

NHTSA Crash Prevention and Crash Protection Ratings Display Survey Results

Methodology and Research Objectives

- Method: QuickQuery online omnibus service
- Number of Interviews: 2,249
- Field Duration: March 27-April 1
- Tested images in the survey can be found in the appendix at the end of the document.
- The primary objective of the research was to determine the preferred crash prevention feature indicators to help guide NHTSA develop an optimal display.
- Crash protection ratings displays were also tested to determine a preference for the presence or absence of placeholder stars.

Executive Summary

- When compared to text (black and color), check marks emerge as the clear choice for crash prevention feature indicator implementation.
 - When asked to rank each display from most to least appealing overall, the majority select check marks as their first choice. The displays with black and colored text are rated extremely similarly in all categories; however, when forced to choose between the two, colored text is favored overall.
 - Check marks are also easiest to read and understand, most visually appealing, most effective in illustrating crash prevention technologies, and most effective in communicating the importance of Electronic Stability Control.
 - Though check marks are preferred overall, each tested crash prevention display is a viable option for NHTSA to implement. There is relatively little difference among displays in terms of legibility, understandability, visual appeal, and effectiveness of illustrating crash prevention technologies.
- Crash protection ratings displays without placeholder stars are preferred most often overall. This contradicts findings from the focus groups in which the majority of participants preferred displays with placeholder stars. The exact reason for this change in opinion is unknown as no follow-up questions were asked; however, it is most likely a result of the added legend on the display without placeholder stars, which indicates that crash prevention ratings are out of a possible 5 stars.

Summary of Results

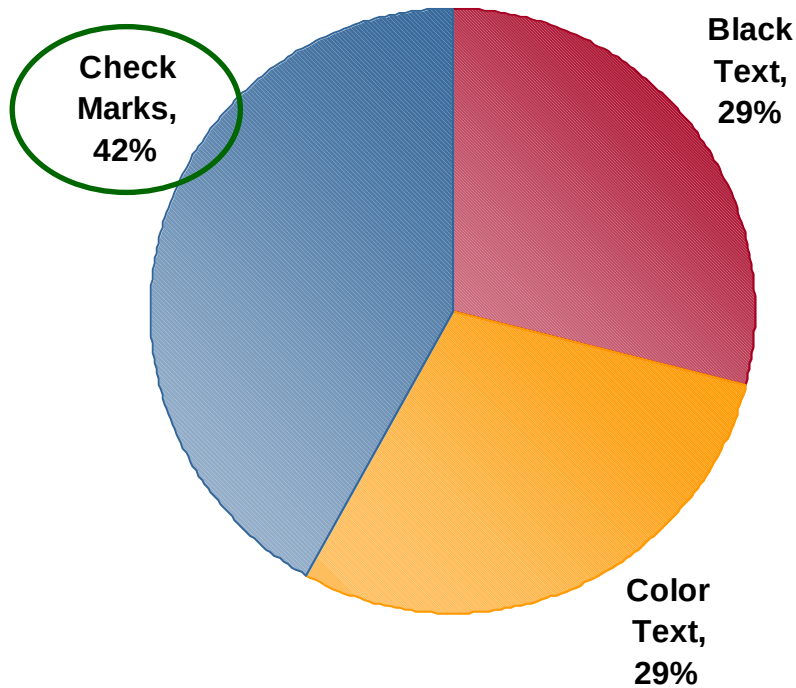
When asked to rank each display based on overall appeal, check marks are overwhelmingly ranked #1. Black text is least appealing overall.

Rank of Displays			
	✓ Marks	Colored Text	Black Text
#1- Most Appealing	51%	26%	23%
#2- Second Most Appealing	31%	44%	25%
#3- Least Appealing	18%	30%	52%

