

# Satellite Radio & Cellular Antenna Relocation Guidelines

If an up fitter package's proximity to the satellite/cellular mobile media antenna causes interference with satellite and/or onboard cellular reception, the antenna may be able to be relocated to allow for better reception. There is a wide variation of up fitter packages and customer usages making specific relocation instructions difficult. The following is a set of guidelines and information that should allow the up fitter to acquire the needed parts and relocate the antenna to a more suitable location.

There are two types of antennas that may be factory installed on the truck, the "Shark Fin" and the "Puck." The shark fin is used for vehicles equipped with satellite radio & navigation (SDARS) AND Cellular Mobile Media. (U Connect Access Advantage) The puck is installed on vehicles with SDARS only.

If there is a shark fin, there will be two antenna wires. One is for SDARS (thin wire) and the other (thick wire) is for cellular. The sat radio wire is different from the cellular wire. The connectors on the two sets of wire are different. The two cannot be interchanged. The puck will only have one thin antenna wire used for SDARS radio.



Shark Fin – 2 wires



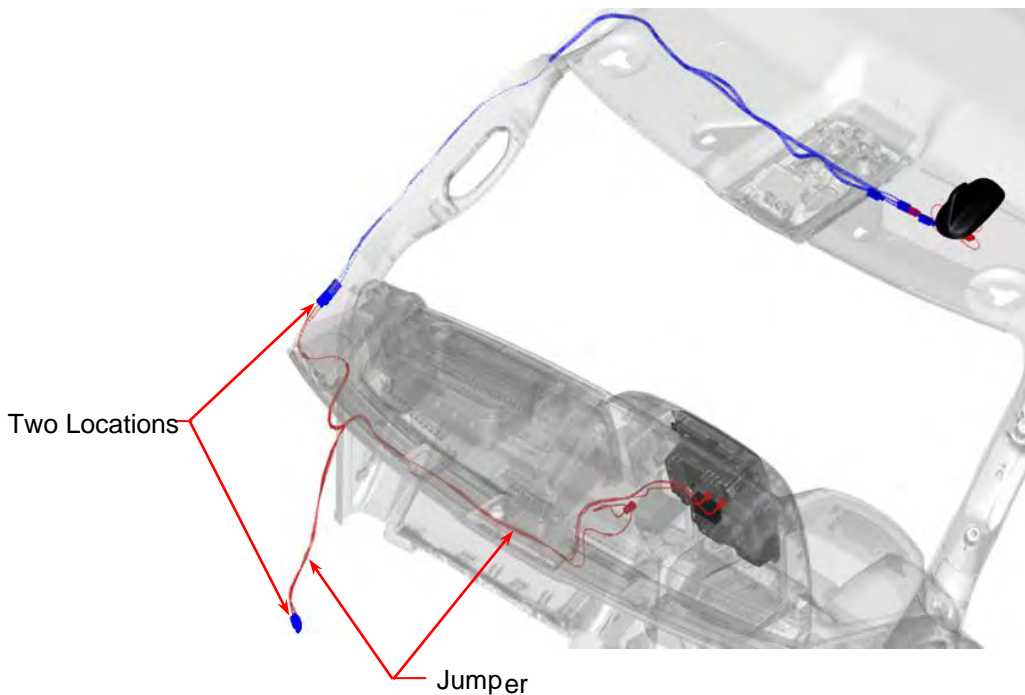
Puck – 1 wire

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There are connections for both the SDARS and cellular antennas on the back of the radio depending upon which radio option the truck is equipped with.



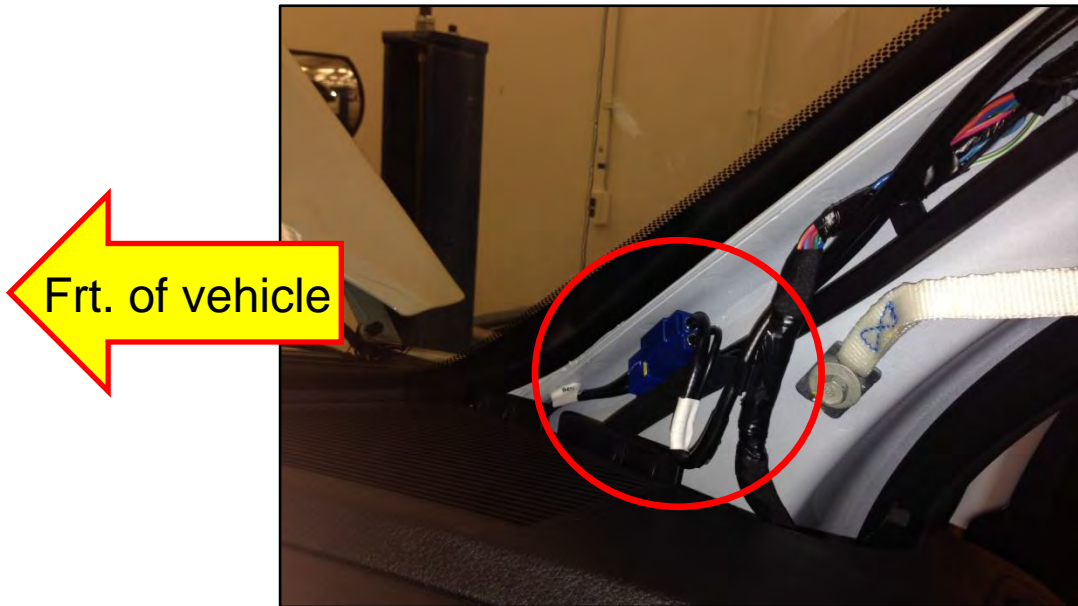
There will be a relatively short length of antenna wire (jumper) running from the radio to one of two locations depending upon the location of the antenna on the vehicle roof.



