



# Little Star

Over the years, many of us have come to equate the Mercedes-Benz three pointed star emblem with large, heavy cars. Mercedes decided to change that perception when they introduced the all new 190 series in 1984. A smaller and lighter car than most of its brethren, the 190 quickly took its place as the "Little Star" of the Mercedes-Benz vehicle lineup.

We Benz techs awaited the U.S. introduction of the 190 with anticipation. We had been hearing about the car for several years, and we had already

scrutinized all of the advance photos and information we could scrounge. We longed to get our hands on the finished product.

We weren't disappointed. When it made its debut, the 190 offered technology that was state of the art. The multi-link rear suspension delivered superior handling in a lightweight package, and the damper strut front suspension followed suit. An encapsulated engine compartment contributed to a low drag coefficient and helped to reduce interior noise.

The 190 was originally offered with either a 2.3 liter gas or 2.2 liter diesel engine. The gas engine featured CIS-E fuel injection. The diesel engine featured a serpentine accessory drive belt, a self-priming fuel pump, and a new cylinder head design. Manual and automatic transmissions were available in both early gas and diesel versions.

Sixteen valve performance came later with the 190 2.3/16 model. Current 190 models feature a 2.6 liter six cylinder engine.

## 190 Service

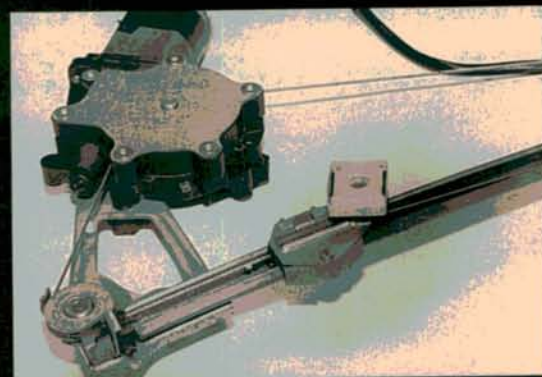
Early 190s had their share of teething problems, and there are several common repair areas that you should be aware of. The majority of the repairs we will cover in this article are concentrated in the 1984-86 model years. Most of these problems present no safety danger to owners or the techs working on the cars, and all have been corrected by Mercedes-Benz on more recent models.

In some cases, updated parts have also been introduced by Mercedes to correct specific problems. Rather than include part numbers in our photo captions, we have listed them for you here in the introduction. The part numbers are current, but you may want to check with your Mercedes parts department before ordering anything.

Mercedes uses a body and chassis numbering system to identify individual Mercedes-Benz models. The parts counterman needs to know these numbers, rather than the model number, to supply you with the correct parts. The 190's body series number is 201. An additional three digit chassis number identifies different members of the 201 family.

### M-B 190 Replacement Parts List

Rear Window Regulator Mounts	201	988	03	11
Climate Control Valve Caps	403	070	00	55
ETR Switch	201	830	06	72
A/C Compressor Hose Assembly	102	130	32	57
Cruise Control Fuse Bridge	201	545	03	02
Cruise Control Amplifier	005	545	05	32
Cooling Fan Relay	001	542	53	19
1985 Serpentine Belt Tensioner	902	200	01	14
1987 2.3 Standard Tensioner	102	200	66	70
1987 2.3/16 Tensioner	102	200	75	70
Thermostat Housing Gasket	102	203	01	80
Hydraulic Motor Mounts	201	240	27	17
Motor Mount Cooling Duct	201	520	00	05
Motor Mount Heat Shield	201	241	09	34
Tow Hook Door	201	880	09	05
Cooler Line Steel Collar Nut	000	990	24	50
Cooler Line Steel Nut	003	990	16	51
Cooler Line Steel Washer	000	990	24	50



If the rear power windows won't move or move sluggishly, there are several possible causes. The window regulator is cable driven with an integral motor. If the window won't move, and you hear little or no motor noise, the cable drive is binding. The only sure fix is to replace the regulator assembly.



If the window motor is turning, but the window stays put until you move it by hand, check the regulator mounts. The regulator mounts can loosen, putting extra pressure on the neoprene window drive, breaking it off. An updated mount, with serrations on its mating surface (arrow) keeps the regulator tight.



If the regulator mounts are okay, check the drive connection. The regulator assembly must be replaced if the drive is broken. Later regulators have a modified sliding jaw drive and metal reinforcement for those kids in the back seat who can't keep their fingers off the window switches.



4

The 190 power door locks are actuated by an electric vacuum pump under the right rear seat cushion. Does the pump run when you cycle the driver's door lock up and down? If the other power door locks don't move, check for broken vacuum lines. If the pump doesn't run, suspect a switch, electrical supply, or a dead pump.



5

Check the drive attachment bolts if the motor and drive cable operate but the sunroof panel doesn't move. Early self-tapping bolts can back out of the roof panel, disconnecting the drive attachment. Replace the bolts with machine thread bolts and self-locking nuts. Repair or replace the drive attachment piece as necessary.