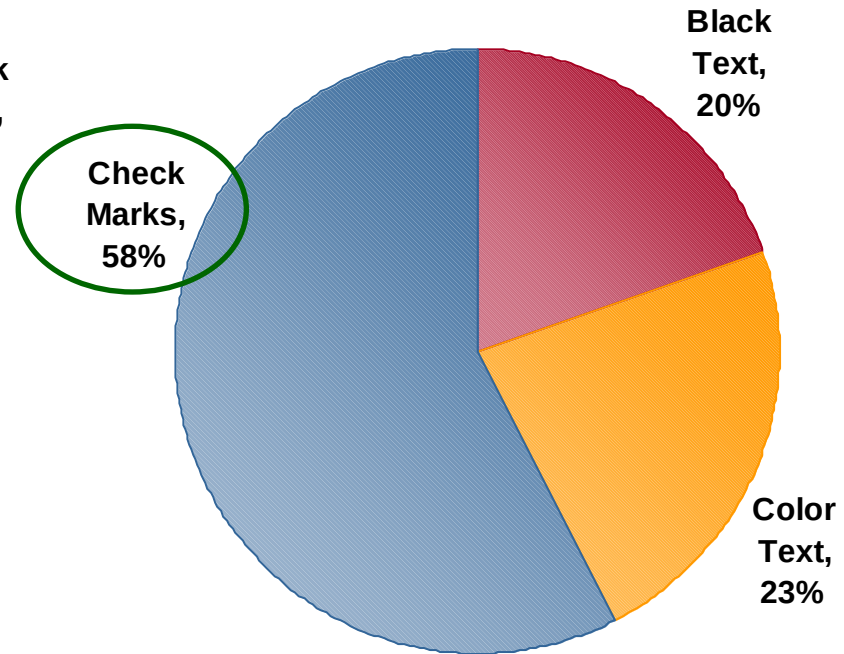
Please rank each display shown below from 1-3, placing a “1” next to the display that is most appealing to you overall, a “2” next to the display that is second-most appealing to you overall, and a “3” next to the display that is least appealing to you overall.

Check marks are the easiest indicators to read and understand and are most visually appealing.

Easiest to Read and Understand



Most Visually Appealing

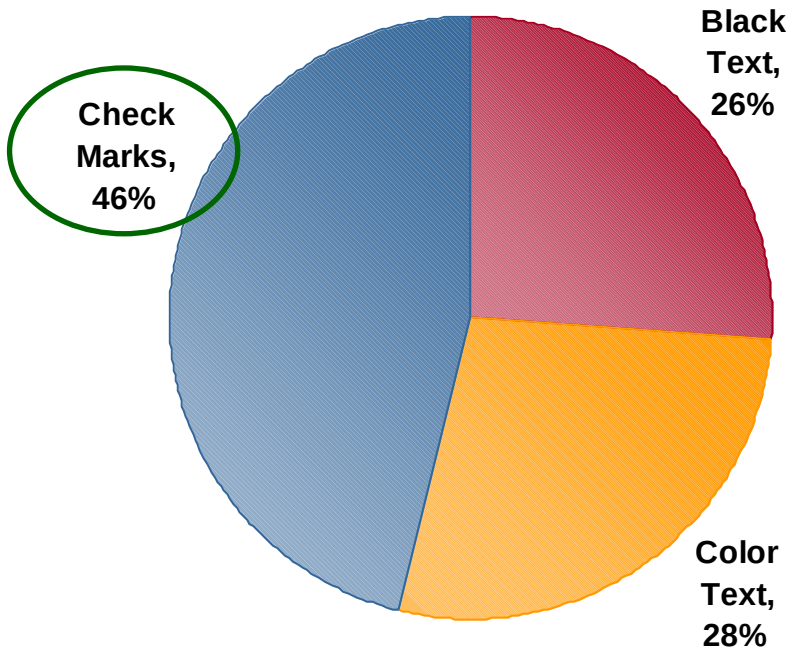


Looking specifically at the crash prevention technologies of each display, which of the three displays do you think is...*easiest to read and understand*?

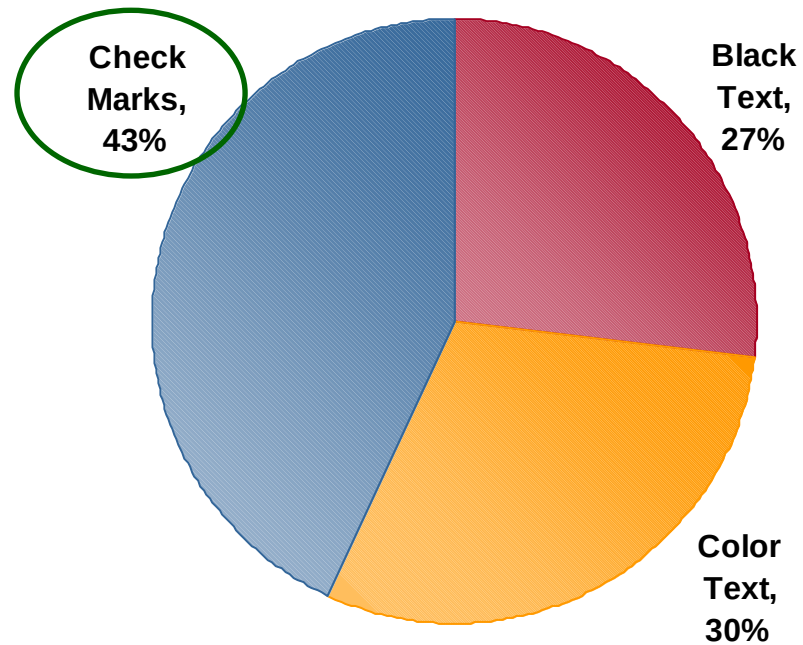
Looking specifically at the crash prevention technologies of each display, which of the three displays do you think is... *most visually appealing*?