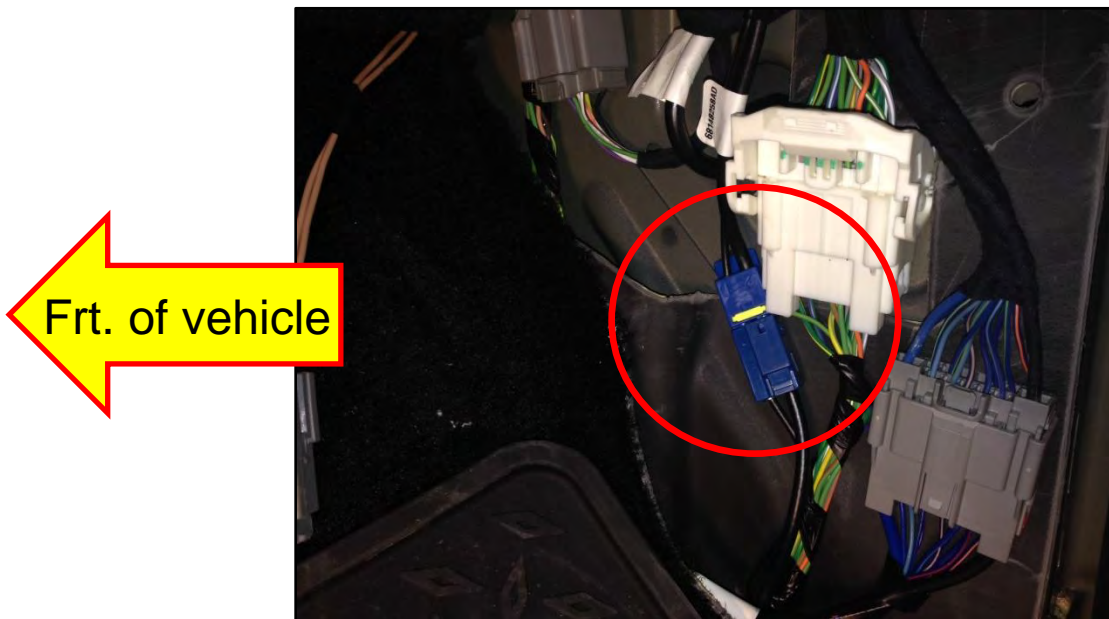
The connector is a single blue connector. The same connector is used for vehicles equipped with SDARS and cell as well as vehicles equipped with SDARS only.

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If the antenna is located at the front of the roof, the connection will be behind the passenger side A pillar trim.



If the antenna is at the rear of the roof, the connection will be behind the passenger side kick panel.



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Antenna cable length and connections will cause signal degradation. In order to maintain the manufacturer's specified system performance, the total cable length from antenna connection to the radio connection should not exceed 7300 mm with three antenna connections. The factory installed system has three connections. One at the radio, one at the antenna and one in-line at the passenger side A pillar or kick panel. For every additional in-line connection, 1100 mm of cable length should be subtracted from the 7300 mm max. If you use the cables listed in the chart, you should not experience signal degradation. Some antenna cables are available in the aftermarket. If aftermarket cables are used, attention will need to be paid to cable length and interconnect count.

The hardware on the base of the antenna and the antenna connections anywhere in the cable are not weather proof. Some sort of enclosure will need to be fabricated at the remote antenna location replicating the antenna mounting and sealing found in the factory antenna location on the roof of the cab. The antenna base hardware and antenna connection should be completely sealed in the enclosure from the outside environment. The antenna cable pass through into the enclosure should be through some sort of grommet arrangement protecting the cable from chafing and should be sealed. The antenna cable pass through in the vehicle's body should also be some sort of grommet arrangement and be sealed. Any in line connections in the antenna cable must also be sealed from the outside environment.

