. The part number is 639 589 01 07 00 and is optional in most installations. It will make the installation much easier in most models. Please note the following in regards to the EIS Removal Tool:

- Required when installing Mercedes DC in GLK models.
- Simplifies installation on C, E, and G Wagon Class models.
- Does not work on CL and S Class models.

2010 E Class Sedan Power Wire Connection

The FT-MB204-DC unit and harness covers the 2008-2010 C, 2010 GLK, and 2010 E class coupe and sedan vehicles. Everything is identical in the connections between the aforementioned vehicles except for the 2010 E Class sedan. There is no power wire in the harness that it interfaces with, thus the DC module will not have a power source. In this case, you will have to cut one wire from the harness and route a power wire from the battery under the hood to the valet switch of the DC control module. Please see the diagram to the right for the correct connection point.



1. Cut the wire to the left and insulate the exposed end coming from the plug.
2. Remove the other end of the wire that is connected to the switch.
3. Route included wire from battery to empty terminal of Valet Switch and connect the spade to the terminal.

Please note that you cannot program 1 and 2 Way remotes with vehicles with push start button near the shifter. The push start must be in the dash and you must be able to pull the button out.

DroneMobile Programming

Once you complete the install of the DC Control Module you may install the DroneMobile controller in the vehicle. The install is straight forward and only requires a 3 wire hookup. Wire 1: Begin by connecting the RS232 Cable to the Data port on the DC Control Module. Connect the other end of the cable to the Serial Data Connector on the DroneMobile controller. Wire 2 and 3: From the DroneMobile wiring harness connect the Red and Black wires to 12 Volts + and chassis Ground respectively. Once complete and tested visit www.dronemobile.com to activate and test the system.

2 Way RF Kit Programming

You must program all remotes at the same time. Use the factory key fob in the ignition switch. If you have a push button system on the dash you must pull the Start button and there you will be able to cycle the ignition.

Step 1: Turn the key between the 'Off' and 'Acc' 5 times within 7 seconds (1 click in the clockwise direction). Parking lights will flash once.

Step 2: Tap button 1 on the 2 Way remotes. Parking lights will flash once each time you tap the remote's button.

Step 3: The parking lights will flash once to confirm exiting programming mode. You are now able to test the remote(s) for full functionality.

1 Way RF Kit Programming

You must program all remotes at the same time. Use the factory key fob in the ignition switch. If you have a push button system on the dash you must pull the Start button and there you will be able to cycle the ignition.

Step 1: Turn the key between the 'Off' and 'Acc' 5 times within 7 seconds (1 click in the clockwise direction). Parking lights will flash once.

Step 2: Tap the Lock button on the 1 Way remotes. Parking lights will flash once each time you tap the remote's button.

Step 3: The parking lights will flash once to confirm exiting programming mode. You are now able to test the remote(s) for full functionality.

Activation and Troubleshooting

Once installation is completed you must activate the Mercedes DC. The activation steps are dependent on if the factory remote has a 'PANIC' button or not. If you have the KeylessGo push start system first pull the button out of the ignition switch.

1. Insert key in ignition and cycle 5 times between 'OFF' and 'Accessory' positions. (One click clockwise). Parking lights will flash once.
2. If you do not have a 'PANIC' button press the 'LOCK' button on the factory remote. This activates the 'Lock, Unlock, Lock' sequence for remote starting. If you do have a 'PANIC' button press the 'UNLOCK' button at this time.

Please note that you may only remote start the vehicle 5 times using the Mercedes DC controller before you must start with the key in the ignition or KeylessGo. If this occurs then you will receive a 5 flash shutdown error and must reset the remote starter. To do this follow the Mercedes Reset Procedure.

| Mercedes Data Controller Reset Procedure |
|--|
| Step 1: Turn ignition off. |
| Step 2: Close doors and lock with factory key fob. |
| Step 3: Wait at least 5 minutes. |
| Step 4: Unlock doors with factory key fob. |
| Step 5: Insert key into ignition and start. |
| Step 6: Wait 1 minute. |
| Step 7: Turn ignition off. |

Installation Tips:

- Take care when plugging harnesses in to not damage the plug.
- Do not start the vehicle with any factory harnesses unplugged.
- Make sure the customer puts the remote start in valet by flipping the toggle switch to the non white dot side.
- You can only remote start 5 times in a row before you must start with the key
- When remote starting with the key fob do not hold the 'Panic' button down, just tap it quickly.

Troubleshooting and Contact Info

If for any reason the remote start shuts down, the DC will give you a shutdown error code. The vehicle will shutdown and parking lights flash showing the error. Please see the Remote Start Shutdown Error table for details.

For technical support and questions please contact us at:

Firstech Technical Support
8 AM to 5 PM PST at 888.820.3690 ext: 3
email: support@compustar.com

48 Month/50,000 Mile Warranty

Firstech, LLC. warrants to the original purchaser that this product shall be free of defects in material and workmanship under normal use and circumstances for the period of 48 months or 50,000 miles, whichever comes first. Firstech, LLC. is not responsible for any damages whatsoever, including but not limited to any consequential damages, incidental damages, damages for loss of time, loss of earnings, commercial loss, loss of economic opportunity and the like that may or may not have resulted from the installation or operation of the Data Controller for Mercedes. Notwithstanding the above, manufacturer does offer a limited warranty to replace or repair the control module as described above. The product warranty is automatically void if the date code and/or serial number is defaced, missing, or altered or product is tampered with. The warranty will not be valid unless you have an accompanying bill of sale.

| Remote Start Shutdown Errors | |
|---------------------------------|---|
| Number of Parking Light Flashes | Reason for Error |
| 3 | Key takeover |
| 5 | Exceeded maximum number of remote starts (5 Times) |
| 6 | Foot brake was pressed |
| 7 | Hood opened |
| 8 | Engine RPM too high |
| 9 | Engine failed to start |
| 10 | Communication error |



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