Check marks are also the most effective indicators in illustrating presence of crash prevention features and communicating the importance of Electronic Stability Control.

Most Effective in Illustrating Presence of Crash Prevention Features



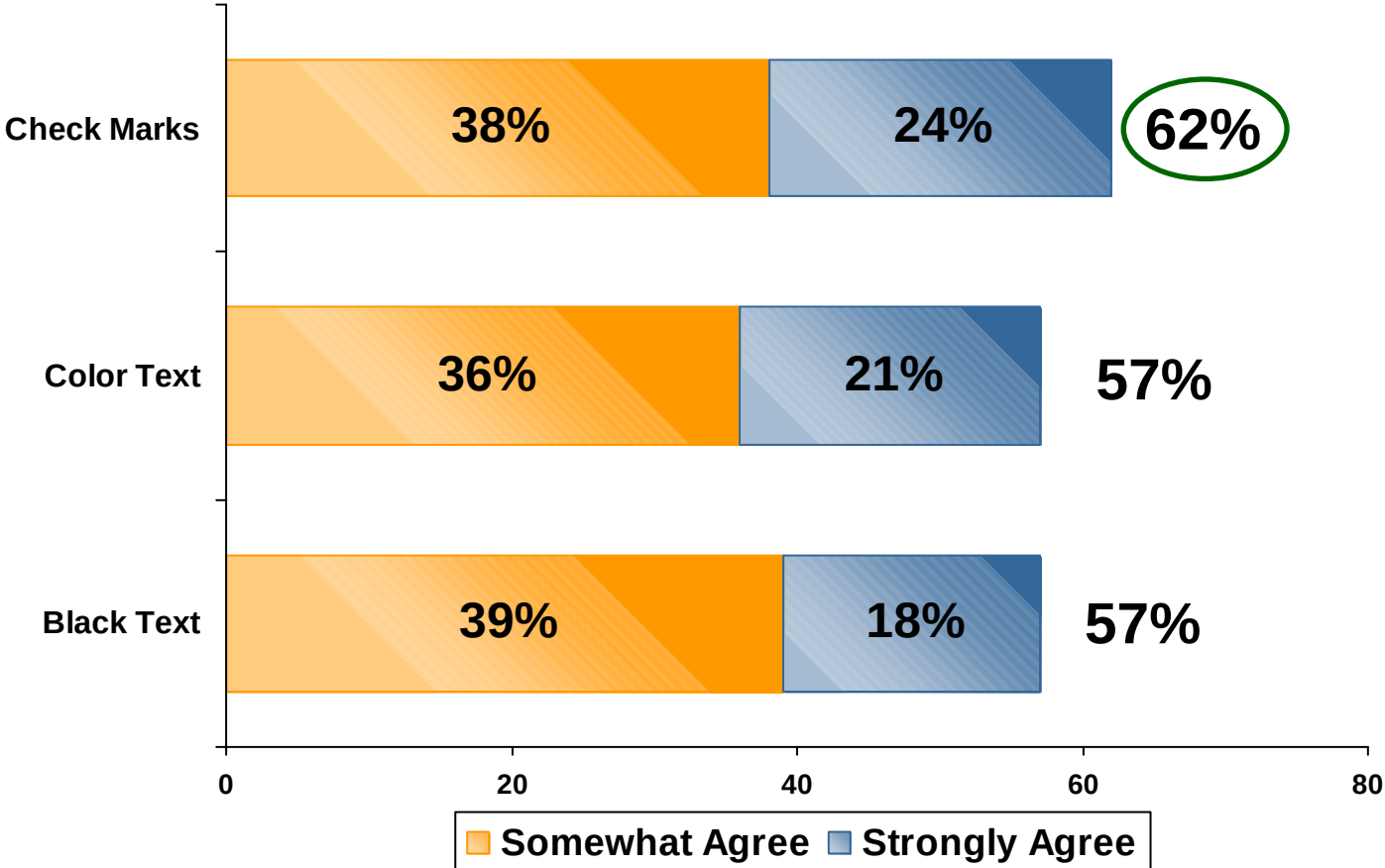
Most Effective in Communicating Importance of Electronic Stability Control



Looking specifically at the crash prevention technologies of each display, which of the three displays do you think is... *most effective in illustrating presence of crash prevention features?*

