Attachment D
Question-by-Question Justification

Q1-Q2 Participant's Assessment of their Experience with the Device

This pilot study has dual goals: to determine the feasibility of the voluntary use of speed monitoring/warning systems, and whether the presence of these devices in a vehicle will decrease speeding. There is an inherent trade-off between the effectiveness of the operational device in affecting driver behavior and the willingness of drivers to install and continue to use the device. Given that the one purpose of this pilot study is to access the likelihood of individuals voluntarily using a speed warning system, the question of user experience and acceptance is if great interest.

Q3 Problems with the Device

The objective of this project is not to design new products but to evaluate driver response to the most suitable examples of the current generation of products. While this speed warning device may prove effective at changing a participant's driving behavior, it may suffer from limitations that may be much more serious with a larger scale volunteer population. These limitations might include: false alarms and misses; errors and confusing feedback where roadways are adjacent (e.g., freeway and service road) or where roadways cross; equipment unreliability; difficulty of installing; and frequently becoming dislodged from the mount. This questioned is aimed at identifying any of these limitations.

Q4-Q6. Speed Warning/Monitoring Devices Ability to Change Driving Behavior

These three questions examine the effectiveness of the device in changing the participant's behavior. While the quantitative data gathered during data collection will provide objective answers to these questions, it is important to ascertain whether the participant feels that the device had some influence on their driving behavior. It is expected that substantive changes over time in user acceptance may be directly related to whether or not the participant feels that the device is effective in modifying their behavior

Q7 Negative effects of having the device in the vehicle

While a basic assumption of this study is that the presence of a speed warning device will have a beneficial effect on an individual driving behavior, it would be naïve to assume that this system may not have negative effects as well. This question is included in the series to identify any unintended consequences of having the device in the vehicle. For example, a participant might become too reliant on the device to notify them when they are traveling at speeds above the posted speed limit. Therefore, once the alarm is removed, their behavior may go back to that of pre-intervention levels or worse.

Q8-Q9 Objective Measures of the Effectiveness of the Speed Warning Device

Speeding citations and crashes are important outcome measures and will be critical to any large scale study. Given the limited duration of each treatment phase and relatively small number of participants in this pilot, statistically meaningful differences in these measures are unlikely to emerge. However, we should certainly record participant self-report of any citations. In addition, as part of the data analyses researchers will examine the participants driving speed before during and after the device has been activated and removed. We should also inquire as to whether the participant believes that their driving speed generally has been reduced as a result of having this device installed and activated in their vehicle. Both, the number of citations received and the change average speed, would be a measure of the device's effectiveness.

Q10-Q11 Opinions of other Drivers

Many households have vehicles with multiple drivers; that is, parents time-sharing cars with children, or siblings sharing vehicles. These three questions were included to address those times when a driver other than the participant is driving the vehicle. It allows the researcher to assess their opinion of the device and how it functions.

Q12-Q14 Presence of Passengers

These questions ascertain the opinions of passengers who may have been in the vehicle during the course of the study as well as the participant's opinion about using the device while other people were in the vehicle. The presence of this device in the vehicle may have resulted in conflicts with passengers and family. It may also have had an influence on social aspects of driving (passengers, embarrassment). This type of information all contributes to the participant's overall assessment of the device and the likelihood of using it on an ongoing basis.

Q15 Adequacy of the Incentive

Determining the incentive is a critical aspect of recruiting. To the extent possible, the incentives used in this pilot study should reflect the types of incentives that might ultimately be used in real-world voluntary programs. Answers to this question will help to insure that the researchers' concept of effective incentives matches the views of those who ultimately must be the research or program volunteers. It may turn out that the planned incentive was not adequate to retain sufficient participants for this pilot study or for a broader program.

Q16 Likelihood of Using the Device after the Study

This question addresses the willingness of drivers to install and continue to use the device once the monetary incentive has been removed. It is an indirect indication of the value the participant places on the device and it ability to have a positive influence on their driving behavior.

Q17 Willingness to Participate in a large scale study

One of the main objectives of the study is to design a pilot study that could be expanded into a larger scale follow-up study. This question ascertains whether the participant is willing to participate in a similar

study that might extend over a longer period of time. This is necessary to determine whether it will be difficult for researchers to recruit participants for a large scale, longer study,

Q18 Any other comments about the device or study

This question is aimed at providing the participant with the opportunity to address some topic or issue that was not touched on during the debriefing session; anything they feel might be valuable to the researcher.

Q19 Current Mileage of the Vehicle

At the time the device is installed in their vehicles, the mileage on their odometer will be recorded. Obtaining the mileage at the end of the Participant's on-road time with the device provides a measure of how many miles they have driven with the device. Having this information will provide the opportunity for a quality control check between what is recorded on the odometer and what has been recorded by the speed warning system. Recording the current mileage of the vehicle when the device is installed and removed will also allow the researchers to check the validity of the participant's claims.