6

The sunroof headliner can be removed by partially opening the sunroof, then releasing the four headliner pressure clips at the front of the sunroof. Now pull the headliner through the sunroof opening. If the sunroof won't open, the headliner can be removed by bowing it downward after releasing the clips.



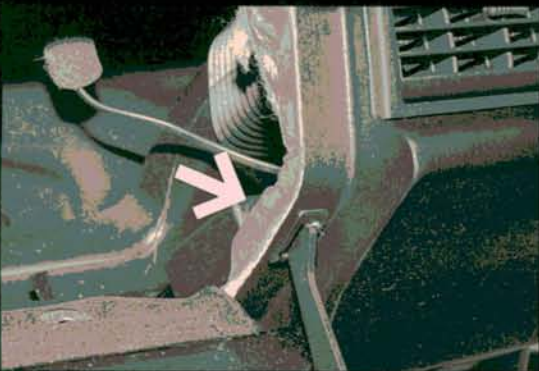
7

A blown number 9 fuse killed the brake lights on early 190s. This also made it impossible to disengage the cruise control by hitting the brake pedal. A modification including a 16 amp fuse and fuse bridge corrected the problem. A label is included in the kit to show the "fix" has been made.



8

A loose or disconnected diesel cruise control linkage (arrow) can bind the throttle linkage. A modified cruise control amplifier with removable reference resistor was developed to correct cruise control surge during deceleration on downhill grades. Resistors must be matched to specific models.



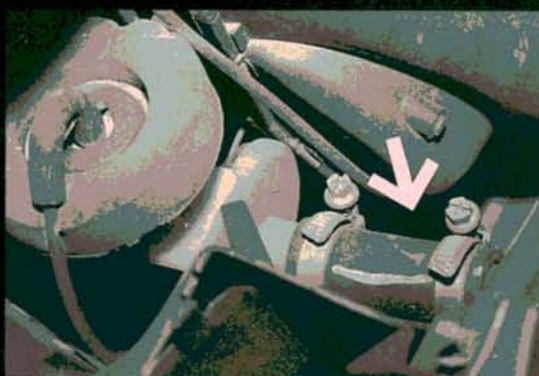
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The automatic climate control (ACC) vacuum switchover valve located behind the glove box may produce a clicking noise when the ACC is in the automatic cooling mode on some 1984-85 190s. Rubber plugs are available to cap the fittings at the ends of the valve to stop the clicking noise.



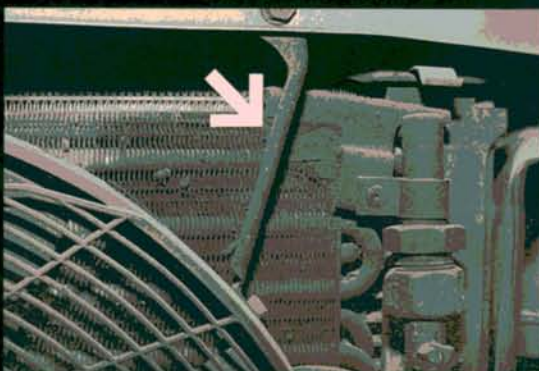
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A faulty feedback potentiometer, located behind these center vents above the heater box, may keep the compressor from operating when the automatic climate control (ACC) is set to the normal cooling mode. A screw adjustment on the new potentiometer simplifies the voltage signal adjustment.



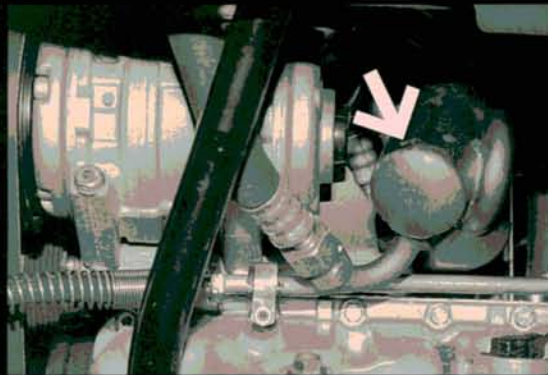
11

If the A/C compressor shuts off after operating for a short time, check for a failed evaporator temperature (ETR) switch. An updated ETR switch is available to correct this problem. Remove the cowl venting below the windshield to locate the switch at the bottom right corner of the heater box.



12

The A/C condenser is vulnerable to punctures caused by road debris. Like any vehicle, whatever is farthest forward is fair game. I've seen a number of leaks in the upper left corner of the condenser, but leaks in other spots are possible too. Manufacturing defects seldom cause A/C condenser leaks.