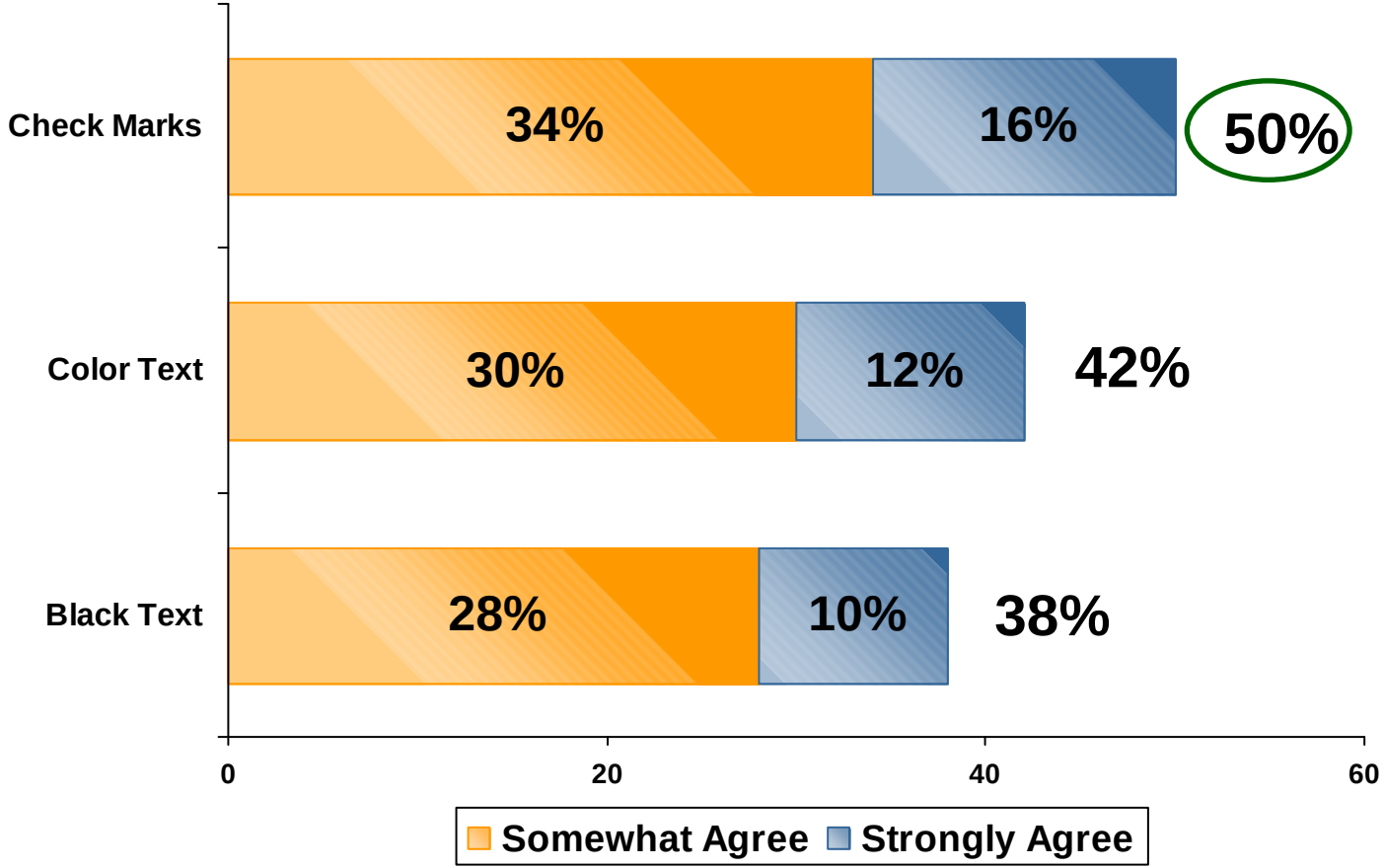
Looking specifically at the crash prevention technologies of each display, which of the three displays do you think is... *most effective in communicating importance of Electronic Stability Control?*

The majority of respondents agree that all displays are easy to read and understand.



