

Halderman: Some additional options that may be popular in the future include:

1. **Headlight washers** – Many vehicles today are equipped with headlight washers that spray the headlights whenever the windshield washers are being used and the headlights are turned on.



Caption: Headlight washers usually only work when both the headlights and the wipers are on. When the windshield washers are activated, the headlight washers spray, but usually only once per ignition key cycle.

2. **Remote start** – Remote start feature allows the driver to start the engine from inside the house and still keep the vehicle locked. This allows the driver to warm or cool the interior before entering the vehicle. This used to be available as an aftermarket item only but is now available from several vehicle manufacturers.



Caption: The top button on this key fob is the remote start button.

3. **Moveable headlights** – This feature mechanically moves the headlights to follow the direction of the front wheels and is called adaptive (or advanced) front light system, abbreviated AFS. The headlights are usually capable of rotating 15 degrees to the left and 5 degrees to the right. AFS usually also includes a motor to keep the headlights level regardless of how the vehicle is loaded.



Caption: Typical dash-mounted switch that allows the driver to disable the front lighting system.

3. **Bluetooth** – Bluetooth is a radio frequency standard for short range (less than 30 feet) communication. It is named after a Danish king, Harold Bluetooth, who was able to unite Denmark and part of Norway into a single kingdom in the late 900s. It is used to connect the speakers and microphone located in the vehicle to a cell phone. Bluetooth is also commonly used to link ear pieces to cellular phones.

Caption: A Bluetooth microphone and speaker unit that is paired to a cellular phone. The telephone has to be within 30 feet of the earpiece.



Wheels: Which of the many features you highlighted in the last few weeks do you think will become the most common in the next few years?

Halderman: I think the following will gain wide acceptance, especially if the price is reasonable:

- Remote start
- Dual-climate controls
- Rain-sensing wipers
- Backup camera