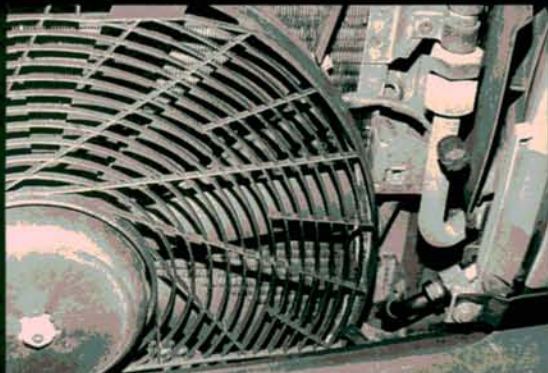
13

A revised A/C compressor hose assembly was introduced in June 1986 and may be installed on earlier models to keep compressor noise from entering the passenger compartment. The new hose assembly includes an integral muffler. Be prepared for a fair amount of disassembly to replace the hose assembly.



14

A complete modification kit was made available to cure other early A/C system problems, primarily overheated A/C components. The kit includes new pressure lines, condenser, a receiver/drier with pressure switches, and encapsulation panels for the lower sides of the engine compartment.



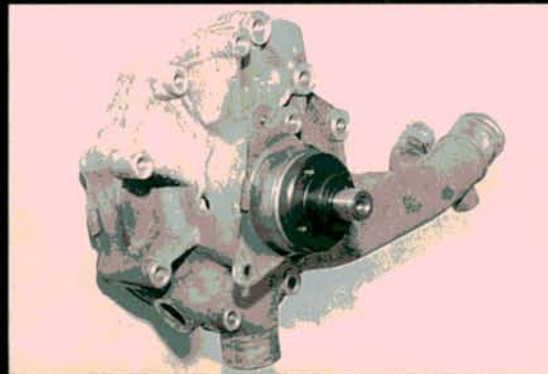
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The engine and auxiliary cooling fan circuits can be modified to increase the engine cooling capacity on 1984-5 190 E models. This modification causes both fans to engage at high engine temperatures. The necessary relay, connectors, wiring, and instructions are available through M-B dealers.



16

The six cylinder 190 2.6 engine is a tight fit in the engine bay, and high underhood temperatures aren't unusual. To cool things down several degrees, remove the lower encapsulation panel. Drill a dozen 1-1/2 inch holes in the right front side of the panel with a hole saw. Four rows of three holes works well.



17

Water pump leaks were fairly common on early 190s. Look for seepage at the breather hole, usually during engine cool down. The engine cooling fan is controlled by an electro-mechanical clutch. If the clutch is in good condition, transfer the clutch from the old water pump to its replacement.



18

Early 190 gas engines used a plastic thermostat housing and housing cover. The plastic housing may warp, causing coolant leaks. Replace the warped housing with an updated alloy housing and paper gasket. Use a new o-ring and longer 6 x 1.00 x 25 mm bolts to mount the old plastic housing cover to the aluminum housing.



19

The serpentine drive belt tensioner may cause a fluttering noise during light acceleration on 2.3 liter gas engines, including the 16 valve version. The tensioner design was changed in 1985 and 1987. Updated parts may be installed on early 2.3 engines to correct this problem.



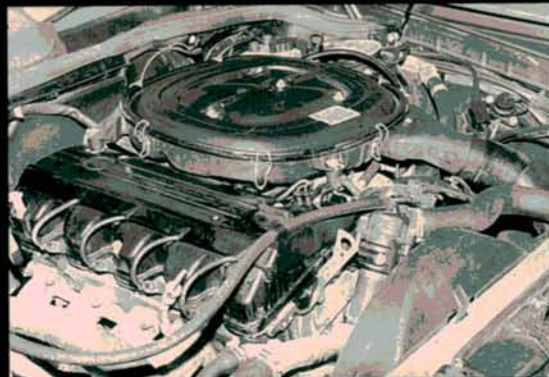
20

Don't be fooled when replacing the alternator on a poly vee belt-equipped 190 engine. The alternator does not use a Woodruff key. The shaft has a keyway, but it's not keyed to the pulley. Use a 22 mm box wrench and 8 mm Allen wrench to torque the pulley nut to 80 Nm. Air tools should not be used.



21

The hydraulic motor mounts on gasoline models can soften after vehicle mileage begins to add up. M-B introduced a modified mount which helped, but was only part of the solution. A cooling duct, heat shield, and tow hook door were also added to shield the right side mount from exhaust manifold heat.



22

Worn valve guides may cause higher than normal oil consumption on 2.3 liter gas engines. Many guides were replaced at the dealership level. Dealership techs use a go - no go gauge to determine guide condition. Always check piston tightness if the head is removed for guide replacement or for any other reason.



23

Watch for transmission fluid leaks at the radiator on 1985-86 models equipped with automatic transmissions. Leaks may occur at the aluminum collar nuts that secure the transmission oil cooler. Steel replacement collar nuts and washers are available to correct fluid leaks.



24

Inspect the inner spoke surface whenever the alloy wheels are removed. Early wheels were prone to cracking in this area. The wheel design was changed in 1987 to accommodate vented brake discs. Never install an early wheel on an '87 or later 190. Brake interference will damage the inside of the wheel.