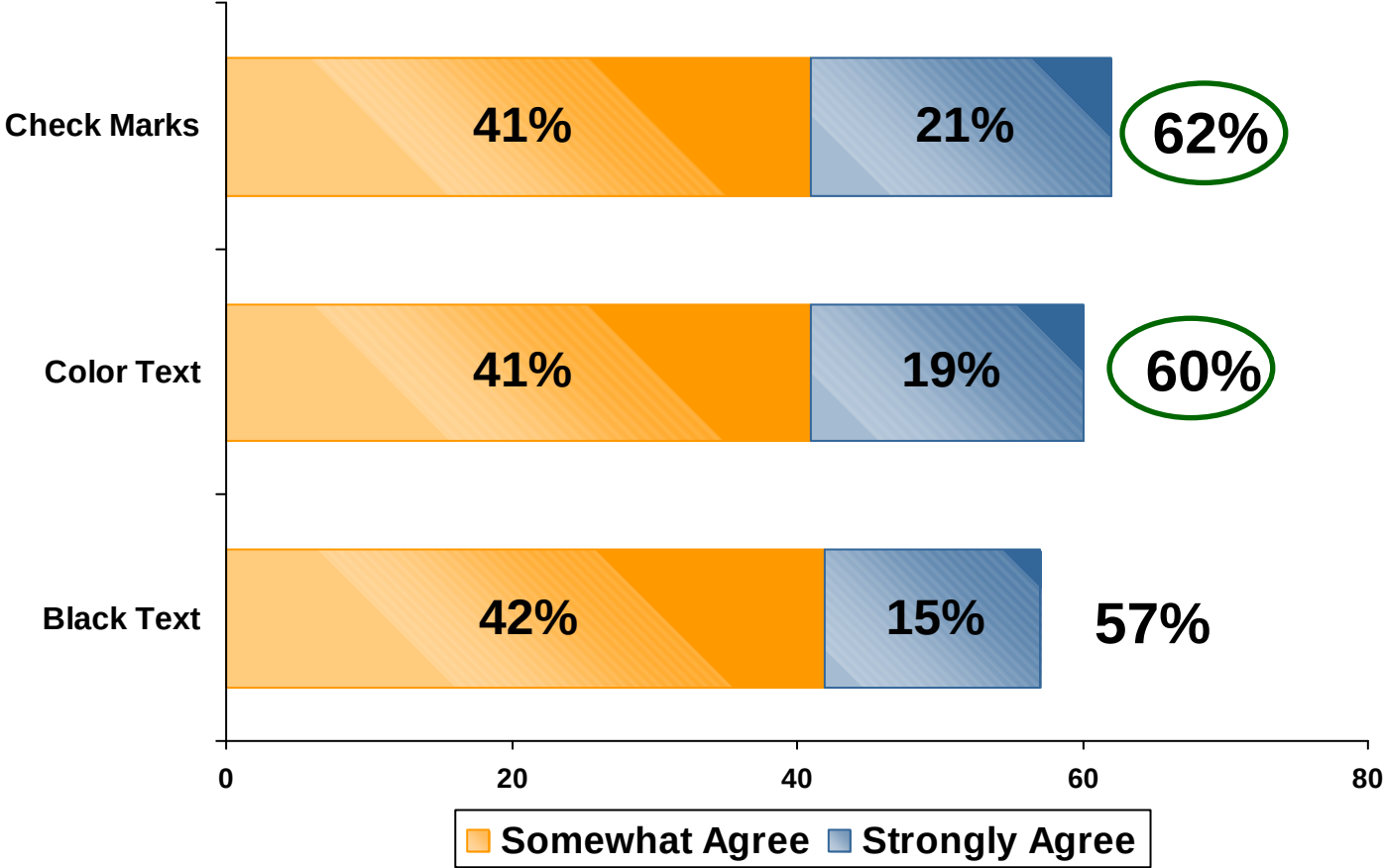
Please indicate the extent to which you agree or disagree with each statement below based on the indicators used to denote standard or optional crash prevention features on the right hand side in the display shown – *The display is easy to read and understand.*

Half of respondents agree that check marks have the most visual appeal.



