

The above illustration represents my Sauer Danfoss fan controller. The color coding on your coaches wire harness may differ.

Your Sauer Danfoss controller may have a different wiring setup. If your SD (Sauer Danfoss) controller gets its input from only your ECM (electronic control module) you will have five wires (see illustration below) coming from your harness going to your SD plug connector. If your controller also gets inputs from sensors, likely three, you will probably have three additional wires in your plug connector. The number of input wires going to your SD controller is not a factor with this setup. All you need to do is determine which is the positive, usually red, hot wire and which wire is the ground, in my case it's the brown one. You will need a volt meter, easily available & cheap, from your local big box home center.

You will need to unplug the connector going to your SD controller. After you identify the positive and negative leads in the harness that was plugged into the controller simply wire your new setup following the diagram above.

The yellow and orange wires control an electro magnet that opens and closes a hydraulic valve which in turn regulates the volume of hydraulic fluid going to your fan motor. By adjusting the voltage going to the electro magnet you can easily control the speed of your fan. Your ideal fan speed will allow your fan to turn just fast enough to maintain 190F degrees at highway speeds and relatively flat terrain. There are many factors that will determine what your ideal fan speed is. The DC motor controller can easily adjust the voltage going to hydraulic valve to set the optimal speed for your cooling fan. In my case, my optimal fan speed is obtained at 9.9 VDC. This is likely a good voltage starting point for most coaches. The thermal switch will turn your

fan on high when your engine temperature reaches 205F degrees. If your thermal switch is turning your fan on high to quickly you will need to adjust your fan speed by decreasing the voltage going to the hydraulic valve.

Remember: as you lower the voltage to the hydraulic valve your fan speed will INCREASE.

I hope I did not make this sound too complicated as it's a relatively simple conversion. Since completing this setup I have driven my coach over 8,000 miles going over several Rocky Mountain grades with great results.



FDCA Fan Drive Control Assembly
 Technical Information
 FDCA and FDC Part Number And Wiring Information

NOMENCLATURE

Ordering information

FDCA part number	Nomenclature	FDC part number
1090943	FDCA 12 HCD10 HIRF3 PMPF2 PWPS2 PWPT1 3000/210 NC	1090942

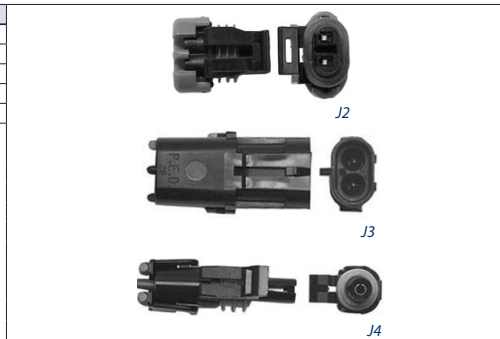
**ELECTRICAL MATING
 CONNECTOR KIT PART
 NUMBER(S) AND PINOUT
 INFORMATION**

K23022 (J2), K03383 (J3), K22782 (J4)

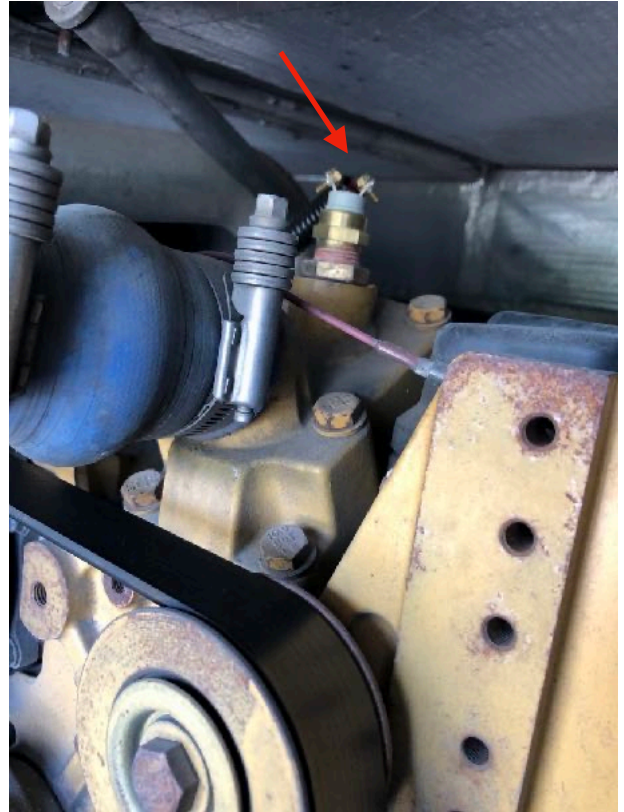
Description	Vendor	Vendor part number	Quantity required
Mates with J2, 2-pin Delphi® Metri-Pack™ shroud on FDCA			
TPA	Delphi	12052634	1
Connector housing	Delphi	12162000	1
Pin	Delphi	12045773	2
Seal	Delphi	12048086	1
Mates with J3, 2-pin Delphi® Weather-Pack™ shroud on FDCA			
Connector housing	Delphi	12015792	1
Term, socket	Delphi	12089188	2
Seal	Delphi	12015323	2
Seal	Delphi	12010293	2
Seal	Delphi	12015193	2
Mates with J4, 1-pin Delphi® Weather-Pack™ tower on FDCA			
Connector housing	Delphi	12010996	1
Pin	Delphi	12080040	1
Seal	Delphi	12010293	1
Seal	Delphi	12015193	1
Seal	Delphi	12015323	1

Pinout information

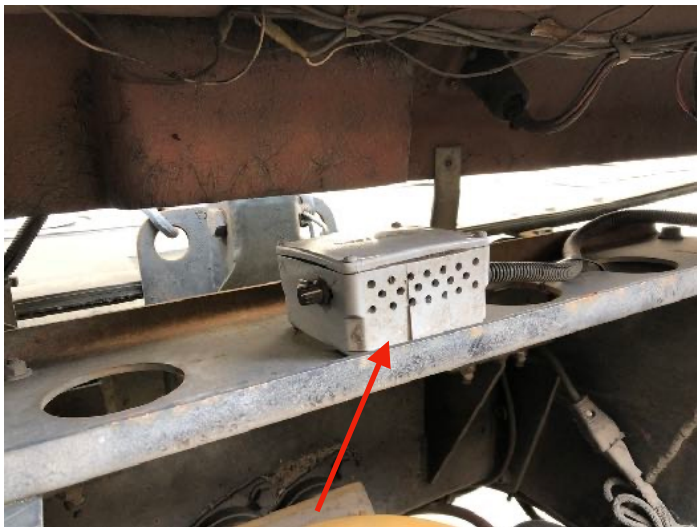
Pin number	Function	Wire color
J2-A	Battery -	Brown
J2-B	Battery +	Red
J3-A	Temp S1 +	White
J3-B	Temp S1 -	Black
J4	PWM	Yellow/Black



Thermal Switch, in thermostat housing



Electro Magnet & Hydraulic Valve



DC Motor Controller