It is highly recommended that an additional antenna be used in the remote location and that the antenna not be removed from the vehicle. There is no good way to seal the mounting and pass through holes that will be left in the roof of the cab once the antenna is removed. This could cause leaks and may result in the manufacturer's warranty being voided. Antennas can be purchased from the dealer and used in the remote location leaving the factory antenna in place to keep the roof sealed.

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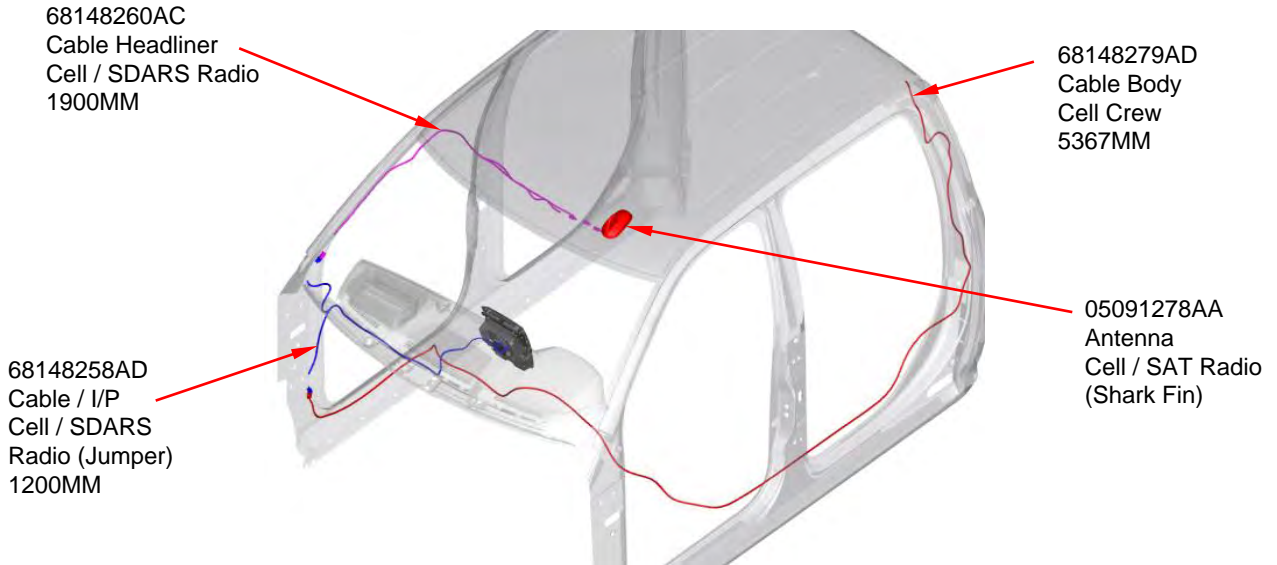
The recommended location for plugging the remote antenna cable into the vehicle system on the blue connector on the passenger side of the vehicle. Purchase the appropriate body cable to meet your routing needs. Plug one end in to the blue IP jumper, then route the cable to the antenna and plug the other end into the antenna. If your application requires that the antenna cables be routed to the driver's side, you will need to purchase the IP jumper and the appropriate body cable. Plug IP jumper into the back of the radio and route it to the driver's side. Then plug the body harness into the new blue IP jumper and route it to the antenna. Please note that the interconnect (blue connector) between the IP jumper and the body cable is not sealed. Unless the connection is made inside the vehicle, it will need to be protected from the environment. This section of antenna wire is available in variety of different lengths depending upon the type of cab and antennal location on the roof. If the vehicle is equipped with SDARS only, there will be only one antenna wire. If it has SDARS and cellular, there will be two antenna wires.

All of the antennas and wires are available through the dealer. It is recommended that you choose the shortest cable possible to get from the vehicle interconnect point to the remote antenna. The following is a list of P/N's:

| Part Number | Physical Description                | Length (mm) |
|-------------|-------------------------------------|-------------|
| 68148257AD  | CABLE I/P SDARS RADIO (Jumper)      | 1500        |
| 68148258AD  | CABLE I/P CELL/SDARS RADIO (Jumper) | 1200        |
| 68148260AC  | CABLE HEADLINER CELL/SDARS RADIO    | 1900        |
| 68170083AB  | CABLE HEADLINER SDSRS RADIO         | 1681        |
| 68148276AD  | CABLE BODY SDAES RADIO QUAD         | 5189        |
| 68148277AD  | CABLE BODY CELL QUAD                | 5196        |
| 68148278AD  | CABLE BODY SDARS RADIO CREW         | 5434        |
| 68148279AD  | CABLE BODY CELL CREW                | 5367        |
| 05091278AA  | ANTENNA CELL/SAT RADIO (SHARK FIN)  | NA          |
| 05064973AB  | ANTENNA SAT RADIO (PUCK)            | NA          |

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## CELL / SDARS – 2 Wires



## SDARS – 1 Wire