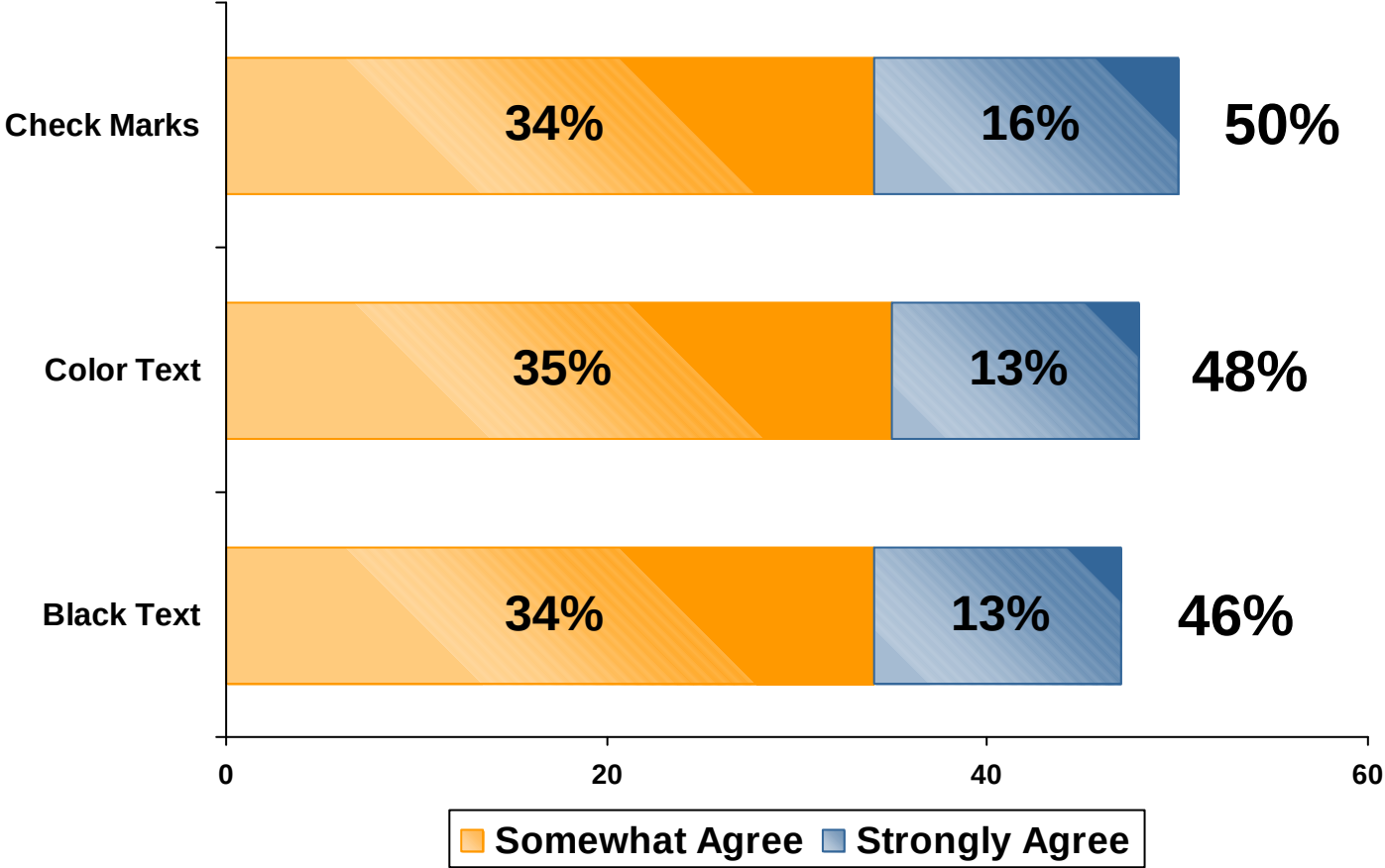
Please indicate the extent to which you agree or disagree with each statement below based on the indicators used to denote standard or optional crash prevention features on the right hand side in the display shown – *The display is visually appealing.*

The majority of respondents agree that all displays are effective at illustrating presence of crash prevention features.



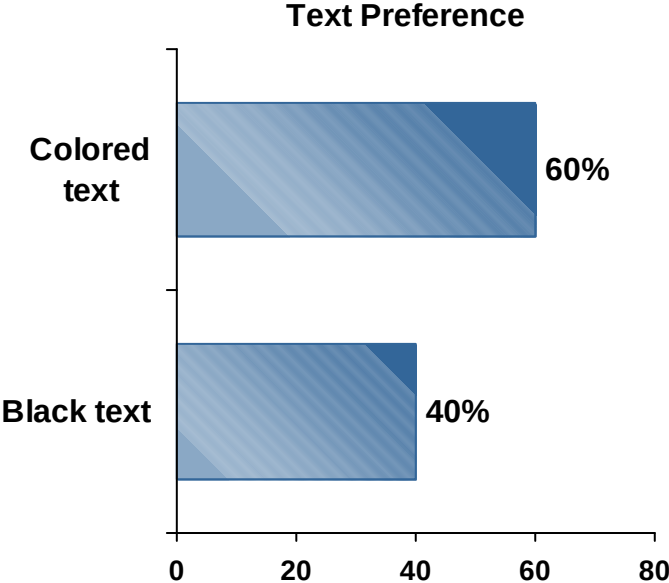
Please indicate the extent to which you agree or disagree with each statement below based on the indicators used to denote standard or optional crash prevention features on the right hand side in the display shown – *The display is effective in illustrating presence of crash prevention features.*

Respondents agree that all displays are effective in communicating importance of Electronic Stability Control.



Please indicate the extent to which you agree or disagree with each statement below based on the indicators used to denote standard or optional crash prevention features on the right hand side in the display shown – *The display is effective in communicating importance of Electronic Stability Control.*

Between the two text display options, colored text is favored overall.

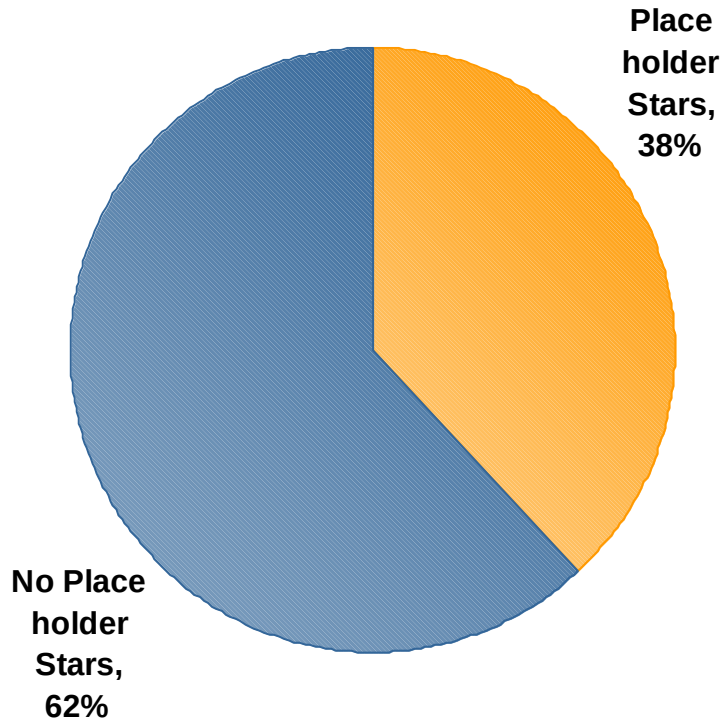


Text Preference by Age				
	18-34	35-44	45-54	55+
Colored Text	75%	63%	56%	48%
Black Text	25%	37%	44%	52%

Looking back at the two displays that use the words "standard" and "optional" to illustrate the presence of crash prevention technologies, do you prefer the words to be in black text or colored text?

Crash protection ratings displays without placeholder stars are most preferred.

Star Display Preference



Star Display Preference by Age				
	18-34	35-44	45-54	55+
No Placeholder Stars	55%	61%	60%	68%
Placeholder Stars	45%	39%	40%	32%

The following two displays illustrate crash protection ratings for a variety of vehicles. A maximum of 5 stars can be received in these ratings. However, there is a difference in how the ratings are visually conveyed in each display. Which display do you prefer to convey crash protection ratings?

Appendix: Crash Prevention Displays and Crash Protection Ratings Displays

Crash Prevention Displays – Black Text

VEHICLE	CRASH PROTECTION						CRASH PREVENTION TECHNOLOGIES		
	FRONTAL STAR RATING		SIDE STAR RATING		ROLLOVER STAR RATING		ELECTRONIC STABILITY CONTROL	LANE DEPARTURE WARNING	FORWARD CRASH WARNING
ACME MOTORS JUPITER	DRIVER	★★★★★	FRONT	★★★★★	2WD	★★★★★	STANDARD	STANDARD	STANDARD
	PASSENGER	★★★★★	REAR	★★★★★	4WD	N/A			
WILEY MOTORS NEPTUNE	DRIVER	★★★★★	FRONT	★★★★★	2WD	★★★★★	STANDARD	OPTIONAL	
	PASSENGER	★★★★★	REAR	★★★★★	4WD	N/A			
GLADIATOR MOTORS DAMIEN EX	DRIVER	★★★★★	FRONT	★★★★★	2WD	★★★★★	STANDARD		
	PASSENGER	★★★★★	REAR	★★★★★	4WD	★★★★★			
MMD MOTORCARS CINDERELLA	DRIVER	★★★★★	FRONT	★★★★★	2WD	★★★★★			
	PASSENGER	★★★★★	REAR	★★★★★	4WD	★★★★★			

Crash prevention technologies outlined above have been demonstrated to avoid crashes, maintain control and save lives.

The presence of these technologies can help improve the safety of your vehicle and are government recommended for greater vehicle safety.

Electronic Stability Control (ESC)

Electronic Stability Control (ESC) is designed to assist drivers in maintaining control of their vehicles during extreme steering maneuvers or on slippery roads.

Lane Departure Warning

A lane departure warning system (LDW) is designed to warn a driver when the vehicle begins to move out of its lane (unless a turn signal is on in that direction).

Forward Crash Warning

A forward collision warning system is designed to warn a driver when the vehicle is about to impact another vehicle or object giving the driver more time to react.

Crash Prevention Displays – Colored Text

VEHICLE	CRASH PROTECTION			CRASH PREVENTION TECHNOLOGIES		
	FRONTAL STAR RATING	SIDE STAR RATING	ROLLOVER STAR RATING	ELECTRONIC STABILITY CONTROL	LANE DEPARTURE WARNING	FORWARD CRASH WARNING
ACME MOTORS JUPITER	DRIVER ★★★★★	FRONT ★★★★★	2WD ★★★★★	STANDARD	STANDARD	STANDARD
	PASSENGER ★★★★★	REAR ★★★★★	4WD N/A			
WILEY MOTORS NEPTUNE	DRIVER ★★★★★	FRONT ★★★★★	2WD ★★★★★	STANDARD	OPTIONAL	
	PASSENGER ★★★★★	REAR ★★★★★	4WD N/A			
GLADIATOR MOTORS DAMIEN EX	DRIVER ★★★★★	FRONT ★★★★★	2WD ★★★★★	STANDARD		
	PASSENGER ★★★★★	REAR ★★★★★	4WD ★★★★★			
MMD MOTORCARS CINDERELLA	DRIVER ★★★★★	FRONT ★★★★★	2WD ★★★★★			
	PASSENGER ★★★★★	REAR ★★★★★	4WD ★★★★★			

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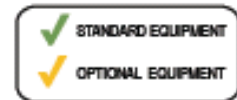
Electronic Stability Control (ESC)
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A forward collision warning system is designed to warn a driver when the vehicle is about to impact another vehicle or object giving the driver more time to react.

Crash Prevention Displays – Check Marks

VEHICLE	CRASH PROTECTION			CRASH PREVENTION TECHNOLOGIES		
	FRONTAL STAR RATING	SIDE STAR RATING	ROLLOVER STAR RATING	ELECTRONIC STABILITY CONTROL	LANE DEPARTURE WARNING	FORWARD CRASH WARNING
ACME MOTORS JUPITER	DRIVER ★★★★★	FRONT ★★★★★	2WD ★★★★★	✓	✓	✓
	PASSENGER ★★★★★	REAR ★★★★★	4WD N/A			
WILEY MOTORS NEPTUNE	DRIVER ★★★★★	FRONT ★★★★★	2WD ★★★★★	✓	✓	
	PASSENGER ★★★★★	REAR ★★★★★	4WD N/A			
GLADIATOR MOTORS DAMIEN EX	DRIVER ★★★★★	FRONT ★★★★★	2WD ★★★★★	✓		
	PASSENGER ★★★★★	REAR ★★★★★	4WD ★★★★★			
MMD MOTORCARS CINDERELLA	DRIVER ★★★★★	FRONT ★★★★★	2WD ★★★★★			
	PASSENGER ★★★★★	REAR ★★★★★	4WD ★★★★★			



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Crash Protection Ratings Displays

– Placeholder Stars

VEHICLE	CRASH PROTECTION					
	FRONTAL STAR RATING		SIDE STAR RATING		ROLLOVER STAR RATING	
ACME MOTORS JUPITER	DRIVER	★★★★★	FRONT	★★★★★	2WD	★★★★★
	PASSENGER	★★★★★	REAR	★★★★★	4WD	N/A
WILEY MOTORS NEPTUNE	DRIVER	★★★★★	FRONT	★★★★★	2WD	★★★★★
	PASSENGER	★★★★★	REAR	★★★★★	4WD	N/A
GLADIATOR MOTORS DAMIEN EX	DRIVER	★★★★★	FRONT	★★★★★	2WD	★★★★★
	PASSENGER	★★★★★	REAR	★★★★★	4WD	★★★★★
MMD MOTORCARS CINDERELLA	DRIVER	★★★★★	FRONT	★★★★★	2WD	★★★★★
	PASSENGER	★★★★★	REAR	★★★★★	4WD	★★★★★

Crash Protection Ratings Displays

– No Placeholder Stars

VEHICLE	CRASH PROTECTION		
	FRONTAL STAR RATING	SIDE STAR RATING	ROLLOVER STAR RATING
ACME MOTORS JUPITER	DRIVER ★★★★★	FRONT ★★★★★	2WD ★★★★★
	PASSENGER ★★★★★	REAR ★★★★★	4WD N/A
WILEY MOTORS NEPTUNE	DRIVER ★★★★★	FRONT ★★★★★	2WD ★★★★★
	PASSENGER ★★★★★	REAR ★★★★★	4WD N/A
GLADIATOR MOTORS DAMIEN EX	DRIVER ★★★★★	FRONT ★★★★★	2WD ★★★★★
	PASSENGER ★★★★★	REAR ★★★★★	4WD ★★
MMD MOTORCARS CINDERELLA	DRIVER ★★★★★	FRONT ★★★★★	2WD ★★★★★
	PASSENGER ★★★★★	REAR ★★★★★	4WD ★★

Crash Protection Ratings are out of a possible five stars.

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